Bowman

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Lacey, WA 98516
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TOWN OF FRIDAY HARBOR TO ZYLSTRA LAKE MULTIMODAL TRAIL
BEAVERTON MARSH SEGMENT

Beaverton Marsh Multi-Modal Trail

San Juan Island, WA 98250

Structural Calculations

Prepared for:

SAN JUAN COUNTY CONSERVATION LAND BANK

Prepared by: DAMOON MOTAMEDI

BOWMAN CONSULTING GROUP LTD.

Project No.: 540217-01-001

Date: 2026-08-07



The calculations contained herein have been prepared exclusively for this project. Exeltech Consulting, Inc. analyzed and/or designed this system for the specific configurations indicated and for the loading criteria appropriate at this location, as of this date. Unless explicitly noted, these calculations do not apply to similar configurations, or to the same configuration at another location. These calculations are only valid with a stamp and wet signature.

DESIGN OF WETLAND CROSSING AND TIMBER BOARDWALK

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CSiBridge Model and Analysis Results

Geotechnical Report

Project Information

Project Name: Beaverton Marsh Wetland Crossing ***Exeltech Project No.:*** 540217-01-001

Client: San Juan County Conservation Land Bank

Design Criteria

Governing Design Codes: **IBC 2021/ASCE 7-16 and Reference Codes (AISC, ACI and NDS latest edition as referred in IBC 2021)**

Gravity Loads

Dead Load =

Prefab. Truss Span #1&3 =	35	psf
Prefab. Truss Span #2 =	45	psf
Timber Boardwalk =	30	psf

Live Load = 60 psf (non-Reducible) (ASCE 7-16, Sec. 4.3, Table 4.3-1 – Walkways and Elevated Platforms)

Ground Snow Load = 25 psf (Per County Requirements), I_S = 0.8, Table 1.5-2

Handrails and Guardrail Design per Section 4.5.2

Lateral Loads

Wind:

Basic Wind Speed =	110	mph	(Ultimate)	Exposure =	D
Basic Wind Speed =	86	mph	(Service)	Kzt =	1.0

Seismic:

Wetland Crossing: (Non-Building, Similar to Building Per ASCE 7-16, Chapter 15, height< 35 ft.)

Site Class = E Seismic Design Category = D

S_S = 1.215 %g S_1 = 0.439 %g , I_e= 1.0

S_{DS} = 0.973 %g S_{D1} = ASCE 7-16 Sec. 11.4.8 per Exceptions

R = 3.25 Ω_O = 2.0 C_d = 3.25 ρ =1.0 (ASCE 7-16, Table 15.4-1)

Timber Boardwalk: (ASCE 7-16, Chapter 12, Table 12.2-1, Item G. 6, height< 35 ft.)

Site Class = E Seismic Design Category = D

S_S = 1.215 %g S_1 = 0.439 %g , I_e= 1.0

S_{DS} = 0.973 %g S_{D1} = ASCE 7-16 Sec. 11.4.8 per Exceptions

R = 1.0 Ω_O = 1.0 C_d = 1.0 ρ =1.0 (ASCE 7-16, Table 12.2-1, conservatively, R =1.0 was assumed)

Beaverton Marsh Wetland Crossing Structural Systems

Gravity System:

Deck wood planks supported by prefabricated steel truss supported by steel cross beams supported by vertical and battered helical piles.

Lateral System:

N/S Load Direction: Ordinary steel ordinary concentrically braced frame - nonbuilding structures similar to buildings.

E/W Load Direction: Ordinary steel ordinary concentrically braced frame - nonbuilding structures similar to buildings

Timber Boardwalk Structural Systems

Gravity System:

Deck wood planks supported by sawn lumber joists supported by GLB cross beams supported by timber posts supported by concrete foundation.

Lateral System:

N/S Load Direction: Ordinary (tension-only) steel concentric braced frame & Deck directly supported on concrete foundation.
E/W Load Direction: Deck directly supported on concrete foundation.

*Decking is a flexible diaphragm in accordance with 12.3.1.1.a, and seismic loads are distributed by tributary area**.**

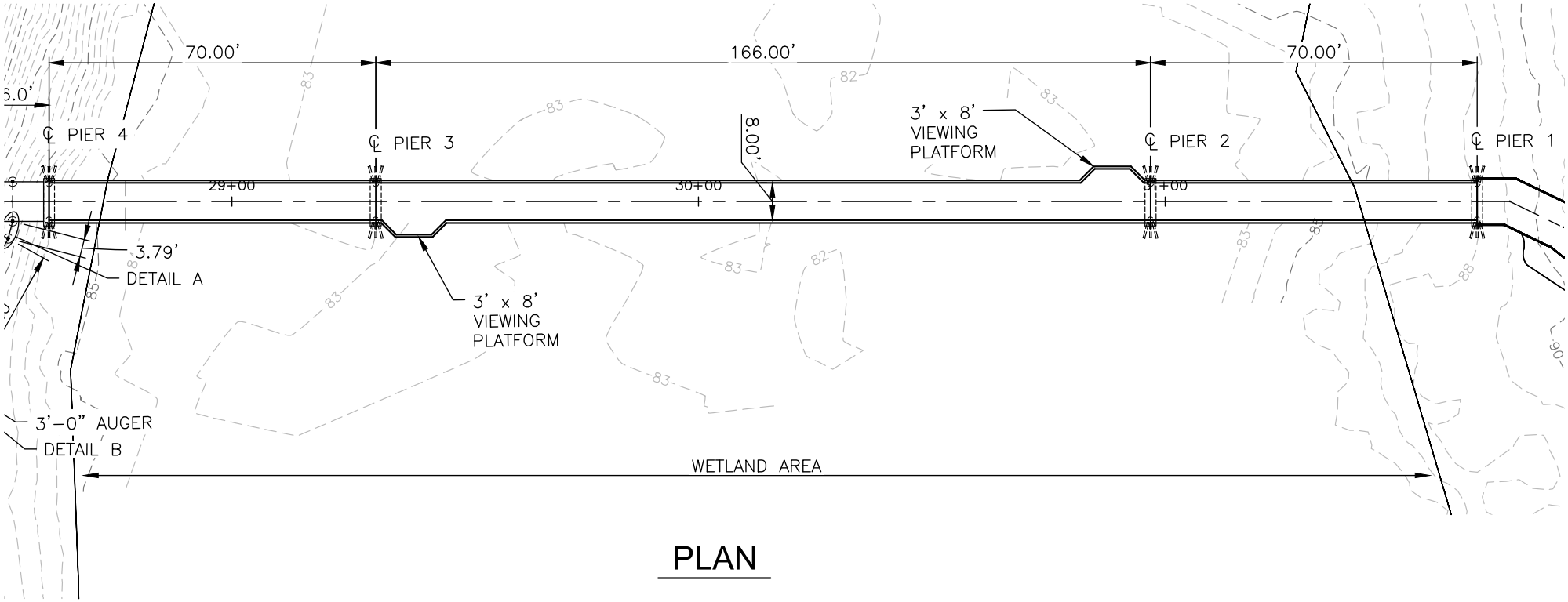
Wetland crossing:

Wetland crossing is needed to connect to end of Beaverton marsh trail and consists of prefabricated steel truss, approximately 5'-6" high and 9'-0" wide, with 70 ft, 166 ft and 70 ft spans. The truss will be supported on 12'-0" wide cross beams elevated approximately 8 ft above the marsh by vertical and battered helical piles which will embed into the marsh for approximately 80 ft.

Timber boardwalk:

Timber boardwalk is required due to the slope at the end of the wetland crossing and consists of elevated decking, approximately 8'-0" high and 9'-0" wide. The boardwalk is designed in 8'-0" long segments for the total length 141'-4" and will be supported on plain concrete foundation on one side and approximately 8'-0" high timber posts.

WETLAND CROSSING KEY PLAN:



PLAN

Loads

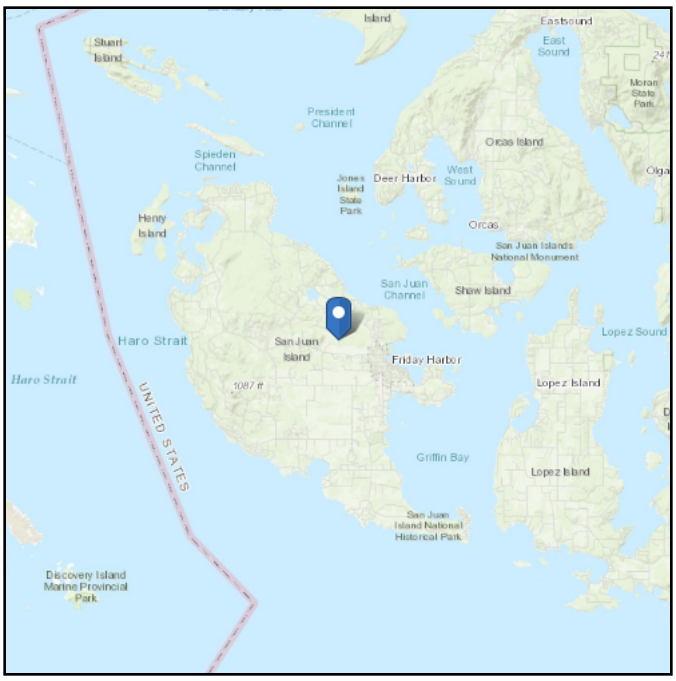
ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: I
Soil Class: E - Soft Clay Soil

Latitude: 48.54648
Longitude: -123.055214
Elevation: 169.29375446923726 ft (NAVD 88)





Wind

Results:

Wind Speed	92 Vmph
10-year MRI	67 Vmph
25-year MRI	73 Vmph
50-year MRI	78 Vmph
100-year MRI	83 Vmph

SEE CLB SITE SPECIFIC WIND LOAD REQUIREMENT

Data Source: ASCE/SEI 7-16, Fig. 26.5-1A and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Mon Jun 29 2026

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 15% probability of exceedance in 50 years (annual exceedance probability = 0.00333, MRI = 300 years).

Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

Seismic

Site Soil Class: E - Soft Clay Soil

Results:

S_S :	1.215	S_{D1} :	N/A
S_1 :	0.439	T_L :	16
F_a :	N/A	PGA :	0.5
F_v :	N/A	PGA_M :	0.6
S_{MS} :	N/A	F_{PGA} :	1.2
S_{M1} :	N/A	I_e :	1
S_{DS} :	N/A	C_v :	N/A

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Mon Jun 29 2026

Date Source: USGS Seismic Design Maps

$S_{DS} = 2/3F_aS_s = 2/3x1.2x1.215 = 0.972$	ASCE 7-16 Sec. 11.4.8 per Exceptions

SEISMIC LOAD CALCULATIONS:

WETLAND CROSSING:

W = (166 ftx45 psf+2x70 ftx35 psf)x8 ft + 3x12 ftx88 plf = 102.1 Kips

$V_{EQ} = WxS_{DS}/(R/I_e) = 102.1\ kipsx0.972/(3.25/1.0) = 30.55\ kips$ (Eq. 12.8-2) > $V_{min} = 0.044xS_{DS}xI_e$ (Eq. 15.4-1), ok.

TIMBER BOARDWALK:

W = 6.807 kips+34.7 kips+5.66 kips = 47.17 Kips

$V_{EQ} = WxS_{DS}/(R/I_e) = 47.17\ kipsx0.972/(1.0/1.0) = 45.85\ kips$ (Eq. 12.8-2) > $V_{min} = 0.044xS_{DS}xI_e$ (Eq. 15.4-1), ok.

Snow

Results:

Ground Snow Load, p_g: 17 lb/ft^2

Mapped Elevation: 169.3 ft

Data Source:

Date Accessed: Mon Jun 29 2026

SEE CLB SITE SPECIFIC SNOW LOAD REQUIREMENT

Statutory requirements of the Authority Having Jurisdiction are not included.

Snow load values are mapped to a 0.5 mile resolution. This resolution can create a mismatch between the mapped elevation and the site-specific elevation in topographically complex areas. Engineers should consult the local authority having jurisdiction in locations where the reported 'elevation' and 'mapped elevation' differ significantly from each other.

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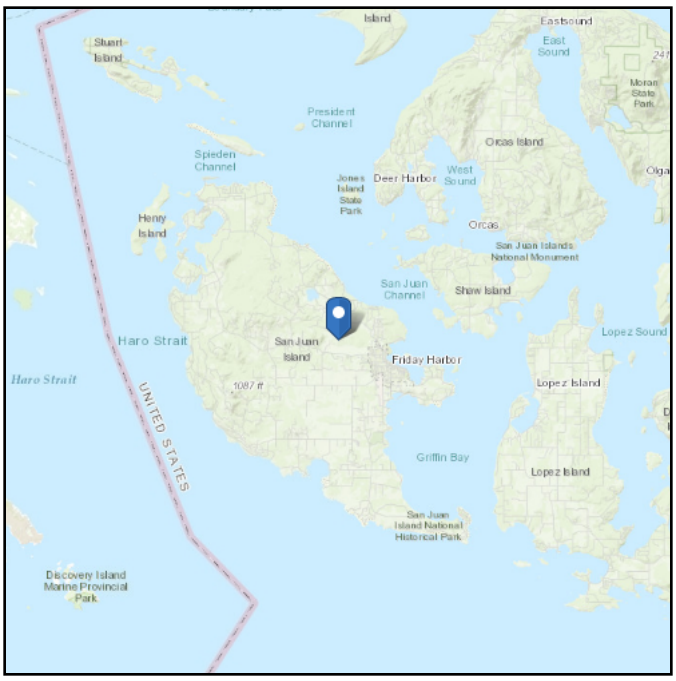
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ASCE Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-16	**Latitude:**	48.54648
Risk Category:	I	**Longitude:**	-123.055214
Soil Class:	C - Very Dense Soil and Soft Rock	**Elevation:**	169.29375446923726 ft (NAVD 88)





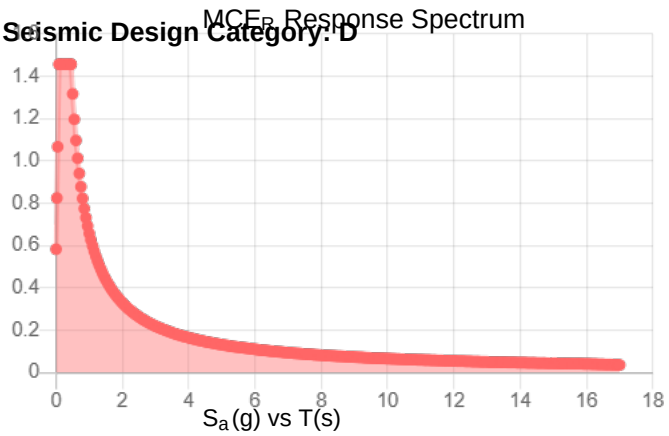
Seismic

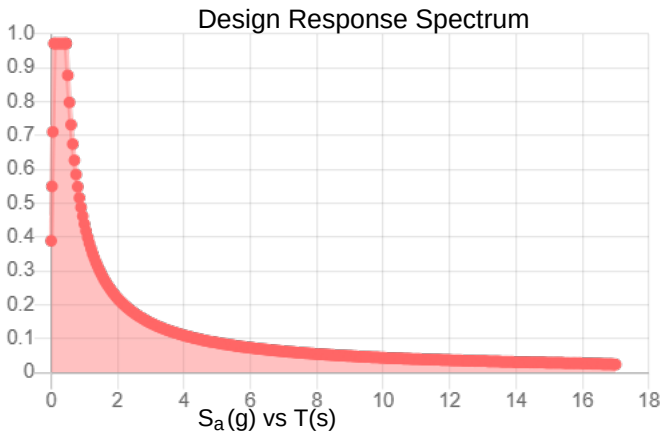
Site Soil Class: C - Very Dense Soil and Soft Rock

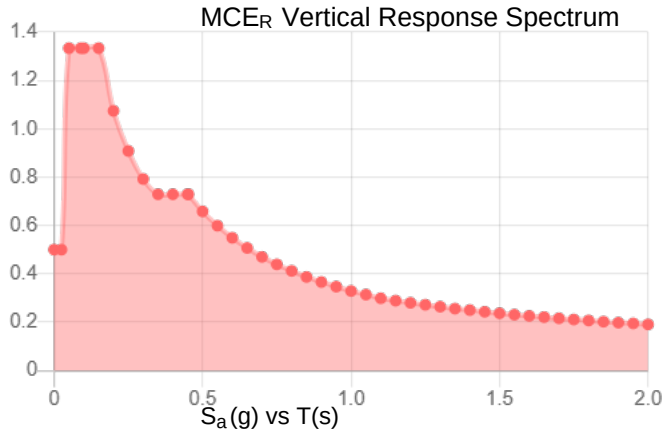
Results:

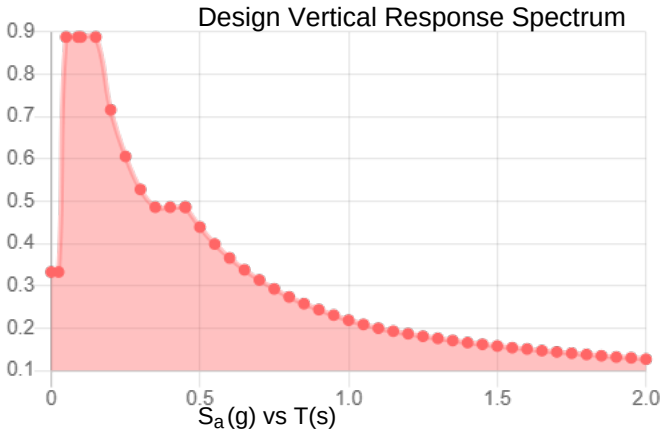
S_S :	1.215	S_{D1} :	0.439
S_1 :	0.439	T_L :	16
F_a :	1.2	PGA :	0.5
F_v :	1.5	PGA_M :	0.6
S_{MS} :	1.457	F_{PGA} :	1.2
S_{M1} :	0.658	I_e :	1
S_{DS} :	0.972	C_v :	1.143

Seismic Design Category: D









Data Accessed: **Wed Jul 01 2026**

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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SAN JUAN COUNTY
COMMUNITY DEVELOPMENT

For Contractors and Design Teams

Adoption of 2021 Codes

- Applications submitted on or after March 15, 2024 will be reviewed using 2021 Washington State codes.
- Read significant changes to building code here.
- Read significant changes to energy code here.

Accessibility

- ADA Guide to Small Towns
- Americans with Disabilities Act (ADA)

Building Codes & Professional Associations

- International Code Council (ICC)
- State Building Code Council (SBCC)
- Washington Association of Building Officials (WABO)
- Washington State Building Codes

Construction and Structural

- American Wood Council
- APA Engineered Wood Products
- Boise Cascade
- Simpson Wall Bracing Calculator
- Stair Information
- TJI Joist

Energy Codes and Insulation

- Washington State University Energy

Fire Protection

- National Fire Protection Association (NFPA)
- Residential Fire Sprinklers
- San Juan County Fire Marshal

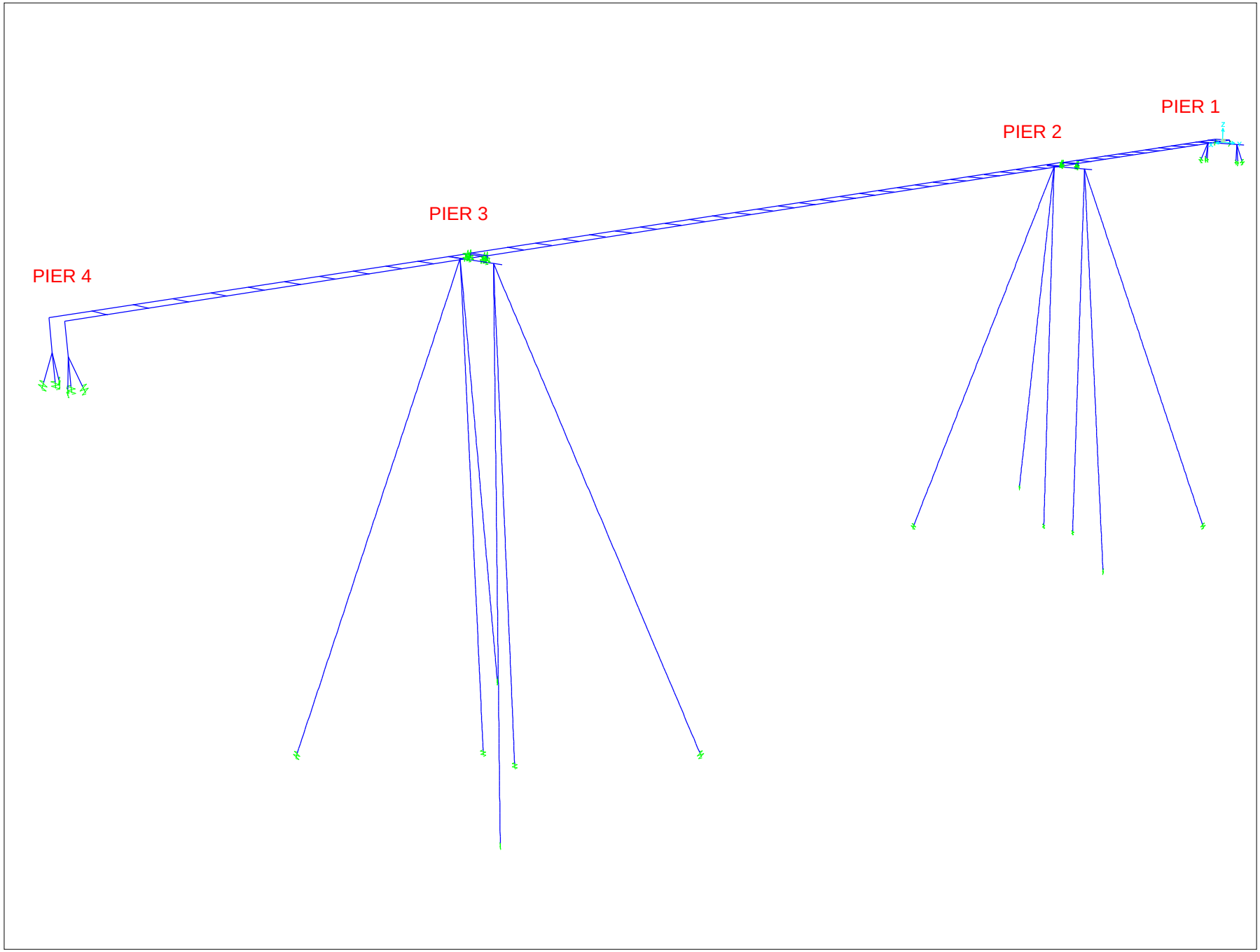
Local Design Criteria

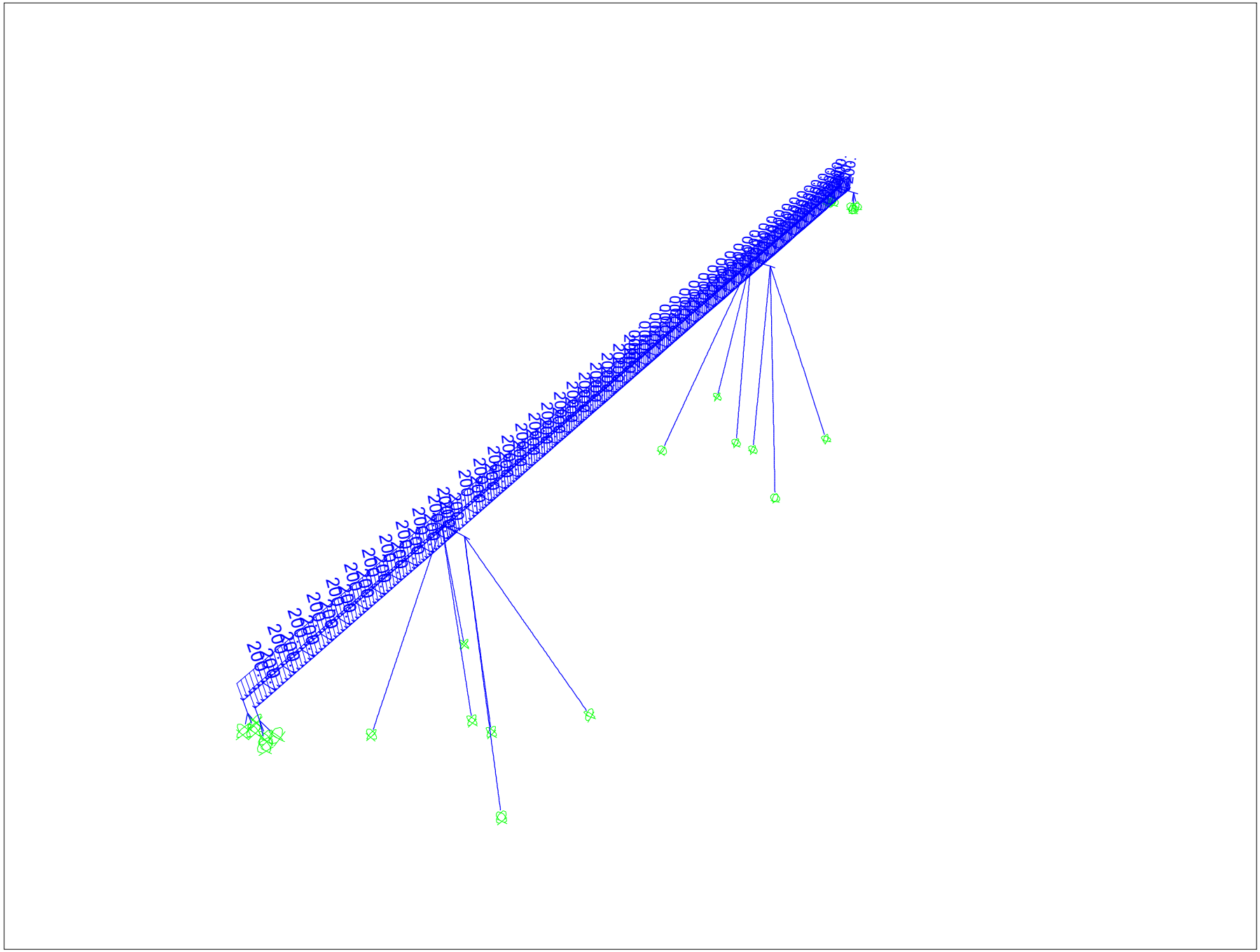
Seismic Zone	D1
Wind Load	110 mph
Wind Exposure	site specific
Assumed Soil Bearing	1500 PSF*

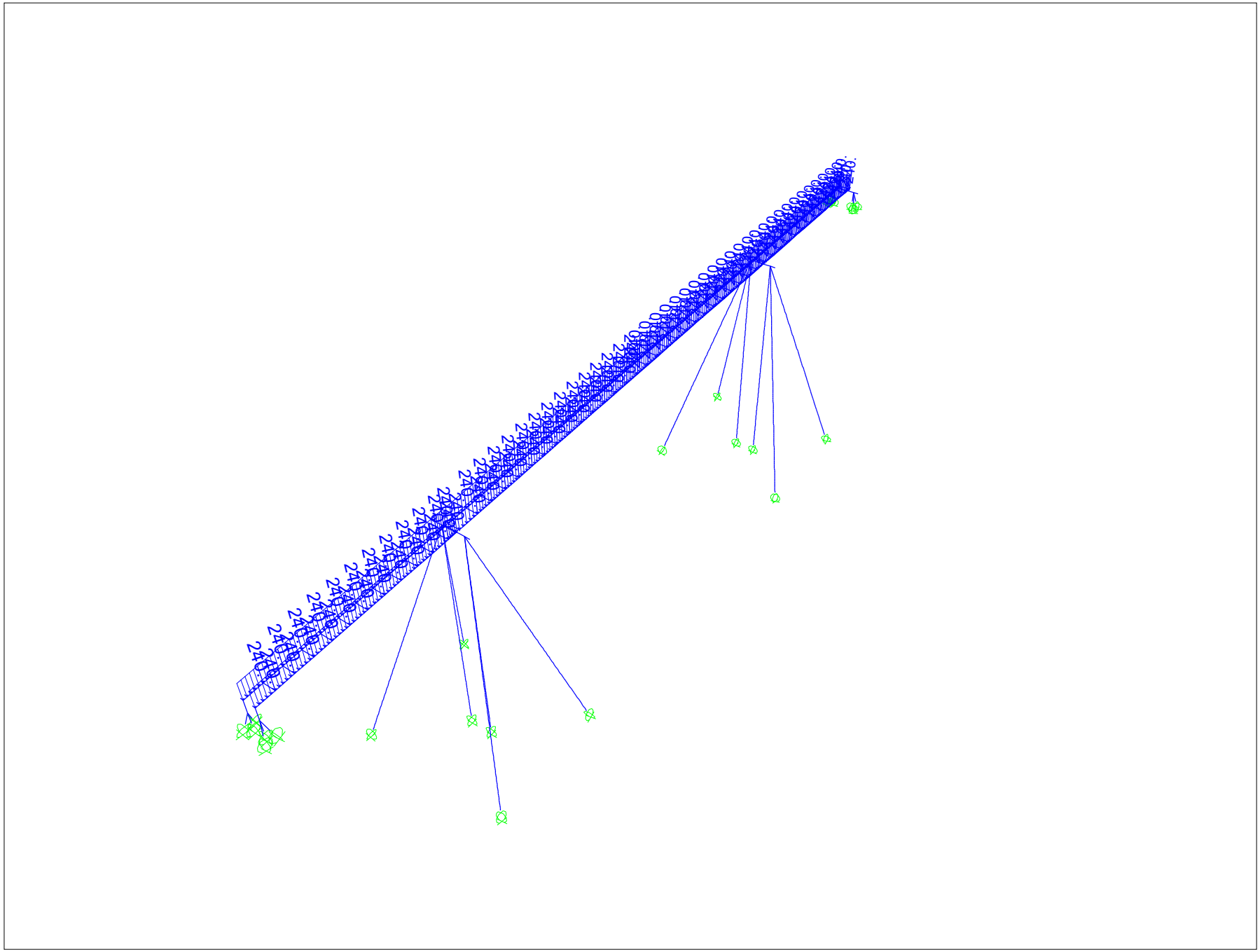
Assumed Soil Bearing note	*If assumed soil bearing exceeds 1500 PSF, the actual soil bearing must be verified by a geologist or Washington State-licensed engineer or architect.
Frost Depth	12 inches
Snow Load	25 lb. LL
Floor Load	40 lb. LL / 30 lb. LL sleeping room
Setbacks	Per IRC Figure R403.1.7.1 setbacks from slopes and UDC tables 6.1 and 6.2
Fire Hydrant Provisions	Residential structures with more than 4000 square feet of living area must be serviced by approved fire hydrants or fire suppression systems installed in accordance with NFPA 13-R
Additional Required Plans	All permits require plans that include mechanical ducting and plumbing routing/terminations

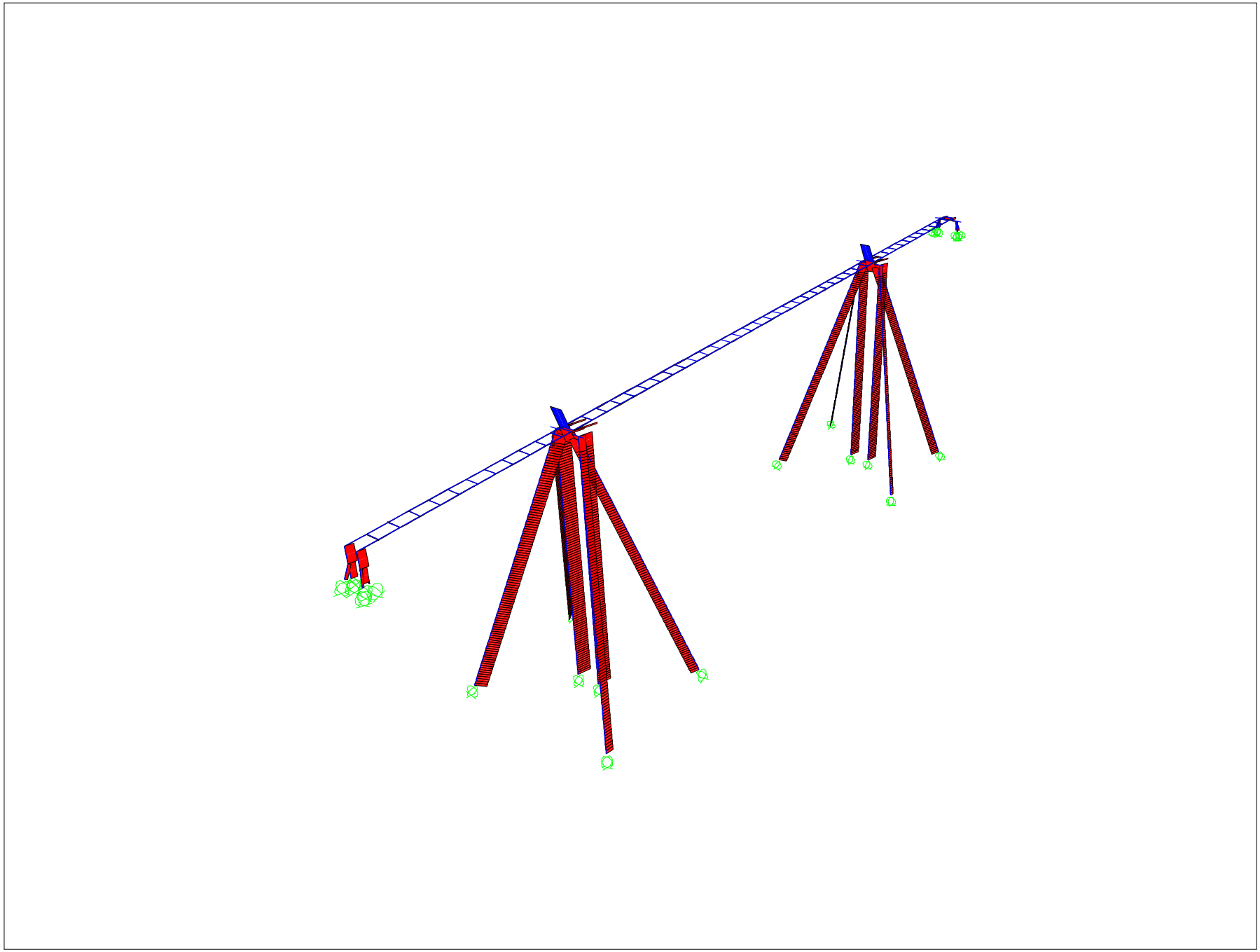
Government Websites by CivicPlus®

Cross Beam Design


PIER 1
PIER 2
PIER 3
PIER 4







SEISMIC LOAD (EQY)

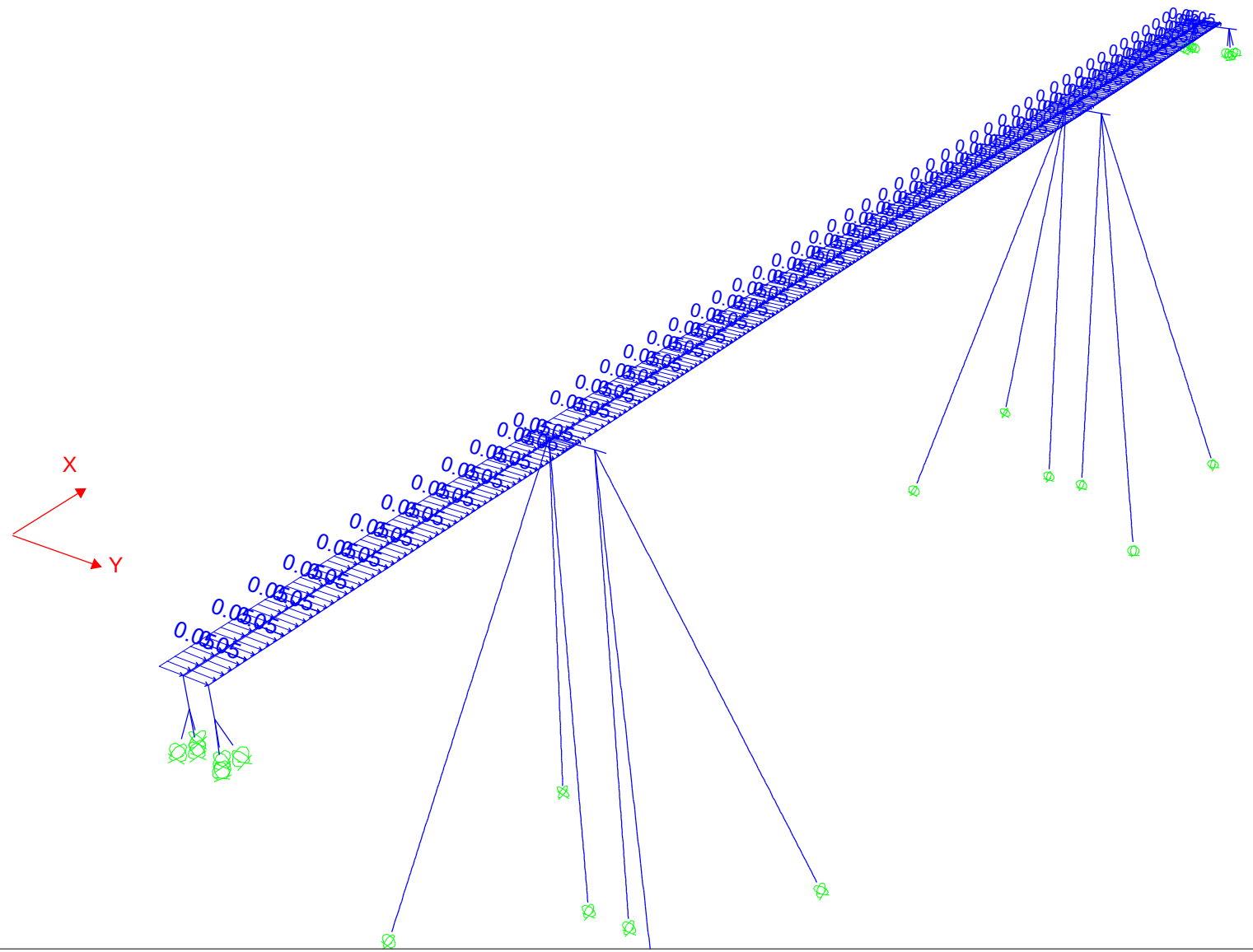


Table: Base Reactions

Base Reactions, Part 1 of 4

OutputCase	CaseType	StepType	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY
			Kip	Kip	Kip	Kip-ft	Kip-ft
EQxp	NonStatic	Last Step	-31.293	2.176E-10	-7.702E-10	0.0049	-21.0195
EQyp	NonStatic	Last Step	-4.096E-11	-31.293	1.417E-10	21.0273	-0.1262

Table: Base Reactions

Base Reactions, Part 2 of 4

OutputCase	StepType	GlobalMZ	GlobalX	GlobalY	GlobalZ	XCentroidFX	YCentroidFX
		Kip-ft	ft	ft	ft	ft	ft
EQxp	Last Step	-0.0279	0	0	0	181.9427	0.057
EQyp	Last Step	-4850.3637	0	0	0	0	0

Table: Base Reactions

Base Reactions, Part 3 of 4

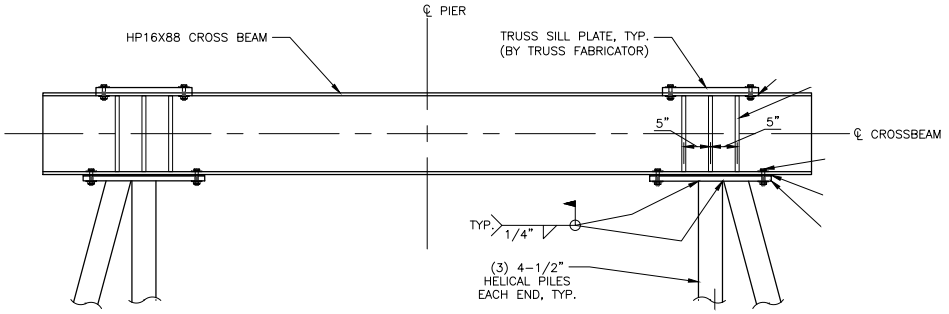
OutputCase	GlobalMZ	ZCentroidFX	XCentroidFY	YCentroidFY	ZCentroidFY	XCentroidFZ	YCentroidFZ
	Kip-ft	ft	ft	ft	ft	ft	ft
EQxp	-0.0279	-54.5696	0	0	0	0	0
EQyp	-4850.3637	0	154.9363	-0.6109	-48.965	0	0

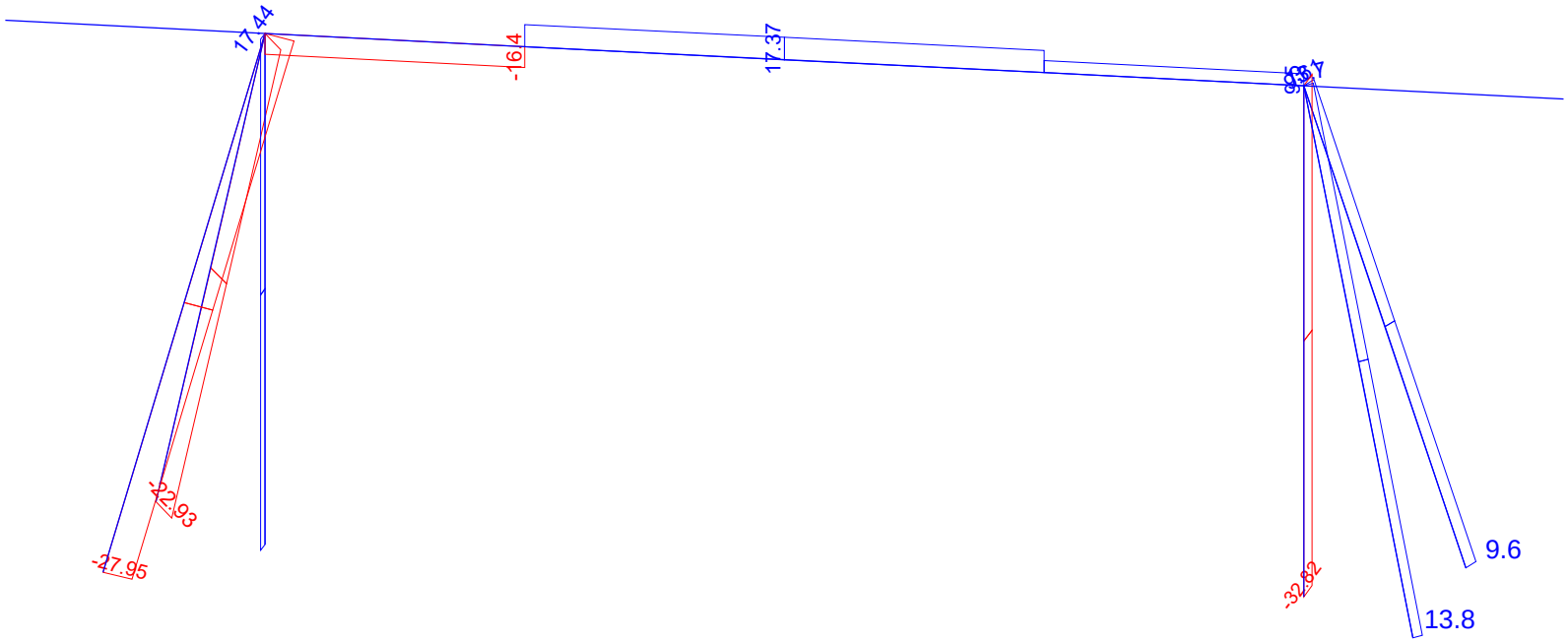
Table: Base Reactions

Base Reactions, Part 4 of 4

OutputCase	ZCentroidFX	ZCentroidFZ
	ft	ft
EQxp	-54.5696	0
EQyp	0	0

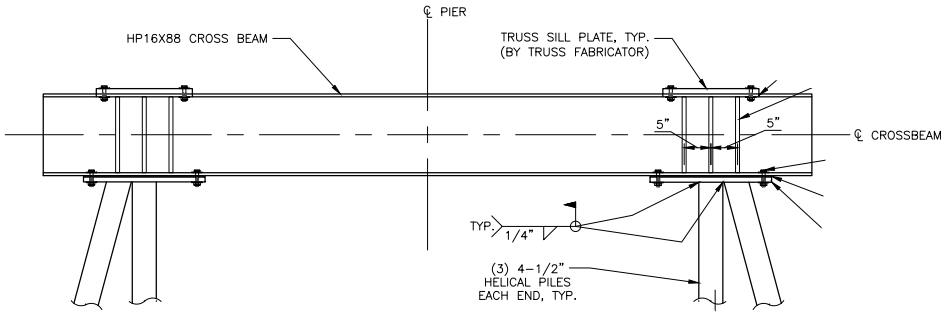
BLUE = TENSION
RED = COMPRESSION

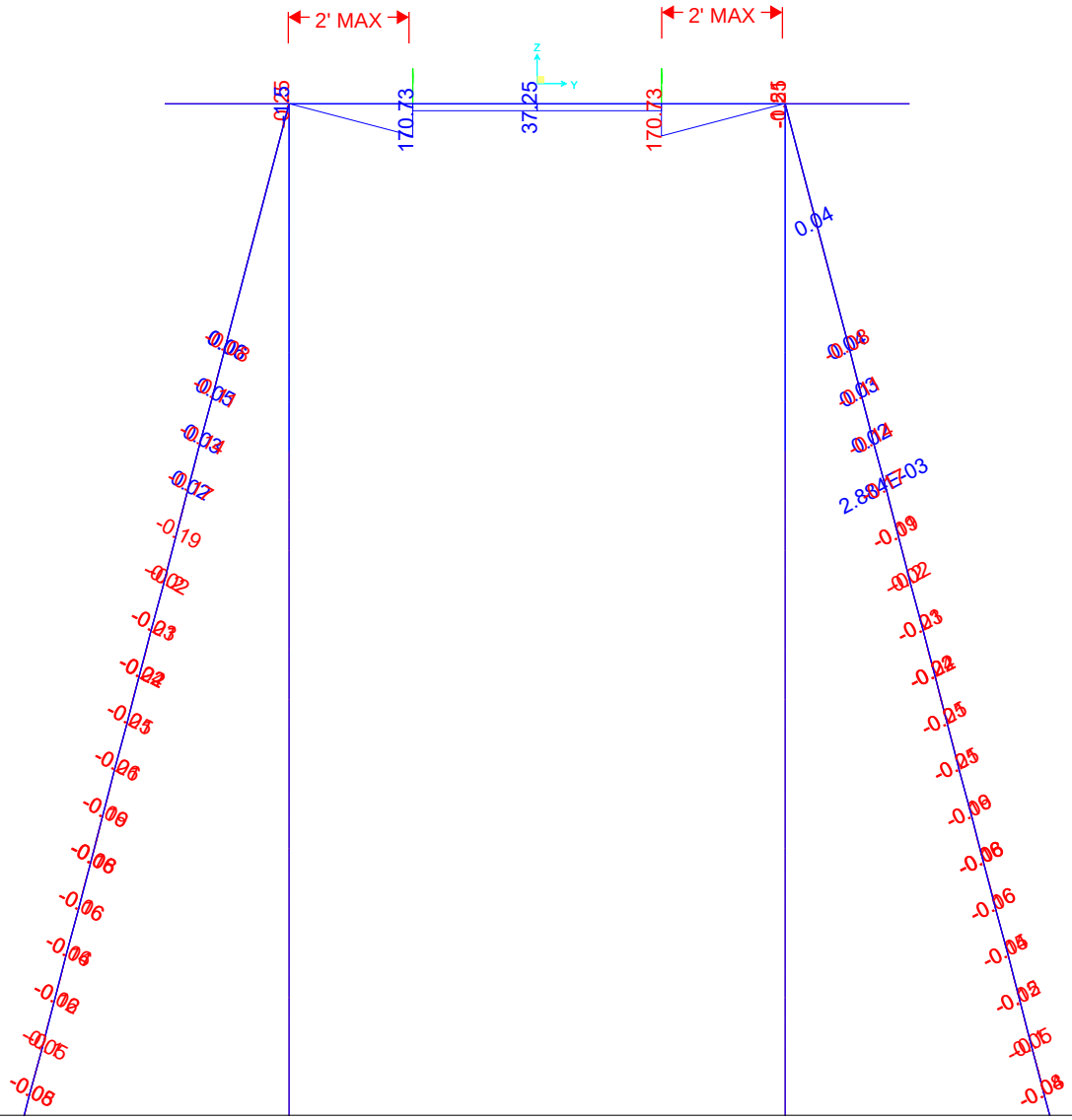




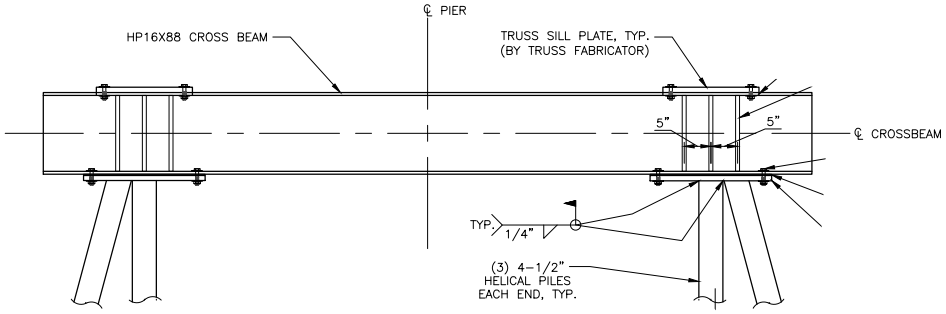
MAX. UPLIFT IN VERTICAL HELICAL PILES: 17.5 KIPS
MAX. COMPRESSION IN VERTICAL HELICAL PILE= 32.7 KIPS
MAX. UPLIFT IN BATTERED HELICAL PILES: 13.8 KIPS
MAX. COMPRESSION IN BATTERED HELICAL PILE = 28 KIPS

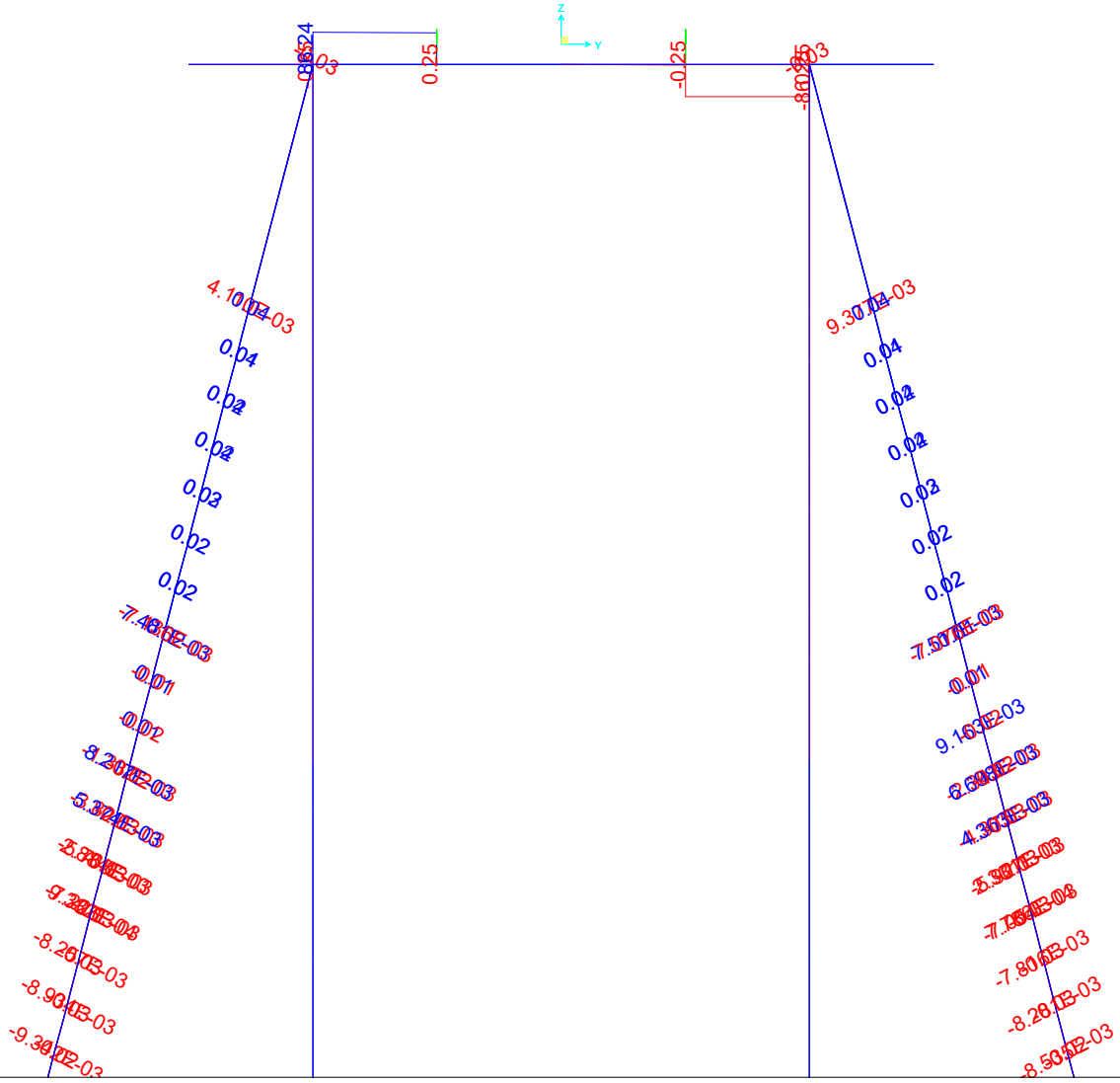
CONSIDERING MAX. 2' OF ECCENTRICITY BTW TRUSS PREFAB TRUSS SUPPORT AND HELICAL PILES CENTERLINE :





CONSIDERING MAX. 2' OF ECCENTRICITY BTW TRUSS PREFAB TRUSS SUPPORT AND HELICAL PILES CENTERLINE :





AISC 360-22 STEEL SECTION CHECK (Summary for Combo and Station)
Units : Kip, ft, F

Frame :	1413	X Mid:	240.	Combo:	1.2DL+1.6LL
Length:	12.	Y Mid:	0.	Shape:	HP12X53
Loc :	8.	Z Mid:	-0.326	Class:	Slender

Design Type: Beam
Frame Type: OCBF
Princpl Rot: 0. degrees

Provision: LRFD Analysis: Direct Analysis
D/C Limit=0.95 2nd Order: General 2nd Order Reduction: Tau-b Fixed
AlphaPr/Py=0.022 AlphaPr/Pe=0.01 Tau_b=1. EA factor=0.8 EI factor=0.8
Ignore Seismic Code? No Ignore Special EQ Load? No D/P Plug Welded? Yes

SDC: D	I=1.	Rho=1.	Sds=0.973	
R=3.25	Omega0=2.	Cd=3.25		
PhiB=0.9	PhiC=0.9	PhiTY=0.9	PhiTF=0.75	
PhiS=0.9	PhiS-RI=1.	PhiST=0.9		
A=0.108	I33=0.019	r33=0.42	S33=0.039	Av3=0.06
J=5.401E-05	I22=0.006	r22=0.239	S22=0.012	Av2=0.036
Ae=0.108	Se33=0.039	Se22=0.012		
E=4176000.	Fy=7200.	Ry=1.1	z33=0.043	Cw=0.001
RLLF=1.	Fu=9360.		z22=0.019	

SLENDERNESS CHECK

Buckling mode	K	L	r	KL/r	KL/r Limit	L/r Limit
Major (3-3)	1.	8.	0.42	19.065	200	19.065 300
Minor (2-2)	1.	12.	0.239	50.307	200	50.307 300

UNBRACED LENGTH LIMIT CHECK

Buckling mode	K	L	KL/r
K1 Major Flexure	1.	8.	19.065
K1 Minor Flexure	1.	12.	50.307
K2 Major Flexure	1.	8.	19.065
K2 Minor Flexure	1.	12.	50.307
LTB	1.	12.	50.307

STRESS CHECK FORCES & MOMENTS (Combo 1.2DL+1.6LL)

Location	Pu	Mu33	Mu22	Vu2	Vu3	Tu
8.	-13.83	166.494	1.818	83.63	0.759	-0.383

PMM DEMAND/CAPACITY RATIO (H1-1b)
D/C Ratio: 0.708 = 0.012 + 0.678 + 0.018
= (1/2)(Pr/Pc) + (Mr33/Mc33) + (Mr22/Mc22)

COMPACTNESS

Slenderness	Lambda	Lambda_p	Lambda_r	Lambda_s	Compactness
Major/Flange	13.793	9.152	24.083		Non-Compact
/Web	25.126	90.553	137.274	232.	Compact
Minor/Flange	13.793	9.152	24.083		Non-Compact
/Web	25.126	90.553	137.274	232.	Compact
Axial/Flange	13.793		13.487		Slender
/Web	25.126		35.884		Compact

AXIAL FORCE & BIAXIAL MOMENT DESIGN (H1-1b)

Factor	L	K1	K2	B1	B2	Cm
Major Bending	0.667	1.	1.	1.	1.	1.
Minor Bending	1.	1.	1.	1.	1.	1.

	Lltb	Kltb	Cb
LTB	1.	1.	1.214

	Pu	phi*Pnc	phi*Pnt

	Force	Capacity	Capacity	
Axial	-13.83	579.67	697.5	

	Mu Moment	phi*Mn Capacity	phi*Mn No LTB	phi*Mn Cb=1
Major Moment	166.494	245.592	245.592	268.277
Minor Moment	1.818	100.486		

SHEAR CHECK

	Vu Force	phi*Vn Capacity	Stress Ratio	Status Check
Major Shear	83.63	153.99	0.543	OK
Minor Shear	0.759	281.88	0.003	OK

CONNECTION SHEAR FORCES FOR BEAMS

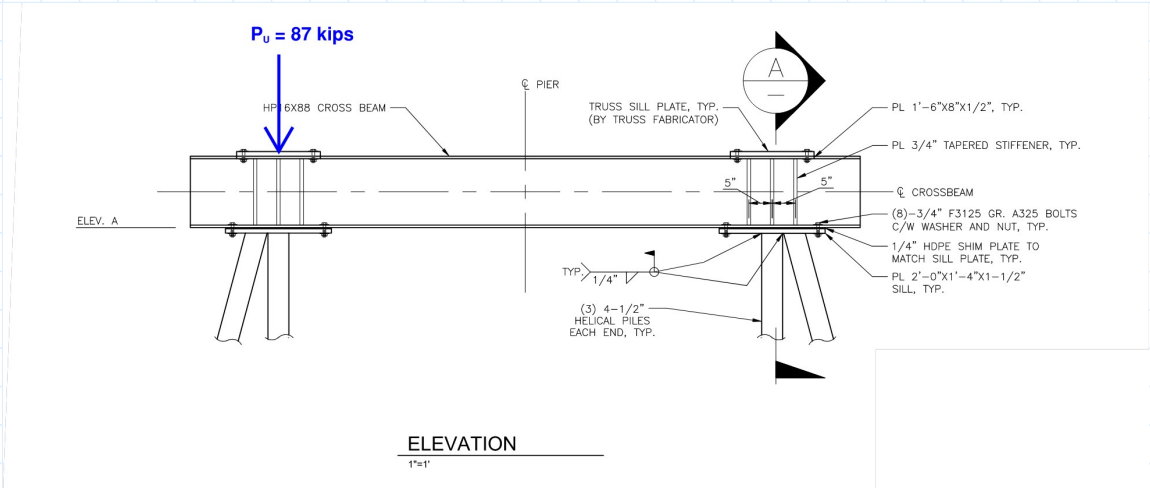
	VMajor Left	VMajor Right
Major (V2)	0.	0.

1. INTRODUCTION

This file is for the checks related to plate stiffeners that are bearing on HP 16 x 88 cross-beams, at Piers 2 & 3

Subscripts:

cb = cross beams
sp = stiffener plates



2. INPUTS

State inputs:

$F_y := f_y := 50 \cdot ksi$ $f_u := 65 \cdot ksi$ ASTM A572, Gr. 50 stiffener plates & crossbeam (Sheet 69 of 78)

$\phi_c := 0.90$ resistance factor for compression, AISC J4

$\phi_b := 0.75$ resistance factor for bearing, AISC J7

$P_u := 87\ kip$ factored compression point load on bearing (from SAP model)

2a. Cross beams: (all HP 16 x 88 dimensions are from AISC Table 1-4)

$t_{web_cb} := \frac{9}{16} \cdot in$ Web thickness

$d_{total_cb} := \left(15 + \frac{3}{8}\right) \cdot in$ total depth

$B_{flange_cb} := \left(15 + \frac{11}{16}\right) \cdot in$ flange width

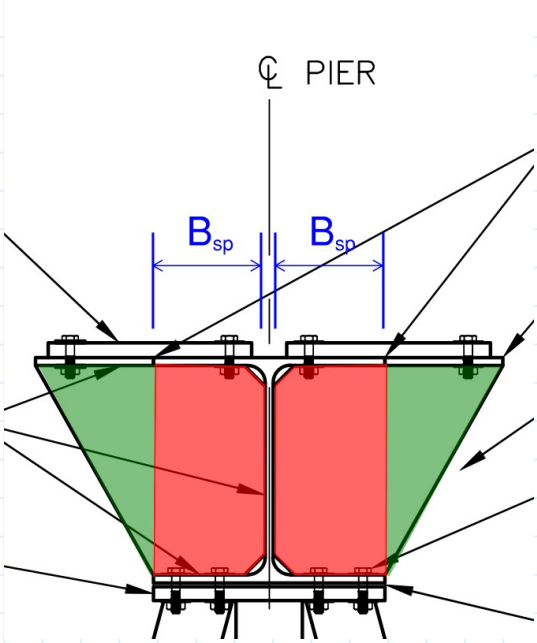
$t_{flange_cb} := \frac{9}{16} \cdot in$ flange thickness

2b. Stiffener plates: (all info is based on Sheet 72 of 78 unless noted otherwise)

$t_{sp} := \frac{1}{2} \cdot in$ thickness of stiffener plates

$S_{sp} := 5\ in$ spacing of stiffener plates

$n_{sp} := 6$ no. of stiffener plates



$h_{bp} := d_{total_cb} - 2 \cdot t_{flange_cb} = 14.3\ in$ approx. ht. of stiffener plates

$B_{sp} := \frac{B_{flange_cb} - t_{web_cb}}{2} = 7.6\ in$ width of each stiffener plate (conservatively only used the rectangular portion of the plate and omitted the triangular portion)

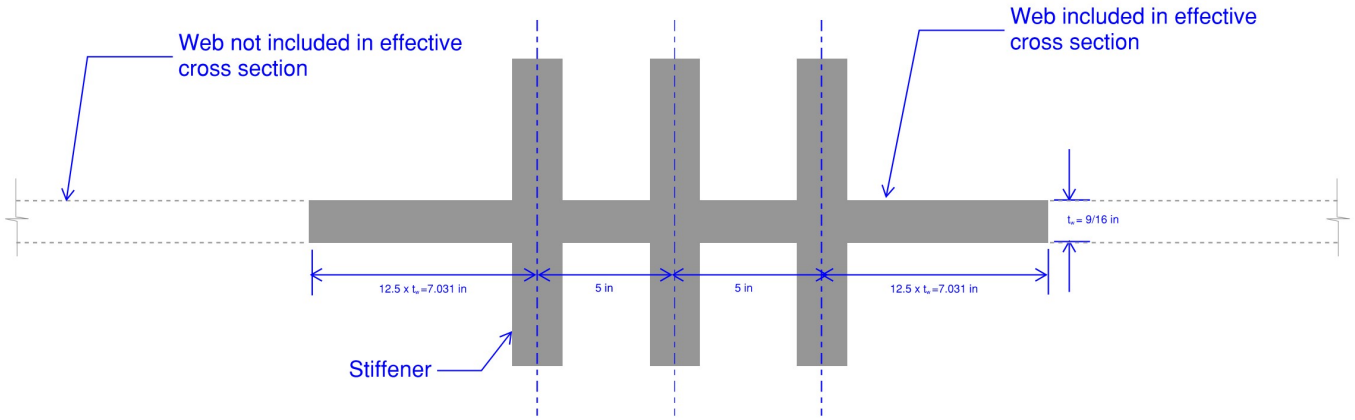
$A_{gross.sp} := n_{sp} \cdot t_{sp} \cdot B_{sp} = 22.7\ in^2$ total area of all stiffener plates combined

3. EFFECTIVE SECTION

$L_{eff} := 0.75 \cdot h_{bp} = 10.7\ in$ effective length (AISC 360, J10.8)

$B_{web.eff} := 25 \cdot t_{web_cb} + 2 \cdot S_{sp} = 24.1\ in$ effective web width (AISC 360, J10.8)

$A_{web.eff} := B_{web.eff} \cdot t_{web_cb} = 13.5\ in^2$ effective web area for interior bearing stiffeners (AISC 360, J10.8)



Effective Section

$A_{total.eff} := A_{web.eff} + A_{gross.sp} = 36.2\ in^2$ total area of effective section

$I_{total.eff} := n_{sp} \cdot \frac{t_{sp} \cdot (t_{web_cb} + B_{sp})^3}{12} = 134.1\ in^4$ M.O.I of effective section (conservatively ignoring web strip)

$r_{s.eff} := \sqrt{\frac{I_{total.eff}}{A_{total.eff}}} = 1.9\ in$ radius of gyration of effective section

$\frac{L_{eff}}{r_{s.eff}} = 5.6$ < 25, so use Eq. J4-6 for Pn because the limit state will be yielding in this case

4. AXIAL RESISTANCE

$P_n := F_y \cdot A_{total.eff} = 1811.1\ kip$ nominal axial compressive strength of the effective section for the limit states of yielding (AISC 360, Eq. J 4-6)

$P_r := \phi_c \cdot P_n$ available compressive strength of the effective section for the limit states of yielding

$\frac{P_u}{P_r} = 0.05$ DCR for axial compressive point load

5. BEARING RESISTANCE

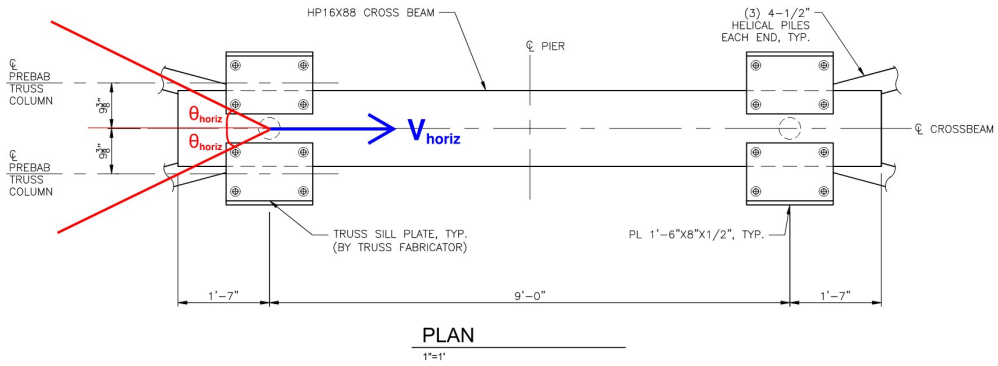
$A_{pb} := n_{sp} \cdot B_{sp} \cdot t_{sp} = 22.7\ in^2$ total projected bearing area of all stiffener plates combined

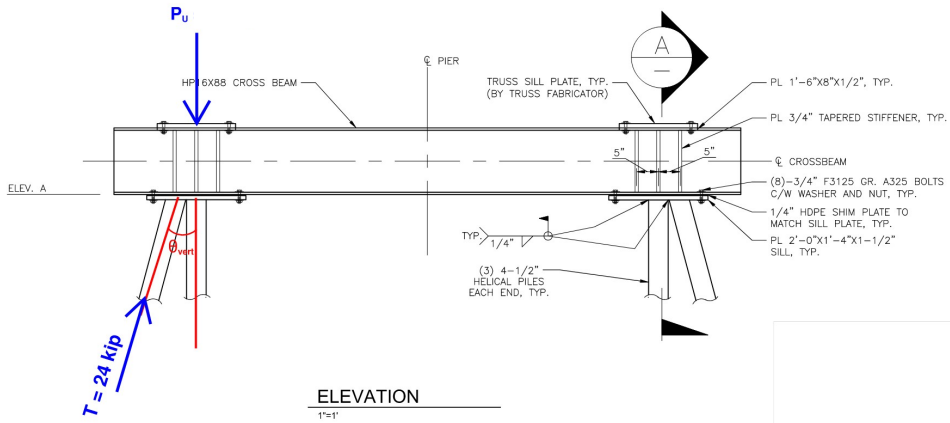
$R_n := 1.8 \cdot F_y \cdot A_{pb} = 2041.9\ kip$ nominal bearing strength for the limit state of bearing (local compressive yielding), AIS Eq. J7-1

$R_r := \phi_b \cdot R_n = 1531.4\ kip$ available bearing strength for the limit state of bearing (local compressive yielding), AIS Eq. J7-1

$\frac{P_u}{R_r} = 0.06$ DCR for bearing

6. BOLTS (all dimensions are based on latest plan set unless noted otherwise)





$\theta_{vert} := 15\ deg$ batter pile angle with vertical pile

$\theta_{horiz} := 15\ deg$ batter pile angle with CL (in plan view)

$T := 24\ kip$ Tension in each bater pile, under lateral loading, from SAP (2026-05-21 Bridge w LPILE Springs-STEELCAP BEAM & PinPiles.bdb), **seismic load including overstrength factor per asce 7-16, sec. 12.4.3-1**

$n_p := 2$ no. of batered piles

$V_{horiz} := n_p \cdot T \cdot \sin(\theta_{vert}) \cdot \cos(\theta_{horiz}) = 12.0\ kip$ resultant lateral/horizontal load acting on pier

$n_b := 4$ no. of bolts resisting lateral loads

** note that only the bottom 4 bolts are being considered because only they will resisting the lateral loads

$d_b := \frac{3}{4}\ in$ dia. of bolts

$A_b := \frac{\pi \cdot d_b^{\,2}}{4} = 0.4\ in^2$ area of bolts

$S_b := \frac{\pi \cdot d_b^{\,3}}{64} = 0.021\ in^3$

6a. Bolt Shear

$F_{nt} := 90\ ksi$

$\phi r_{n.bolt} := 11.9\ kip$ available shear strength of F3125 GR. A325, 3/4" dia. bolts assuming single shear, AISC T7-1

$V_{u.bolt} := \frac{V_{horiz}}{n_b} = 3.0\ kip$ shear demand per bolt

$\frac{V_{u.bolt}}{\phi r_{n.bolt}} = 0.25$ DCR for bolt shear

6b. Bolt bearing on plates

the bolts are bearing on 9/16" thick crossbeam bottom flange, 1/4" thick shim plate and 1.5" bottom sill plate

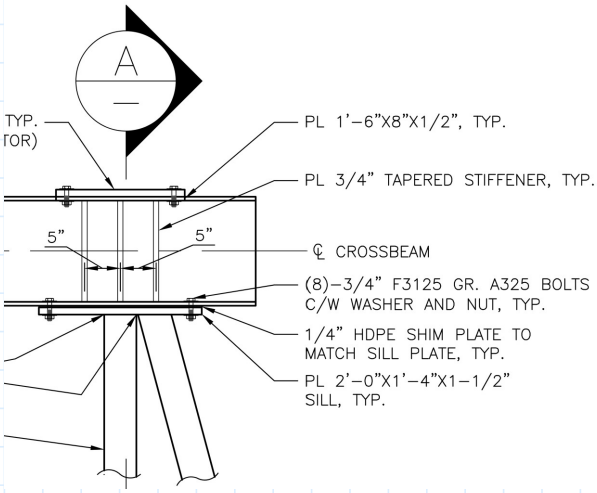
$t_{shim} := 0.25\ in$ th. of shim plate

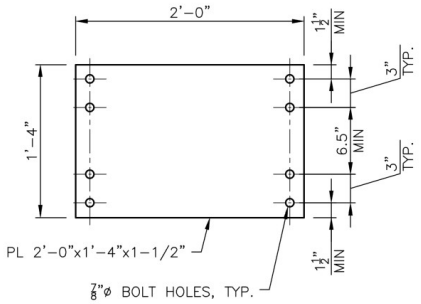
$t_{sill} := 1.5\ in$ th. of sill plate

$M_u := t_{shim} \cdot V_{horiz} = 0.3\ kip \cdot ft$

$M_{n.bolt} := F_{nt} \cdot S_b = 0.2\ kip \cdot ft$

$\frac{M_u}{n_b \cdot \phi_b \cdot M_{n.bolt}} = 0.54$ DCR for bolt bending





CROSS BEAM SILL PLATE DETAIL
1"= 6"

$l_c := 1.5\ in - \frac{d_b}{2} = 1.1\ in$ edge distance

$r_{n.bearing.bolt} := min\left(1.2 \cdot l_c \cdot t_{sill} \cdot f_u, 1.2 \cdot d_b \cdot t_{sill} \cdot f_u\right) = 87.8\ kip$ nominal bearing strength of bolts AISC spec. EQ. J3-6a

$\phi_{bb} := 0.75$ resistance factor for bolt bearing

$r_{r.bearing.bolt} := \phi_{bb} \cdot r_{n.bearing.bolt} = 65.8\ kip$ available bearing strength of bolts

$\frac{V_{u.bolt}}{r_{r.bearing.bolt}} = 0.046$ DCR for bolt bearing

7. WELDS

$F_{EXX} := 70\ ksi$ assuming E70XX weld metal

$F_{nw} := 0.60 \cdot F_{EXX} = 42.0\ ksi$ nominal stress of weld metal, AISC Table J2.5

$\phi_w := 0.75$ resistance factor for shear in the throat of the weld metal, AISC Table J2.5

7a. Welds b/w cross beam web & stiffener plate

$P_{u_stiff} := \frac{P_u}{n_{sp}} = 14.5\ \textit{kip}$ factored compression point load on each stiffener plate

$w_1 := \frac{3}{8}\ \textit{in}$ width of fillet welds

$t_{e_1} := 0.707 \cdot w_1 = 0.3\ \textit{in}$ effective throat

$V_{n.weld_1} := F_{nw} \cdot t_{e_1}$ nominal weld strength per inch per weld line

$V_{r.weld_1} := \phi_w \cdot F_{nw} \cdot t_{e_1} = 8.4\ \frac{\textit{kip}}{\textit{in}}$ available weld strength per inch per weld line

$L_{req_1} := \frac{P_{u_stiff}}{V_{r.weld_1}} = 1.7\ \textit{in}$ req. weld length

$L_{req_2} := \frac{P_{u_stiff}}{2 \cdot V_{r.weld_1}} = 0.9\ \textit{in}$ req. weld length on each side of stiffener

$L_{prov_1} := h_{bp} - 2 \cdot 2.5\ \textit{in} = 9.3\ \textit{in}$ prov. weld length on each side of stiffener, allowing for 2.5 in clips at top and bot.

$R_{r.weld_1} := 2 \cdot V_{r.weld_1} \cdot L_{prov_1} = 154.5\ \textit{kip}$ total factored resistance of the two 3/8 - inch fillet welds connecting the stiffeners to the web

$\frac{P_{u_stiff}}{R_{r.weld_1}} = 0.094$ DCR for Weld at cross beam web

7b. Welds b/w helical piles & bottom sill plate

$d_{pile} := 4.5\ \textit{in}$ dia. of helical piles

$P_{u_pile} := T = 24.0\ \textit{kip}$ pile's axial force pulling on the weld (Max. factored load of piles)

$w_2 := \frac{1}{4}\ in$ width of fillet welds

$t_{e_2} := 0.707 \cdot w_2 = 0.2\ in$ effective throat

$V_{n.weld.pile} := F_{nw} \cdot t_{e_2}$ nominal weld strength per inch per weld line

$V_{r.weld.pile} := \phi_w \cdot F_{nw} \cdot t_{e_2} = 5.6\ \frac{kip}{in}$ available weld strength per inch per weld line

$L_{req_3} := \frac{P_{u_pile}}{V_{r.weld.pile}} = 4.3\ in$ req. weld length

$L_{prov_2} := \pi \cdot d_{pile} = 14.1\ in$ prov. weld length around helical piles

$R_{r.weld_2} := V_{r.weld.pile} \cdot L_{prov_2} = 78.7\ kip$ total factored resistance of the 1/4 - inch fillet welds connecting helical piles & bottom sill plate

$\frac{P_{u_pile}}{R_{r.weld_2}} = 0.3$ DCR for Welds b/w helical piles & bottom sill plate

RESTRAINED RETAINING WALL DESIGN (AT PIER#1)

Backfill Pressure Calculation:

$h := 8\ ft$ Retaining Height

$\gamma := 100\ \frac{lb}{ft^3}$ Density IBC Table 1610.1, Assume Clayey Conditions based on Geotech Report.

$q_a := 45\ \frac{lb}{ft^3}$ Active pressure (Top of wall free to move & wall height < 8ft)

$K_a := \frac{q_a}{\gamma} = 0.45$ Active Pressure cofficient

$q := 60\ \frac{lb}{ft^2}$ Surcharge

$\sigma_{top} := K_a \cdot (q) = 27\ \frac{lb}{ft^2}$ Soil Pressure at the top of the retaining wall

$\sigma_{bot} := K_a \cdot (\gamma \cdot h + q) = 387\ \frac{lb}{ft^2}$ Soil Pressure at the bottom of the retaining wall

Maximum Pressure at the bottom is $\sigma_{bot} = 387\ \frac{lb}{ft^2}$

PER TABLE 1610.1 ASSUMING CLAYEY GRAVEL (GC): SOIL PRESSURE:

TABLE 1610.1
LATERAL SOIL LOAD

DESCRIPTION OF BACKFILL MATERIAL[c]	UNIFIED SOIL CLASSIFICATION	DESIGN LATERAL SOIL LOAD[a] (pound per square foot per foot of depth)	
		Active pressure	At-rest pressure
Well-graded, clean gravels; gravel-sand mixes	GW	30	60
Poorly graded clean gravels; gravel-sand mixes	GP	30	60
Silty gravels, poorly graded gravel-sand mixes	GM	40	60
Clayey gravels, poorly graded gravel-and-clay mixes	GC	45	60
Well-graded, clean sands; gravelly sand mixes	SW	30	60
Poorly graded clean sands; sand-gravel mixes	SP	30	60
Silty sands, poorly graded sand-silt mixes	SM	45	60
Sand-silt clay mix with plastic fines	SM-SC	45	100
Clayey sands, poorly graded sand-clay mixes	SC	60	100
Inorganic silts and clayey silts	ML	45	100
Mixture of inorganic silt and clay	ML-CL	60	100
Inorganic clays of low to medium plasticity	CL	60	100
Organic silts and silt clays, low plasticity	OL	Note b	Note b
Inorganic clayey silts, elastic silts	MH	Note b	Note b
Inorganic clays of high plasticity	CH	Note b	Note b
Organic clays and silty clays	OH	Note b	Note b

For SI: 1 pound per square foot per foot of depth = 0.157 kPa/m, 1 foot = 304.8 mm.

a. Design lateral soil loads are given for moist conditions for the specified soils at their optimum densities. Actual field conditions shall govern. Submerged or saturated soil pressures shall include the weight of the buoyant soil plus the hydrostatic loads.

b. Unsuitable as backfill material.

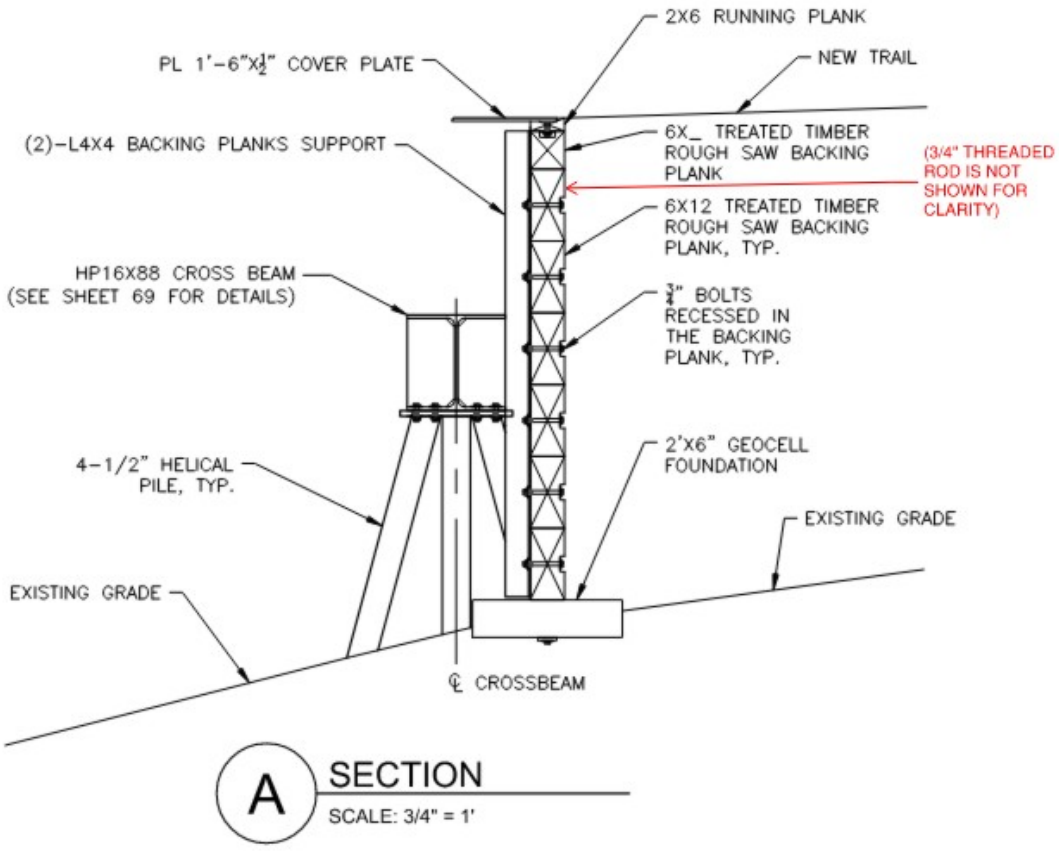
c. The definition and classification of soil materials shall be in accordance with ASTM D2487.

The steel backing planks are spaced at 6' o.c.

Load at top $q_{top} := \sigma_{top} \cdot 6\ ft = 162\ \frac{lb}{ft}$

Load at bottom $q_{bot} := \sigma_{bot} \cdot 6\ ft = 2322\ \frac{lb}{ft}$

Apply Loading to ENERCALC calculation as a distributed load on the steel backing planks support and wood backing planks.



Project Title:
Engineer:
Project ID:
Project Descr:

Multiple Simple Beam

Project File: Beaverton Trail.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

Description :

Wood Beam Design : Timber Plank

Calculations per NDS 2018, IBC 2018, CBC 2019

BEAM Size : **6x6, Sawn, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : Douglas Fir-Larch Wood Grade : No.2

Fb - Tension	875.0 psi	Fc - Prll	600.0 psi	Fv	170.0 psi	Ebend- xx	1,300.0 ksi	Density	31.210 pcf
Fb - Compr	875.0 psi	Fc - Perp	625.0 psi	Ft	425.0 psi	Eminbend - xx	470.0 ksi		

Applied Loads

Beam self weight calculated and added to loads
Unif Load: H = 0.3870 k/ft, Trib= 0.50 ft

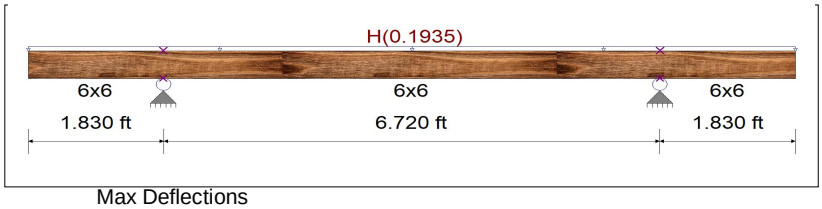
Design Summary

Max fb/Fb Ratio = **0.436** : 1
fb : Actual : 343.74 psi at 3.360 ft in Span # 2
Fb : Allowable : 787.50 psi
Load Comb : +D+H

Max fv/FvRatio = **0.218** : 1
fv : Actual : 33.33 psi at 6.720 ft in Span # 2
Fv : Allowable : 153.00 psi
Load Comb : +D+H

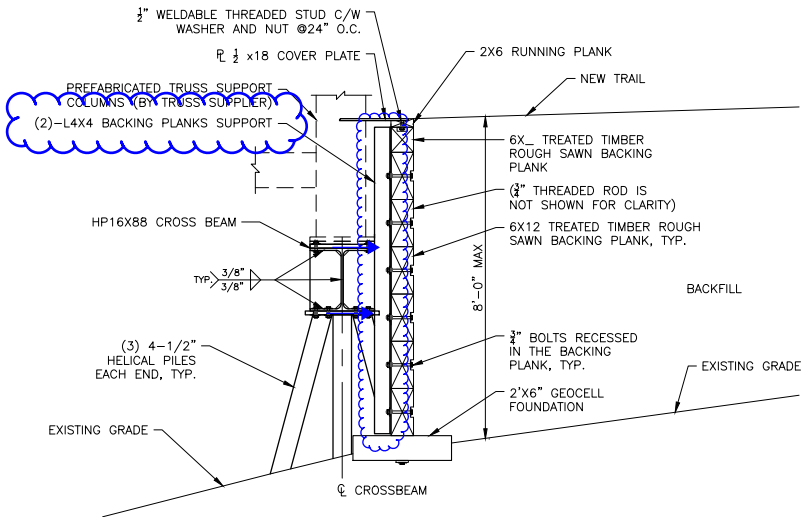
Max Reactions (k)

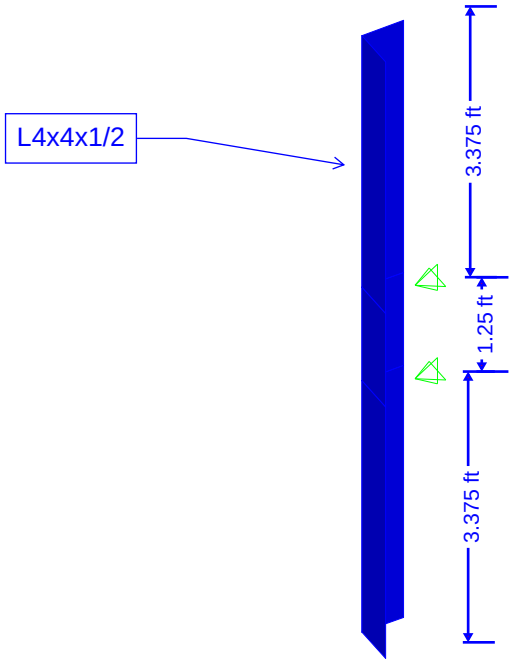
	D	Lr	L	S	W	E	H
Left Support	0.03						1.00
Right Support	0.03						1.00



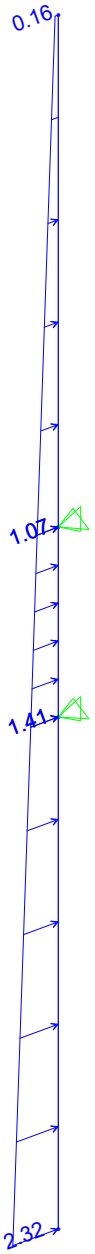
Max Deflections

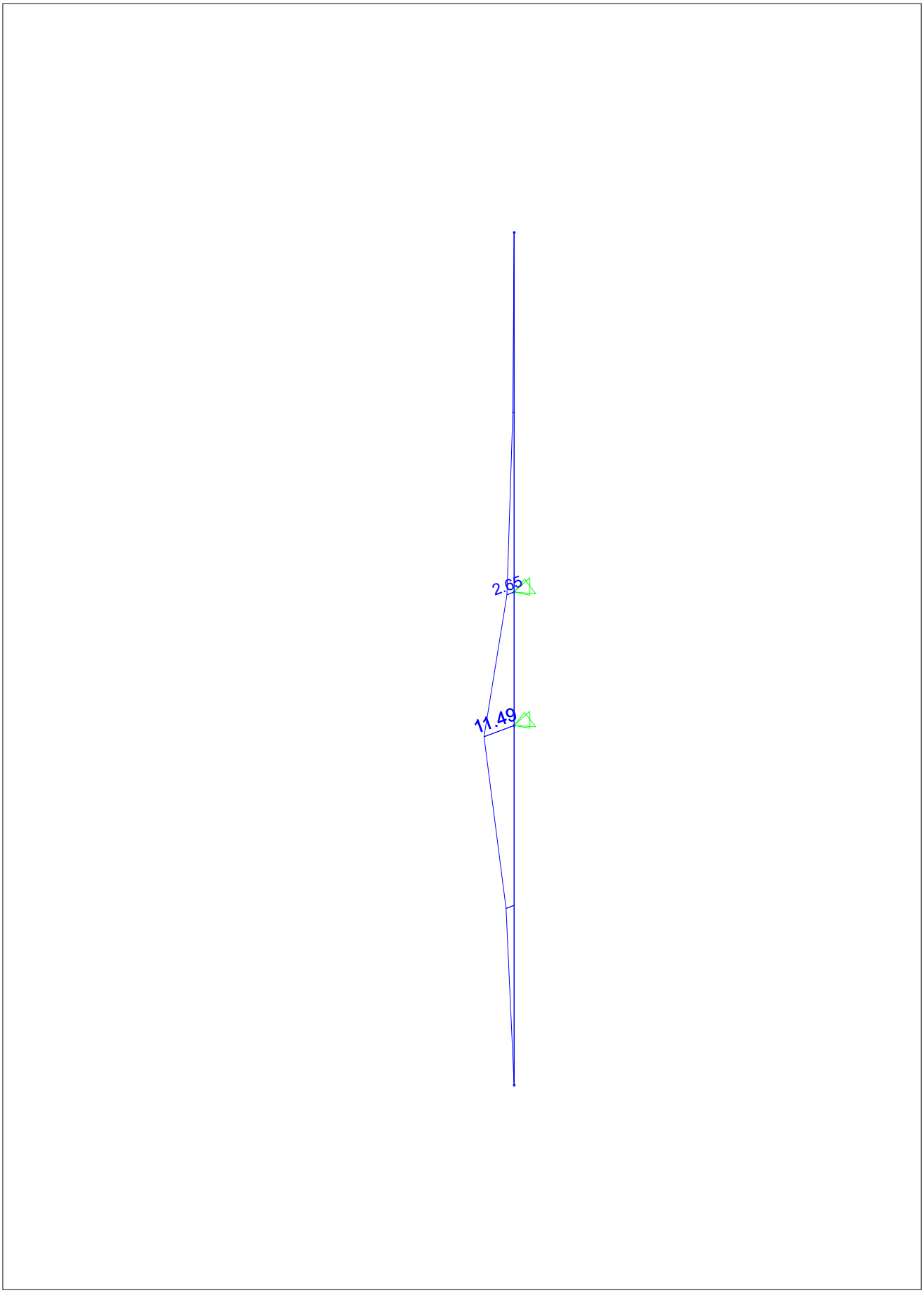
Transient Downward	0.058 in	Total Downward	0.060 in
Ratio	1385	Ratio	1339
	LC: H Only		LC: +D+H
Transient Upward	-0.039 in	Total Upward	-0.040 in
Ratio	1136	Ratio	1100
	LC: H Only		LC: +D+H

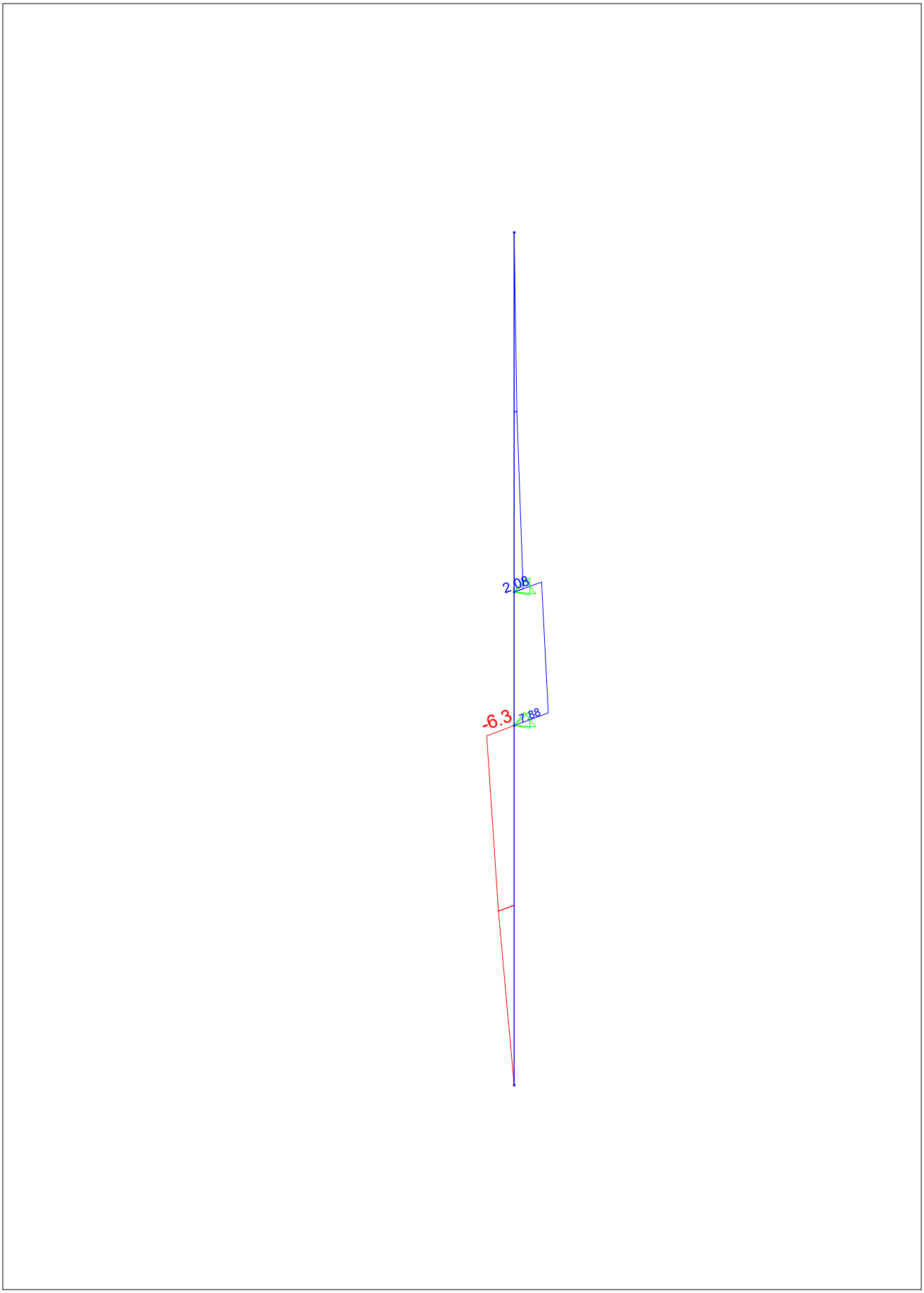

½" WELDABLE THREADED STUD C/W WASHER AND NUT @24" O.C.
PL ½ x18 COVER PLATE
2X6 RUNNING PLANK
NEW TRAIL
PREFABRICATED TRUSS SUPPORT COLUMNS (BY TRUSS SUPPLIER)
(2)–L4X4 BACKING PLANKS SUPPORT
6X_ TREATED TIMBER ROUGH SAWN BACKING PLANK
(¾" THREADED ROD IS NOT SHOWN FOR CLARITY)
HP16X88 CROSS BEAM
6X12 TREATED TIMBER ROUGH SAWN BACKING PLANK, TYP.
TYP. 3/8" 3/8"
8'-0" MAX
BACKFILL
(3) 4–1/2" HELICAL PILES EACH END, TYP.
¾" BOLTS RECESSED IN THE BACKING PLANK, TYP.
EXISTING GRADE
2'X6" GEOCELL FOUNDATION
EXISTING GRADE
℄ CROSSBEAM


L4x4x1/2
3.375 ft
1.25 ft
3.375 ft

ACTIVE SOIL
PRESSURE:




2.65
11.49


2.08
-6.3
7.88

Single Equal Leg Angle

1. INTRODUCTION

This file is for the design of a single equal leg angle using AISC 360-16 sections F-10 (Flexural design) and G3 (Shear design).

2. INPUTS

State inputs:

$F_y := 50 \cdot ksi$ ASTM A572 angles Gr. 50

$\phi_v := 0.90$ resistance factor for shear

$\phi_b := 0.90$ resistance factor for flexure

$M_u := 1.6 \cdot 11.5\ ft \cdot kip = 18.4\ ft \cdot kip$ factored moment (ONLY SOIL PRESSURE CAUSE MOMENT)

$V_u := 1.6 \cdot 7.9\ kip = 12.6\ kip$ factored shear (ONLY SOIL PRESSURE CAUSE SHEAR)

$E := 29000\ ksi$ steel modulus of elasticity

3. Angle Geometric properties: (all angle dimensions are from L4"x4"x1/4" AISC Table 1-7, UNO)

$t_{angle} := \frac{1}{2} \cdot in$ angle thickness

$b_{angle} := 4 \cdot in$ angle leg width

$k_{angle} := 0.5\ in + \frac{1}{16} \cdot in$ angle fillet dimension

$A_{gross.angle} := 3.75 \cdot in^2$ angle area (gross)

$W_{angle} := 12.8\ plf$ angle weight

Geometric x-x axis:

$I_x := 5.52\ in^4$ MOI

$S_x := 1.96\ in^3$ elastic section modulus

$r_x := 1.21\ in$ radius of gyration

$y := 1.18\ in$ centroid

$Z_x := 3.5\ in^3$ plastic section modulus

$y_p := 0.469\ in$ plastic neutral axis

Geometric y-y axis:

$I_y := I_x$ MOI

$S_y := S_x$ elastic section modulus

$r_y := r_x$ radius of gyration

$x := y$ centroid

$Z_y := Z_x$ plastic section modulus

$x_p := y_p$ plastic neutral axis

Minor principal axis (z-z):

$I_z := 1.73\ in^4$ MOI

$S_z := 1.08\ in^3$ elastic section modulus

$r_z := 0.779\ in$ radius of gyration

Torsional properties:

$J := 0.322\ in^4$ torsional constant

$C_w := 0.366\ in^6$ warping constant

$r_o := 2.16\ in$ polar radius

Calculate major principal axis properties (w-w):

$I_w := I_x + I_y - I_z = 9.3\ in^4$ MOI

$c_w := \frac{b_{angle}}{\sqrt{2}} = 2.8\ in$ perp. distance from major principal axis w-w to an outstanding toe (for an equal angle, w-w axis is inclined at 45° to the angle legs)

** Assume that the outstanging toe is the compression extreme fiber **

$S_{wc} := \frac{I_w}{c_w} = 3.3\ in^3$ elastic section modulus to the compression toe

4. Angle-Leg Classification

$\lambda := \frac{b_{angle}}{t_{angle}} = 8$ for single angle flexural members

$\lambda_p := 0.54 \cdot \sqrt{\frac{E}{F_y}} = 13$ compaction limit, AISC 360-16 Table B4.1b, case 12

$\lambda_r := 0.91 \cdot \sqrt{\frac{E}{F_y}} = 21.9$ slender limit, AISC 360-16 Table B4.1b, case 12

if $\lambda \le \lambda_p$
  "The angle legs are compact for flexure"
else if $\lambda_p \le \lambda \le \lambda_r$
  "The angle legs are non compact"
else if $\lambda > \lambda_r$
  "The angle legs are slender"

= "The angle legs are compact for flexure"

5. Flexural Strength

$M_y := F_y \cdot S_{wc} = 13.7\ \textbf{ft}\cdot\textbf{kip}$ yield moment

$M_{n.y} := 1.5 \cdot M_y = 20.6\ \textbf{ft}\cdot\textbf{kip}$ nominal LRFD strength based on yield (AISC 360-16, Eq. F10-1)

$M_{r.y} := \phi_b \cdot 1.5 \cdot M_y = 18.5\ \textbf{ft}\cdot\textbf{kip}$ available LRFD strength based on yield

6. Lateral Torsional Buckling

$L_b := 0.5\ \textbf{ft}$ assumed unbraced length (plank spacing)

$C_b := 1.0$ conservative

Elastic LTB moment (Toe in Compression):

$$M_{cr} := \frac{0.58 \cdot E \cdot {b_{angle}}^4 \cdot t_{angle} \cdot C_b}{{L_b}^2} \cdot \left(\sqrt{\left(1 + 0.88 \cdot \left(\frac{L_b \cdot t_{angle}}{{b_{angle}}^2} \right)^2 \right)} - 1 \right) = 76.5\ \textbf{ft}\cdot\textbf{kip}$$ AISC 360-16, Eq. F10-5a

case-1 - Inelastic LTB range (M_{cr} > My)

$$M_{n.LTB_1} := min\left(\left(1.92 - 1.17 \cdot \sqrt{\frac{M_y}{M_{cr}}} \right) \cdot M_y, 1.5 \cdot M_y \right) = 19.5\ \textbf{ft}\cdot\textbf{kip}$$ AISC 360-16, Eq. F10-2

case-2 - Elastic LTB range (M_{cr} <= My)

$$M_{n.LTB_2} := \left(0.92 - 0.17\ \frac{M_{cr}}{M_y} \right) \cdot M_{cr} = -2.2\ \textbf{ft}\cdot\textbf{kip}$$ AISC 360-16, Eq. F10-3

$$M_{n.LTB} := \begin{cases} \text{if } M_{cr} > M_y \\ \quad \| M_{n.LTB_1} \\ \text{else if } M_{cr} \le M_y \\ \quad \| M_{n.LTB_2} \end{cases} = 19.5\ \textbf{ft}\cdot\textbf{kip}$$

nominal LRFD strength based on LTB

$M_{r.LTB} := \phi_b \cdot M_{n.LTB} = 17.6\ \textbf{ft}\cdot\textbf{kip}$ available LRFD strength based on LTB

7. Leg Local Buckling

$$M_{n.LLB} := \begin{cases} 1.5 \cdot F_y \cdot S_{wc} & \text{if } \lambda \le \lambda_p \\ F_y \cdot S_{wc} \cdot \left(2.43 - 1.72 \cdot \frac{b_{angle}}{t_{angle}} \cdot \sqrt{\frac{F_y}{E}}\right) & \text{else if } \lambda_p \le \lambda \le \lambda_r \\ \frac{0.71 \cdot E}{\left(\frac{b_{angle}}{t_{angle}}\right)^2} \cdot S_{wc} & \text{else if } \lambda > \lambda_r \end{cases} = 20.6 \ \textit{ft} \cdot \textit{kip}$$

nominal LRFD strength based on LLB, AISC 360-16 sec. F10.3

$M_{r.LLB} := \phi_b \cdot M_{n.LLB} = 18.5 \ \textit{ft} \cdot \textit{kip}$ available LRFD strength based on LLB

8. Controlling Flexural Strength

$M_r := min\left(M_{r.y}, M_{r.LTB}, M_{r.LLB}\right) = 17.6 \ \textit{ft} \cdot \textit{kip}$

$\frac{M_u}{M_r} = 1.046$ DCR for flexure (By observation, Cb would be greater than 1.0, it is acceptable)

8. Shear Strength

$A_v := b_{angle} \cdot t_{angle} = 2\ in^2$ Shear area

$k_v := 1.2$ for single angles, AIS 360-16, Scetion G3

$\lambda_v := \frac{b_{angle}}{t_{angle}} = 8$

$$C_{v2} := \begin{cases} 1 & \text{if } \lambda_v \le 1.1 \cdot \sqrt{k_v \cdot \frac{E}{F_y}} \\ 1.1 \cdot \sqrt{k_v \cdot \frac{E}{F_y}} & \text{else if } 1.1 \cdot \sqrt{k_v \cdot \frac{E}{F_y}} \le \lambda_v \le 1.37 \cdot \sqrt{k_v \cdot \frac{E}{F_y}} \\ \frac{1.51 \cdot k_v \cdot E}{F_y \cdot \left(\frac{b_{angle}}{t_{angle}}\right)^2} & \text{else if } \lambda_v > 1.37 \cdot \sqrt{k_v \cdot \frac{E}{F_y}} \end{cases} = 1$$

$V_n := 0.6 \cdot F_y \cdot b_{angle} \cdot t_{angle} \cdot C_{v2} = 60\ kip$ nominal LRFD shear strength, AISC 360-16 G3

$V_r := \phi_v \cdot V_n = 54\ kip$ available LRFD shear strength

$\frac{V_u}{V_r} = 0.23$ DCR for shear

Footing Design (AT PIER#4)

1. INTRODUCTION

1) This file is for the design of two foundation options at Piers 1 & 4 .

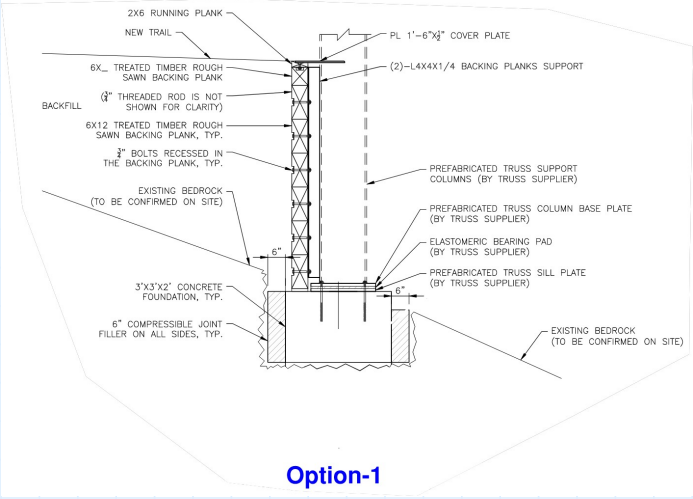
- Option-1 (Shallow foundation): A conventional concrete footing bearing directly on bedrock, contingent upon adequate rock load-bearing capacity.

- Option-2 (Deep foundation): A concrete footing integrated with helical piles, utilized where competent bearing material is too deep for a shallow foundation or where the required uplift resistance cannot be reliably achieved using a conventional spread footing.

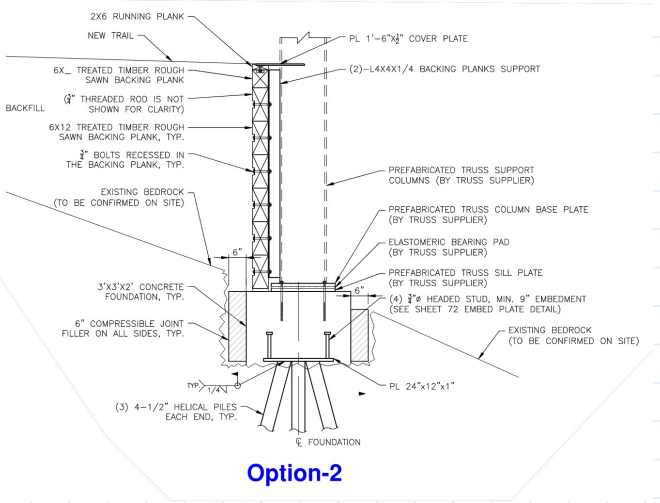
2) Geotech estimates 36 ft embedment is needed to achieve 25 kip uplift with FS = 2, or 28 ft with FS = 1.5, assuming 4.5 in. shaft and 16 in. helixes in marine subtidal drift.

Subscripts:

c = concrete
p = plates
u = ultimate
f = footing



Option-1



Option-2

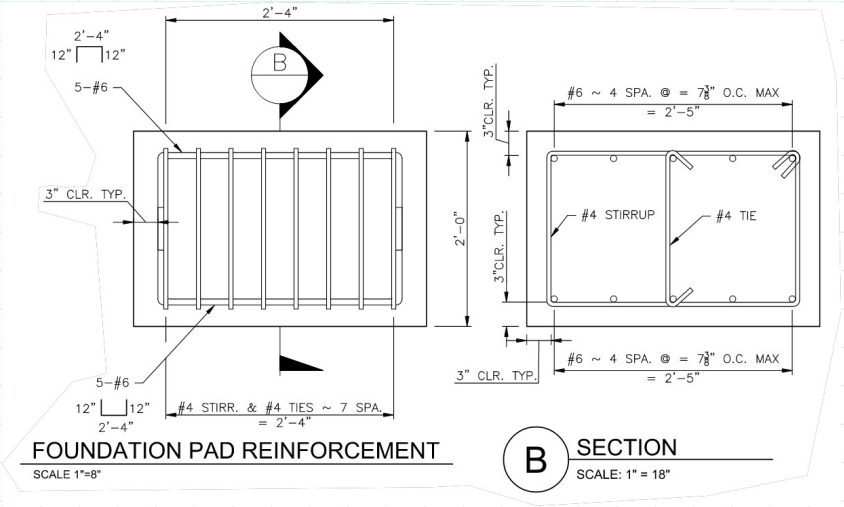
2. INPUTS

State inputs:

$f'_c := 4.0 \cdot ksi$	concrete strength
$w_c := 0.150 \cdot kcf$	concrete unit weight
$f_{y.reinf} := 60 \cdot ksi$	reinforcement steel min. yield stress
$f_{y.P} := 50 \cdot ksi$	ASTM A572, plates, min. yield stress
$f_{y.stud} := 50 \cdot ksi$	ASTM A29, 1010-1020 headed studs, min. yield stress
$P_U := 16\ kip$	factored concentrated point load on footing (from CIS bridge model, '2026-05-21 Bridge w LPILE Springs-STEELCAP BEAM & PinPiles.bdb')
$\phi_v := 0.75$	strength reduction factor for shear, ACI 318-19 T 21.2.1
$\phi_f := 0.90$	strength reduction factor for flexure, ACI 318-19 T 21.2.1
$\phi_{T.stud} := 0.75$	strength reduction factor for studs in tension, ACI 318-19 17.3.3
$\phi_b := 0.65$	strength reduction factor for bearing, ACI 318-19 T 21.2.1

3. DESIGN

3a - Option - 1: Shallow footing on competent bedrock (all inputs are from Sheet 73 of 78, unless noted otherwise)



$B_f := 3\ ft$ footing width

$L_f := 3\ ft$ footing length

$H_f := 2\ ft$ footing height

$Clr_f := 3\ in$ footing clr. cover

Since the exact truss sill/base bearing area is by truss supplier, conservatively use a small bearing footprint.

$L_{col} := 12\ in$ Length of truss/column foot print, assumed

$B_{col} := 12\ in$ Width of truss/column foot print, assumed

Reinforcement

$bar_{long} := \text{"\#6"}$ $s_{long} := 7 \cdot in + \frac{3}{8} in$ top & bottom longitudinal

$A_{long} := getA_b(bar_{long})$ $d_{long} := getd_b(bar_{long})$

Transverse bars:

$bar_{trans} := \text{"\#4"}$ $s_{trans} := 7 \cdot in$ tramsverse stirrups

$A_{trans} := getA_b(bar_{trans})$ $d_{trans.top} := getd_b(bar_{trans})$

$A_{s,min}$ = 0.0018bh = 0.0018x24"x36" = 1.56 in^2 ACI 318-19, SEC. 7.6.1.1
$A_{s,Long}$ = 5-#6 = 5x0.44 = 2.2 in^2 OK
$A_{s,Tran}$ = 8-#4 = 8x0.2 = 1.6 in^2 OK

3a-i Bearing

$A_f := B_f \cdot L_f = 9.0\ ft^2$ footing area

$W_f := L_f \cdot B_f \cdot H_f \cdot w_c = 2.7\ kip$ footing self weight

$P_{u.total} := P_u + 1.25 \cdot W_f = 19.4\ kip$

$q_u := \frac{P_{u.total}}{A_f} = 2.15\ ksf$ < 20 ksfx0.45 = 9 ksf (per Geotechnical report)

$\phi q_{n.req} \geq q_u$ req. bearing capacity of the footing

3a-ii One-way shear

$d_{eff} := H_f - Clr_f - \frac{d_{long}}{2} = 20.6\ in$ The critical one-way shear location

$l_{v_1} := \frac{B_f - B_{col}}{2} = 12\ in$ the critical one-way shear section at distance d from the loaded face falls outside the footing.

$l_{v_2} := \frac{L_f - L_{col}}{2} = 12\ in$

$$V_{U_1} := \begin{cases} \text{if } l_{v_1} \le d_{eff} \\ \quad 0\ kip \\ \text{else} \\ \quad q_U \cdot L_f \cdot (l_{v_1} - d_{eff}) \end{cases} = 0\ kip$$

$$V_{U_2} := \begin{cases} \text{if } l_{v_2} \le d_{eff} \\ \quad 0\ kip \\ \text{else} \\ \quad q_U \cdot B_f \cdot (l_{v_2} - d_{eff}) \end{cases} = 0\ kip$$

$V_U := \max(V_{U_1}, V_{U_2}) = 0\ kip$

Since the available footing projection beyond the loaded face is less than d_{eff} in both directions, the critical one-way shear section falls outside the footing limits; therefore one-way shear does not control.

3a-iii Two-way punching shear

$B_{critical} := B_{col} + d_{eff} = 32.6\ in$ width on critical perimeter

$L_{critical} := L_{col} + d_{eff} = 32.6\ in$ length on critical perimeter

$A_{critical} := B_{critical} \cdot L_{critical} = 7.4\ ft^2$ punching area inside footing

$P_{critical} := 2 \cdot B_{critical} + 2 \cdot L_{critical} = 130.5\ in$ critical perimeter

$V_{u.punching} := q_u \cdot \left(A_f - A_{critical}\right) = 3.5\ \textbf{kip}$ punching shear demand

$V_c := 4\ \textbf{psi} \cdot \sqrt{\frac{f'_c}{\textbf{psi}}} \cdot P_{critical} \cdot d_{eff} = 680.9\ \textbf{kip}$ concrete shear strength, ACI 318-14 22.6.5.2

$\frac{V_{u.punching}}{\phi_v \cdot V_c} = 0.007$ DCR for 2-way punching shear

3a-iv Flexure

$l_c := \frac{L_f - L_{col}}{2} = 12\ \textbf{in}$

$A_{s.long} := \frac{A_{long}}{s_{long}} \cdot B_f = 2.1\ \textbf{in}^2$ Area of steel

$d_{s.long} := \left(H_f - \left(Clr_f + \langle 0.5 \rangle \cdot \left(d_{long}\right)\right)\right) = 20.6\ \textbf{in}$ Depths to steel

Calculate M_n using Whitney stress block:

$a := \frac{A_{s.long} \cdot f_{y.reinf}}{0.85 \cdot f'_c \cdot B_f} = 1.053\ \textbf{in}$

$M_n := A_{s.long} \cdot f_{y.reinf} \cdot \left(d_{s.long} - \frac{a}{2}\right) = 215.8\ \textbf{ft} \cdot \textbf{kip}$ nominal felxural strength

$M_U := q_U \cdot B_f \cdot \frac{l_c^{\,2}}{2} = 3.2\ \textbf{ft} \cdot \textbf{kip}$ factored flexural load

$\frac{M_U}{\phi_f \cdot M_n} = 0.017$ DCR for flexure

3b-ii Embed plate thicknesscheck all references are from Structural sheets unless noted otherwise

$R_{uplift} := 25\ kip$ 25 kip uplift, per Analysis

$n_{studs} := 4$ no. of studs

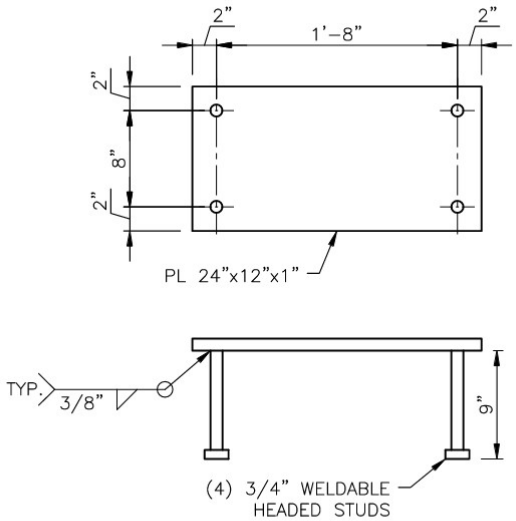
$d_{stud} := \frac{3}{4}\ in$ no. of studs

$s_{stud} := 1\ ft + 8\ in$ stud spacing in trans. direction

$l_{plate} := 24\ in$ embed plate length

$b_{plate} := 12\ in$ embed plate width

$t_{plate} := 1\ in$ embed plate thk.



EMBED PLATE DETAIL
1"= 6"

$A_{stud} := \frac{\pi \cdot d_{stud}^{2}}{4} = 0.442\ in^2$ area of stud

$T_{u.stud} := \frac{R_{uplift}}{n_{studs}} = 6.3\ kip$ tension per stud

$M_{u.stud} := T_{u.stud} \cdot \frac{s_{stud}}{2} = 5.2\ ft \cdot kip$ demand moment per stud strip

$Z_{plate} := b_{plate} \cdot \frac{t_{plate}^{2}}{4} = 3\ in^3$

$M_{n.plate} := f_{y.P} \cdot Z_{plate} = 12.5\ ft \cdot kip$

$\frac{M_{u.stud}}{\phi_f \cdot M_{n.plate}} = 0.463$ DCR for studs in Tension

Conclusions:

1) Option-1: Required factored bearing pressure on the supporting rock is 2.15 ksf. The available bearing resistance of the exposed bedrock shall be verified by the Geotechnical Engineer during construction, consistent with the project geotechnical recommendations

2) Option 2:
Concrete footing, embed plate, and headed studs are structurally adequate for the assumed 25 kip uplift transfer (Helical piles capacity to be confirmed by Geotechnical engineer).

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Fastening point:			

Specifier's comments:

1 Input data



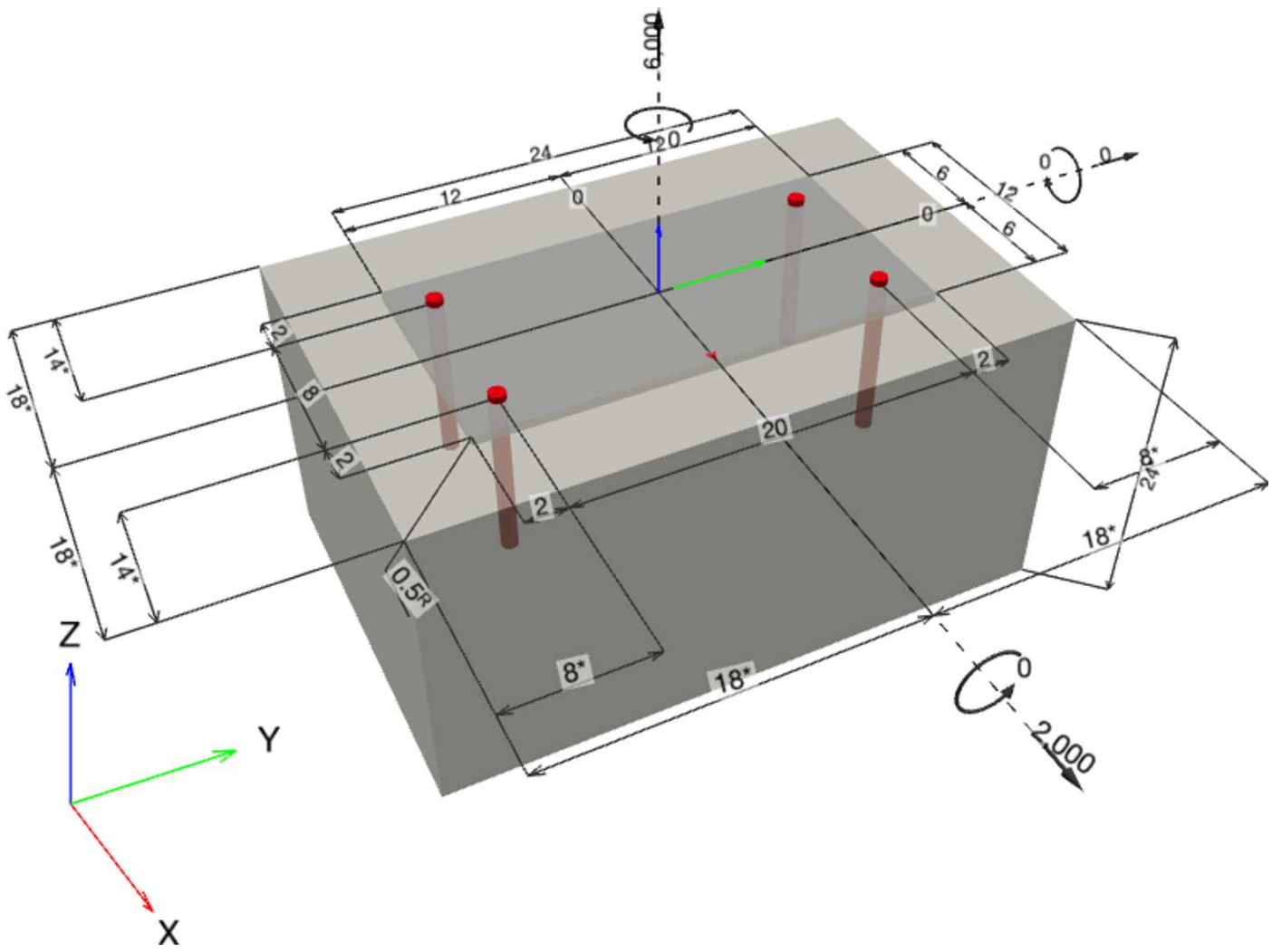
Anchor type and diameter:	**Embed plate D1.1 GR. B 7/8**
Item number:	not available
Specification text:	∅ 7/8 IN EMBED PLATE D1.1 GR. B WITH 9 IN NOMINAL EMBEDMENT DEPTH PER TECHNICAL DATA , CAST IN PLACE INSTALLATION PER MPII
Effective embedment depth:	h_{ef} = 9.000 in.
Material:	
Evaluation Service Report:	Hilti Technical Data
Issued I Valid:	- | -
Proof:	Design Method ACI 318-19 / CIP
Shear edge breakout verification:	Row closest to edge (Case 3 only from ACI 318-19 Fig. R.17.7.2.1b)
Stand-off installation:	e_b = 0.000 in. (no stand-off); t = 0.500 in.
Anchor plate[R] :	l_x x l_y x t = 12.000 in. x 24.000 in. x 0.500 in.; (Recommended plate thickness: not calculated)
Profile:	no profile
Base material:	cracked concrete, 4000, f_c' = 4,000 psi; h = 24.000 in.
Reinforcement:	tension: not present, shear: not present; edge reinforcement: none or < No. 4 bar
Seismic loads (cat. C, D, E, or F)	Tension load: yes (17.10.5.3 (d)) Shear load: yes (17.10.6.3 (c))

[R] - The anchor calculation is based on a rigid anchor plate assumption.

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Geometry [in.] & Loading [lb, in.lb]



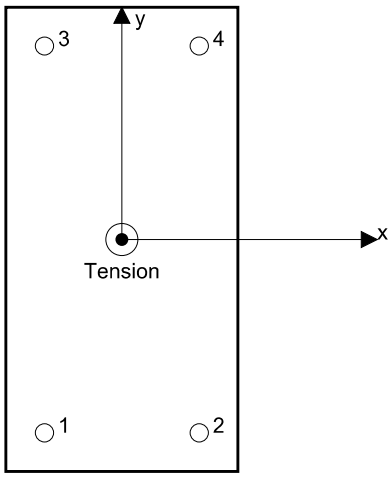
Input data and results must be checked for conformity with the existing conditions and for plausibility!
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1.1 Design results

Case	Description	Forces [lb] / Moments [in.lb]	Seismic	Max. Util. Anchor [%]
1	Combination 1	N = 6,000; V_x = 2,000; V_y = 0; M_x = 0; M_y = 0; M_z = 0;	yes	19

2 Load case/Resulting anchor forces



Anchor reactions [lb]
Tension force: (+Tension, -Compression)

Anchor	Tension force	Shear force	Shear force x	Shear force y
1	1,500	500	500	0
2	1,500	500	500	0
3	1,500	500	500	0
4	1,500	500	500	0

Max. concrete compressive strain: - [‰]
Max. concrete compressive stress: - [psi]
Resulting tension force in (x/y)=(0.000/0.000): 6,000 [lb]
Resulting compression force in (x/y)=(-/-): 0 [lb]

Anchor forces are calculated based on the assumption of a rigid anchor plate.

3 Tension load

	Load N_{ua} [lb]	Capacity ϕ N_n [lb]	Utilization $\beta_N = N_{ua}/\phi$ N_n	Status
Steel Strength*	1,500	29,299	6	OK
Pullout Strength*	1,500	14,851	11	OK
Concrete Breakout Failure**	6,000	32,643	19	OK
Concrete Side-Face Blowout, direction **	N/A	N/A	N/A	N/A

* highest loaded anchor **anchor group (anchors in tension)

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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3.1 Steel Strength

$N_{sa} = A_{se,N} f_{uta}$ ACI 318-19 Eq. (17.6.1.2)
$\phi N_{sa} \geq N_{ua}$ ACI 318-19 Table 17.5.2

Variables

$A_{se,N}$ [in.^{2}]	f_{uta} [psi]
0.59	65,000

Calculations

N_{sa} [lb]
39,065

Results

N_{sa} [lb]	ϕ_{steel}	ϕN_{sa} [lb]	N_{ua} [lb]
39,065	0.750	29,299	1,500

3.2 Pullout Strength

$N_{pN} = \psi_{c,p} N_p$ ACI 318-19 Eq. (17.6.3.1)
$N_p = 8 A_{brg} f'_c$ ACI 318-19 Eq. (17.6.3.2.2a)
$\phi N_{pN} \geq N_{ua}$ ACI 318-19 Table 17.5.2

Variables

$\psi_{c,p}$	A_{brg} [in.^{2}]	λ_a	f'_c [psi]
1.000	0.88	1.000	4,000

Calculations

N_p [lb]
28,288

Results

N_{pn} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	ϕN_{pn} [lb]	N_{ua} [lb]
28,288	0.700	0.750	1.000	14,851	1,500

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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3.3 Concrete Breakout Failure

$N_{cbg} = \left(\frac{A_{Nc}}{A_{Nc0}}\right) \psi_{ec,N}\ \psi_{ed,N}\ \psi_{c,N}\ \psi_{cp,N}\ N_b$ — ACI 318-19 Eq. (17.6.2.1b)

$\phi\ N_{cbg} \geq N_{ua}$ — ACI 318-19 Table 17.5.2

A_{Nc} see ACI 318-19, Section 17.6.2.1, Fig. R 17.6.2.1(b)

$A_{Nc0} = 9\ h_{ef}^2$ — ACI 318-19 Eq. (17.6.2.1.4)

$\psi_{ec,N} = \left(\frac{1}{1 + \frac{2\ e'_N}{3\ h_{ef}}}\right) \leq 1.0$ — ACI 318-19 Eq. (17.6.2.3.1)

$\psi_{ed,N} = 0.7 + 0.3 \left(\frac{c_{a,min}}{1.5 h_{ef}}\right) \leq 1.0$ — ACI 318-19 Eq. (17.6.2.4.1b)

$\psi_{cp,N} = \text{MAX}\left(\frac{c_{a,min}}{c_{ac}}, \frac{1.5 h_{ef}}{c_{ac}}\right) \leq 1.0$ — ACI 318-19 Eq. (17.6.2.6.1b)

$N_b = k_c\ \lambda_a\ \sqrt{f'_c}\ h_{ef}^{1.5}$ — ACI 318-19 Eq. (17.6.2.2.1)

Variables

h_{ef} [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]	$\psi_{c,N}$
9.000	0.000	0.000	8.000	1.000

c_{ac} [in.]	k_c	λ_a	f'_c [psi]
-	24	1.000	4,000

Calculations

A_{Nc} [in.^{2}]	A_{Nc0} [in.^{2}]	$\psi_{ec1,N}$	$\psi_{ec2,N}$	$\psi_{ed,N}$	$\psi_{cp,N}$	N_b [lb]
1,260.00	729.00	1.000	1.000	0.878	1.000	40,983

Results

N_{cbg} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	$\phi\ N_{cbg}$ [lb]	N_{ua} [lb]
62,177	0.700	0.750	1.000	32,643	6,000

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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4 Shear load

	Load V_{ua} [lb]	Capacity ϕ V_n [lb]	Utilization $\beta_V = V_{ua}/\phi$ V_n	Status
Steel Strength*	500	25,392	2	OK
Steel failure (with lever arm)*	N/A	N/A	N/A	N/A
Pryout Strength**	2,000	87,048	3	OK
Concrete edge failure in direction x+**	2,000	14,568	14	OK

* highest loaded anchor **anchor group (relevant anchors)

4.1 Steel Strength

$V_{sa} = A_{se,V} f_{uta}$ ACI 318-19 Eq. (17.7.1.2a)
$\phi V_{steel} \geq V_{ua}$ ACI 318-19 Table 17.5.2

Variables

$A_{se,V}$ [in.^{2}]	f_{uta} [psi]
0.59	65,000

Calculations

V_{sa} [lb]
39,065

Results

V_{sa} [lb]	ϕ_{steel}	$\phi V_{sa,eq}$ [lb]	V_{ua} [lb]
39,065	0.650	25,392	500

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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4.2 Pryout Strength

$V_{cpg} = k_{cp} \left[\left(\frac{A_{Nc}}{A_{Nc0}} \right) \psi_{ec,N} \psi_{ed,N} \psi_{c,N} \psi_{cp,N} N_b \right]$ ACI 318-19 Eq. (17.7.3.1b)

$\phi V_{cpg} \geq V_{ua}$ ACI 318-19 Table 17.5.2

A_{Nc} see ACI 318-19, Section 17.6.2.1, Fig. R 17.6.2.1(b)

$A_{Nc0} = 9 h_{ef}^2$ ACI 318-19 Eq. (17.6.2.1.4)

$\psi_{ec,N} = \left(\frac{1}{1 + \frac{2 e'_N}{3 h_{ef}}} \right) \leq 1.0$ ACI 318-19 Eq. (17.6.2.3.1)

$\psi_{ed,N} = 0.7 + 0.3 \left(\frac{c_{a,min}}{1.5 h_{ef}} \right) \leq 1.0$ ACI 318-19 Eq. (17.6.2.4.1b)

$\psi_{cp,N} = MAX\left(\frac{c_{a,min}}{c_{ac}}, \frac{1.5 h_{ef}}{c_{ac}} \right) \leq 1.0$ ACI 318-19 Eq. (17.6.2.6.1b)

$N_b = k_c \lambda_a \sqrt{f'_c} h_{ef}^{1.5}$ ACI 318-19 Eq. (17.6.2.2.1)

Variables

k_{cp}	h_{ef} [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]
2	9.000	0.000	0.000	8.000

$\psi_{c,N}$	c_{ac} [in.]	k_c	λ_a	f'_c [psi]
1.000	-	24	1.000	4,000

Calculations

A_{Nc} [in.^{2}]	A_{Nc0} [in.^{2}]	$\psi_{ec1,N}$	$\psi_{ec2,N}$	$\psi_{ed,N}$	$\psi_{cp,N}$	N_b [lb]
1,260.00	729.00	1.000	1.000	0.878	1.000	40,983

Results

V_{cpg} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	ϕV_{cpg} [lb]	V_{ua} [lb]
124,355	0.700	1.000	1.000	87,048	2,000

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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4.3 Concrete edge failure in direction x+

$V_{cbg} = \left(\frac{A_{Vc}}{A_{Vc0}}\right) \Psi_{ec,V} \Psi_{ed,V} \Psi_{c,V} \Psi_{h,V} \Psi_{parallel,V} V_b$ ACI 318-19 Eq. (17.7.2.1b)

$\phi V_{cbg} \geq V_{ua}$ ACI 318-19 Table 17.5.2

A_{Vc} see ACI 318-19, Section 17.7.2.1, Fig. R 17.7.2.1(b)*

$A_{Vc0} = 4.5 c_{a1}^2$ ACI 318-19 Eq. (17.7.2.1.3)

$\Psi_{ec,V} = \left(\frac{1}{1 + \frac{e'_v}{1.5c_{a1}}}\right) \leq 1.0$ ACI 318-19 Eq. (17.7.2.3.1)

$\Psi_{ed,V} = 0.7 + 0.3\left(\frac{c_{a2}}{1.5c_{a1}}\right) \leq 1.0$ ACI 318-19 Eq. (17.7.2.4.1b)

$\Psi_{h,V} = \sqrt{\frac{1.5c_{a1}}{h_a}} \geq 1.0$ ACI 318-19 Eq. (17.7.2.6.1)

$V_b = 9 \lambda_a \sqrt{f'_c} c_{a1}^{1.5}$ ACI 318-19 Eq. (17.7.2.2.1b)

Variables

c_{a1} [in.]	c_{a2} [in.]	e_{cV} [in.]	$\Psi_{c,V}$	h_a [in.]
14.000	8.000	0.000	1.000	24.000

l_e [in.]	λ_a	d_a [in.]	f'_c [psi]	$\Psi_{parallel,V}$
7.000	1.000	0.875	4,000	1.000

Calculations

A_{Vc} [in.^{2}]	A_{Vc0} [in.^{2}]	$\Psi_{ec,V}$	$\Psi_{ed,V}$	$\Psi_{h,V}$	V_b [lb]
756.00	882.00	1.000	0.814	1.000	29,817

Results

V_{cbg} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	ϕV_{cbg} [lb]	V_{ua} [lb]
20,811	0.700	1.000	1.000	14,568	2,000

*Anchor row defined by: Anchor 2, 4; Case 3 controls

5 Combined tension and shear loads, per ACI 318-19 section 17.8

β_N	β_V	ζ	Utilization $\beta_{N,V}$ [%]	Status
0.184	0.137	5/3	10	OK

$\beta_{NV} = \beta_N^{\zeta} + \beta_V^{\zeta} <= 1$

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Design:	Embed Plate	Date:	8/7/2026
Fastening point:			

6 Warnings

- The anchor design methods in PROFIS Engineering require rigid anchor plates per current regulations (EN1992-4, AS5216, etc.). This means load re-distribution on the anchors due to elastic deformations of the anchor plate are not considered - the anchor plate is assumed to be sufficiently stiff, in order not to be deformed when subjected to the design loading. PROFIS Engineering calculates the minimum required anchor plate thickness with FEM to limit the stress of the anchor plate based on the assumptions explained above. The proof if the rigid anchor plate assumption is valid is not carried out by PROFIS Engineering. Input data and results must be checked for agreement with the existing conditions and for plausibility!
- The equations presented in this report are based on imperial units. When inputs are displayed in metric units, the user should be aware that the equations remain in their imperial format.
- Condition A applies where the potential concrete failure surfaces are crossed by supplementary reinforcement proportioned to tie the potential concrete failure prism into the structural member. Condition B applies where such supplementary reinforcement is not provided, or where pullout or pryout strength governs.
- For additional information about ACI 318 strength design provisions, please go to https://viewer.joomag.com/profis-design-guide-us-en-summer-2021/0841849001625154758?short&/
- "An anchor design approach for structures assigned to Seismic Design Category C, D, E or F is given in ACI 318-19, Chapter 17, Section 17.10.5.3 (a) that requires the governing design strength of an anchor or group of anchors be limited by ductile steel failure. If this is NOT the case, the connection design (tension) shall satisfy the provisions of Section 17.10.5.3 (b), Section 17.10.5.3 (c), or Section 17.10.5.3 (d). The connection design (shear) shall satisfy the provisions of Section 17.10.6.3 (a), Section 17.10.6.3 (b), or Section 17.10.6.3 (c)."
- Section 17.10.5.3 (b) / Section 17.10.6.3 (a) require the attachment the anchors are connecting to the structure be designed to undergo ductile yielding at a load level corresponding to anchor forces no greater than the controlling design strength. Section 17.10.5.3 (c) / Section 17.10.6.3 (b) waive the ductility requirements and require the anchors to be designed for the maximum tension / shear that can be transmitted to the anchors by a non-yielding attachment. Section 17.10.5.3 (d) / Section 17.10.6.3 (c) waive the ductility requirements and require the design strength of the anchors to equal or exceed the maximum tension / shear obtained from design load combinations that include E, with E increased by ω_0.

Fastening meets the design criteria!

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Design:	Embed Plate	Date:	8/7/2026
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7 Installation data

Profile: no profile

Hole diameter in the fixture: d_f = 0.938 in.

Plate thickness (input): 0.500 in.

Recommended plate thickness: not calculated

Anchor type and diameter: Embed plate D1.1 GR. B 7/8

Item number: not available

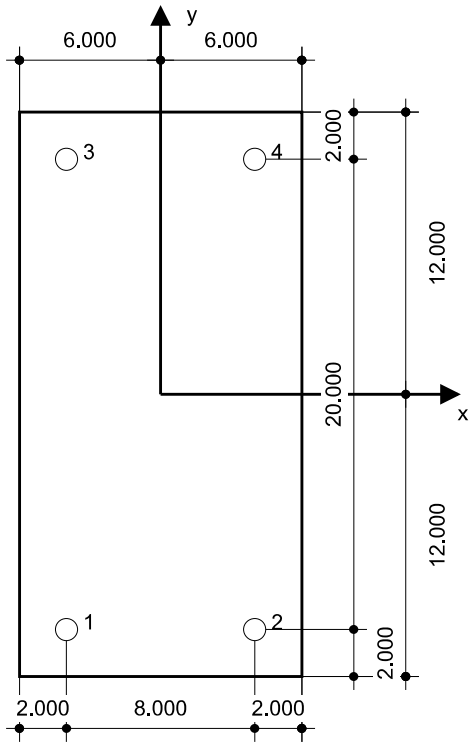
Maximum installation torque: -

Hole diameter in the base material: - in.

Hole depth in the base material: 9.000 in.

Minimum thickness of the base material: 9.875 in.

⌀ 7/8 in Embed plate D1.1 GR. B with 9 in nominal embedment depth per Technical data , cast in place installation per MPII



Coordinates Anchor [in.]

Anchor	x	y	c_{-x}	c_{+x}	c_{-y}	c_{+y}
1	-4.000	-10.000	14.000	22.000	8.000	28.000
2	4.000	-10.000	22.000	14.000	8.000	28.000
3	-4.000	10.000	14.000	22.000	28.000	8.000
4	4.000	10.000	22.000	14.000	28.000	8.000

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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8 Remarks; Your Cooperation Duties

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TRUSS SILL PLATE CONNECTION

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Design:	Truss Anchors	Date:	8/7/2026
Fastening point:			

Specifier's comments:

1 Input data



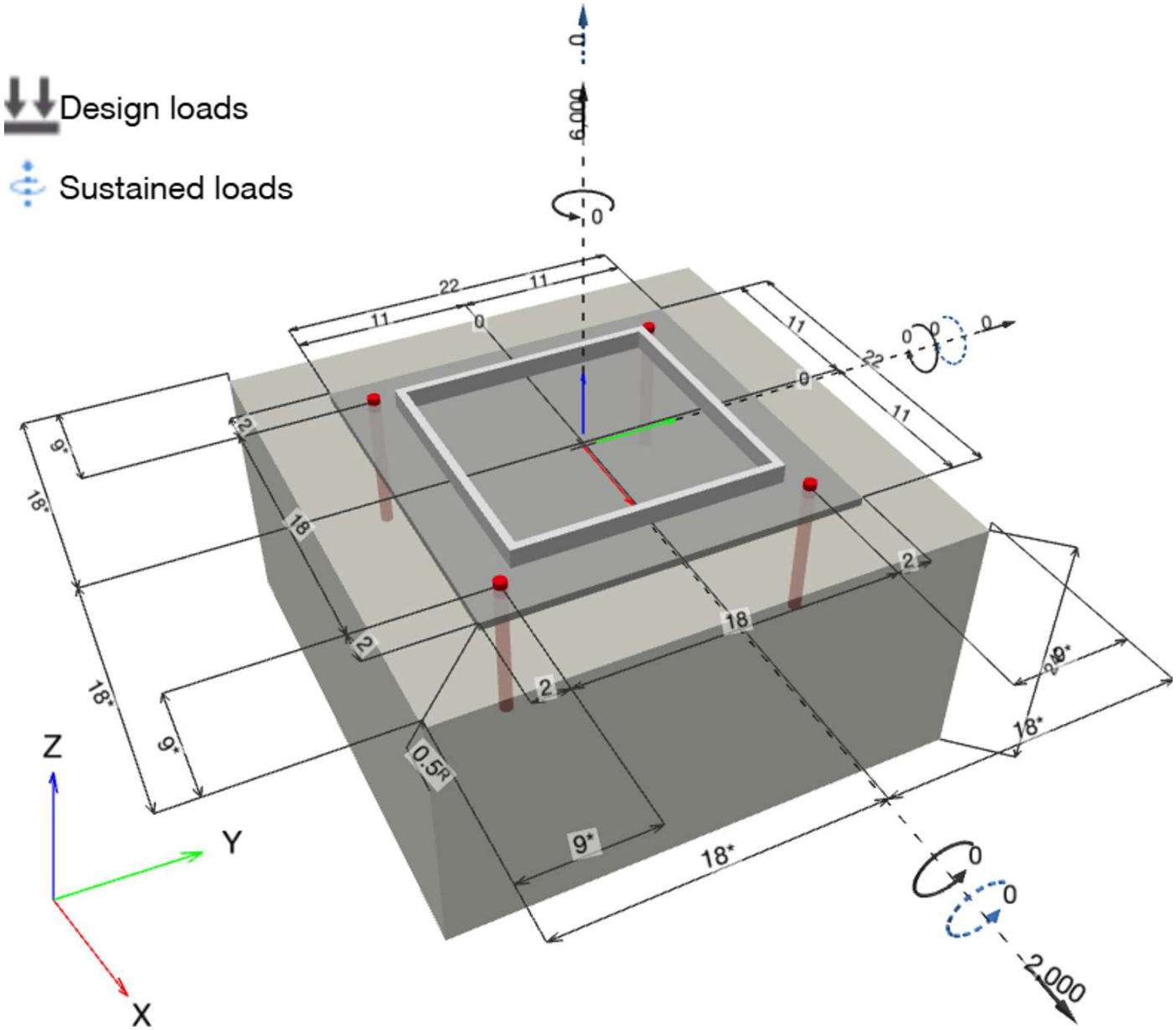
Anchor type and diameter:	**HIT-HY 200 V3 + HIT-Z (Carbon Steel) 3/4**
Item number:	2018450 HIT-Z 3/4" x 9 3/4" (element) / 2334276 HIT-HY 200-R V3 (adhesive)
Specification text:	HILTI ∅ 3/4 IN HIT-HY 200 V3 + HIT-Z (CARBON STEEL) WITH 8 IN NOMINAL EMBEDMENT DEPTH PER ICC-ES ESR-4868 , HAMMER DRILL BIT INSTALLATION PER MPII
Effective embedment depth:	$h_{ef,act}$ = 8.000 in. ($h_{ef,limit}$ = - in.)
Material:	DIN EN ISO 4042
Evaluation Service Report:	ESR-4868
Issued I Valid:	11/1/2024 | 11/1/2026
Proof:	Design Method ACI 318-19 / Chem
Shear edge breakout verification:	Row closest to edge (Case 3 only from ACI 318-19 Fig. R.17.7.2.1b)
Stand-off installation:	e_b = 0.000 in. (no stand-off); t = 0.500 in.
Anchor plate[R]:	l_x x l_y x t = 22.000 in. x 22.000 in. x 0.500 in.; (Recommended plate thickness: not calculated)
Profile:	Square HSS (AISC), HSS16X16X.500; (L x W x T) = 16.000 in. x 16.000 in. x 0.500 in.
Base material:	cracked concrete, 4000, f_c' = 4,000 psi; h = 24.000 in., Temp. short/long: 32/32 °F
Installation:	**Hammer drilled hole, Installation condition: Dry**
Reinforcement:	tension: not present, shear: not present; no supplemental splitting reinforcement present edge reinforcement: none or < No. 4 bar
Seismic loads (cat. C, D, E, or F)	Tension load: yes (17.10.5.3 (d)) Shear load: yes (17.10.6.3 (c))

[R] - The anchor calculation is based on a rigid anchor plate assumption.

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Geometry [in.] & Loading [lb, in.lb]



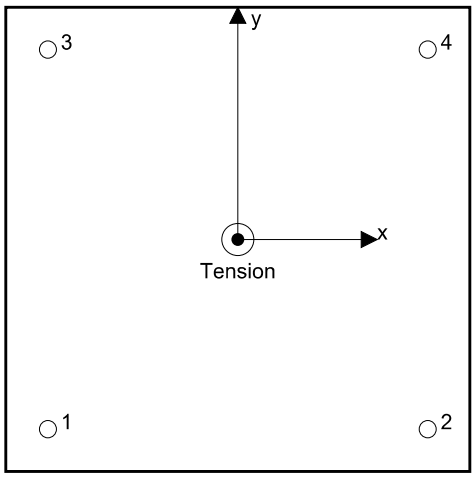
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1.1 Design results

Case	Description	Forces [lb] / Moments [in.lb]	Seismic	Max. Util. Anchor [%]
1	Combination 1	N = 6,000; V_x = 2,000; V_y = 0; M_x = 0; M_y = 0; M_z = 0;	yes	20

2 Load case/Resulting anchor forces



Anchor reactions [lb]
Tension force: (+Tension, -Compression)

Anchor	Tension force	Shear force	Shear force x	Shear force y
1	1,500	500	500	0
2	1,500	500	500	0
3	1,500	500	500	0
4	1,500	500	500	0

Max. concrete compressive strain: - [‰]
Max. concrete compressive stress: - [psi]
Resulting tension force in (x/y)=(0.000/0.000): 6,000 [lb]
Resulting compression force in (x/y)=(-/-): 0 [lb]

Anchor forces are calculated based on the assumption of a rigid anchor plate.

3 Tension load

	Load N_{ua} [lb]	Capacity ϕ N_n [lb]	Utilization $\beta_N = N_{ua}/\phi$ N_n	Status
Steel Strength*	1,500	20,457	8	OK
Pullout Strength*	1,500	13,616	12	OK
Sustained Tension Load Bond Strength*	N/A	N/A	N/A	N/A
Concrete Breakout Failure**	6,000	30,813	20	OK

* highest loaded anchor **anchor group (anchors in tension)

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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3.1 Steel Strength

N_{sa} = ESR value — refer to ICC-ES ESR-4868
$\phi\ N_{sa} \geq N_{ua}$ — ACI 318-19 Table 17.5.2

Variables

$A_{se,N}$ [in.^{2}]	f_{uta} [psi]
0.33	94,200

Calculations

N_{sa} [lb]
31,472

Results

N_{sa} [lb]	ϕ_{steel}	$\phi_{nonductile}$	$\phi\ N_{sa}$ [lb]	N_{ua} [lb]
31,472	0.650	1.000	20,457	1,500

3.2 Pullout Strength

N_{pn} = $N_p\ \lambda_a$ — refer to ICC-ES ESR-4868
$\phi\ N_{pn} \geq N_{ua}$ — ACI 318-19 Table 17.5.2

Variables

λ_a	N_p [lb]
1.000	27,930

Calculations

N_{pn} [lb]
20,947

Results

N_{pn} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	$\phi\ N_{pn}$ [lb]	N_{ua} [lb]
20,947	0.650	0.750	1.000	13,616	1,500

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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3.3 Concrete Breakout Failure

$N_{cbg} = \left(\frac{A_{Nc}}{A_{Nc0}}\right) \psi_{ec,N}\ \psi_{ed,N}\ \psi_{c,N}\ \psi_{cp,N}\ N_b$ — ACI 318-19 Eq. (17.6.2.1b)

$\phi\ N_{cbg} \geq N_{ua}$ — ACI 318-19 Table 17.5.2

A_{Nc} see ACI 318-19, Section 17.6.2.1, Fig. R 17.6.2.1(b)

$A_{Nc0} = 9\ h_{ef}^2$ — ACI 318-19 Eq. (17.6.2.1.4)

$\psi_{ec,N} = \left(\frac{1}{1 + \frac{2\ e'_N}{3\ h_{ef}}}\right) \leq 1.0$ — ACI 318-19 Eq. (17.6.2.3.1)

$\psi_{ed,N} = 0.7 + 0.3 \left(\frac{c_{a,min}}{1.5 h_{ef}}\right) \leq 1.0$ — ACI 318-19 Eq. (17.6.2.4.1b)

$\psi_{cp,N} = \text{MAX}\left(\frac{c_{a,min}}{c_{ac}}, \frac{1.5 h_{ef}}{c_{ac}}\right) \leq 1.0$ — ACI 318-19 Eq. (17.6.2.6.1b)

$N_b = k_c\ \lambda_a\ \sqrt{f'_c}\ h_{ef}^{1.5}$ — ACI 318-19 Eq. (17.6.2.2.1)

Variables

h_{ef} [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]	$\psi_{c,N}$
6.000	0.000	0.000	9.000	1.000

c_{ac} [in.]	k_c	λ_a	f'_c [psi]
12.000	17	1.000	4,000

Calculations

A_{Nc} [in.^{2}]	A_{Nc0} [in.^{2}]	$\psi_{ec1,N}$	$\psi_{ec2,N}$	$\psi_{ed,N}$	$\psi_{cp,N}$	N_b [lb]
1,296.00	324.00	1.000	1.000	1.000	1.000	15,802

Results

N_{cbg} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	$\phi\ N_{cbg}$ [lb]	N_{ua} [lb]
63,207	0.650	0.750	1.000	30,813	6,000

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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4 Shear load

	Load V_{ua} [lb]	Capacity ϕ V_n [lb]	Utilization $\beta_V = V_{ua}/\phi$ V_n	Status
Steel Strength*	500	5,401	10	OK
Steel failure (with lever arm)*	N/A	N/A	N/A	N/A
Pryout Strength (Concrete Breakout Strength controls)**	2,000	88,490	3	OK
Concrete edge failure in direction x+**	2,000	12,910	16	OK

* highest loaded anchor **anchor group (relevant anchors)

4.1 Steel Strength

$V_{sa,eq}$ = ESR value refer to ICC-ES ESR-4868
ϕ $V_{steel} \geq V_{ua}$ ACI 318-19 Table 17.5.2

Variables

$A_{se,V}$ [in.^{2}]	f_{uta} [psi]	$\alpha_{V,seis}$
0.33	94,200	0.650

Calculations

$V_{sa,eq}$ [lb]
9,001

Results

$V_{sa,eq}$ [lb]	ϕ_{steel}	$\phi_{nonductile}$	ϕ $V_{sa,eq}$ [lb]	V_{ua} [lb]
9,001	0.600	1.000	5,401	500

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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4.2 Pryout Strength (Concrete Breakout Strength controls)

$V_{cpg} = k_{cp} \left[\left(\frac{A_{Nc}}{A_{Nc0}} \right) \psi_{ec,N} \psi_{ed,N} \psi_{c,N} \psi_{cp,N} N_b \right]$ ACI 318-19 Eq. (17.7.3.1b)

$\phi V_{cpg} \geq V_{ua}$ ACI 318-19 Table 17.5.2

A_{Nc} see ACI 318-19, Section 17.6.2.1, Fig. R 17.6.2.1(b)

$A_{Nc0} = 9 h_{ef}^2$ ACI 318-19 Eq. (17.6.2.1.4)

$\psi_{ec,N} = \left(\frac{1}{1 + \frac{2 e'_N}{3 h_{ef}}} \right) \leq 1.0$ ACI 318-19 Eq. (17.6.2.3.1)

$\psi_{ed,N} = 0.7 + 0.3 \left(\frac{c_{a,min}}{1.5 h_{ef}} \right) \leq 1.0$ ACI 318-19 Eq. (17.6.2.4.1b)

$\psi_{cp,N} = MAX\left(\frac{c_{a,min}}{c_{ac}}, \frac{1.5 h_{ef}}{c_{ac}} \right) \leq 1.0$ ACI 318-19 Eq. (17.6.2.6.1b)

$N_b = k_c \lambda_a \sqrt{f'_c} h_{ef}^{1.5}$ ACI 318-19 Eq. (17.6.2.2.1)

Variables

k_{cp}	h_{ef} [in.]	$e_{c1,N}$ [in.]	$e_{c2,N}$ [in.]	$c_{a,min}$ [in.]
2	6.000	0.000	0.000	9.000

$\psi_{c,N}$	c_{ac} [in.]	k_c	λ_a	f'_c [psi]
1.000	12.000	17	1.000	4,000

Calculations

A_{Nc} [in.^{2}]	A_{Nc0} [in.^{2}]	$\psi_{ec1,N}$	$\psi_{ec2,N}$	$\psi_{ed,N}$	$\psi_{cp,N}$	N_b [lb]
1,296.00	324.00	1.000	1.000	1.000	1.000	15,802

Results

V_{cpg} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	ϕV_{cpg} [lb]	V_{ua} [lb]
126,414	0.700	1.000	1.000	88,490	2,000

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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4.3 Concrete edge failure in direction x+

$V_{cbg} = \left(\frac{A_{Vc}}{A_{Vc0}}\right) \Psi_{ec,V} \Psi_{ed,V} \Psi_{c,V} \Psi_{h,V} \Psi_{parallel,V} V_b$ ACI 318-19 Eq. (17.7.2.1b)

$\phi V_{cbg} \geq V_{ua}$ ACI 318-19 Table 17.5.2

A_{Vc} see ACI 318-19, Section 17.7.2.1, Fig. R 17.7.2.1(b)*

$A_{Vc0} = 4.5 c_{a1}^2$ ACI 318-19 Eq. (17.7.2.1.3)

$\Psi_{ec,V} = \left(\frac{1}{1 + \frac{e'_v}{1.5c_{a1}}}\right) \leq 1.0$ ACI 318-19 Eq. (17.7.2.3.1)

$\Psi_{ed,V} = 0.7 + 0.3\left(\frac{c_{a2}}{1.5c_{a1}}\right) \leq 1.0$ ACI 318-19 Eq. (17.7.2.4.1b)

$\Psi_{h,V} = \sqrt{\frac{1.5c_{a1}}{h_a}} \geq 1.0$ ACI 318-19 Eq. (17.7.2.6.1)

$V_b = 9 \lambda_a \sqrt{f'_c} c_{a1}^{1.5}$ ACI 318-19 Eq. (17.7.2.2.1b)

Variables

c_{a1} [in.]	c_{a2} [in.]	e_{cV} [in.]	$\Psi_{c,V}$	h_a [in.]
9.000	9.000	0.000	1.000	24.000

l_e [in.]	λ_a	d_a [in.]	f'_c [psi]	$\Psi_{parallel,V}$
6.000	1.000	0.750	4,000	1.000

Calculations

A_{Vc} [in.^{2}]	A_{Vc0} [in.^{2}]	$\Psi_{ec,V}$	$\Psi_{ed,V}$	$\Psi_{h,V}$	V_b [lb]
486.00	364.50	1.000	0.900	1.000	15,369

Results

V_{cbg} [lb]	$\phi_{concrete}$	$\phi_{seismic}$	$\phi_{nonductile}$	ϕV_{cbg} [lb]	V_{ua} [lb]
18,442	0.700	1.000	1.000	12,910	2,000

*Anchor row defined by: Anchor 2, 4; Case 3 controls

5 Combined tension and shear loads, per ACI 318-19 section 17.8

β_N	β_V	ζ	Utilization $\beta_{N,V}$ [%]	Status
0.195	0.155	5/3	12	OK

$\beta_{NV} = \beta_N^{\zeta} + \beta_V^{\zeta} <= 1$

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Address:		Specifier:	
Phone I Fax:	|	E-Mail:	
Design:	Truss Anchors	Date:	8/7/2026
Fastening point:			

6 Warnings

- The anchor design methods in PROFIS Engineering require rigid anchor plates per current regulations (EN1992-4, AS5216, etc.). This means load re-distribution on the anchors due to elastic deformations of the anchor plate are not considered - the anchor plate is assumed to be sufficiently stiff, in order not to be deformed when subjected to the design loading. PROFIS Engineering calculates the minimum required anchor plate thickness with FEM to limit the stress of the anchor plate based on the assumptions explained above. The proof if the rigid anchor plate assumption is valid is not carried out by PROFIS Engineering. Input data and results must be checked for agreement with the existing conditions and for plausibility!
- The equations presented in this report are based on imperial units. When inputs are displayed in metric units, the user should be aware that the equations remain in their imperial format.
- Condition A applies where the potential concrete failure surfaces are crossed by supplementary reinforcement proportioned to tie the potential concrete failure prism into the structural member. Condition B applies where such supplementary reinforcement is not provided, or where pullout or pryout strength governs.
- Design Strengths of adhesive anchor systems are influenced by the cleaning method. Refer to the INSTRUCTIONS FOR USE given in the Evaluation Service Report for cleaning and installation instructions.
- For additional information about ACI 318 strength design provisions, please go to https://viewer.joomag.com/profis-design-guide-us-en-summer-2021/0841849001625154758?short&/
- "An anchor design approach for structures assigned to Seismic Design Category C, D, E or F is given in ACI 318-19, Chapter 17, Section 17.10.5.3 (a) that requires the governing design strength of an anchor or group of anchors be limited by ductile steel failure. If this is NOT the case, the connection design (tension) shall satisfy the provisions of Section 17.10.5.3 (b), Section 17.10.5.3 (c), or Section 17.10.5.3 (d). The connection design (shear) shall satisfy the provisions of Section 17.10.6.3 (a), Section 17.10.6.3 (b), or Section 17.10.6.3 (c)."
- Section 17.10.5.3 (b) / Section 17.10.6.3 (a) require the attachment the anchors are connecting to the structure be designed to undergo ductile yielding at a load level corresponding to anchor forces no greater than the controlling design strength. Section 17.10.5.3 (c) / Section 17.10.6.3 (b) waive the ductility requirements and require the anchors to be designed for the maximum tension / shear that can be transmitted to the anchors by a non-yielding attachment. Section 17.10.5.3 (d) / Section 17.10.6.3 (c) waive the ductility requirements and require the design strength of the anchors to equal or exceed the maximum tension / shear obtained from design load combinations that include E, with E increased by ω_0.
- Installation of Hilti adhesive anchor systems shall be performed by personnel trained to install Hilti adhesive anchors. Reference ACI 318-19, Section 26.7.

Fastening meets the design criteria!

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Company:		Page:	10
Address:		Specifier:	
Phone I Fax:	|	E-Mail:	
Design:	Truss Anchors	Date:	8/7/2026
Fastening point:			

7 Installation data

Anchor type and diameter: HIT-HY 200 V3 + HIT-Z (Carbon Steel) 3/4

Profile: Square HSS (AISC), HSS16X16X.500; (L x W x T) = 16.000 in. x 16.000 in. x 0.500 in.

Item number: 2018450 HIT-Z 3/4" x 9 3/4" (element) / 2334276 HIT-HY 200-R V3 (adhesive)

Hole diameter in the fixture (pre-setting) : d_f = 0.812 in.

Maximum installation torque: 1,328 in.lb

Hole diameter in the fixture (through fastening) : d_f = 0.938 in.

Hole diameter in the base material: 0.875 in.

Plate thickness (input): 0.500 in.

Hole depth in the base material: 10.250 in.

Recommended plate thickness: not calculated

Minimum thickness of the base material: 12.000 in.

Drilling method: Hammer drilled

Cleaning: Compressed air cleaning of the drilled hole according to instructions for use is required

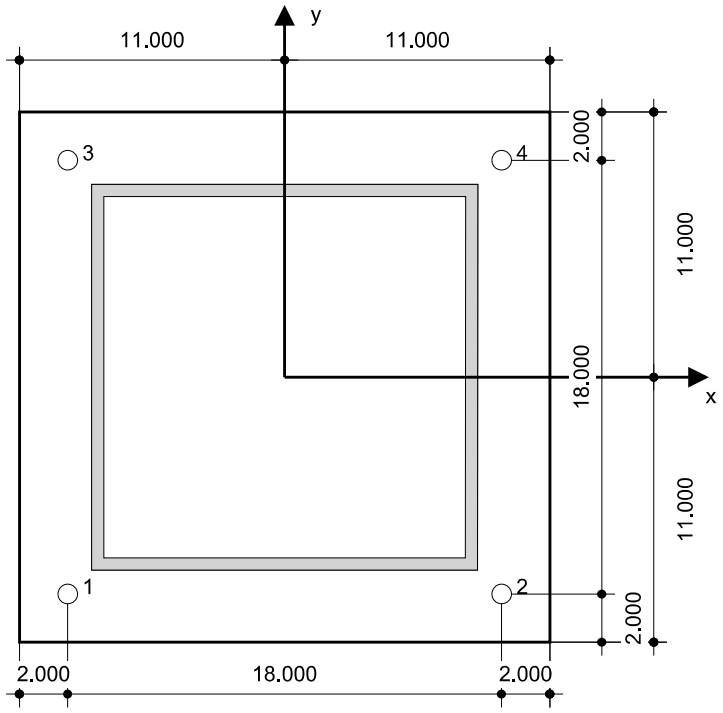
Hilti ∅ 3/4 in HIT-HY 200 V3 + HIT-Z (Carbon Steel) with 8 in nominal embedment depth per ICC-ES ESR-4868 , Hammer drill bit installation per MPII

7.1 Recommended accessories

Drilling	Cleaning	Setting
• Suitable Rotary Hammer • Properly sized drill bit	• -	• Dispenser including cassette and mixer • Torque wrench

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Company:		Page:	11
Address:		Specifier:	
Phone I Fax:	|	E-Mail:	
Design:	Truss Anchors	Date:	8/7/2026
Fastening point:			



Coordinates Anchor [in.]

Anchor	x	y	c_{-x}	c_{+x}	c_{-y}	c_{+y}
1	-9.000	-9.000	9.000	27.000	9.000	27.000
2	9.000	-9.000	27.000	9.000	9.000	27.000
3	-9.000	9.000	9.000	27.000	27.000	9.000
4	9.000	9.000	27.000	9.000	27.000	9.000

Input data and results must be checked for conformity with the existing conditions and for plausibility!
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Cover Plate

1. INTRODUCTION

This file is for checking the cover plate thickness using AISC manual.

2. INPUTS

State inputs:

$f_y := 50 \cdot ksi$ Mln. yield strength of plate

$E := 29000 \cdot ksi$ Modulus of elasticity of steel

$q := 60 \cdot psf$ pedestrian live load

$L := 12\ in$ simply supported span length

$B := 1\ ft$ design width

$w := q \cdot B = 0.06\ \frac{1}{ft} \cdot kip$ UDL

$\phi := 0.90$ strength reduction factor for flexure

$M_u := \frac{w \cdot L^2}{8} = 0.0075\ ft \cdot kip$

$t := 0.5\ in$ provided plate thickness

$S := \frac{B \cdot t^2}{6} = 0.500\ in^3$ section modulus

$I := \frac{B \cdot t^3}{12} = 0.125\ in^4$ moment of inertia

3. CHECKS

3a - Flexure

$M_n := f_y \cdot S = 2.1\ \textit{ft} \cdot \textit{kip}$

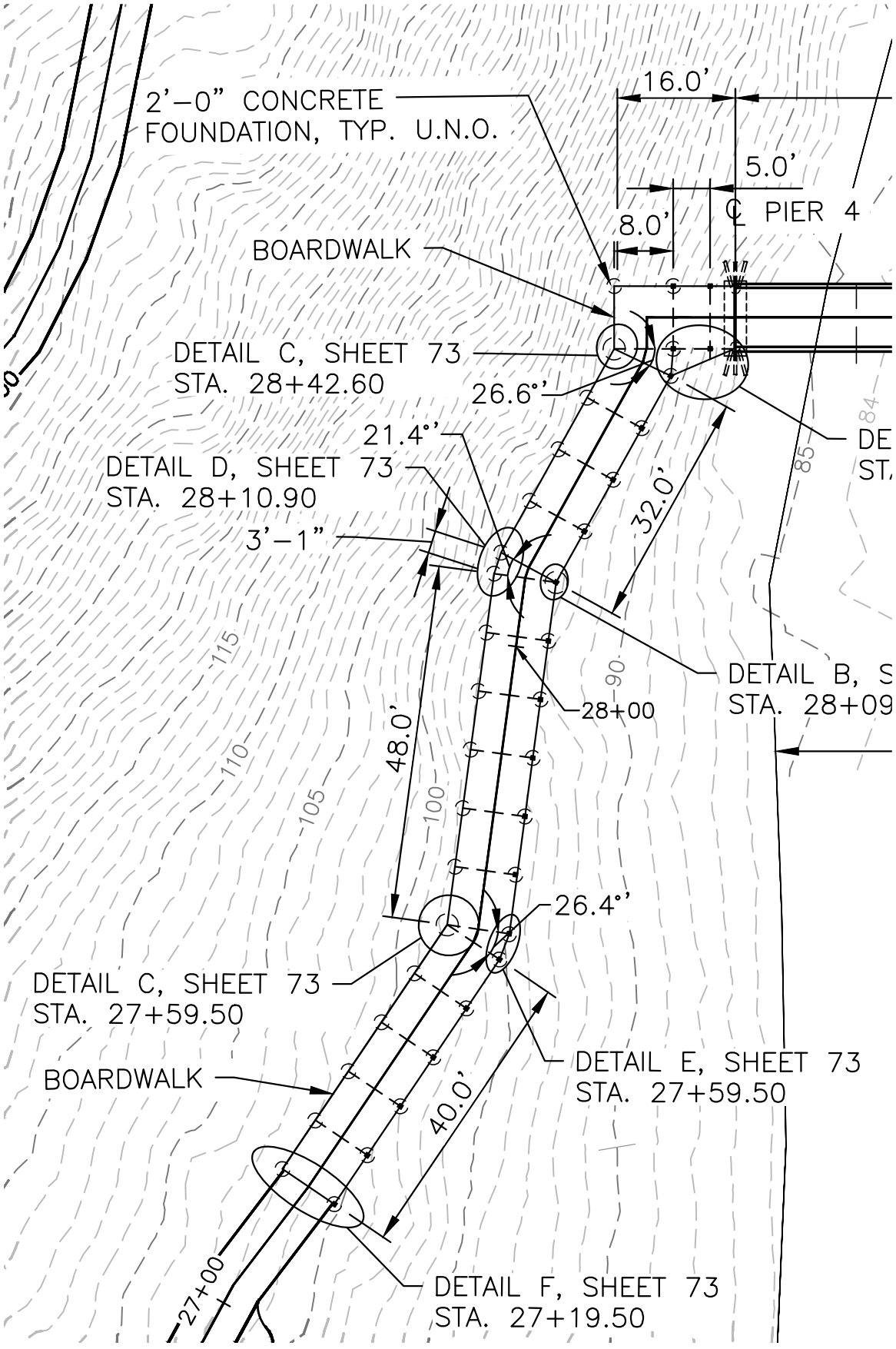
$\frac{M_u}{\phi \cdot M_n} = 0.004$ DCR for flexure

3b - Deflection Check

$\Delta_{max} := \frac{5 \cdot w \cdot L^4}{384 \cdot E \cdot I} = 0.00037241\ \textit{in}$

$$\text{if } \Delta_{max} \le \frac{L}{240} = \text{“OK”}$$
$$\quad \text{“OK”}$$
$$\text{else}$$
$$\quad \text{“NOT OK”}$$

Timber Boardwalk Design



TIMBER BOARDWALK KEY PLAN

Project Information

Project Name: Beaverton Marsh Wetland Crossing ***Exeltech Project No.:*** 540217-01-001

Client: San Juan County Conservation Land Bank

Design Criteria

Governing Design Codes: **IBC 2021/ASCE 7-16 and Reference Codes (AISC, ACI and NDS latest edition as referred in IBC 2021)**

Gravity Loads

Dead Load =

Prefab. Truss Span #1&3 =	35	psf
Prefab. Truss Span #2 =	45	psf
Timber Boardwalk =	30	psf

Live Load = 60 psf (non-Reducible) (ASCE 7-16, Sec. 4.3, Table 4.3-1 – Walkways and Elevated Platforms)

Ground Snow Load = 25 psf (Per County Requirements), I_S = 0.8, Table 1.5-2

Handrails and Guardrail Design per Section 4.5.2

Lateral Loads

Wind:

Basic Wind Speed =	110	mph	(Ultimate)	Exposure =	D
Basic Wind Speed =	86	mph	(Service)	Kzt =	1.0

Seismic:

Wetland Crossing: (Non-Building, Similar to Building Per ASCE 7-16, Chapter 15, height< 35 ft.)

Site Class = E Seismic Design Category = D

S_S =	1.215	%g	S_1 =	0.439	%g	, I_e= 1.0
S_{DS} =	0.973	%g	S_{D1} =	ASCE 7-16 Sec. 11.4.8 per Exceptions		
R =	3.25	Ω_O = 2.0	C_d = 3.25	ρ =1.0	(ASCE 7-16, Table 15.4-1)	

Timber Boardwalk: (ASCE 7-16, Chapter 12, Table 12.2-1, Item G. 6, height< 35 ft.)

Site Class = E Seismic Design Category = D

S_S = 1.215 %g S_1 = 0.439 %g , I_e= 1.0

S_{DS} = 0.973 %g S_{D1} = ASCE 7-16 Sec. 11.4.8 per Exceptions

R = 1.0 Ω_O = 1.0 C_d = 1.0 ρ =1.0 (ASCE 7-16, Table 12.2-1, conservatively, R =1.0 was assumed)

Beaverton Marsh Wetland Crossing Structural Systems

Gravity System:

Deck wood planks supported by prefabricated steel truss supported by steel cross beams supported by vertical and battered helical piles.

Lateral System:

N/S Load Direction: Ordinary steel ordinary concentrically braced frame - nonbuilding structures similar to buildings.

E/W Load Direction: Ordinary steel ordinary concentrically braced frame - nonbuilding structures similar to buildings

Timber Boardwalk Structural Systems

Gravity System:

Deck wood planks supported by sawn lumber joists supported by GLB cross beams supported by timber posts supported by concrete foundation.

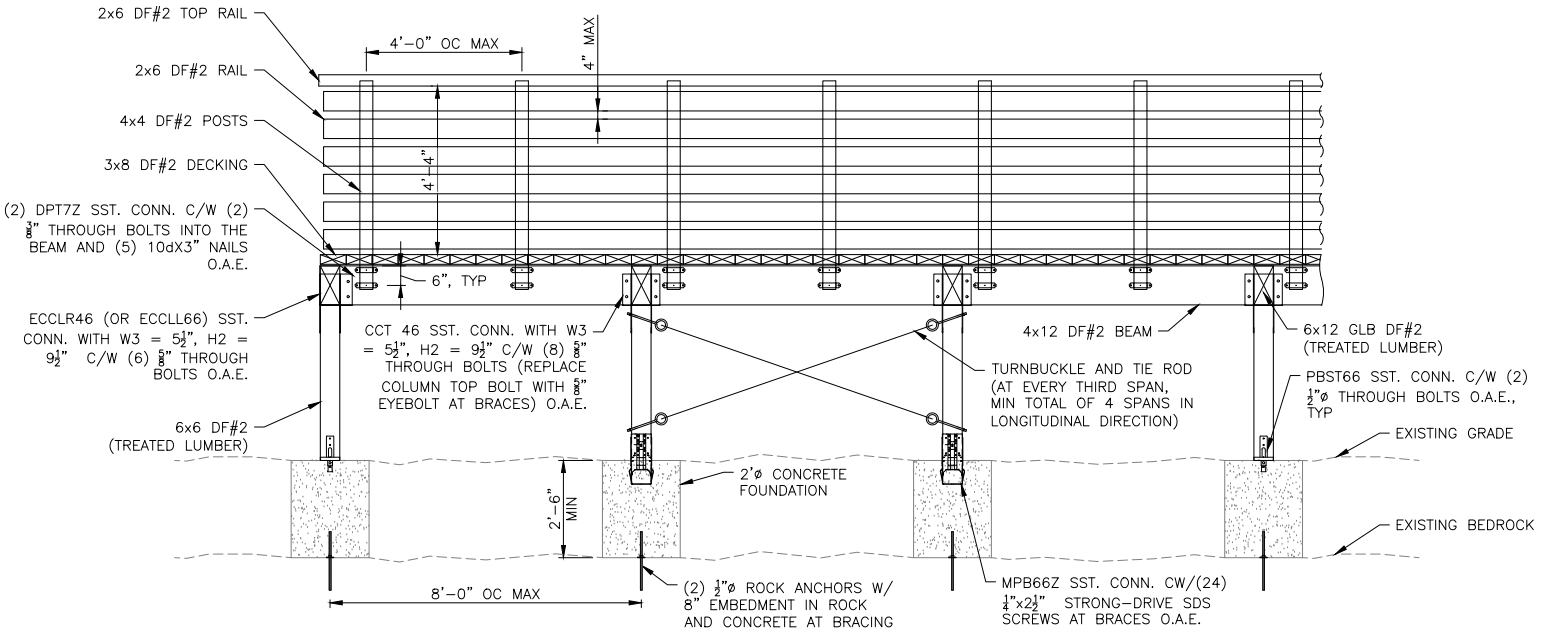
Lateral System:

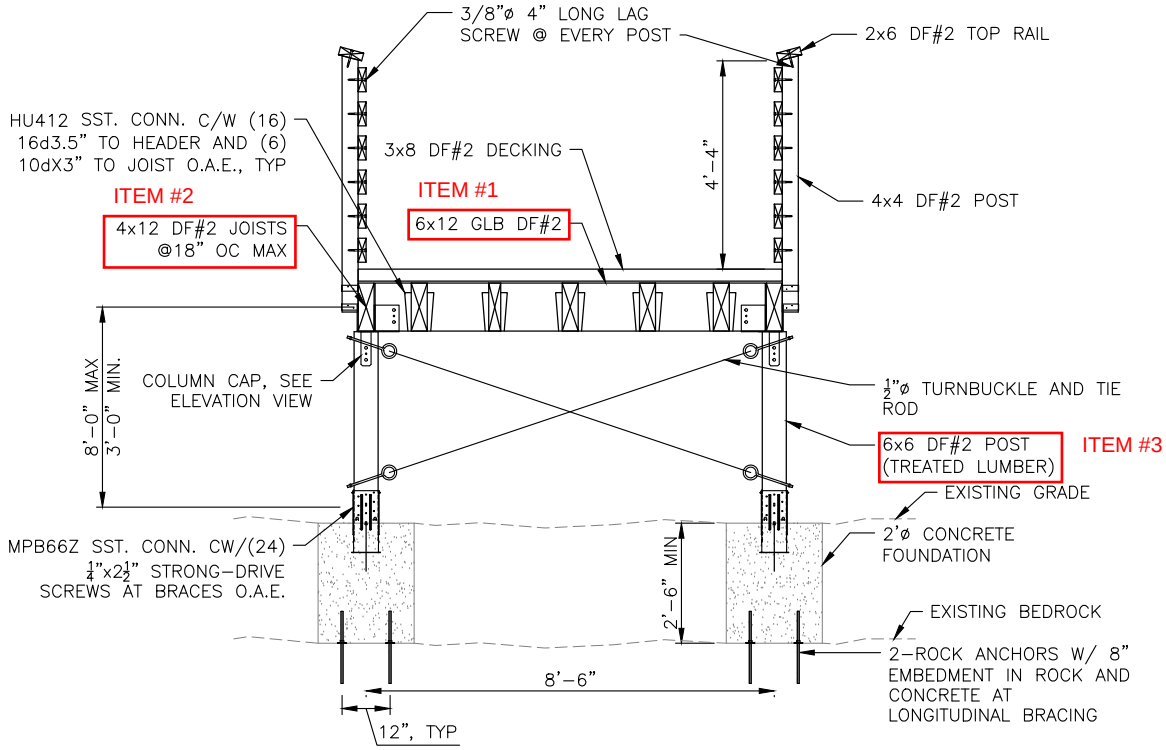
N/S Load Direction: Ordinary (tension-only) steel concentric braced frame & Deck directly supported on concrete foundation.
E/W Load Direction: Deck directly supported on concrete foundation.

*Decking is a flexible diaphragm in accordance with 12.3.1.1.a, and seismic loads are distributed by tributary area**.**

Timber Boardwalk Gravity Design

TIMBER BOARDWALK FRAMING:





Project Title:
Engineer:
Project ID:
Project Descr:

Multiple Simple Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

Description :

Wood Beam Design : Glulam Beam ITEM #1:

Calculations per NDS 2018, IBC 2021

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with IBC 2021 Load Combinations, Major Axis Bending
Wood Species : DF/DF Wood Grade : 24F-V4

Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density	31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi		

Applied Loads

Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 8.0 ft

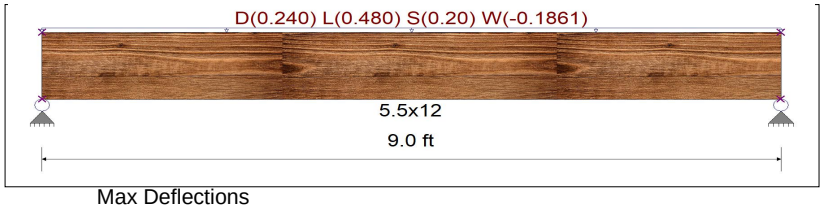
Design Summary

Max fb/Fb Ratio = **0.334** : 1
fb : Actual : 675.89 psi at 4.500 ft in Span # 1
Fb : Allowable : 2,025.14 psi
Load Comb : +D+L

Max fv/FvRatio = **0.228** : 1
fv : Actual : 58.58 psi at 0.000 ft in Span # 1
Fv : Allowable : 257.05 psi
Load Comb : +D+L

Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	1.14		2.16	0.90	-0.84		
Right Support	1.14		2.16	0.90	-0.84		



Max Deflections

Transient Downward	0.056 in	Total Downward	0.088 in
Ratio	1945	Ratio	1221
	LC: L Only		LC: +D+0.750L+0.750S
Transient Upward	-0.022 in	Total Upward	0.000 in
Ratio	5017	Ratio	9999
	LC: W Only		LC:

Wood Beam Design : Joists ITEM #2:

Calculations per NDS 2018, IBC 2021

BEAM Size : **4x12, Sawn, Fully Unbraced**
Using Allowable Stress Design with IBC 2021 Load Combinations, Major Axis Bending
Wood Species : Douglas Fir-Larch Wood Grade : No.2

Fb - Tension	875.0 psi	Fc - Prll	600.0 psi	Fv	170.0 psi	Ebend- xx	1,300.0 ksi	Density	31.210 pcf
Fb - Compr	875.0 psi	Fc - Perp	625.0 psi	Ft	425.0 psi	Eminbend - xx	470.0 ksi		

Applied Loads

Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 1.50 ft

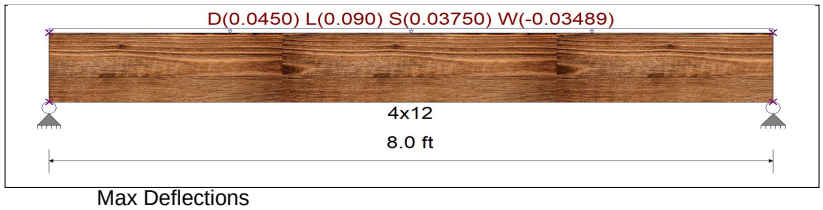
Design Summary

Max fb/Fb Ratio = **0.291** : 1
fb : Actual : 186.64 psi at 4.000 ft in Span # 1
Fb : Allowable : 642.24 psi
Load Comb : +D+L

Max fv/FvRatio = **0.127** : 1
fv : Actual : 16.77 psi at 0.000 ft in Span # 1
Fv : Allowable : 131.92 psi
Load Comb : +D+L

Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	0.21		0.36	0.15	-0.14		
Right Support	0.21		0.36	0.15	-0.14		



Max Deflections

Transient Downward	0.017 in	Total Downward	0.028 in
Ratio	5593	Ratio	3375
	LC: L Only		LC: +D+0.750L+0.750S
Transient Upward	-0.007 in	Total Upward	0.000 in
Ratio	9999	Ratio	9999
	LC: W Only		LC:

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Column

Project File: Boardwalk Beams.ec6

DESCRIPTION: Timber Post ITEM #3:

Code References

Calculations per NDS 2018, IBC 2021
Load Combinations Used : IBC 2021

General Information

Analysis Method	Allowable Stress Design				
End Fixities	Top & Bottom Pinned				
Overall Column Height	8 ft				
(Used for non-slender calculations)					
Wood Species	Douglas Fir-Larch				
Wood Grade	No.2				
Fb +	750.0 psi	Fv	170.0 psi		
Fb -	750.0 psi	Ft	475.0 psi		
Fc - Prll	700.0 psi	Density	31.210 pcf		
Fc - Perp	625.0 psi				

E : Modulus of Elasticity . . .	x-x Bending	y-y Bending	Axial
Basic	1,300.0	1,300.0	1,300.0 ksi
Minimum	470.0	470.0	

Wood Section Name	**6x6**		
Wood Grading/Manuf.	Graded Lumber		
Wood Member Type	Sawn		
Exact Width	**5.50** in	Allow Stress Modification Factors	
Exact Depth	**5.50** in	Cf or Cv for Bending	1.0
Area	30.250 in^2	Cf or Cv for Compressio	1.0
Ix	76.255 in^4	Cf or Cv for Tension	1.0
Iy	76.255 in^4	Cm : Wet Use Factor	0.850
Incising Factors :		Ct : Temperature Fact	1.0
for Bending	0.80	Cfu : Flat Use Factor	1.0
for Elastic Modulus	0.95	Kf : Built-up columns	1.0
		Use Cr : Repetitive ?	No

Column Buckling Condition:
ABOUT X-X Axis: Lux = 8 ft, Kx = 1.0
ABOUT Y-Y Axis: Luy = 8 ft, Ky = 1.0

Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 52.450 lbs * Dead Load Factor
AXIAL LOADS . . .
Load from 6x12 Beam: Axial Load at 8.0 ft, D = 1.140, L = 2.160, S = 0.90, W = -0.820 k

DESIGN SUMMARY

Bending & Shear Check Results

PASS Max. Axial+Bending Stress Ratio = **0.2388 : 1**

Load Combination	+D+L
Governing NDS Forumla	Comp Only, fc/Fc'
Location of max.above base	0.0 ft
At maximum location values are .	
Applied Axial	3.352 k
Applied Mx	0.0 k-ft
Applied My	0.0 k-ft
Fc : Allowable	464.065 psi

PASS Maximum Shear Stress Ratio = **0.0 : 1**

Load Combination	+0.60D
Location of max.above base	8.0 ft
Applied Design Shear	0.0 psi
Allowable Shear	211.072 psi

Maximum SERVICE Lateral Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	0.0 k
Top along X-X	0.0 k	Bottom along X-X	0.0 k

Maximum SERVICE Load Lateral Deflections . . .

Along Y-Y 0.0 in at 0.0 ft above base
for load combination : n/a

Along X-X 0.0 in at 0.0 ft above base
for load combination : n/a

Other Factors used to calculate allowable stresses . . .

	Bending	Compression	Tension

Load Combination Results

Load Combination	C_D	C_P	Maximum Axial + Bending Stress Ratios: Stress Ratio	Status	Location	Maximum Shear Ratios: Stress Ratio	Status	Location
D Only	0.900	0.850	0.09204	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+L	1.000	0.829	0.2388	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+S	1.150	0.796	0.1349	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.750L	1.250	0.774	0.1716	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.750L+0.750S	1.150	0.796	0.2249	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.60W	1.600	0.697	0.03705	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.750L+0.450W	1.600	0.697	0.1293	PASS	0.0 ft	0.0	PASS	8.0 ft
+D+0.750L+0.750S+0.450W	1.600	0.697	0.1650	PASS	0.0 ft	0.0	PASS	8.0 ft
+0.60D+0.60W	1.600	0.697	0.01182	PASS	0.0 ft	0.0	PASS	8.0 ft
+0.60D	1.600	0.697	0.03785	PASS	0.0 ft	0.0	PASS	8.0 ft

Wood Column

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Timber Post

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction @ Base	@ Top	k	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments @ Base	@ Top	k-ft	Mx - End Moments @ Base	@ Top
D Only						1.192					
+D+L						3.352					
+D+S						2.092					
+D+0.750L						2.812					
+D+0.750L+0.750S						3.487					
+D+0.60W						0.700					
+D+0.750L+0.450W						2.443					
+D+0.750L+0.750S+0.450W						3.118					
+0.60D+0.60W						0.223					
+0.60D						0.715					
L Only						2.160					
S Only						0.900					
W Only											

Maximum Deflections for Load Combinations

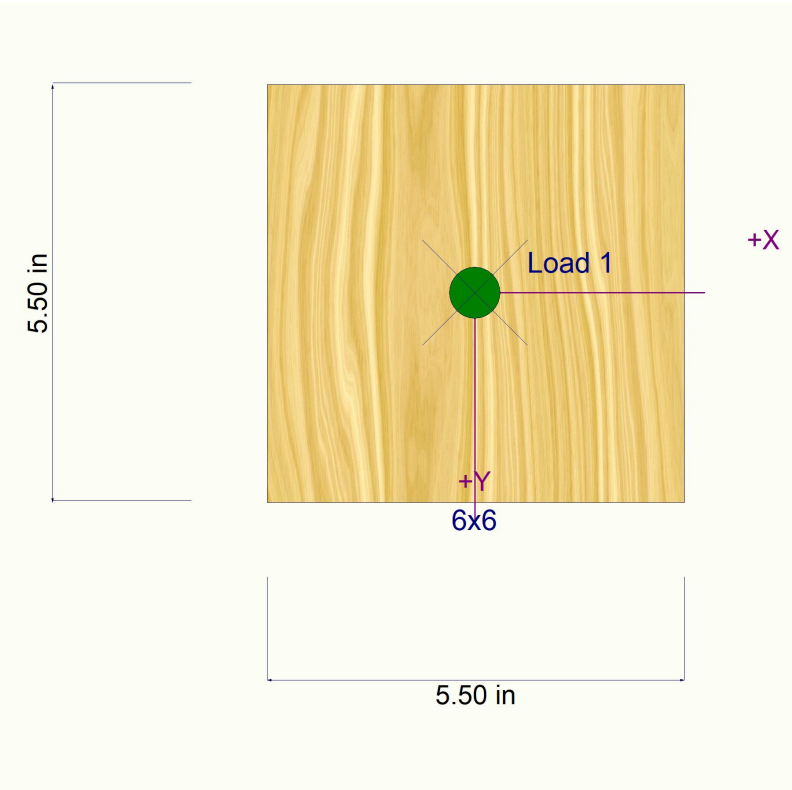
Load Combination	Max. X-X Deflection	Distance	Max. Y-Y Deflection	Distance
D Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+L	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+S	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.60W	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.450W	0.0000 in	0.000 ft	0.000 in	0.000 ft
+D+0.750L+0.750S+0.450W	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D+0.60W	0.0000 in	0.000 ft	0.000 in	0.000 ft
+0.60D	0.0000 in	0.000 ft	0.000 in	0.000 ft
L Only	0.0000 in	0.000 ft	0.000 in	0.000 ft
S Only	0.0000 in	0.000 ft	0.000 in	0.000 ft

Wood Column

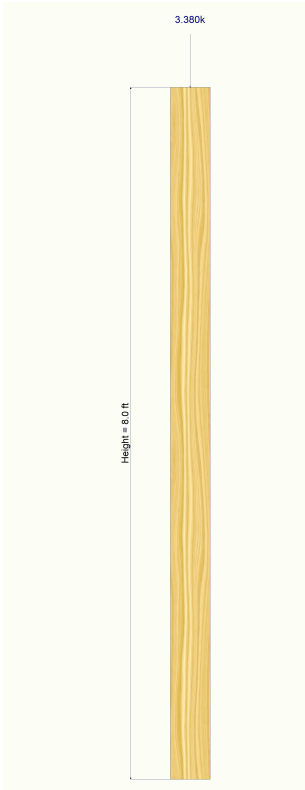
LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Timber Post

Sketches







IBC Railing Guard Opening Requirements:

Per IBC Section 1015.4, the maximum spacing between guards shall be no more than 4". Reference the code section provided below.

1015.4: Opening limitations. CDP INSIGHTS

Required *guards* shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required *guard* height.

Exceptions:

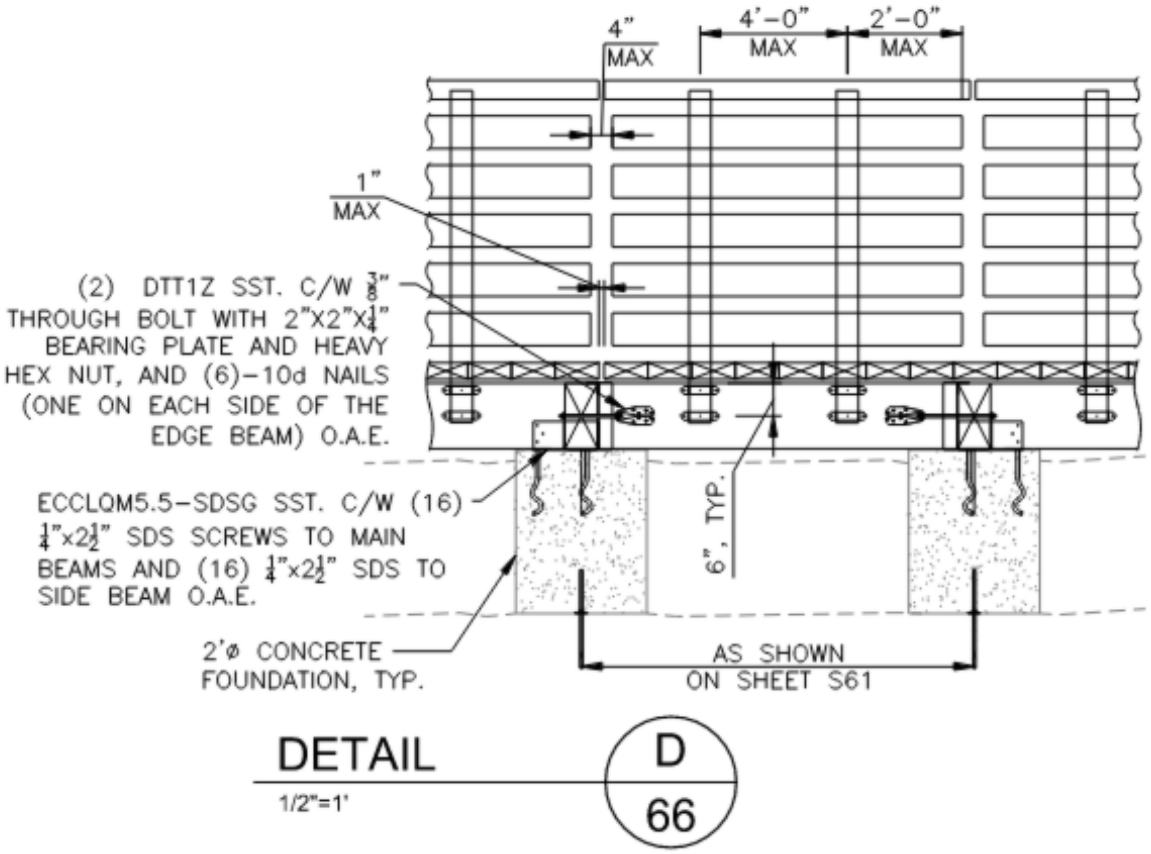
1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), *guards* shall not have openings that allow passage of a sphere 4 3/8 inches (111 mm) in diameter.
2. The triangular openings at the open sides of a *stair*, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter.
3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, *guards* shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.
4. In areas that are not open to the public within occupancies in Group I-3, F, H or S, and for *alternating tread devices* and ships ladders, *guards* shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.
5. In assembly seating areas, *guards* required at the end of *aisles* in accordance with Section 1030.17.4 shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, *guards* shall not have openings that allow passage of a sphere 8 inches (203 mm) in diameter.
6. Within individual *dwelling units* and *sleeping units* in Group R-2 and R-3 occupancies, *guards* on the open sides of *stairs* shall not have openings that allow passage of a sphere 4 3/8 (111 mm) inches in diameter.

Railing Check:

The load on hand rails and guards is either 50 lb/ft or 200 lbs point load based on IBC section 1607.9. These are not applied simultaneously.

The railing is 2x6 and is designed to resist bending in the weak axis from the rail live load. The 2x6 lumber boards are available in 12 ft lengths. The analysis and design of this member is designed as such with a 2 ft cantilever on both sides as shown in the detail attached.

By inspection, Snow Drift loading is Okay.



DETAIL D / 66

1/2"=1'

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Rail in Weak Axis Bending (All rails except top one)

CODE REFERENCES

Calculations per NDS 2018, IBC 2021
Load Combination Set : IBC 2021

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : IBC 2021

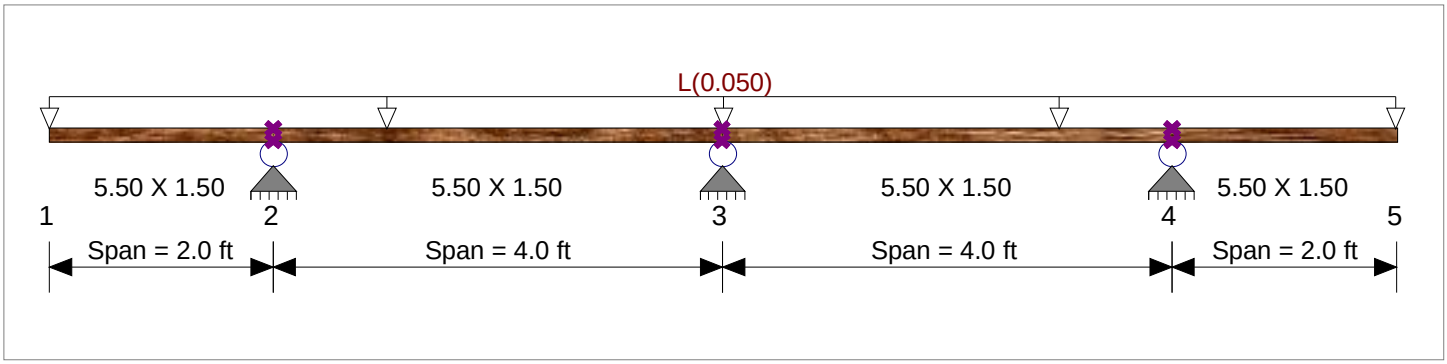
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Completely Unbraced

Fb +	900.0 psi
Fb -	900.0 psi
Fc - Prll	1,350.0 psi
Fc - Perp	625.0 psi
Fv	180.0 psi
Ft	575.0 psi

E : Modulus of Elasticity

Ebend- xx	1,600.0 ksi
Eminbend - xx	580.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Loads on all spans...
Uniform Load on ALL spans : L = 0.050 k/ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.636 : 1	Maximum Shear Stress Ratio	=	0.140 : 1
Section used for this span		5.50 X 1.50	Section used for this span		5.50 X 1.50
fb: Actual	=	581.82 psi	fv: Actual	=	19.53 psi
F'b	=	914.94 psi	F'v	=	139.68 psi
Load Combination		L Only	Load Combination		L Only
Location of maximum on span	=	4.000 ft	Location of maximum on span	=	3.899 ft
Span # where maximum occurs	=	Span # 3	Span # where maximum occurs	=	Span # 3

Maximum Deflection

Max Downward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.137 in	Ratio =	350 >=180	Span: 1 : L Only
Max Upward Total Deflection	-0.006 in	Ratio =	7967 >=180	Span: 2 : L Only

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
														0.0	0.00	0.0	0.0
Length = 2.0 ft	1			0.90	0.85	1.00	1.00	1.300	1.15	0.80	1.00			823.4	0.00	0.0	125.7
Length = 4.0 ft	2			0.90	0.85	1.00	1.00	1.300	1.15	0.80	1.00			823.4	0.00	0.0	125.7
Length = 4.0 ft	3			0.90	0.85	1.00	1.00	1.300	1.15	0.80	1.00			823.4	0.00	0.0	125.7
Length = 2.0 ft	4			0.90	0.85	1.00	1.00	1.300	1.15	0.80	1.00			823.4	0.00	0.0	125.7
L Only					0.85	1.00	1.00	1.300	1.15	0.80	1.00			0.0	0.00	0.0	0.0
Length = 2.0 ft	1	0.636	0.140	1.00	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.10	581.8	914.9	0.11	19.5	139.7
Length = 4.0 ft	2	0.636	0.140	1.00	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.10	581.8	914.9	0.11	19.5	139.7

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Rail in Weak Axis Bending (All rails except top one)

Maximum Forces & Stresses for Load Combinations

Load Combination		Max Stress Ratios										Moment Values			Shear Values		
Segment Length	Span #	M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	M	fb	F'b	V	fv	F'v
Length = 4.0 ft	**3**	0.636	0.140	1.00	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.10	581.8	914.9	0.11	19.5	139.7
Length = 2.0 ft	**4**	0.636	0.124	1.00	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.10	581.8	914.9	0.09	17.3	139.7
+0.750L					0.85	1.00	1.00	1.300	1.15	0.80	1.00			0.0	0.00	0.0	0.0
Length = 2.0 ft	**1**	0.415	0.091	1.15	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.08	436.4	1,052.2	0.08	14.7	160.6
Length = 4.0 ft	**2**	0.415	0.091	1.15	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.08	436.4	1,052.2	0.08	14.7	160.6
Length = 4.0 ft	**3**	0.415	0.091	1.15	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.08	436.4	1,052.2	0.08	14.7	160.6
Length = 2.0 ft	**4**	0.415	0.081	1.15	0.85	1.00	1.00	1.300	1.15	0.80	1.00	0.08	436.4	1,052.2	0.07	12.9	160.6

Overall Maximum Deflections

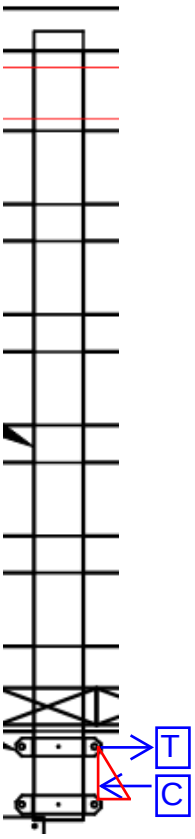
Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	L Only	0.1368	0.000		0.0000	0.000
2	L Only	0.0140	2.329	L Only	-0.0060	0.456
3	L Only	0.0147	1.722	L Only	-0.0053	3.595
4	L Only	0.1354	2.000		0.0000	3.595

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3	Support 4	Support 5
Max Upward from all Load Conditions		0.212	0.175	0.212	
Max Upward from Load Combinations		0.159	0.131	0.159	
Max Upward from Load Cases		0.212	0.175	0.212	
L Only		0.212	0.175	0.212	
+0.750L		0.159	0.131	0.159	

Moment Connection for the Railing:



Loads:

Point Load = 200 lbs; Distributed Load = 50lb/ft - IBC 1607.9

Moment arm = 4'-8" = 56"

Moment = 56 in. x 200 lbs = 11200 lb-in

Coupling Moment Distance at Connection = 5" (for DPT7Z, per Simpson Specs.)

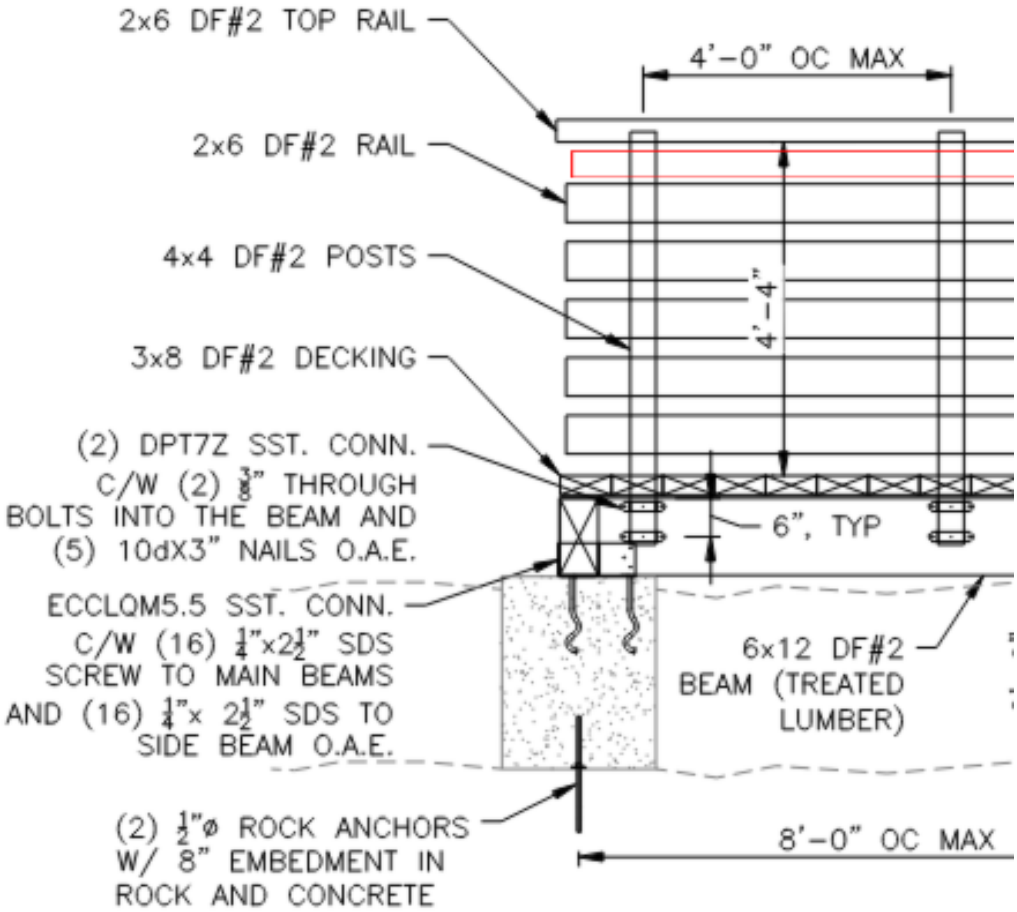
Compression (C) = 11200/5 = 2240 lbs => 1120 lbs per Bolt

Steel Bolts are OK. (By observation)

Check Beam for Bearing/Compression:

F_c_perp = 625 psi - NDS Supplement 4A

Use standard square strut washer => contact area = 2.25 in^2
Allowable load = 2.25 x 625 = 1406.25 lbs => OK.



Wind Load on Deck Calculations:

Wind Parameters:

V (ULT.) = 110 mph
V (ASD) = 86 mph
Risk Category - I
Exposure - D
Topographic Factor K_zt = 1.0

Assumptions:
This deck is considered as an open building with zero pitch. Refer to ASCE 7, section 27.3.2.

Parameters:
Use ASCE7-22, section 27.3.2,
K_d = 0.85
G = 0.85

qh = 26.3 psf

qz = qh*Kd*G*C_N

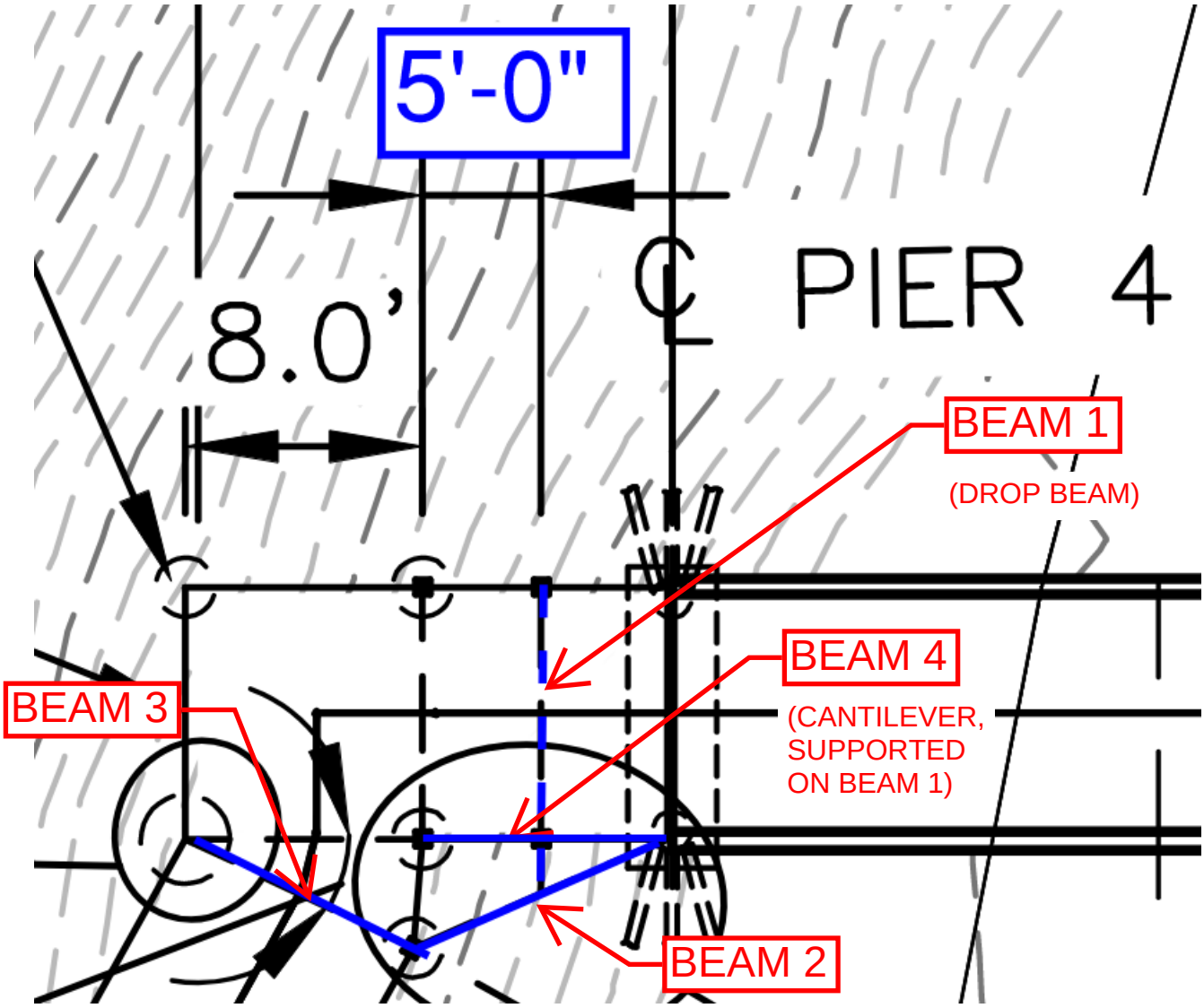
C_N from Figure 27.3-4 = 1.2 (Worst Case Scenario)

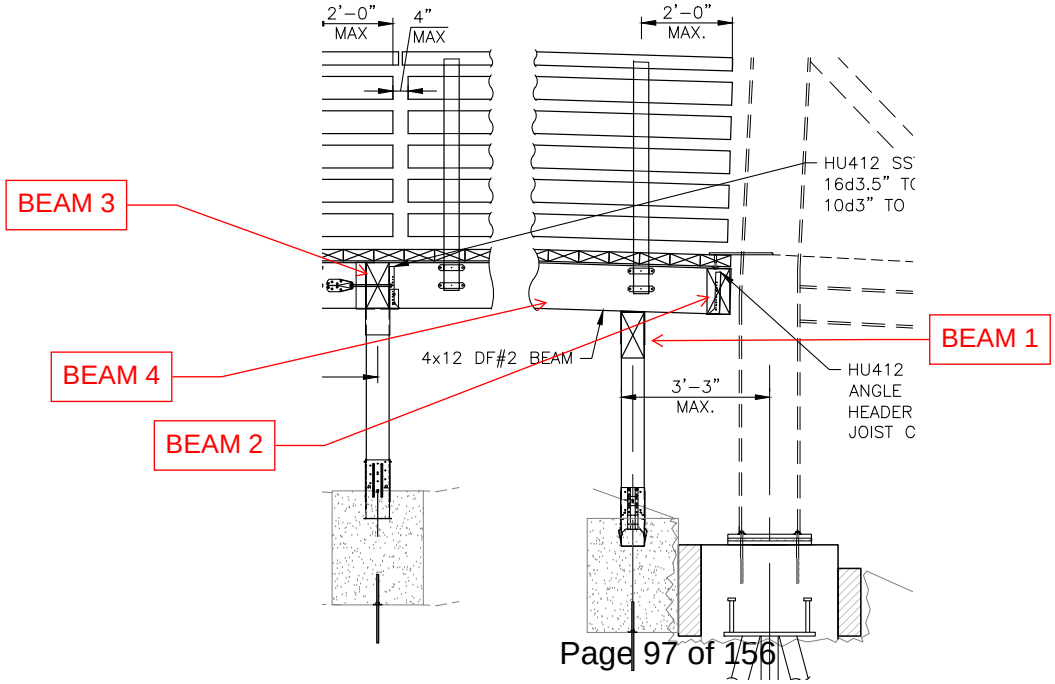
qz = 22.8 psf

Use section 29.4. This deck is similar to single plane open frame.

F=qz*GCf*Af = 22.8x.85x1.2 = 23.26 psf

Beam Key


5'-0"
8.0'
℄ PIER 4
BEAM 1
(DROP BEAM)
BEAM 4
(CANTILEVER, SUPPORTED ON BEAM 1)
BEAM 3
BEAM 2


2'-0" MAX
4" MAX
2'-0" MAX.
HU412 SS
16d3.5" TO
10d3" TO
BEAM 3
BEAM 4
BEAM 2
4x12 DF#2 BEAM
3'-3" MAX.
BEAM 1
HU412 ANGLE HEADER JOIST C

Project Title:
Engineer:
Project ID:
Project Descr:

Multiple Simple Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

Description :

Wood Beam Design : Beam #1

Calculations per NDS 2018, IBC 2021

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with IBC 2021 Load Combinations, Major Axis Bending
Wood Species : DF/DF Wood Grade : 24F-V4

Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density	31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi		

Applied Loads

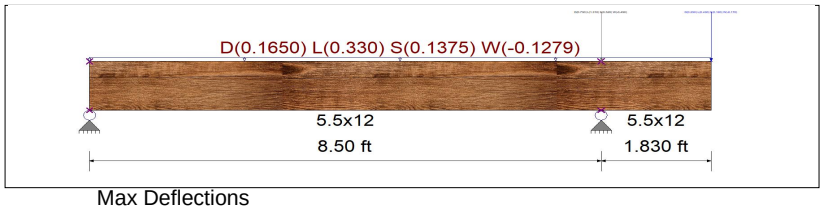
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 5.50 ft
1Point: D = 0.250, L = 0.430, S = 0.180, W = -0.170 k @ 10.330 ft
2Point: D = 0.730, L = 1.310, S = 0.520, W = -0.490 k @ 8.50 ft

Design Summary

Max fb/Fb Ratio = **0.157** : 1
fb : Actual : 317.63 psi at 3.740 ft in Span # 1
Fb : Allowable : 2,025.91 psi
Load Comb : +D+L

Max fv/FvRatio = **0.388** : 1
fv : Actual : 99.72 psi at 8.500 ft in Span # 1
Fv : Allowable : 257.05 psi
Load Comb : +D+L

Max Reactions (k)	D	Lr	L	S	W	E	H
Left Support	0.61		1.24	0.52	-0.48		
Right Support	2.07		3.90	1.60	-1.50		



Max Deflections

Transient Downward	0.022 in	Total Downward	0.034 in
Ratio	4570	Ratio	2958
	LC: L Only		LC: +D+0.750L+0.750S
Transient Upward	-0.010 in	Total Upward	-0.015 in
Ratio	4546	Ratio	3020
	LC: L Only		LC: +D+0.750L+0.750S

Wood Beam Design : Beam #3

Calculations per NDS 2018, IBC 2021

BEAM Size : **4x12, Sawn, Fully Unbraced**
Using Allowable Stress Design with IBC 2021 Load Combinations, Major Axis Bending
Wood Species : Douglas Fir-Larch Wood Grade : No.2

Fb - Tension	875.0 psi	Fc - Prll	600.0 psi	Fv	170.0 psi	Ebend- xx	1,300.0 ksi	Density	31.210 pcf
Fb - Compr	875.0 psi	Fc - Perp	625.0 psi	Ft	425.0 psi	Eminbend - xx	470.0 ksi		

Applied Loads

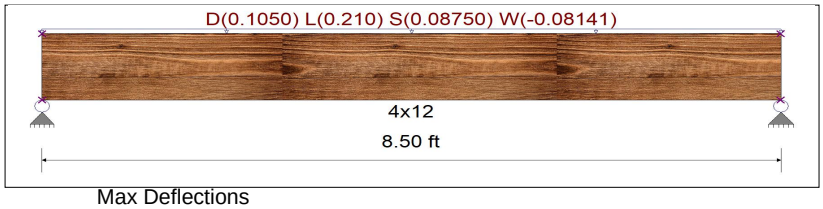
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 3.50 ft

Design Summary

Max fb/Fb Ratio = **0.630** : 1
fb : Actual : 474.93 psi at 4.250 ft in Span # 1
Fb : Allowable : 753.34 psi
Load Comb : +D+L

Max fv/FvRatio = **0.300** : 1
fv : Actual : 40.86 psi at 7.565 ft in Span # 1
Fv : Allowable : 136.00 psi
Load Comb : +D+L

Max Reactions (k)	D	Lr	L	S	W	E	H
Left Support	0.48		0.89	0.37	-0.35		
Right Support	0.48		0.89	0.37	-0.35		



Max Deflections

Transient Downward	0.046 in	Total Downward	0.074 in
Ratio	2220	Ratio	1385
	LC: L Only		LC: +D+0.750L+0.750S
Transient Upward	-0.018 in	Total Upward	0.000 in
Ratio	5728	Ratio	9999
	LC: W Only		LC:

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #2

CODE REFERENCES

Calculations per NDS 2018, IBC 2021
Load Combination Set : IBC 2021

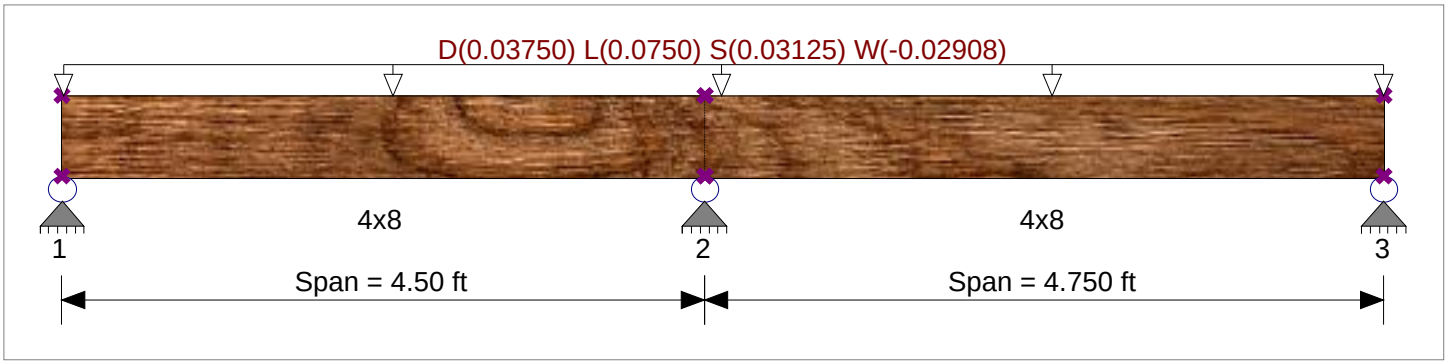
Material Properties

Analysis Method :	Allowable Stress Design
Load Combination :	IBC 2021
Wood Species :	Douglas Fir-Larch
Wood Grade :	No.2
Beam Bracing :	Completely Unbraced

Fb +	875.0 psi
Fb -	875.0 psi
Fc - Prll	600.0 psi
Fc - Perp	625.0 psi
Fv	170.0 psi
Ft	425.0 psi

E : Modulus of Elasticity

Ebend- xx	1,300.0 ksi
Eminbend - xx	470.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Loads on all spans...
Uniform Load on ALL spans : D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 ksf, Tributary Width = 1.250 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.161 : 1	Maximum Shear Stress Ratio	=	0.125 : 1
Section used for this span		4x8	Section used for this span		4x8
fb: Actual	=	123.75 psi	fv: Actual	=	16.43 psi
F'b	=	767.85 psi	F'v	=	131.92 psi
Load Combination		+D+L+H, LL Comb Run (LL)	Load Combination		+D+L+H, LL Comb Run (LL)
Location of maximum on span	=	0.000 ft	Location of maximum on span	=	4.500 ft
Span # where maximum occurs	=	Span # 2	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.005 in	Ratio = 11723	>=360	Span: 2 : L Only, LL Comb Run (*L)
Max Upward Transient Deflection	-0.002 in	Ratio = 27163	>=360	Span: 1 : L Only, LL Comb Run (*L)
Max Downward Total Deflection	0.007 in	Ratio = 8612	>=180	Span: 2 : +D+L+H, LL Comb Run (*L)
Max Upward Total Deflection	-0.001 in	Ratio = 45734	>=180	Span: 1 : +D+L+H, LL Comb Run (*L)

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+D+H														0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.065	0.050	0.90	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	691.8	0.10	6.0	118.7
Length = 4.750 ft	2	0.065	0.050	0.90	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	691.6	0.10	6.0	118.7
+D+L+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.114	0.116	1.00	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.22	87.6	768.1	0.26	15.3	131.9
Length = 4.750 ft	2	0.117	0.116	1.00	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.23	90.1	767.8	0.26	15.3	131.9
+D+L+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.106	0.108	1.00	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.21	81.2	768.1	0.24	14.2	131.9

Wood Beam

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #2

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 4.750 ft	**2**	0.106	0.054	1.00	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.21	81.2	767.8	0.12	7.1	131.9
+D+L+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.161	0.125	1.00	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.32	123.8	768.1	0.28	16.4	131.9
Length = 4.750 ft	**2**	0.161	0.125	1.00	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.32	123.8	767.8	0.28	16.4	131.9
+D+Lr+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.047	0.036	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	958.2	0.10	6.0	164.9
Length = 4.750 ft	**2**	0.047	0.036	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	957.8	0.10	6.0	164.9
+D+Lr+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.047	0.036	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	958.2	0.10	6.0	164.9
Length = 4.750 ft	**2**	0.047	0.036	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	957.8	0.10	6.0	164.9
+D+Lr+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.047	0.036	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	958.2	0.10	6.0	164.9
Length = 4.750 ft	**2**	0.047	0.036	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	957.8	0.10	6.0	164.9
+D+S+H					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.088	0.068	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.20	77.9	882.3	0.17	10.3	151.7
Length = 4.750 ft	**2**	0.088	0.068	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.20	77.9	881.9	0.17	10.3	151.7
+D+0.750Lr+0.750L+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.080	0.079	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.20	77.0	958.2	0.22	13.0	164.9
Length = 4.750 ft	**2**	0.080	0.079	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.20	77.0	957.8	0.22	13.0	164.9
+D+0.750Lr+0.750L+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.075	0.073	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.18	72.2	958.2	0.20	12.1	164.9
Length = 4.750 ft	**2**	0.075	0.042	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.18	72.2	957.8	0.12	6.8	164.9
+D+0.750Lr+0.750L+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.109	0.084	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.27	104.1	958.2	0.23	13.8	164.9
Length = 4.750 ft	**2**	0.109	0.084	1.25	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.27	104.1	957.8	0.23	13.8	164.9
+D+0.750L+0.750S+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.115	0.107	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.26	101.6	882.3	0.27	16.2	151.7
Length = 4.750 ft	**2**	0.115	0.107	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.26	101.6	881.9	0.27	16.2	151.7
+D+0.750L+0.750S+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.110	0.100	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.25	96.8	882.3	0.26	15.2	151.7
Length = 4.750 ft	**2**	0.110	0.067	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.25	96.8	881.9	0.17	10.1	151.7
+D+0.750L+0.750S+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.146	0.113	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.33	128.7	882.3	0.29	17.1	151.7
Length = 4.750 ft	**2**	0.146	0.113	1.15	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.33	128.7	881.9	0.29	17.1	151.7
+D+0.60W+H					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.022	0.017	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.07	26.8	1,222.7	0.06	3.6	211.1
Length = 4.750 ft	**2**	0.022	0.017	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.07	26.8	1,221.9	0.06	3.6	211.1
+D+0.70E+H					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.037	0.028	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	1,222.7	0.10	6.0	211.1
Length = 4.750 ft	**2**	0.037	0.028	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.12	45.1	1,221.9	0.10	6.0	211.1
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.052	0.053	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.16	63.3	1,222.7	0.19	11.1	211.1
Length = 4.750 ft	**2**	0.054	0.053	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.17	66.1	1,221.9	0.19	11.1	211.1
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	**1**	0.048	0.049	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.15	58.6	1,222.7	0.18	10.4	211.1
Length = 4.750 ft	**2**	0.048	0.024	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.15	58.5	1,221.9	0.09	5.0	211.1
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0

Wood Beam

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #2

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 4.50 ft	1	0.074	0.057	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.23	90.4	1,222.7	0.20	12.0	211.1
Length = 4.750 ft	2	0.074	0.057	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.23	90.4	1,221.9	0.20	12.0	211.1
+D+0.750L+0.750S+0.450W+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.072	0.068	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.22	87.8	1,222.7	0.24	14.4	211.1
Length = 4.750 ft	2	0.072	0.068	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.22	87.8	1,221.9	0.24	14.4	211.1
+D+0.750L+0.750S+0.450W+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.068	0.064	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.21	83.1	1,222.7	0.23	13.5	211.1
Length = 4.750 ft	2	0.068	0.039	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.21	83.1	1,221.9	0.14	8.3	211.1
+D+0.750L+0.750S+0.450W+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.094	0.072	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.29	114.9	1,222.7	0.26	15.3	211.1
Length = 4.750 ft	2	0.094	0.072	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.29	114.9	1,221.9	0.26	15.3	211.1
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (*L)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.083	0.077	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.26	101.6	1,222.7	0.27	16.2	211.1
Length = 4.750 ft	2	0.083	0.077	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.26	101.6	1,221.9	0.27	16.2	211.1
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (L*)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.079	0.072	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.25	96.8	1,222.7	0.26	15.2	211.1
Length = 4.750 ft	2	0.079	0.048	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.25	96.8	1,221.9	0.17	10.1	211.1
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (LL)					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.105	0.081	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.33	128.7	1,222.7	0.29	17.1	211.1
Length = 4.750 ft	2	0.105	0.081	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.33	128.7	1,221.9	0.29	17.1	211.1
+0.60D+0.60W+0.60H					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.007	0.006	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.02	8.8	1,222.7	0.02	1.2	211.1
Length = 4.750 ft	2	0.007	0.006	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.02	8.8	1,221.9	0.02	1.2	211.1
+0.60D+0.70E+0.60H					0.85	1.00	0.99	1.300	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.50 ft	1	0.022	0.017	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.07	27.1	1,222.7	0.06	3.6	211.1
Length = 4.750 ft	2	0.022	0.017	1.60	0.85	1.00	0.99	1.300	1.00	0.80	1.00	0.07	27.1	1,221.9	0.06	3.6	211.1

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+L+H, LL Comb Run (L*)	0.0052	2.061		0.0000	0.000
2	+D+L+H, LL Comb Run (*L)	0.0066	2.574		0.0000	0.000

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Max Upward from all Load Conditions	0.221	0.710	0.237
Max Upward from Load Combinations	0.221	0.710	0.237
Max Upward from Load Cases	0.148	0.434	0.155
Max Downward from all Load Conditions (Resisting Uplift)	-0.048	-0.168	-0.053
Max Downward from Load Cases (Resisting Uplift)	-0.048	-0.168	-0.053
+D+H	0.071	0.249	0.078
+D+L+H, LL Comb Run (*L)	0.047	0.474	0.233
+D+L+H, LL Comb Run (L*)	0.219	0.457	0.058
+D+L+H, LL Comb Run (LL)	0.195	0.683	0.214
+D+Lr+H, LL Comb Run (*L)	0.071	0.249	0.078
+D+Lr+H, LL Comb Run (L*)	0.071	0.249	0.078
+D+Lr+H, LL Comb Run (LL)	0.071	0.249	0.078
+D+S+H	0.123	0.430	0.134
+D+0.750Lr+0.750L+H, LL Comb Run (*L)	0.053	0.418	0.194
+D+0.750Lr+0.750L+H, LL Comb Run (L*)	0.182	0.405	0.063
+D+0.750Lr+0.750L+H, LL Comb Run (LL)	0.164	0.574	0.180
+D+0.750L+0.750S+H, LL Comb Run (*L)	0.092	0.553	0.237
+D+0.750L+0.750S+H, LL Comb Run (L*)	0.221	0.541	0.106

Wood Beam

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #2

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3
+D+0.750L+0.750S+H, LL Comb Run (LL)	0.203	0.710	0.222
+D+0.60W+H	0.042	0.148	0.046
+D+0.70E+H	0.071	0.249	0.078
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (*L)	0.031	0.342	0.171
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (L*)	0.161	0.330	0.040
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (LL)	0.143	0.498	0.156
+D+0.750L+0.750S+0.450W+H, LL Comb Run (*L)	0.070	0.477	0.213
+D+0.750L+0.750S+0.450W+H, LL Comb Run (L*)	0.199	0.465	0.082
+D+0.750L+0.750S+0.450W+H, LL Comb Run (LL)	0.181	0.634	0.198
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (*L)	0.092	0.553	0.237
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (L*)	0.221	0.541	0.106
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (LL)	0.203	0.710	0.222
+0.60D+0.60W+0.60H	0.014	0.048	0.015
+0.60D+0.70E+0.60H	0.043	0.149	0.047
D Only	0.071	0.249	0.078
L Only, LL Comb Run (*L)	-0.024	0.225	0.155
L Only, LL Comb Run (L*)	0.148	0.209	-0.019
L Only, LL Comb Run (LL)	0.124	0.434	0.136
S Only	0.052	0.181	0.057
W Only	-0.048	-0.168	-0.053
H Only			

Calculations | 2D | Diagram | 3D

Summary Results | Max. Combinations | M-V-D Summary | Support Reactions

Design OK

✔ **Max Bending Stress Ratio** **0.161** : 1

Section used for this span **4x8**

fb : Actual =	123.75 psi
F'b =	767.85 psi
Ld Comb	+D+L+H, LL Comb Run (LL)
Location of maximum on span	0.000 ft
Span # where maximum occurs	Span # 2

✔ **Max Shear Stress Ratio =** **0.125** : 1

Section used for this span **4x8**

fv : Actual =	16.43 psi
F'v =	131.92 psi
Ld Comb	+D+L+H, LL Comb Run (LL)
Location of maximum on span	4.500 ft
Span # where maximum occurs	Span # 1

✔ **Deflection Ratios**

Transient Load Deflection

Max Downward	0.005 in	Ratio =	11723 >=360
*Span: 2 : L Only, LL Comb Run (*L)*			
Max Upward	-0.002 in	Ratio =	27163 >=360
*Span: 1 : L Only, LL Comb Run (*L)*			

Total Deflection

Max Downward	0.007 in	Ratio =	8612 >=180
*Span: 2 : +D+L+H, LL Comb Run (*L)*			
Max Upward	-0.001 in	Ratio =	45734 >=180
*Span: 1 : +D+L+H, LL Comb Run (*L)*			

Extreme Reactions (kips)

	D	Lr	L	S	W	E	H
Support #1	0.07		0.15	0.05	-0.05		
Support #2	0.25		0.43	0.18	-0.17		
Support #3	0.08		0.16	0.06	-0.05		

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #4

CODE REFERENCES

Calculations per NDS 2018, IBC 2021
Load Combination Set : IBC 2021

Material Properties

Analysis Method : Allowable Stress Design
Load Combination : IBC 2021

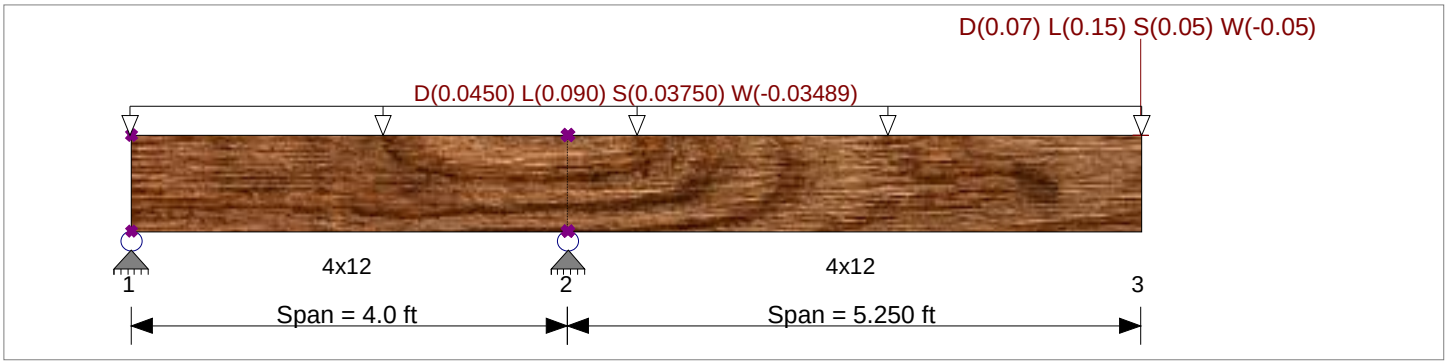
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Beam Bracing : Completely Unbraced

Fb +	875.0 psi
Fb -	875.0 psi
Fc - Prll	600.0 psi
Fc - Perp	625.0 psi
Fv	170.0 psi
Ft	425.0 psi

E : Modulus of Elasticity

Ebend- xx	1,300.0 ksi
Eminbend - xx	470.0 ksi
Density	31.210 pcf



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Loads on all spans...
Uniform Load on ALL spans : D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 ksf, Tributary Width = 1.50 ft
Load for Span Number 2
Point Load : D = 0.070, L = 0.150, S = 0.050, W = -0.050 k @ 5.250 ft, (Loads from Beam #2 (Beam #4 Supports Beam #2))

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.787 : 1	Maximum Shear Stress Ratio	=	0.271 : 1
Section used for this span		4x12	Section used for this span		4x12
fb: Actual	=	509.25 psi	fv: Actual	=	35.77 psi
F'b	=	646.92 psi	F'v	=	131.92 psi
Load Combination		+D+L+H, LL Comb Run (*L)	Load Combination		+D+L+H, LL Comb Run (LL)
Location of maximum on span	=	0.000 ft	Location of maximum on span	=	3.084 ft
Span # where maximum occurs	=	Span # 2	Span # where maximum occurs	=	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.112 in	Ratio =	1124	>=360	Span: 2 : L Only, LL Comb Run (*L)
Max Upward Transient Deflection	-0.039 in	Ratio =	3230	>=360	Span: 2 : W Only
Max Downward Total Deflection	0.172 in	Ratio =	730	>=180	Span: 2 : +D+0.750L+0.750S+H, LL Comb Run (*L)
Max Upward Total Deflection	-0.011 in	Ratio =	4183	>=180	Span: 1 : +D+L+H, LL Comb Run (*L)

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+D+H														0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.307	0.107	0.90	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	584.7	0.33	12.7	118.7
Length = 5.250 ft	2	0.308	0.097	0.90	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	583.0	0.30	11.5	118.7
+D+L+H, LL Comb Run (*L)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.785	0.243	1.00	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.13	509.2	649.0	0.84	32.1	131.9
Length = 5.250 ft	2	0.787	0.243	1.00	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.13	509.2	646.9	0.84	32.1	131.9

Wood Beam

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #4

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
+D+L+H, LL Comb Run (L*)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.277	0.125	1.00	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	649.0	0.43	16.5	131.9
Length = 5.250 ft	2	0.278	0.087	1.00	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	646.9	0.30	11.5	131.9
+D+L+H, LL Comb Run (LL)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.785	0.271	1.00	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.13	509.2	649.0	0.94	35.8	131.9
Length = 5.250 ft	2	0.787	0.243	1.00	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.13	509.2	646.9	0.84	32.1	131.9
+D+Lr+H, LL Comb Run (*L)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.222	0.077	1.25	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	809.2	0.33	12.7	164.9
Length = 5.250 ft	2	0.223	0.070	1.25	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.11	179.6	805.6	0.30	11.5	164.9
+D+Lr+H, LL Comb Run (L*)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.222	0.077	1.25	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	809.2	0.33	12.7	164.9
Length = 5.250 ft	2	0.223	0.070	1.25	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.11	179.6	805.6	0.30	11.5	164.9
+D+Lr+H, LL Comb Run (LL)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.222	0.077	1.25	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	809.2	0.33	12.7	164.9
Length = 5.250 ft	2	0.223	0.070	1.25	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.11	179.6	805.6	0.30	11.5	164.9
+D+S+H					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.411	0.143	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.88	306.3	745.2	0.57	21.7	151.7
Length = 5.250 ft	2	0.413	0.129	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.88	306.3	742.3	0.52	19.6	151.7
+D+0.750Lr+0.750L+H, LL Comb Run (*L)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.528	0.165	1.25	0.85	1.00	0.99	1.100	1.00	0.80	1.00	2.63	426.8	809.2	0.71	27.2	164.9
Length = 5.250 ft	2	0.530	0.164	1.25	0.85	1.00	0.98	1.100	1.00	0.80	1.00	2.63	426.8	805.6	0.71	27.0	164.9
+D+0.750Lr+0.750L+H, LL Comb Run (L*)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.222	0.094	1.25	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	809.2	0.41	15.5	164.9
Length = 5.250 ft	2	0.223	0.070	1.25	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.11	179.6	805.6	0.30	11.5	164.9
+D+0.750Lr+0.750L+H, LL Comb Run (LL)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.528	0.182	1.25	0.85	1.00	0.99	1.100	1.00	0.80	1.00	2.63	426.8	809.2	0.79	30.0	164.9
Length = 5.250 ft	2	0.530	0.164	1.25	0.85	1.00	0.98	1.100	1.00	0.80	1.00	2.63	426.8	805.6	0.71	27.0	164.9
+D+0.750L+0.750S+H, LL Comb Run (*L)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.700	0.224	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.21	521.8	745.2	0.89	33.9	151.7
Length = 5.250 ft	2	0.703	0.218	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.21	521.8	742.3	0.87	33.0	151.7
+D+0.750L+0.750S+H, LL Comb Run (L*)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.369	0.147	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.69	274.6	745.2	0.58	22.3	151.7
Length = 5.250 ft	2	0.370	0.116	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.69	274.6	742.3	0.46	17.6	151.7
+D+0.750L+0.750S+H, LL Comb Run (LL)					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.700	0.242	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.21	521.8	745.2	0.96	36.7	151.7
Length = 5.250 ft	2	0.703	0.218	1.15	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.21	521.8	742.3	0.87	33.0	151.7
+D+0.60W+H					0.85	1.00	0.99	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.104	0.036	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	0.66	107.2	1,031.7	0.20	7.6	211.1
Length = 5.250 ft	2	0.105	0.033	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	0.66	107.2	1,025.1	0.18	6.9	211.1
+D+0.70E+H					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.174	0.060	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.11	179.6	1,031.7	0.33	12.7	211.1
Length = 5.250 ft	2	0.175	0.055	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.11	179.6	1,025.1	0.30	11.5	211.1
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (*L)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.361	0.111	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	2.29	372.5	1,031.7	0.62	23.5	211.1
Length = 5.250 ft	2	0.363	0.111	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	2.29	372.5	1,025.1	0.62	23.5	211.1
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (L*)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.121	0.055	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	0.77	125.3	1,031.7	0.31	11.7	211.1

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

DESCRIPTION: Beam #4

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 5.250 ft	2	0.122	0.038	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	0.77	125.3	1,025.1	0.21	8.1	211.1
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (LL)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.361	0.124	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	2.29	372.5	1,031.7	0.69	26.2	211.1
Length = 5.250 ft	2	0.363	0.111	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	2.29	372.5	1,025.1	0.62	23.5	211.1
+D+0.750L+0.750S+0.450W+H, LL Comb Run (*L)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.453	0.143	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	2.88	467.5	1,031.7	0.79	30.1	211.1
Length = 5.250 ft	2	0.456	0.140	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	2.88	467.5	1,025.1	0.78	29.6	211.1
+D+0.750L+0.750S+0.450W+H, LL Comb Run (L*)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.214	0.087	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.36	220.3	1,031.7	0.48	18.4	211.1
Length = 5.250 ft	2	0.215	0.067	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.36	220.3	1,025.1	0.37	14.1	211.1
+D+0.750L+0.750S+0.450W+H, LL Comb Run (LL)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.453	0.156	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	2.88	467.5	1,031.7	0.86	32.9	211.1
Length = 5.250 ft	2	0.456	0.140	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	2.88	467.5	1,025.1	0.78	29.6	211.1
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (*L)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.506	0.161	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.21	521.8	1,031.7	0.89	33.9	211.1
Length = 5.250 ft	2	0.509	0.157	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	3.21	521.8	1,025.1	0.87	33.0	211.1
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (L*)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.266	0.105	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	1.69	274.6	1,031.7	0.58	22.3	211.1
Length = 5.250 ft	2	0.268	0.083	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	1.69	274.6	1,025.1	0.46	17.6	211.1
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (LL)					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.506	0.174	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	3.21	521.8	1,031.7	0.96	36.7	211.1
Length = 5.250 ft	2	0.509	0.157	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	3.21	521.8	1,025.1	0.87	33.0	211.1
+0.60D+0.60W+0.60H					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.034	0.012	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	0.22	35.3	1,031.7	0.07	2.5	211.1
Length = 5.250 ft	2	0.034	0.011	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	0.22	35.3	1,025.1	0.06	2.3	211.1
+0.60D+0.70E+0.60H					0.85	1.00	0.98	1.100	1.00	0.80	1.00			0.0	0.00	0.0	0.0
Length = 4.0 ft	1	0.104	0.036	1.60	0.85	1.00	0.99	1.100	1.00	0.80	1.00	0.66	107.8	1,031.7	0.20	7.6	211.1
Length = 5.250 ft	2	0.105	0.033	1.60	0.85	1.00	0.98	1.100	1.00	0.80	1.00	0.66	107.8	1,025.1	0.18	6.9	211.1

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1		0.0000	0.000	+D+L+H, LL Comb Run (*L)	-0.0115	2.346
2	+D+0.750L+0.750S+0.5250E+H, LL Comb Run (*L)	0.1722	5.250		0.0000	2.346

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Max Upward from all Load Conditions	0.180	2.104	
Max Upward from Load Combinations	0.018	2.104	
Max Upward from Load Cases	0.180	1.309	
Max Downward from all Load Conditions (Resisting Uplift)	-0.676	-0.489	
Max Downward from Load Combinations (Resisting Uplift)	-0.676		
Max Downward from Load Cases (Resisting Uplift)	-0.507	-0.489	
+D+H	-0.169	0.734	
+D+L+H, LL Comb Run (*L)	-0.676	1.864	
+D+L+H, LL Comb Run (L*)	0.011	0.914	
+D+L+H, LL Comb Run (LL)	-0.496	2.044	
+D+Lr+H, LL Comb Run (*L)	-0.169	0.734	
+D+Lr+H, LL Comb Run (L*)	-0.169	0.734	
+D+Lr+H, LL Comb Run (LL)	-0.169	0.734	
+D+S+H	-0.289	1.251	
+D+0.750Lr+0.750L+H, LL Comb Run (*L)	-0.549	1.582	
+D+0.750Lr+0.750L+H, LL Comb Run (L*)	-0.034	0.869	

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Beam #4

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3
+D+0.750Lr+0.750L+H, LL Comb Run (LL)	-0.414	1.717	
+D+0.750L+0.750S+H, LL Comb Run (*L)	-0.639	1.969	
+D+0.750L+0.750S+H, LL Comb Run (L*)	-0.124	1.257	
+D+0.750L+0.750S+H, LL Comb Run (LL)	-0.504	2.104	
+D+0.60W+H	-0.100	0.441	
+D+0.70E+H	-0.169	0.734	
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (*L)	-0.497	1.362	
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (L*)	0.018	0.649	
+D+0.750Lr+0.750L+0.450W+H, LL Comb Run (LL)	-0.362	1.497	
+D+0.750L+0.750S+0.450W+H, LL Comb Run (*L)	-0.587	1.749	
+D+0.750L+0.750S+0.450W+H, LL Comb Run (L*)	-0.072	1.037	
+D+0.750L+0.750S+0.450W+H, LL Comb Run (LL)	-0.452	1.884	
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (*L)	-0.639	1.969	
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (L*)	-0.124	1.257	
+D+0.750L+0.750S+0.5250E+H, LL Comb Run (LL)	-0.504	2.104	
+0.60D+0.60W+0.60H	-0.032	0.147	
+0.60D+0.70E+0.60H	-0.102	0.441	
D Only	-0.169	0.734	
L Only, LL Comb Run (*L)	-0.507	1.129	
L Only, LL Comb Run (L*)	0.180	0.180	
L Only, LL Comb Run (LL)	-0.327	1.309	
S Only	-0.120	0.517	
W Only	0.116	-0.489	
H Only			

Calculations | 2D | Diagram | 3D

Summary Results | Max. Combinations | M-V-D Summary | Support Reactions

Design OK

✔ **Max Bending Stress Ratio** **0.787** : 1

Section used for this span **4x12**

fb : Actual = 509.25 psi

F'b = 646.92 psi

Ld Comb +D+L+H, LL Comb Run (*L)

Location of maximum on span 0.000 ft

Span # where maximum occurs Span # 2

✔ **Max Shear Stress Ratio =** **0.271** : 1

Section used for this span **4x12**

fv : Actual = 35.77 psi

F'v = 131.92 psi

Ld Comb +D+L+H, LL Comb Run (LL)

Location of maximum on span 3.084 ft

Span # where maximum occurs Span # 1

✔ **Deflection Ratios**

Transient Load Deflection

Max Downward 0.112 in Ratio = 1124 >=360

*Span: 2 : L Only, LL Comb Run (*L)*

Max Upward -0.039 in Ratio = 3230 >=360

Span: 2 : W Only

Total Deflection

Max Downward 0.170 in Ratio = 742 >=180

*Span: 2 : +D+L+H, LL Comb Run (*L)*

Max Upward -0.011 in Ratio = 4183 >=180

*Span: 1 : +D+L+H, LL Comb Run (*L)*

Extreme Reactions (kips)

	D	Lr	L	S	W	E	H
Support #1	-0.17		-0.51	-0.12	0.12		
Support #2	0.73		1.31	0.52	-0.49		

Connection at Column and Beam to Beam:

Column Cap Connection:

Max. Uplift = 1460 lbs (from Beam 1 Calcs)

For Column Cap, use CCQ66SDS-2.5. Refer to attached table for allowable loads.

Beam Connection:

For Beam #1 to Beam #4, connection, use (2) Simpson MTS16 straps. Corrosion Resistance Option.

2 x 990 > 480 => OK.

These products are available with additional corrosion protection. For more information, see pp. 13–19.

SS For stainless-steel fasteners, see p. 25.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 380–382 for more information.

	Model No.	Strap Length (in.)	Total Quantity of Fasteners	DF/SP Allowable Uplift Loads (160)		SPF/HF Allowable Uplift Loads (160)		Code Ref.
				0.148" x 3" Nails	0.148" x 1½" Nails	0.148" x 3" Nails	0.148" x 1½" Nails	
SS	LTS12	12	12	660	645	570	515	IBC, FL, LA
	LTS16	16						
	LTS20	20						
SS	MTS12	12	14	990	990	850	850	
	MTS16	16						
SS	MTS20	20						
	MTS24C	24						
	MTS30	30						
	MTS30C	30						
	HTS16	16	16	1,415	1,415	1,215	1,215	
	HTS20	20						
	HTS24	24						
	HTS30	30						
	HTS30C	30						

	Model No.	Beam Width (in.)	Dimensions (in.)				No. of ¼" x 2½" SDS Screws			DF/SP Allowable Loads				Code Ref.	CCQ/ECCQ Model No. (No Legs)
			W1	W2	L		H	Beam		Post	CCQ		ECCQ			
					CCQ	ECCQ		CCQ	ECCQ		Uplift (160)	Down (100)	Uplift (160)	Down (100)		
SS	CCQ3-4SDS2.5	3⅛	3¼	3⅝	11	8½	7	16	14	14	5,370	16,980	3,465	6,125	IBC, FL, LA	CCQ3-SDS2.5 ECCQ3-SDS2.5
SS	CCQ3-6SDS2.5	3⅛	3¼	5½	11	8½	7	16	14	14	5,370	21,485	3,465	10,740		
SS	CCQ44SDS2.5	3½	3⅝	3⅝	11	8½	7	16	14	14	5,370	19,020	3,785	7,655		CCQ4-SDS2.5 ECCQ4-SDS2.5
SS	CCQ46SDS2.5	3½	3⅝	5½	11	8½	7	16	14	14	6,785	24,065	3,785	12,030		
SS	CCQ48SDS2.5	3½	3⅝	7½	11	8½	7	16	14	14	6,785	24,065	3,785	16,405		
	CCQ4.62-3.62SDS	4½	4⅝	3⅝	11	8½	7	16	14	14	5,370	23,390	3,785	9,845		CCQ4.62-SDS2.5 ECCQ4.62-SDS2.5
	CCQ4.62-4.62SDS	4½	4⅝	4⅝	11	8½	7	16	14	14	5,370	30,070	3,785	12,655		
	CCQ4.62-5.50SDS	4½	4⅝	5½	11	8½	7	16	14	14	6,785	30,940	3,785	15,470		
SS	CCQ5-4SDS2.5	5⅛	5¼	3⅝	11	8½	7	16	14	14	5,370	26,635	3,785	11,210		CCQ5-SDS2.5 ECCQ5-SDS2.5
SS	CCQ5-6SDS2.5	5⅛	5¼	5½	11	8½	7	16	14	14	6,785	28,190	5,355	17,615		
SS	CCQ5-8SDS2.5	5⅛	5¼	7½	11	8½	7	16	14	14	6,785	35,235	5,355	24,025		
SS	CCQ64SDS2.5	5¼, 5½	5½	3⅝	11	8½	7	16	14	14	5,370	28,585	3,785	12,030		CCQ6-SDS2.5 ECCQ6-SDS2.5
SS	CCQ66SDS2.5	5¼, 5½	5½	5½	11	8½	7	16	14	14	6,785	30,250	3,785	18,905		
SS	CCQ68SDS2.5	5¼, 5½	5½	7½	11	8½	7	16	14	14	6,785	37,815	3,785	25,780		
SS	CCQ6-7.13SDS2.5	5¼, 5½	5½	7⅛	11	8½	7	16	14	14	6,785	37,815	3,785	24,490		

Project Title:
Engineer:
Project ID:
Project Descr:

Wood Beam

Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

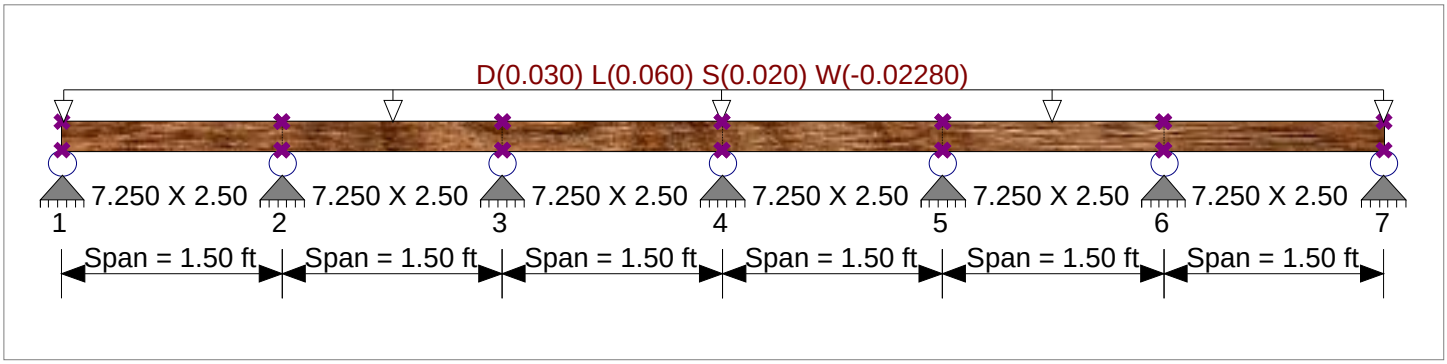
DESCRIPTION: Deck Plank

CODE REFERENCES

Calculations per NDS 2018, IBC 2021
Load Combination Set : IBC 2021

Material Properties

Analysis Method :	Allowable Stress Design	Fb +	900.0 psi	*E : Modulus of Elasticity*	
Load Combination :	IBC 2021	Fb -	900.0 psi	Ebend- xx	1,600.0 ksi
		Fc - Prll	1,350.0 psi	Eminbend - xx	580.0 ksi
Wood Species :	Douglas Fir-Larch	Fc - Perp	625.0 psi		
Wood Grade :	No.2	Fv	180.0 psi		
		Ft	575.0 psi	Density	31.210 pcf
Beam Bracing :	Completely Unbraced			Repetitive Member Stress Increase	



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Loads on all spans...
Uniform Load on ALL spans : D = 0.030, L = 0.060, S = 0.020, W = -0.02280 k/ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio	=	0.035 : 1	Maximum Shear Stress Ratio	=	0.038 : 1
Section used for this span		7.250 X 2.50	Section used for this span		7.250 X 2.50
fb: Actual	=	34.03 psi	fv: Actual	=	5.35 psi
F'b	=	971.24 psi	F'v	=	139.68 psi
Load Combination		+D+L	Load Combination		+D+L
Location of maximum on span	=	1.500 ft	Location of maximum on span	=	1.500 ft
Span # where maximum occurs	=	Span # 1	Span # where maximum occurs	=	Span # 5

Maximum Deflection

Max Downward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Upward Transient Deflection	0 in	Ratio =	0 <360	n/a
Max Downward Total Deflection	0.000 in	Ratio =	44099 >=180	Span: 1 : +D+L
Max Upward Total Deflection	-0.000 in	Ratio =	130570 >=180	Span: 2 : +D+L

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
D Only														0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.013	0.014	0.90	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	11.3	874.1	0.02	1.8	125.7
Length = 1.50 ft	2	0.013	0.012	0.90	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	11.3	874.1	0.02	1.5	125.7
Length = 1.50 ft	3	0.011	0.011	0.90	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	9.3	874.1	0.02	1.4	125.7
Length = 1.50 ft	4	0.011	0.011	0.90	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	9.3	874.1	0.02	1.4	125.7
Length = 1.50 ft	5	0.013	0.014	0.90	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	11.3	874.1	0.02	1.8	125.7
Length = 1.50 ft	6	0.013	0.014	0.90	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	11.3	874.1	0.02	1.8	125.7
+D+L					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0

Wood Beam

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Deck Plank

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 1.50 ft	1	0.035	0.038	1.00	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	971.2	0.06	5.4	139.7
Length = 1.50 ft	2	0.035	0.032	1.00	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	971.2	0.05	4.5	139.7
Length = 1.50 ft	3	0.029	0.031	1.00	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	27.8	971.2	0.05	4.3	139.7
Length = 1.50 ft	4	0.029	0.031	1.00	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	27.8	971.2	0.05	4.3	139.7
Length = 1.50 ft	5	0.035	0.038	1.00	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	971.2	0.06	5.4	139.7
Length = 1.50 ft	6	0.035	0.038	1.00	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	971.2	0.06	5.4	139.7
+D+S					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.017	0.019	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	18.9	1,116.9	0.04	3.0	160.6
Length = 1.50 ft	2	0.017	0.016	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	18.9	1,116.9	0.03	2.5	160.6
Length = 1.50 ft	3	0.014	0.015	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	15.5	1,116.9	0.03	2.4	160.6
Length = 1.50 ft	4	0.014	0.015	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	15.5	1,116.9	0.03	2.4	160.6
Length = 1.50 ft	5	0.017	0.019	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	18.9	1,116.9	0.04	3.0	160.6
Length = 1.50 ft	6	0.017	0.019	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	18.9	1,116.9	0.04	3.0	160.6
+D+0.750L					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.023	0.026	1.25	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	28.4	1,214.1	0.05	4.5	174.6
Length = 1.50 ft	2	0.023	0.021	1.25	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	28.4	1,214.1	0.05	3.7	174.6
Length = 1.50 ft	3	0.019	0.020	1.25	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	23.2	1,214.1	0.04	3.6	174.6
Length = 1.50 ft	4	0.019	0.020	1.25	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	23.2	1,214.1	0.04	3.6	174.6
Length = 1.50 ft	5	0.023	0.026	1.25	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	28.4	1,214.1	0.05	4.5	174.6
Length = 1.50 ft	6	0.023	0.026	1.25	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	28.4	1,214.1	0.05	4.5	174.6
+D+0.750L+0.750S					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.030	0.033	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	1,116.9	0.06	5.4	160.6
Length = 1.50 ft	2	0.030	0.028	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	1,116.9	0.05	4.5	160.6
Length = 1.50 ft	3	0.025	0.027	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	27.8	1,116.9	0.05	4.3	160.6
Length = 1.50 ft	4	0.025	0.027	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	27.8	1,116.9	0.05	4.3	160.6
Length = 1.50 ft	5	0.030	0.033	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	1,116.9	0.06	5.4	160.6
Length = 1.50 ft	6	0.030	0.033	1.15	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	34.0	1,116.9	0.06	5.4	160.6
+D+0.60W					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.2	1,554.0	0.01	1.0	223.5
Length = 1.50 ft	2	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.2	1,554.0	0.01	0.8	223.5
Length = 1.50 ft	3	0.003	0.003	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	5.0	1,554.0	0.01	0.8	223.5
Length = 1.50 ft	4	0.003	0.003	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	5.0	1,554.0	0.01	0.8	223.5
Length = 1.50 ft	5	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.2	1,554.0	0.01	1.0	223.5
Length = 1.50 ft	6	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.2	1,554.0	0.01	1.0	223.5
+D+0.750L+0.450W					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.016	0.017	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	24.5	1,554.0	0.05	3.9	223.5
Length = 1.50 ft	2	0.016	0.014	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	24.5	1,554.0	0.04	3.2	223.5
Length = 1.50 ft	3	0.013	0.014	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	20.0	1,554.0	0.04	3.1	223.5
Length = 1.50 ft	4	0.013	0.014	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.01	20.0	1,554.0	0.04	3.1	223.5
Length = 1.50 ft	5	0.016	0.017	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	24.5	1,554.0	0.05	3.9	223.5
Length = 1.50 ft	6	0.016	0.017	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	24.5	1,554.0	0.05	3.9	223.5
+D+0.750L+0.750S+0.450W					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	1	0.019	0.021	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	30.2	1,554.0	0.06	4.7	223.5
Length = 1.50 ft	2	0.019	0.018	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	30.2	1,554.0	0.05	4.0	223.5
Length = 1.50 ft	3	0.016	0.017	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	24.7	1,554.0	0.05	3.8	223.5
Length = 1.50 ft	4	0.016	0.017	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	24.7	1,554.0	0.05	3.8	223.5
Length = 1.50 ft	5	0.019	0.021	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	30.2	1,554.0	0.06	4.7	223.5

Wood Beam

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Deck Plank

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	CD	CM	C_t	CLx	C_F	Cfu	C_i	C_r	Moment Values M	fb	F'b	Shear Values V	fv	F'v
Length = 1.50 ft	**6**	0.019	0.021	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.02	30.2	1,554.0	0.06	4.7	223.5
+0.60D+0.60W					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	**1**	0.001	0.001	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	1.6	1,554.0	0.00	0.3	223.5
Length = 1.50 ft	**2**	0.001	0.001	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	1.6	1,554.0	0.00	0.2	223.5
Length = 1.50 ft	**3**	0.001	0.001	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	1.3	1,554.0	0.00	0.2	223.5
Length = 1.50 ft	**4**	0.001	0.001	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	1.3	1,554.0	0.00	0.2	223.5
Length = 1.50 ft	**5**	0.001	0.001	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	1.6	1,554.0	0.00	0.3	223.5
Length = 1.50 ft	**6**	0.001	0.001	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	1.6	1,554.0	0.00	0.3	223.5
+0.60D					0.85	1.00	1.00	1.200	1.15	0.80	1.15			0.0	0.00	0.0	0.0
Length = 1.50 ft	**1**	0.004	0.005	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.8	1,554.0	0.01	1.1	223.5
Length = 1.50 ft	**2**	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.8	1,554.0	0.01	0.9	223.5
Length = 1.50 ft	**3**	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	5.6	1,554.0	0.01	0.9	223.5
Length = 1.50 ft	**4**	0.004	0.004	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	5.6	1,554.0	0.01	0.9	223.5
Length = 1.50 ft	**5**	0.004	0.005	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.8	1,554.0	0.01	1.1	223.5
Length = 1.50 ft	**6**	0.004	0.005	1.60	0.85	1.00	1.00	1.200	1.15	0.80	1.15	0.00	6.8	1,554.0	0.01	1.1	223.5

Overall Maximum Deflections

Span	Load Combination	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
1	+D+0.750L+0.750S	0.0004	0.665		0.0000	0.000
2	+D+0.750L+0.750S	0.0001	0.816	+D+0.750L+0.750S	-0.0000	0.114
3	+D+0.750L+0.750S	0.0002	0.741		0.0000	0.114
4	+D+0.750L+0.750S	0.0002	0.778		0.0000	0.114
5	+D+0.750L+0.750S	0.0001	0.703	+D+0.750L+0.750S	-0.0000	1.405
6	+D+0.750L+0.750S	0.0004	0.854		0.0000	1.405

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3	Support 4	Support 5	Support 6	Support 7
Max Upward from all Load Conditions	0.053	0.153	0.130	0.138	0.130	0.153	0.053
Max Upward from Load Combinations	0.053	0.153	0.130	0.138	0.130	0.153	0.053
Max Upward from Load Cases	0.035	0.102	0.087	0.092	0.087	0.102	0.035
Max Downward from all Load Conditions (Resisting Uplift)	-0.013	-0.039	-0.033	-0.035	-0.033	-0.039	-0.013
Max Downward from Load Cases (Resisting Uplift)	-0.013	-0.039	-0.033	-0.035	-0.033	-0.039	-0.013
D Only	0.018	0.051	0.043	0.046	0.043	0.051	0.018
+D+L	0.053	0.153	0.130	0.138	0.130	0.153	0.053
+D+S	0.030	0.085	0.072	0.076	0.072	0.085	0.030
+D+0.750L	0.044	0.128	0.108	0.115	0.108	0.128	0.044
+D+0.750L+0.750S	0.053	0.153	0.130	0.138	0.130	0.153	0.053
+D+0.60W	0.010	0.028	0.024	0.025	0.024	0.028	0.010
+D+0.750L+0.450W	0.038	0.110	0.093	0.099	0.093	0.110	0.038
+D+0.750L+0.750S+0.450W	0.047	0.136	0.115	0.122	0.115	0.136	0.047
+0.60D+0.60W	0.003	0.007	0.006	0.007	0.006	0.007	0.003
+0.60D	0.011	0.031	0.026	0.028	0.026	0.031	0.011
L Only	0.035	0.102	0.087	0.092	0.087	0.102	0.035
S Only	0.012	0.034	0.029	0.031	0.029	0.034	0.012
W Only	-0.013	-0.039	-0.033	-0.035	-0.033	-0.039	-0.013

Calculations | 2D | Diagram | 3D

Summary Results | Max. Combinations | M-V-D Summary | Support Reactions

Design OK

✔ **Max Bending Stress Ratio** **0.035** : 1
Section used for this span **7.250 X 2.50**

fb : Actual =	34.03 psi
F'b =	971.24 psi
Ld Comb	+D+L
Location of maximum on span	1.500 ft
Span # where maximum occurs	Span # 1

✔ **Max Shear Stress Ratio =** **0.038** : 1
Section used for this span **7.250 X 2.50**

fv : Actual =	5.35 psi
F'v =	139.68 psi
Ld Comb	+D+L
Location of maximum on span	1.500 ft
Span # where maximum occurs	Span # 5

✔ **Deflection Ratios**

Transient Load Deflection

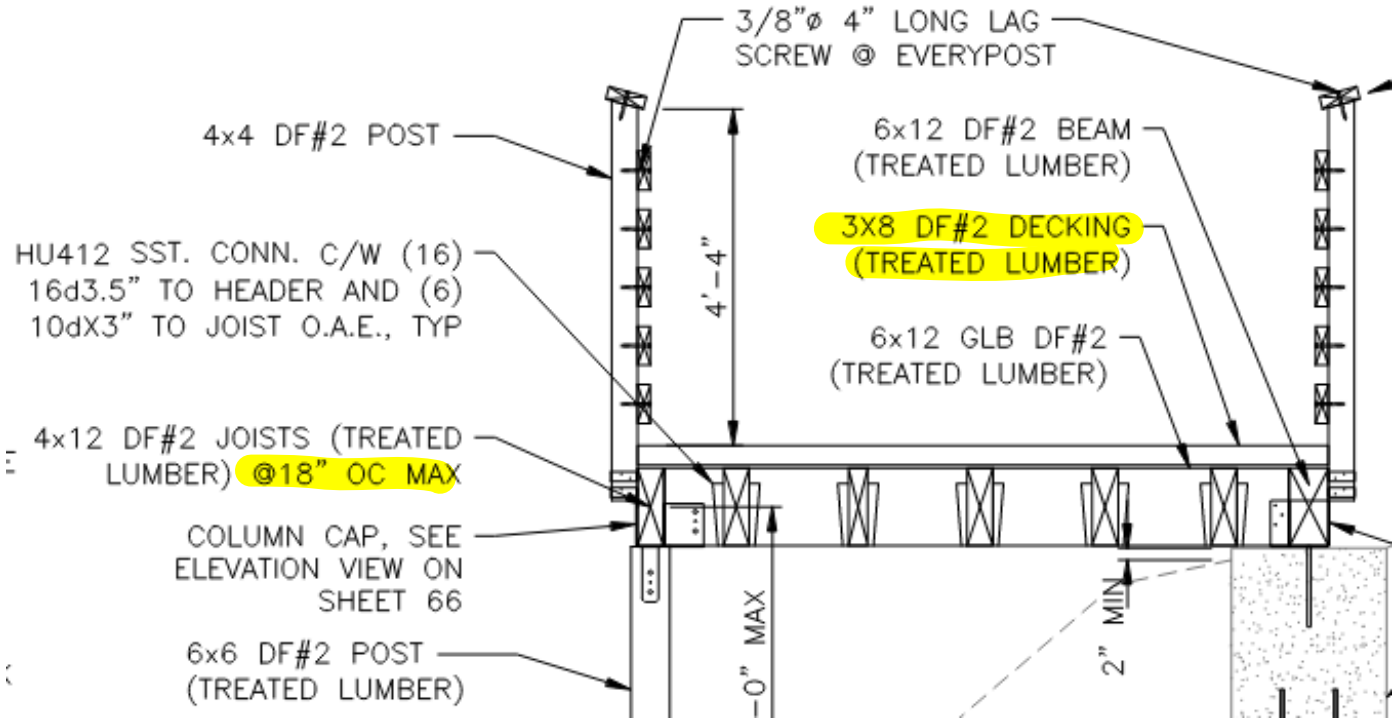
Max Downward	0 in	Ratio =	0	>=360
n/a				
Max Upward	0 in	Ratio =	0	>=360
n/a				

Total Deflection

Max Downward	0.000 in	Ratio =	44099	>=180
Span: 1 : +D+L				
Max Upward	-0.000 in	Ratio =	1130570	>=180
Span: 2 : +D+L				

Extreme Reactions (kips)

	D	Lr	L	S	W	E	H
Support #1	0.02		0.04	0.01	-0.01		
Support #2	0.05		0.10	0.03	-0.04		
Support #3	0.04		0.09	0.03	-0.03		
Support #4	0.05		0.09	0.03	-0.03		
Support #5	0.04		0.09	0.03	-0.03		
Support #6	0.05		0.10	0.03	-0.04		
Support #7	0.02		0.04	0.01	-0.01		



Uplift Check for the Deck Planks:

Loads:

Max. Uplift = 40 lbs

Capacity:

Nail Capacity per NDS Table 12.2.3, W = 1380 * G^(5/2) * D

For Doug-Fir #2, G = 0.50 and for 16d nails, D = 0.62 in.

=> W = 39.5 lbs / in

16d nails are 3.5 in long => penetration into side member (beam) is 1 inch.

Per NDS section 11.3 and 2.3.2, use C_D = 1.6 for Wind Load.

=> W = 63 lbs, use Cm = 0.25 (NDS Table 11.3.3) => W = 15.75 lbs

(4) nails => 63 lbs total

=> Use (4) nails on each end of plank into beam. => OK.

12.2.3 Nails and Spikes

12.2.3.1 *Smooth shank nails or spikes*:

a) The nail or spike reference withdrawal design value, W, in lbs/in. of penetration, for a smooth shank (bright or galvanized) carbon steel nail or spike driven into the side grain of a wood member, with the nail or spike axis perpendicular to the wood fibers, shall be determined from Table 12.2C or Equation 12.2-3, within the range of specific gravities, G, and nail or spike diameters, D, given in Table 12.2C. Reference withdrawal design values, W, shall be multiplied by all applicable adjustment factors (see Table 11.3.1) to obtain adjusted withdrawal design values, W'.

$$W = 1380\, G^{5/2}\, D \qquad \text{(Eq. 12.2-3)}$$

Table 2.3.2 – Frequently Used Load Duration Factors, C_D[1]

Load Duration	C_D	Typical Design Loads
Permanent	0.9	Dead load
Ten years	1.0	Occupancy live load
Two months	1.15	Snow load
Seven days	1.25	Construction load
Ten minutes	1.6	Wind/earthquake load
Impact[2]	2.0	Impact load

[1] Load duration factors shall not apply to reference modulus of elasticity, E, reference modulus of elasticity for beam and column stability, E_{min}, nor to reference compression perpendicular to grain design values, $F_{c\perp}$, based on a deformation limit.

[2] Load duration factors greater than 1.6 shall not be used in the design of structural members pressure-treated with water-borne preservatives (see Reference 30), or treated with fire-retardant chemicals. Load duration factors greater than 1.6 shall not be used in the design of connections or wood structural panels.

CONNECTOR DESIGN CHECK

Joist to Beam Connection:

Max. floor-load reaction = 0.36 kip = 360 lb < 2,385 lb => OK.

Max. snow-load reaction = 0.15 kip = 150 lb < 2,690 lb => OK.

Max. wind uplift = 0.14 kip = 140 lb < 1,135 lb => OK.

Use HU412 c/w (16) 16d3.5" to header and (6) 10dx3" to joist. Refer to attached table for allowable loads.

ITEM, #2, Calc. package

Wood Beam Design : Joists

BEAM Size : **4x12, Sawn, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : Douglas Fir-Larch
Wood Grade : No.2

Fb - Tension	875.0 psi	Fc - Prll	600.0 psi	Fv	170.0 psi	Ebend- xx	1,300.0 ksi	Density	31.210 pcf
Fb - Compr	875.0 psi	Fc - Perp	625.0 psi	Ft	425.0 psi	Eminbend - xx	470.0 ksi		

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 1.50 ft

Design Summary

Max fb/Fb Ratio = 0.291 : 1
fb : Actual : 186.64 psi at 4.000 ft in Span # 1
Fb : Allowable : 642.24 psi
Load Comb : +D+L

Max fv/FvRatio = 0.127 : 1
fv : Actual : 16.77 psi at 0.000 ft in Span # 1
Fv : Allowable : 131.92 psi
Load Comb : +D+L

Max Reactions (k)	D	Lr	L	S	W	E	H
Left Support	0.21		0.36	0.15	-0.14		
Right Support	0.21		0.36	0.15	-0.14		



Max Deflections

Transient Downward	0.017 in	Total Downward	0.027 in
Ratio	5593	Ratio	3507
	LC: L Only		LC: +D+L
Transient Upward	-0.007 in	Total Upward	0.000 in
Ratio	9999	Ratio	9999
	LC: W Only		LC:

Simpson Catalog, pg. 111

Joist Size	Model No.	Ga.	Dimensions (in.) W	H	B	Min./ Max.	Fasteners (in.) Header	Joist	DF/SP Allowable Loads (lb.) Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Installed Cost Index (ICI)	Code Ref.
4x12	LUS410	18	3⅜	8¾	2	—	(8) 0.162 x 3½	(6) 0.162 x 3½	1,445	1,830	2,075	2,245	Lowest	IBC®, FL, LA
	LUS414	18	3⅜	10¾	2	—	(10) 0.162 x 3½	(6) 0.162 x 3½	1,445	2,110	2,395	2,590	33%	
	U410	16	3⅜	8⅜	2	—	(14) 0.162 x 3½	(6) 0.148 x 3	990	2,015	2,280	2,465	46%	
	HUS410	14	3⅜	8 15/16	2	—	(8) 0.162 x 3½	(8) 0.162 x 3½	3,220	2,110	2,385	2,575	114%	
	HUS412	14	3⅜	10½	2	—	(10) 0.162 x 3½	(10) 0.162 x 3½	3,435	2,635	2,985	3,220	129%	
	HU412 / HUC412	14	3⅜	10⅜	2½	Min.	(16) 0.162 x 3½	(6) 0.148 x 3	1,135	2,385	2,690	2,880	268%	
		14	3⅜	10⅜	2½	Max.	(22) 0.162 x 3½	(10) 0.148 x 3	1,795	3,275	3,695	3,970	290%	
	HUCQ410-SDS	14	3⅜	9	3	—	(12) ¼ x 2½ SDS	(6) ¼ x 2½ SDS	2,265	4,500	4,500	4,500	*	
	HUCQ412-SDS	14	3⅜	11	3	—	(14) ¼ x 2½ SDS	(6) ¼ x 2½ SDS	2,265	5,045	5,045	5,045	*	

Joist to Beam#4 Connection:

Max. floor-load reaction = 0.203 kip = 203 lb < 0.65 * 2,385 lb = 1,550 lb => OK.

Max. snow-load reaction = 0.107 kip = 107 lb < 0.65 * 2,690 lb = 1,749 lb => OK.

Max. wind uplift = 0.051 kip = 51 lb < 0.75 * 0.65 * 1,135 lb = 553 lb => OK.

Use HU412 SST w/ 67° skew angle c/w (16) 16d × 3.5" nails to header and (6) 10d × 3" nails to joist, O.A.E. Provide square-cut joist. Refer to attached table for allowable loads.

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Standard Face-Mount Joist Hangers (cont.)

U/HU/HUC Series Modifications and Associated Load Reduction Factors

Seat			Flange	Fastener Substitutions	
Seat Sloped Up or Down 45° Max.	Seat Skewed 67½° Max.[3] for W ≤ 6 45° Max. for W > 6	Seat Sloped and Skewed	One or Both HU Flanges Concealed[2]	For Stainless-Steel Hangers Stainless-Steel Nails 0.162" x 3½"	Other Smooth-Shank Fastener Substitutions
1.00	W ≤ 3⅜ use 1.00 W > 3⅜ use 0.80	0.80	1.00 (normal) 0.80 (when sloped and skewed)	Ring shank (all conditions) 1.00 Smooth shank (normal seat) 1.00 Smooth shank (modified seat)[1] 0.50	0.162" x 3½" → 0.162" x 2½" 1.00 0.162" x 3½" → 0.148" x 3" 0.84 0.162" x 3½" → 0.148 x 1½" 0.64

1. Modified seat is sloped, skewed, or both. For stainless-steel hangers, if sloped only or skewed only, use a smooth-shank stainless-steel reduction of 0.65.
2. For hanger applications with both flanges concealed, W must be at least 2⅝". To order, ask for HUCXXX. For skewed HUC, only flange on acute side is concealed.
3. Skews over 50° require a square-cut joist.

Reduction Factor Instructions

Allowable Download = Seat x Flange x Stainless Steel Nails x Other Fastener Substitutions x Table Load

Allowable Uplift = 0.75 x Face Fastener Type x Table Load for skewed or sloped
1.00 x Face Fastener Type x Table Load for non-skewed or non-sloped

Beam #2 support reactions,. calc. package

Vertical Reactions Support notation : Far left is #1

Load Combination	Support 1	Support 2	Support 3
Max Upward from all Load Conditions	0.219	0.683	0.233
Max Upward from Load Combinations	0.219	0.683	0.233
Max Upward from Load Cases	0.148	0.434	0.155
Max Downward from all Load Conditions (Resisting Uplift)	-0.048	-0.168	-0.053
Max Downward from Load Cases (Resisting Uplift)	-0.048	-0.168	-0.053
+D+H	0.071	0.249	0.078
+D+L+H, LL Comb Run (*L)	0.047	0.474	0.233
+D+L+H, LL Comb Run (L*)	0.219	0.457	0.058
+D+L+H, LL Comb Run (LL)	0.195	0.683	0.214
+D+Lr+H, LL Comb Run (*L)	0.071	0.249	0.078
+D+Lr+H, LL Comb Run (L*)	0.071	0.249	0.078
+D+Lr+H, LL Comb Run (LL)	0.071	0.249	0.078
+D+0.70S+H	0.107	0.375	0.117
+D+0.750Lr+0.750L+H, LL Comb Run (*L)	0.053	0.418	0.194
+D+0.750Lr+0.750L+H, LL Comb Run (L*)	0.182	0.405	0.063
+D+0.750Lr+0.750L+H, LL Comb Run (LL)	0.164	0.574	0.180
+D+0.750L+0.5250S+H, LL Comb Run (*L)	0.080	0.512	0.224
+D+0.750L+0.5250S+H, LL Comb Run (L*)	0.209	0.500	0.093

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Joist Size	Model No.	Ga.	Dimensions (in.) W	H	B	Min./ Max.	Fasteners (in.) Header	Joist	DF/SP Allowable Loads (lb.) Uplift (160)	Floor (100)	Snow (115)	Roof (125)	Installed Cost Index (ICI)	Code Ref.
4x12	LUS410	18	3⅜	8¾	2	—	(8) 0.162 x 3½	(6) 0.162 x 3½	1,445	1,830	2,075	2,245	Lowest	IBC®, FL, LA
	LUS414	18	3⅜	10¾	2	—	(10) 0.162 x 3½	(6) 0.162 x 3½	1,445	2,110	2,395	2,590	33%	
	U410	16	3⅜	8⅜	2	—	(14) 0.162 x 3½	(6) 0.148 x 3	990	2,015	2,280	2,465	46%	
	HUS410	14	3⅜	8 15/16	2	—	(8) 0.162 x 3½	(8) 0.162 x 3½	3,220	2,110	2,385	2,575	114%	
	HUS412	14	3⅜	10½	2	—	(10) 0.162 x 3½	(10) 0.162 x 3½	3,435	2,635	2,985	3,220	129%	
	HU412 / HUC412	14	3⅜	10⅜	2½	Min.	(16) 0.162 x 3½	(6) 0.148 x 3	1,135	2,385	2,690	2,880	268%	
		14	3⅜	10⅜	2½	Max.	(22) 0.162 x 3½	(10) 0.148 x 3	1,795	3,275	3,695	3,970	290%	
	HUCQ410-SDS	14	3⅜	9	3	—	(12) ¼ x 2½ SDS	(6) ¼ x 2½ SDS	2,265	4,500	4,500	4,500	*	
	HUCQ412-SDS	14	3⅜	11	3	—	(14) ¼ x 2½ SDS	(6) ¼ x 2½ SDS	2,265	5,045	5,045	5,045	*	

Sonotube base Connection:

Total uplift = 0.45 kip = 450 lb < 5,815 lb => OK.

Lateral force = 1.83 kip = 1,388 lb < 3,015 lb => OK.

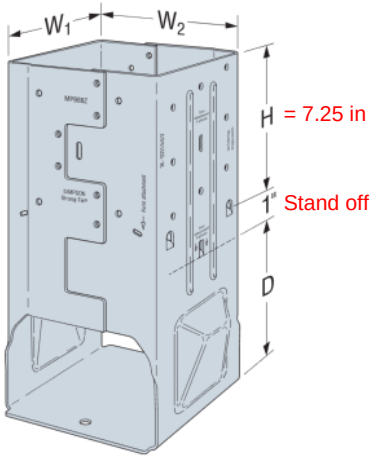
Moment = 1.85 kip*9 in = 1837 lb-ft < 2,055 lb-ft => OK.

Interaction:
0.45/5.815 + 1.83*9/12/2.055 + 0.91/5.815 =0.9 < 1 => OK.

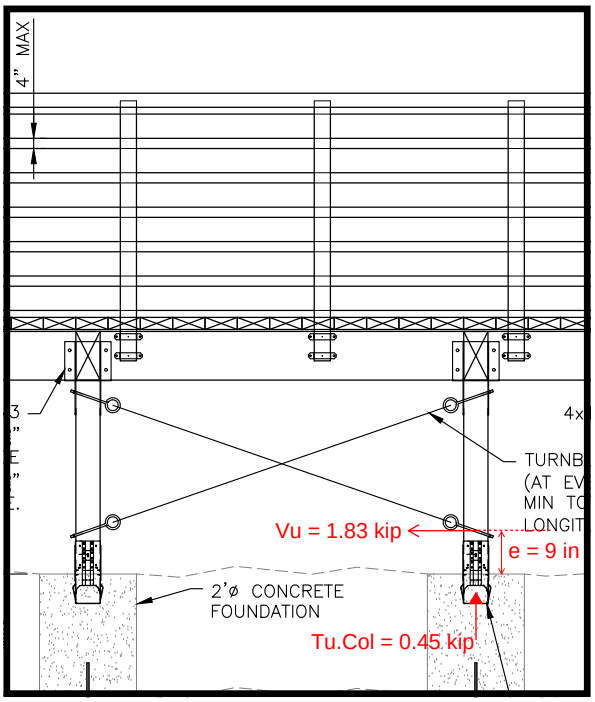
Use MPB66Z SST. Conn. CW/(24) 1/4" x 21/2"
Strong-drive SDS screws at braces O.A.E

Refer to attached table for allowable loads.

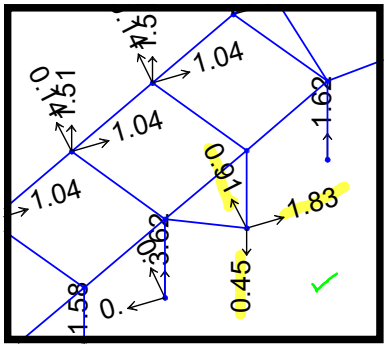
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MPB88Z
(MPB44Z, MPB66Z similar)
US Patent 11,072,940



Jt. rxns. from Calc. package
Joint Reactions
(DL+0.7EQhyx+0.7EQv - Step 10)



Model No.	Nominal Column Size	Dimensions (in.) W1 / W2	D	H	Strong-Drive® SDS Screws	Concrete Allowable Loads: Uplift Uncracked	Uplift Cracked	Lateral F1 Uncracked	Lateral F1 Cracked	Moment M (ft.-lb.) Uncracked	Moment M (ft.-lb.) Cracked	Wood Assembly DF/SP Allowable Loads: Download (100)	Download (160)	Moment M (ft.-lb.) (160)	Rotational Stiffness (in.-lb./rad.)	Code Ref.
Nonreinforced Concrete																
Wind and Seismic Design Category A&B																
MPB44Z	4x4	3 9/16	7 1/4	7 1/4	(16) 1/4" x 2 1/2"	4,900	3,820	1,750	1,225	1,350	945	6,240	6,410	1,520	1,245,000	IBC®, FL, LA
MPB66Z	6x6	5 9/16	7 1/4	7 1/4	(24) 1/4" x 2 1/2"	5,815	5,815	3,435	2,405	2,680	1,875	9,360	10,855	3,730	2,405,000	
MPB88Z	8x8	7 9/16	7 1/4	7 1/4	(36) 1/4" x 3"	11,860	9,315	7,200	5,560	4,160	2,910	15,120	17,690	4,560	5,515,000	
Seismic Design Category C–F																
MPB44Z	4x4	3 9/16	7 1/4	7 1/4	(16) 1/4" x 2 1/2"	4,785	3,350	1,535	1,075	1,180	830	6,240	6,410	1,520	1,245,000	IBC, FL, LA
MPB66Z	6x6	5 9/16	7 1/4	7 1/4	(24) 1/4" x 2 1/2"	5,815	5,815	3,015	2,110	2,055	1,645	9,360	10,855	3,730	2,405,000	
MPB88Z	8x8	7 9/16	7 1/4	7 1/4	(36) 1/4" x 3"	10,155	8,165	6,965	4,875	3,470	2,550	15,120	17,690	4,560	5,515,000	

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Joist & Glulam to Column Connection:

Max. floor-load reaction = 0.36 kip (joist) + 2.16 kip (glulam) = 2.52 kip = 2520 lb < 12,030 lb => OK.

Glulam (side-beam) 2.16 kip = 2160 lb < (0.4 * 12,030 lb = 4810 lb) => OK.

Use Simpson ECCLR46 or ECCLL46, W_3 =5½ in. and H_2 =9½ in., c/w (4) ⅝-in. through bolts through beams and (2) ⅝-in. through bolts through post O.A.E.

Refer to attached table for allowable loads.

ITEM, #2, Calc. package

Wood Beam Design : Joists

BEAM Size : **4x12, Sawn, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : Douglas Fir-Larch — Wood Grade : No.2

Fb - Tension	875.0 psi	Fc - Prll	600.0 psi	Fv	170.0 psi	Ebend- xx	1,300.0 ksi	Density	31.210 pcf
Fb - Compr	875.0 psi	Fc - Perp	625.0 psi	Ft	425.0 psi	Eminbend - xx	470.0 ksi		

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 1.50 ft

Design Summary
Max fb/Fb Ratio = 0.291 : 1 — fb : Actual : 186.64 psi at 4.000 ft in Span # 1 — Fb : Allowable : 642.24 psi — Load Comb : +D+L
Max fv/FvRatio = 0.127 : 1 — fv : Actual : 16.77 psi at 0.000 ft in Span # 1 — Fv : Allowable : 131.92 psi — Load Comb : +D+L

Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	0.21		0.36	0.15	-0.14		
Right Support	0.21		0.36	0.15	-0.14		



Max Deflections

Transient Downward	0.017 in	Total Downward	0.027 in
Ratio	5593	Ratio	3507
	LC: L Only		LC: +D+L
Transient Upward	-0.007 in	Total Upward	0.000 in
Ratio	9999	Ratio	9999
	LC: W Only		LC:

ITEM, #1, Calc. package

Description : ITEM #1:
Wood Beam Design : Glulam Beam

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : DF/DF — Wood Grade : 24F-V4

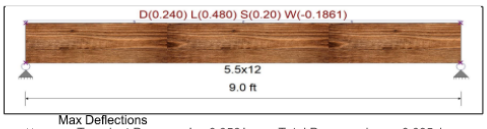
Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density	31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi		

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 8.0 ft

Design Summary
Max fb/Fb Ratio = 0.334 : 1 — fb : Actual : 675.89 psi at 4.500 ft in Span # 1 — Fb : Allowable : 2,025.14 psi — Load Comb : +D+L
Max fv/FvRatio = 0.228 : 1 — fv : Actual : 58.58 psi at 0.000 ft in Span # 1 — Fv : Allowable : 257.05 psi — Load Comb : +D+L

Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	1.14		2.16	0.90	-0.84		
Right Support	1.14		2.16	0.90	-0.84		



Max Deflections

Transient Downward	0.056 in	Total Downward	0.085 in
Ratio	1945	Ratio	1271
	LC: L Only		LC: +D+L
Transient Upward	-0.022 in	Total Upward	0.000 in
Ratio	5017	Ratio	9999
	LC: W Only		LC:

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- The download shall be determined from the allowable loads for the unmodified product (see p. 95). The side beam can take a maximum of 40% of the download and shall not exceed 10,665 lb. The sum of the loads for the side beam(s) and main beam can not exceed the table load.

Simpson Catalog, pg. 95

Model No.	Beam Width (in.)	Dimensions (in.)						Bolts					DF/SP Allowable Loads					Code Ref.	CCO/ECCO Model No. (No Legs)
		W_1	W_2	L			H_1	Size	Beam			Post	CC		ECC	ECCU			
				CC	ECC	ECCU			CC	ECC	ECCU		Uplift (160)	Down (100)	Down (100)	Uplift (160)	Down (100)		
CC3 1/4-4	3⅛	3¼	3⅝	11	7½	9½	6 1⁵⁄₁₆	⅝	4	2	4	2	3,150	16,980	6,835	3,150	6,835	IBC®, FL, LA	CCO3 1/4 ECCO3 1/4
CC3 1/4-6	3⅛	3¼	5½	11	7½	9½	6 1⁵⁄₁₆	⅝	4	2	4	2	3,150	21,485	10,740	3,150	10,740		
CC44	3½	3⅝	3⅝	7	5½	6½	4	⅝	2	1	2	2	1,850	15,315	7,655	1,850	7,655		CCO4 ECCO4
CC46	3½	3⅝	5½	11	8½	9½	6½	⅝	4	2	4	2	3,530	24,065	12,030	3,530	12,030		CCO4/6 ECCO4/6
CC48	3½	3⅝	7½	11	8½	9½	6½	⅝	4	2	4	2	3,530	24,065	16,405	3,530	16,405		

✓

Joist & Glulam to Column Connection:

Max. floor-load reaction = 0.36 kip (joist) + 2.16 kip (glulam) = 2.52 kip = 2520 lb < 24,065 lb => OK.

Glulam (side-beam) floor-load reaction 2.16 kip = 2160 lb < (0.4 * 24,065 lb = 9630 lb) => OK.

Joist (main-beam) uplift 0.82 kip = 820 lb < 3530 lb => OK.

Use Simpson CCT46 SST, W_3 = 5½ in. and H_2 = 9½ in., c/w (8) ⅝-in. structural through bolts O.A.E.

Refer to attached table for allowable loads.

ITEM, #2, Calc. package

Wood Beam Design : Joists

BEAM Size : **4x12, Sawn, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : Douglas Fir-Larch — Wood Grade : No.2

Fb - Tension	875.0 psi	Fc - Prll	600.0 psi	Fv	170.0 psi	Ebend- xx	1,300.0 ksi	Density 31.210 pcf
Fb - Compr	875.0 psi	Fc - Perp	625.0 psi	Ft	425.0 psi	Eminbend - xx	470.0 ksi	

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 1.50 ft

Design Summary
Max fb/Fb Ratio = 0.291 : 1 — fb : Actual : 186.64 psi at 4.000 ft in Span # 1 — Fb : Allowable : 642.24 psi — Load Comb : +D+L
Max fv/FvRatio = 0.127 : 1 — fv : Actual : 16.77 psi at 0.000 ft in Span # 1 — Fv : Allowable : 131.92 psi — Load Comb : +D+L

Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	0.21		0.36	0.15	-0.14		
Right Support	0.21		0.36	0.15	-0.14		



Max Deflections

Transient Downward	0.017 in	Total Downward	0.027 in
Ratio	5593	Ratio	3507
	LC: L Only		LC: +D+L
Transient Upward	-0.007 in	Total Upward	0.000 in
Ratio	9999	Ratio	9999
	LC: W Only		LC:

ITEM, #1, Calc. package

Description : ITEM #1:
Wood Beam Design : Glulam Beam

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : DF/DF — Wood Grade : 24F-V4

Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density 31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi	

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 8.0 ft

Design Summary
Max fb/Fb Ratio = 0.334 : 1 — fb : Actual : 675.89 psi at 4.500 ft in Span # 1 — Fb : Allowable : 2,025.14 psi — Load Comb : +D+L
Max fv/FvRatio = 0.228 : 1 — fv : Actual : 58.58 psi at 0.000 ft in Span # 1 — Fv : Allowable : 257.05 psi — Load Comb : +D+L

Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	1.14		2.16	0.90	-0.84		
Right Support	1.14		2.16	0.90	-0.84		



Max Deflections

Transient Downward	0.056 in	Total Downward	0.085 in
Ratio	1945	Ratio	1271
	LC: L Only		LC: +D+L
Transient Upward	-0.022 in	Total Upward	0.000 in
Ratio	5017	Ratio	9999
	LC: W Only		LC:

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- The download shall be determined from the allowable loads for the unmodified product (see p. 95). The side beam can take a maximum of 40% of the download and shall not exceed 10,665 lb. The sum of the loads for the side beam(s) and main beam can not exceed the table load.

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Model No.	Beam Width (in.)	Dimensions (in.)						Bolts					DF/SP Allowable Loads					Code Ref.	CCO/ECCO Model No. (No Legs)
		W_1	W_2	L			H_1	Size	Beam			Post	CC		ECC	ECCU			
				CC	ECC	ECCU			CC	ECC	ECCU		Uplift (160)	Down (100)	Down (100)	Uplift (160)	Down (100)		
CC3 1/4-4	3⅛	3¼	3⅝	11	7½	9½	6 1⁄16	⅝	4	2	4	2	3,150	16,980	6,835	3,150	6,835	IBC®, FL, LA	CCO3 1/4 ECCO3 1/4
CC3 1/4-6	3⅛	3¼	5½	11	7½	9½	6 1⁄16	⅝	4	2	4	2	3,150	21,485	10,740	3,150	10,740		
CC44	3½	3⅝	3⅝	7	5½	6½	4	⅝	2	1	2	2	1,850	15,315	7,655	1,850	7,655		CCO4 ECCO4
CC46	3½	3⅝	5½	11	8½	9½	6½	⅝	4	2	4	2	3,530	24,065	12,030	3,530	12,030		CCO4/6 ECCO4/6
CC48	3½	3⅝	7½	11	8½	9½	6½	⅝	4	2	4	2	3,530	24,065	16,405	3,530	16,405		

Beam & Glulam to Concrete foundation at grade Connection:

Max. uplift = 0.82 kip (6 x 12 beam) + 0.82 kip (glulam) = 1.64 kip = 1640 lb < 7830 lb => OK.

Glulam (side-beam) uplift 0.82 kip = 820 lb < 6240 lb => OK.

6 x 12 beam (main-beam) uplift 0.82 kip = 820 lb < 6240 lb => OK.

Use Simpson ECCLQM5.50-KT connection c/w (16) ¼ in. × 2½ in. Strong-Drive SDS Heavy-Duty Connector screws to the main beam and (16) ¼ in. × 2½ in. SDS screws to the side beam O.A.E.

Refer to attached table for allowable loads.

ITEM, #3, Calc. package

Applied Loads Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 52.450 lbs * Dead Load Factor
AXIAL LOADS . . .
Load from 6x12 Beam: Axial Load at 8.0 ft, D = 1.140, L = 2.160, S = 0.90, W = -0.820 k

ITEM, #1, Calc. package

Description : ITEM #1:
Wood Beam Design : Glulam Beam

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : DF/DF Wood Grade : 24F-V4

Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density	31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi		

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 8.0 ft

Design Summary
Max fb/Fb Ratio = 0.334 : 1 at 4.500 ft in Span # 1
fb : Actual : 675.89 psi
Fb : Allowable : 2,025.14 psi
Load Comb : +D+L
Max fv/FvRatio = 0.228 : 1 at 0.000 ft in Span # 1
fv : Actual : 58.58 psi
Fv : Allowable : 257.05 psi
Load Comb : +D+L



Max Reactions (k)

	D	Lr	L	S	W	E	H
Left Support	1.14		2.16	0.90	-0.84		
Right Support	1.14		2.16	0.90	-0.84		

Max Deflections

Transient Downward	0.056 in	Total Downward	0.085 in
Ratio	1945	Ratio	1271
	LC: L Only		LC: +D+L
Transient Upward	-0.022 in	Total Upward	0.000 in
Ratio	5017	Ratio	9999
	LC: W Only		LC:

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Model No.	No. of ¼" x 2½" SDS Screws			16" Square Grout-Filled CMU Pier[3,6]				16" Square CMU Shell Filled with 3,000 psi Concrete[3,7]				Deck Joist Connection		Code Ref.
				Uplift (160)			Lateral (160)	Uplift (160)			Lateral (160)	Download	Uplift	
	Main Beam	Side Beam	Deck Beam	Main Beam	Side Beam	Total		Main Beam	Side Beam	Total				
CCQM-SDSHDG	12	—	—	6,750	—	6,750	2,460	6,495	—	6,495	2,650	—	—	
CCTQM-SDSG	12	8	—	6,750	5,375	6,750	2,460	6,495	5,375	6,495	2,650	—	—	
CCCQM-SDSG	12	8	—	6,750	5,375	6,750	2,460	6,495	5,375	6,495	2,650	—	—	FL
ECCLQM-KT[8]	16	16	—	6,240	6,240	7,340	2,220	6,240	6,240	7,830	2,565	—	—	
ECCLQMD-KT[9]	16	16	6	6,240	6,240	7,340	2,220	6,240	6,240	7,830	2,565	5,475	2,010	

Column post to foundation Connection:

Max. uplift = 0.82 kip (6 x 12 beam) + 0.82 kip (glulam) = 1.64 kip = 1640 lb < 6495 lb => OK.

Glulam (side-beam) uplift 0.82 kip = 820 lb < 5375 lb => OK.

6 x 12 beam (main-beam) uplift 0.82 kip = 820 lb < 6495 lb => OK.

Use Simpson CCTQM5.50-SDSG connection c/w (12) ¼ in. × 2½ in. Strong-Drive SDS Heavy-Duty Connector screws to the main beam and (8) ¼ in. × 2½ in. SDS screws to the side beam O.A.E.

Refer to attached table for allowable loads.

ITEM, #3, Calc. package

Applied Loads Service loads entered. Load Factors will be applied for calculations.

Column self weight included : 52.450 lbs * Dead Load Factor
AXIAL LOADS . . .
Load from 6x12 Beam: Axial Load at 8.0 ft, D = 1.140, L = 2.160, S = 0.90, W = -0.820 k

ITEM, #1, Calc. package

Description : ITEM #1:
Wood Beam Design : Glulam Beam

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending
Wood Species : DF/DF — Wood Grade : 24F-V4

Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density 31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi	

Applied Loads
Beam self weight calculated and added to loads
Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 8.0 ft

Design Summary
Max fb/Fb Ratio = 0.334 : 1 at 4.500 ft in Span # 1
fb : Actual : 675.89 psi
Fb : Allowable : 2,025.14 psi
Load Comb : +D+L
Max fv/FvRatio = 0.228 : 1 at 0.000 ft in Span # 1
fv : Actual : 58.58 psi
Fv : Allowable : 257.05 psi
Load Comb : +D+L

Max Reactions (k)	D	Lr	L	S	W	E	H
Left Support	1.14		2.16	0.90	-0.84		
Right Support	1.14		2.16	0.90	-0.84		



Max Deflections

Transient Downward	0.056 in	Total Downward	0.085 in
Ratio	1945	Ratio	1271
	LC: L Only		LC: +D+L
Transient Upward	-0.022 in	Total Upward	0.000 in
Ratio	5017	Ratio	9999
	LC: W Only		LC:

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Model No.	No. of ¼" x 2½" SDS Screws			16" Square Grout-Filled CMU Pier[3,6]				16" Square CMU Shell Filled with 3,000 psi Concrete[3,7]				Deck Joist Connection		Code Ref.
				Uplift (160)			Lateral (160)	Uplift (160)			Lateral (160)	Download	Uplift	
	Main Beam	Side Beam	Deck Beam	Main Beam	Side Beam	Total		Main Beam	Side Beam	Total				
CCQM-SDSHDG	12	—	—	6,750	—	6,750	2,460	6,495	—	6,495	2,650	—	—	
CCTQM-SDSG	12	8	—	6,750	5,375	6,750	2,460	6,495	5,375	6,495	2,650	—	—	
CCCQM-SDSG	12	8	—	6,750	5,375	6,750	2,460	6,495	5,375	6,495	2,650	—	—	FL
ECCLQM-KT[8]	16	16	—	6,240	6,240	7,340	2,220	6,240	6,240	7,830	2,565	—	—	
ECCLQMD-KT[9]	16	16	6	6,240	6,240	7,340	2,220	6,240	6,240	7,830	2,565	5,475	2,010	

Post-Base Connection:

Max. post compression = 3.352 kip = 3352 lb < 9335 lb => OK.

Gross wind upload 0.82 kips = 820 < 2165 lb => OK.

6 x 12 beam (main-beam) uplift 0.82 kip = 820 lb < 6495 lb => OK.

Use Simpson PBS66 SST standoff post base c/w (2) ½-in.-diameter structural through bolts O.A.E.

Refer to attached table for allowable loads.

ITEM, #3, Calc. package

Wood Column Project File: Boardwalk Beams.ec6

LIC# : KW-06016074, Build:20.25.03.24 BOWMAN CONSULTING GROUP, LTD (c) ENERCALC, LLC 1982-2026

DESCRIPTION: Timber Post

Maximum Reactions Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
D Only					1.192				
+D+L					3.352				
+D+0.70S					1.822				
+D+0.750L					2.812				
+D+0.750L+0.5250S					3.285				
+D+0.60W					0.700				
+D+0.750L+0.450W					2.443				
+D+0.750L+0.5250S+0.450W					2.916				
+0.60D+0.60W					0.223				
+D+0.750L+0.10S					2.902				
+0.60D					0.715				
L Only					2.160				
S Only					0.900				
W Only									

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Model No.	Nominal Post Size	Material (ga.)		Dimensions (in.)				Fasteners (in.)		Allowable Loads			Code Ref.
		Base	Strap	W	L	H	HB	Nails	Bolts	Uncracked Uplift	Cracked Uplift	Download	
Wind and Seismic Design Category A&B													
PBS44A	4x4	12	14	3⁹⁄₁₆	3½	6¼	3⁷⁄₁₆	(14) 0.162 x 3½	(2) ½ dia.	1,235	865	6,665	IBC®, FL, LA
PBS46	4x6	12	14	3⁹⁄₁₆	5⁷⁄₁₆	6⁹⁄₁₆	3⅜	(14) 0.162 x 3½	(2) ½ dia.	1,235	865	9,335	
PBS66	6x6	12	12	5½	5⅜	6½	3¹¹⁄₁₆	(14) 0.162 x 3½	(2) ½ dia.	2,165	2,165	9,335	
Seismic Design Category C–F													
PBS44A	4x4	12	14	3⁹⁄₁₆	3½	6¼	3⁷⁄₁₆	(14) 0.162 x 3½	(2) ½ dia.	1,080	755	6,665	IBC, FL, LA
PBS46	4x6	12	14	3⁹⁄₁₆	5⁷⁄₁₆	6⁹⁄₁₆	3⅜	(14) 0.162 x 3½	(2) ½ dia.	1,080	755	9,335	
PBS66	6x6	12	12	5½	5⅜	6½	3¹¹⁄₁₆	(14) 0.162 x 3½	(2) ½ dia.	2,165	2,165	9,335	

Purlin to Beam Connection:

Max. floor-load reaction = 3.04 kip = 3,040 lb < 5,920 lb => OK.

Max. snow-load reaction = 1.27 kip = 1,270 lb < 5,920 lb => OK.

Max. floor-load reaction = 1.15 kip = 1,150 lb < 1,685 lb => OK.

Use Simpson HWPH SST, W=3⅞ in., B=3½ in. and H=12 in., with fasteners approved by Simpson Strong-Tie for the published capacities O.A.E.

Refer to attached table for allowable loads.

BEAM, #1, Calc. package

Description :

Wood Beam Design : Beam #1

BEAM Size : **5.5x12, GLB, Fully Unbraced**
Using Allowable Stress Design with ASCE 7-22 / IBC 2024 Load Combinations, Major Axis Bending

Wood Species :	DF/DF					Wood Grade :	24F-V4		
Fb - Tension	2,400.0 psi	Fc - Prll	1,650.0 psi	Fv	265.0 psi	Ebend- xx	1,800.0 ksi	Density	31.210 pcf
Fb - Compr	1,850.0 psi	Fc - Perp	650.0 psi	Ft	1,100.0 psi	Eminbend - xx	950.0 ksi		

Applied Loads

Unif Load: D = 0.030, L = 0.060, S = 0.0250, W = -0.02326 k/ft, Trib= 5.50 ft
1Point: D = 0.250, L = 0.430, S = 0.180, W = -0.170 k @ 10.330 ft
2Point: D = 0.730, L = 1.310, S = 0.520, W = -0.490 k @ 8.50 ft

Design Summary

Max fb/Fb Ratio = 0.157 : 1
fb : Actual : 317.63 psi at 3.740 ft in Span # 1
Fb : Allowable : 2,025.91 psi
Load Comb : +D+L

Max fv/FvRatio = 0.388 : 1
fv : Actual : 99.72 psi at 8.500 ft in Span # 1
Fv : Allowable : 257.05 psi
Load Comb : +D+L



Max Reactions (k)	D	Lr	L	S	W	E	H
Left Support	0.61		1.24	0.52	-0.48		
Right Support	2.07		3.90	1.60	-1.50		

Max Deflections

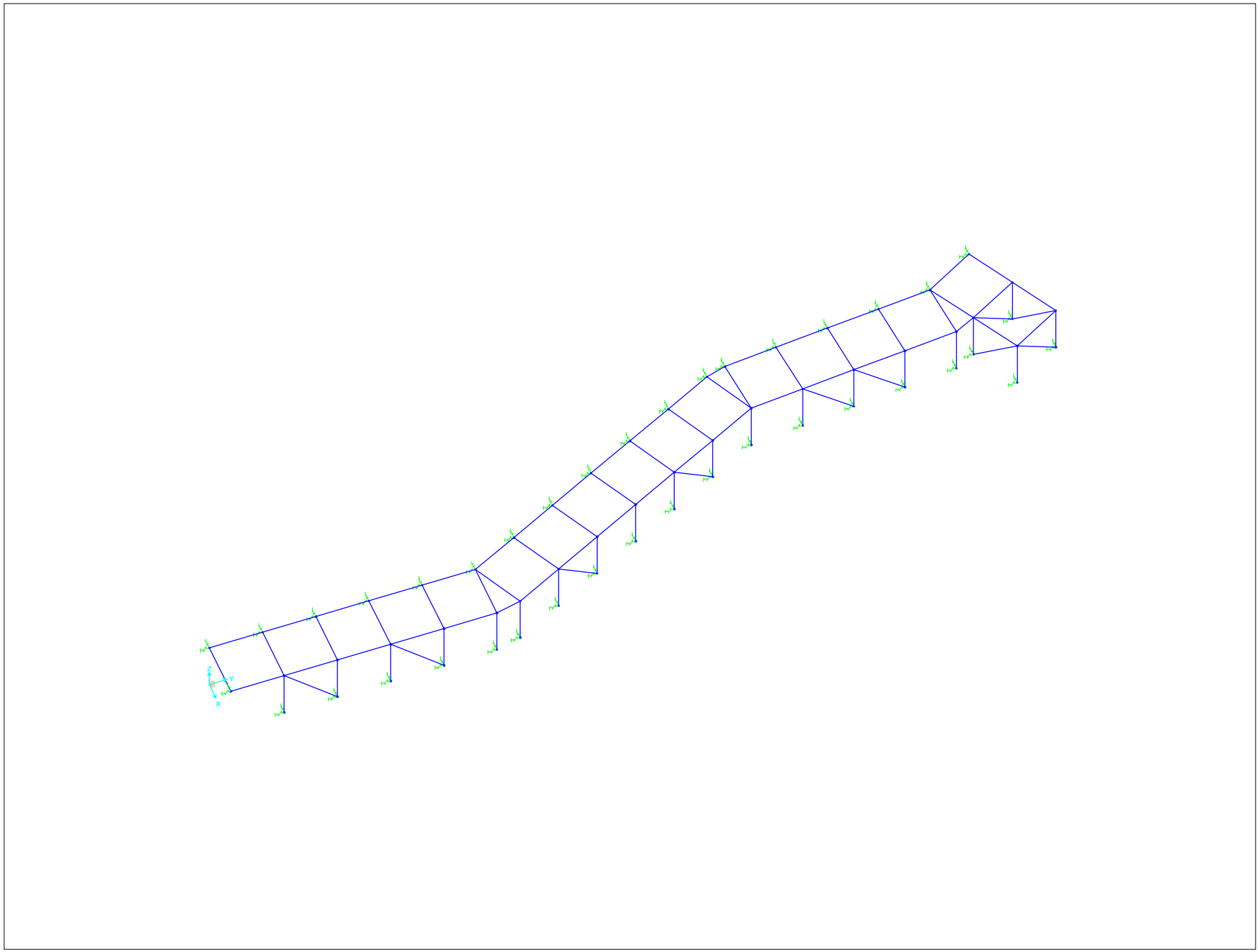
Transient Downward	0.022 in	Total Downward	0.033 in
Ratio	4570	Ratio	3082
	LC: L Only		LC: +D+L
Transient Upward	-0.010 in	Total Upward	-0.014 in
Ratio	4546	Ratio	3148
	LC: L Only		LC: +D+L

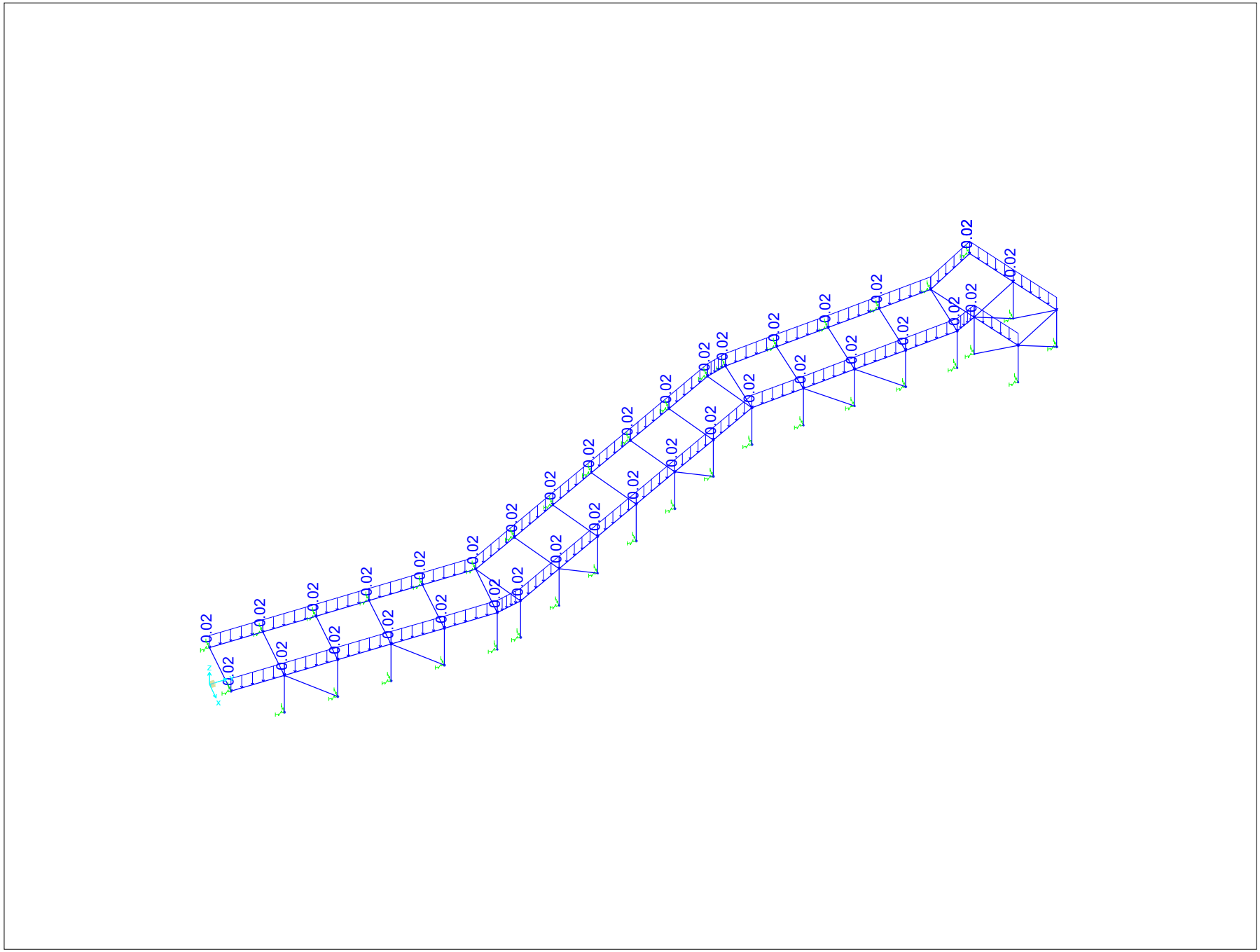
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Various Header Applications

Model	Joist (in.)		Fasteners (in.)			Allowable Loads Header Type							Code Ref.
	Width	Height	Top	Face	Joist	Uplift (160)	LVL	PSL	LSL	DF/SP	SPF/HF	I-Joist	
WP	1½ to 7½	5⅜ to 30	(4) 0.148 x 1½	—	(2) 0.148 x 1½	—	2,935	3,150	—	2,465	1,985	2,030	—
	2½ to 7½	5⅜ to 30	(4) 0.148 x 2½	—	(2) 0.148 x 1½	—	2,935	3,150	3,150	2,985	2,230	—	IBC®, FL, LA
	3½ to 7½	5⅜ to 30	(4) 0.162 x 2½	—	(2) 0.148 x 1½	—	3,095	3,605	3,605	2,985	2,230	—	
HWP	1½ to 7	6 to 15⅝	(3) 0.162 x 3½	(6) 0.162 x 3½	(10) 0.148 x 1½	1,535	3,995	4,500	4,350	3,955	3,955	—	
	1½ to 7	15¾ to 28	(3) 0.162 x 3½	(6) 0.162 x 3½	(12) 0.148 x 1½	1,570	3,995	4,500	4,350	3,955	3,955	—	
HWPH	1 13/16 to 7½	6 to 15⅝	(4) 0.162 x 3½	(8) 0.162 x 3½	(10) 0.148 x 1½	1,685	6,595	7,025	5,450	5,920	4,740	—	
	1 13/16 to 7½	15¾ to 32	(4) 0.162 x 3½	(8) 0.162 x 3½	(12) 0.148 x 1½	2,075	6,595	7,025	5,450	5,920	4,740	—	

Timber Boardwalk Seismic Design




0.02

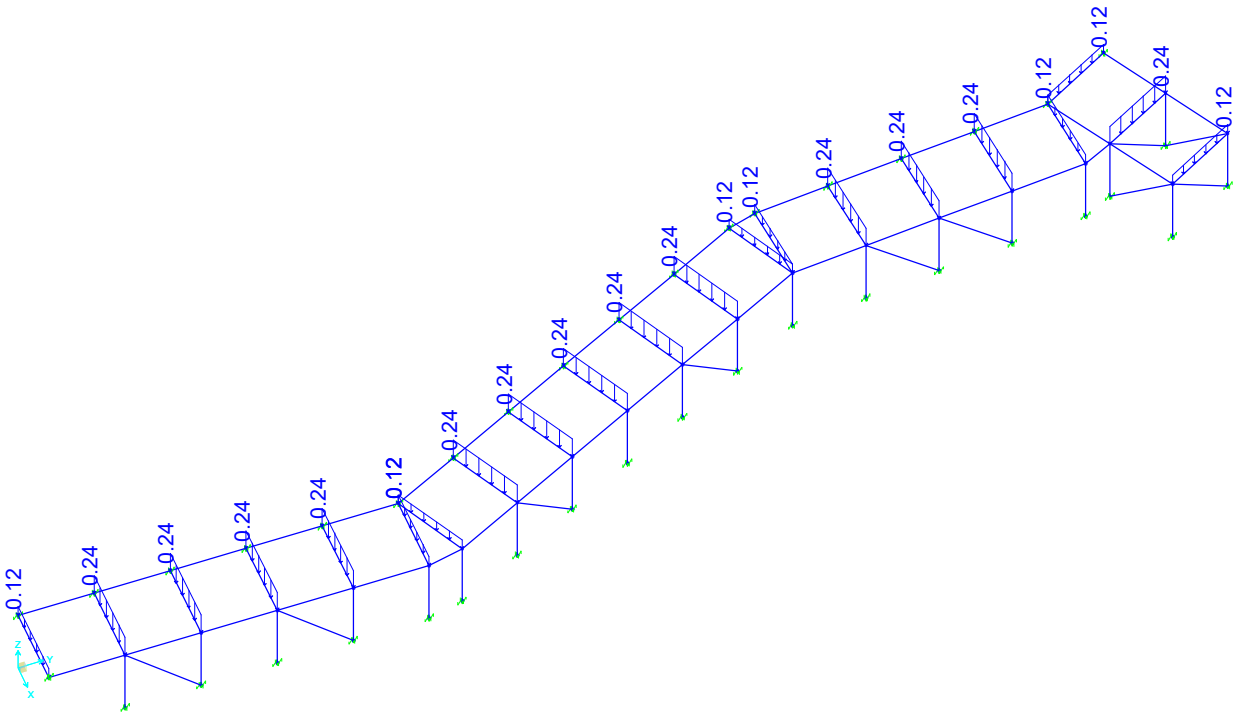

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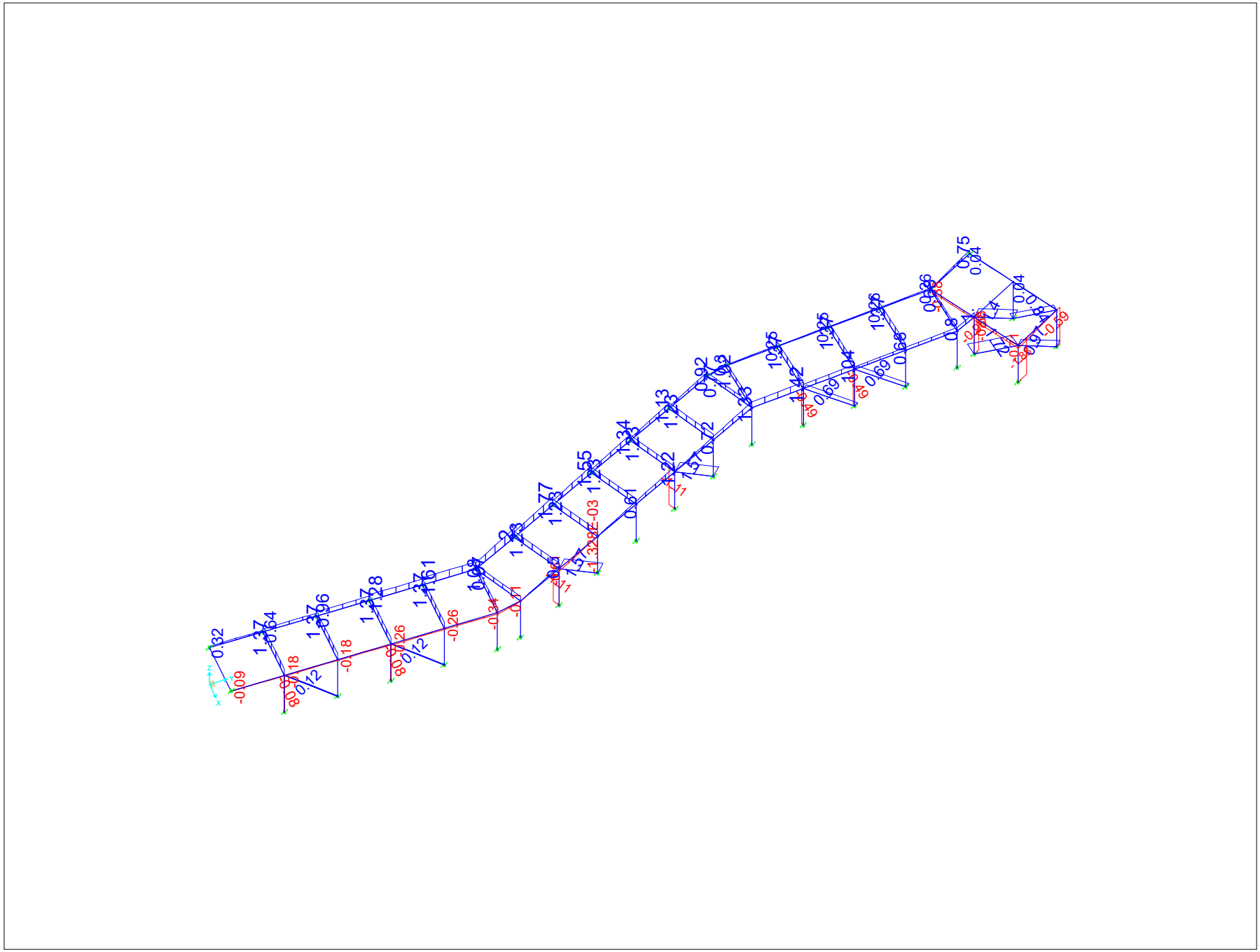
Table: Base Reactions

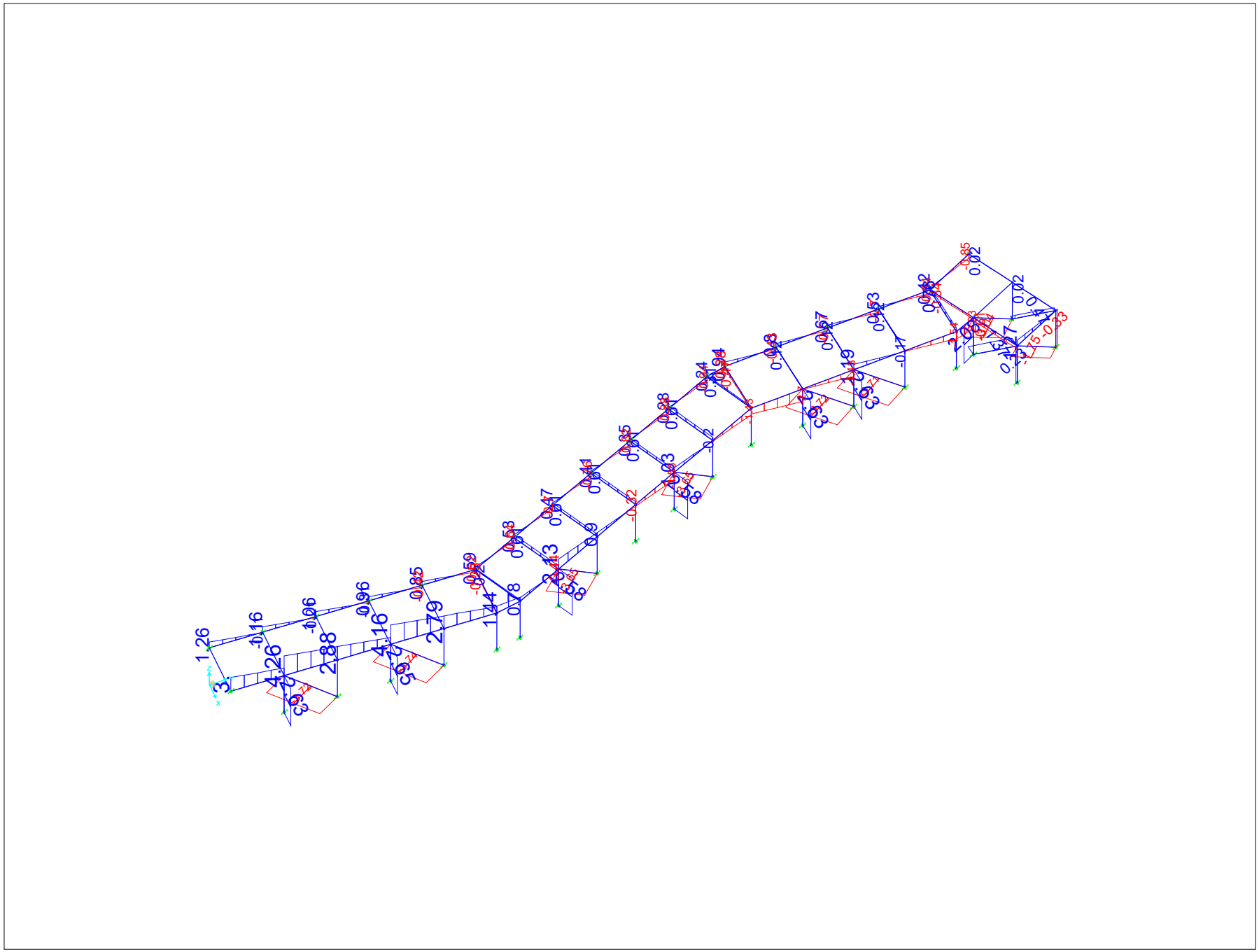
Base Reactions, Part 1 of 4

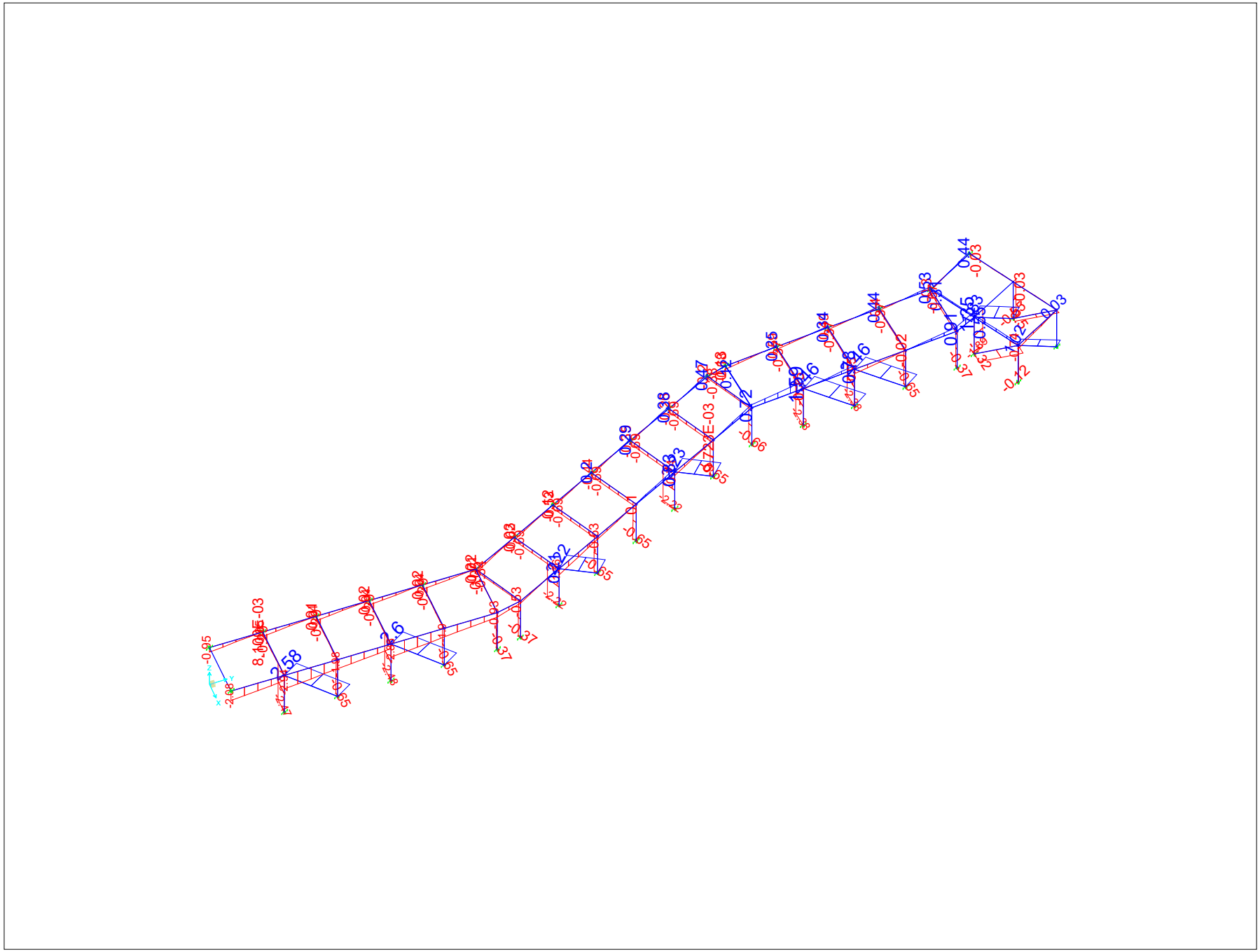
OutputCase	CaseType	StepType	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY
			Kip	Kip	Kip	Kip-ft	Kip-ft
DEAD	LinStatic		0	0	6.807	475.1811	52.644
DECK	LinStatic		0	0	34.68	2326.9899	280.5764
barrier	LinStatic		0	0	5.66	383.4413	47.1179
EQx	NonStatic	Max	0	9.115E-14	1.776E-15	0	0
EQx	NonStatic	Min	-45.877	0	-1.943E-16	-6.537E-13	-367.0188
EQy	NonStatic	Max	8.882E-16	0	0	367.0167	2.709E-14
EQy	NonStatic	Min	-1.816E-13	-45.877	-6.994E-15	0	-1.619E-12
DL+0.7EQhxy +0.7EQv	Combination	Max	0	0	53.559	3695.9291	432.0642
DL+0.7EQhxy +0.7EQv	Combination	Min	-32.114	-9.634	53.559	3618.8556	175.151
DL-0.7EQhxy+0.7EQv	Combination	Max	32.114	9.634	53.559	3618.8556	688.9774
DL-0.7EQhxy+0.7EQv	Combination	Min	0	0	53.559	3541.7821	432.0642
0.6DL+0.7EQhxy-0.7EQv	Combination	Max	0	0	21.876	1555.1976	176.4769
0.6DL+0.7EQhxy-0.7EQv	Combination	Min	-32.114	-9.634	21.876	1478.1241	-80.4362
0.6DL-0.7EQhxy-0.7EQv	Combination	Max	32.114	9.634	21.876	1478.1241	433.3901
0.6DL-0.7EQhxy-0.7EQv	Combination	Min	0	0	21.876	1401.0506	176.4769
DL+0.7EQhyx +0.7EQv	Combination	Max	0	0	53.559	3875.7673	432.0642
DL+0.7EQhyx +0.7EQv	Combination	Min	-9.634	-32.114	53.559	3618.8556	354.9903
DL-0.7EQhyx+0.7EQv	Combination	Max	9.634	32.114	53.559	3618.8556	509.1382
DL-0.7EQhyx+0.7EQv	Combination	Min	0	0	53.559	3361.9439	432.0642
0.6DL+0.7EQhyx-0.7EQv	Combination	Max	0	0	21.876	1735.0358	176.4769
0.6DL+0.7EQhyx-0.7EQv	Combination	Min	-9.634	-32.114	21.876	1478.1241	99.403
0.6DL-0.7EQhyx-0.7EQv	Combination	Max	9.634	32.114	21.876	1478.1241	253.5509
0.6DL-0.7EQhyx-0.7EQv	Combination	Min	0	0	21.876	1221.2124	176.4769
Envelope	Combination	Max	32.114	32.114	53.559	3875.7673	688.9774
Envelope	Combination	Min	-32.114	-32.114	21.876	1221.2124	-80.4362

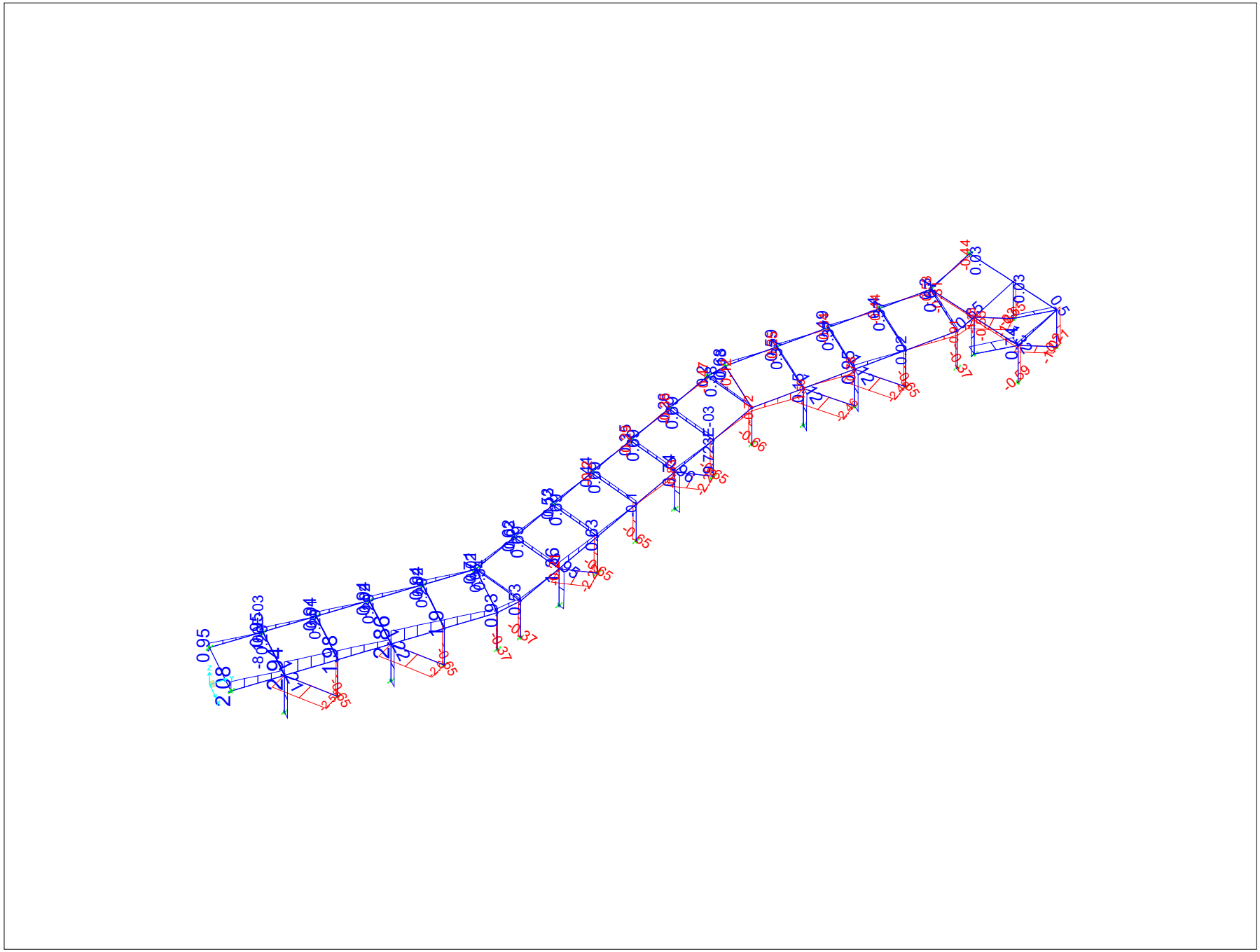
Base Shear

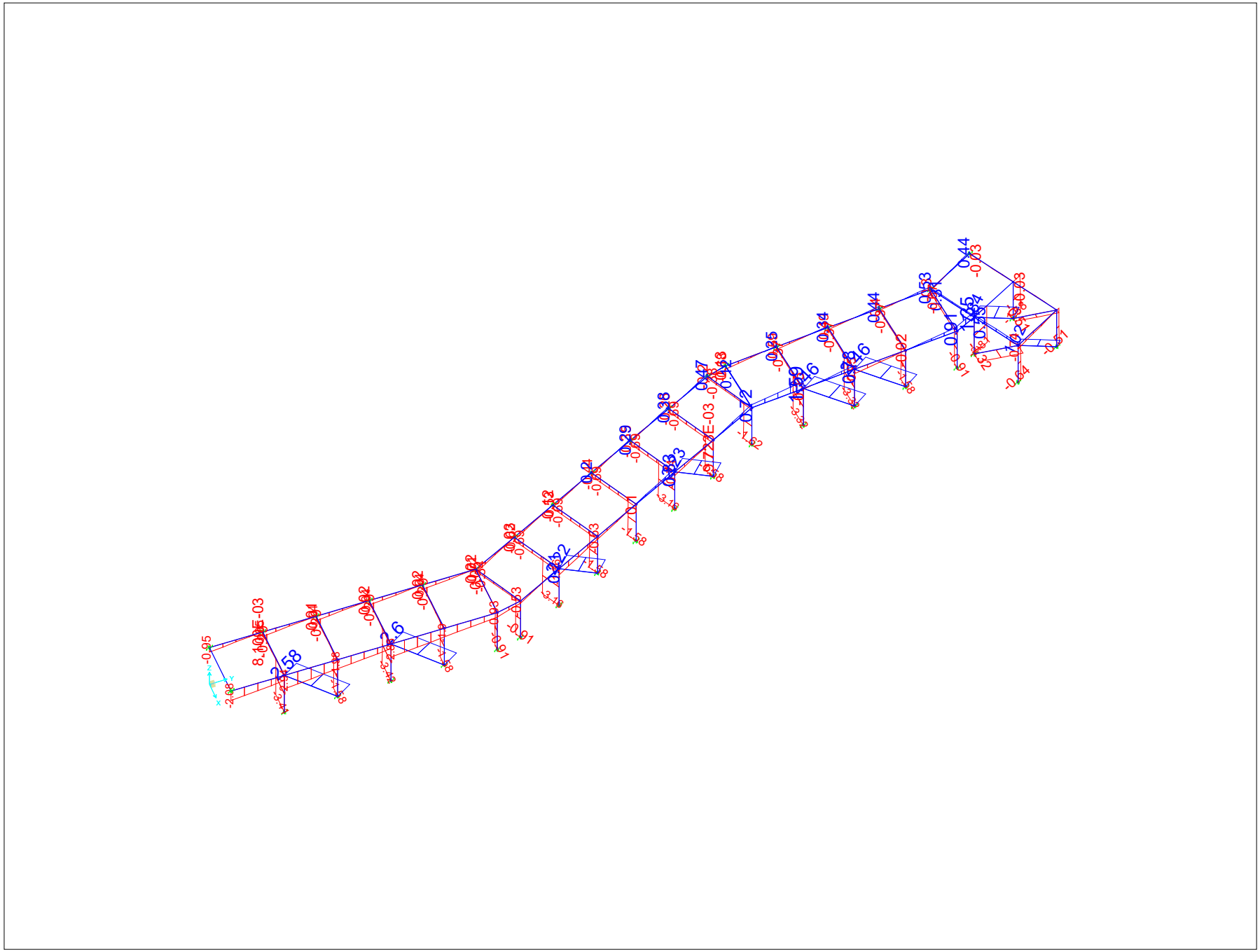
V_{EQ} = $WxS_{DS}/(R/I_e)$= (6.807 kips+34.7 kips+5.66 kips)x0.972/(1.0/1.0) = 45.85 kips

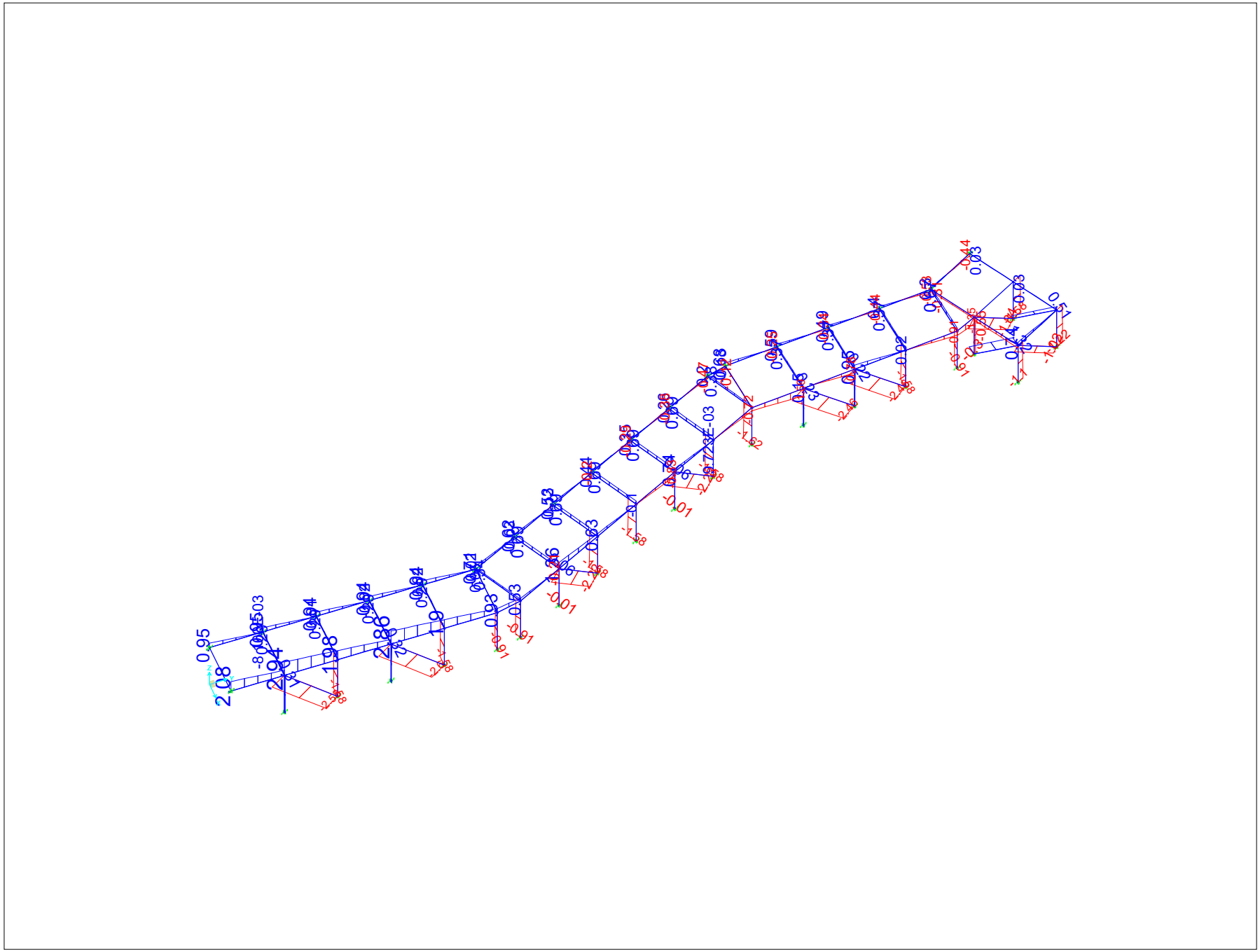


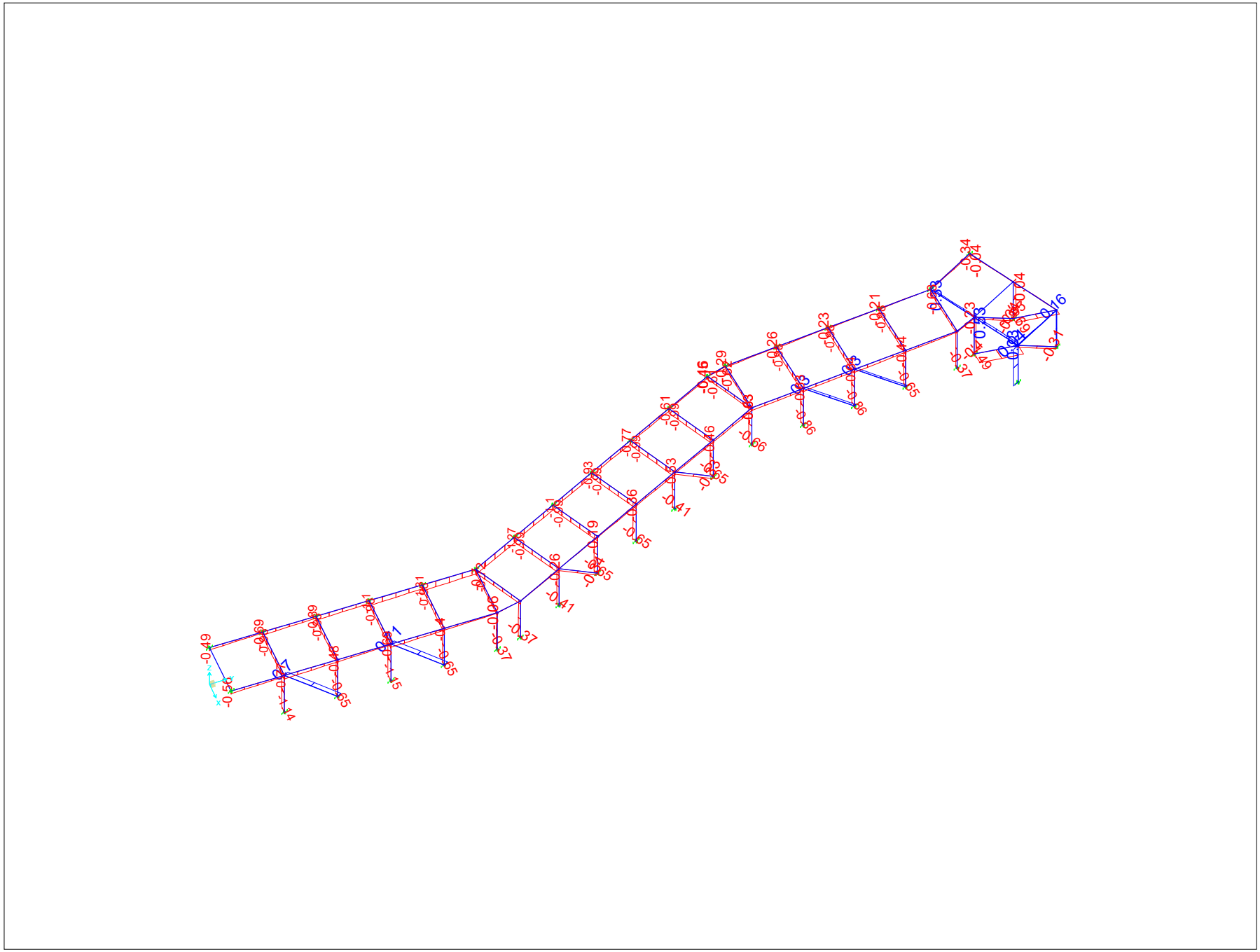


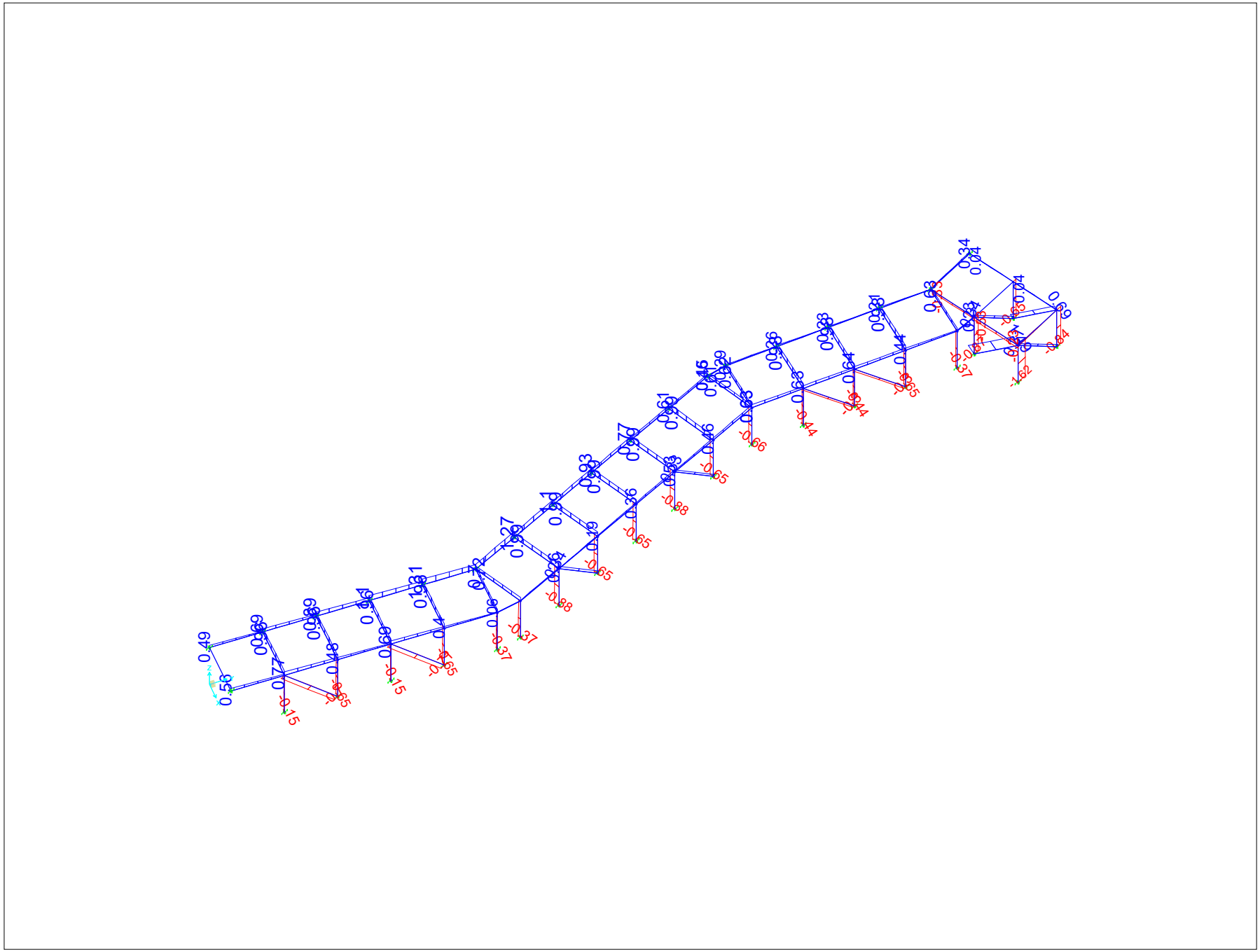


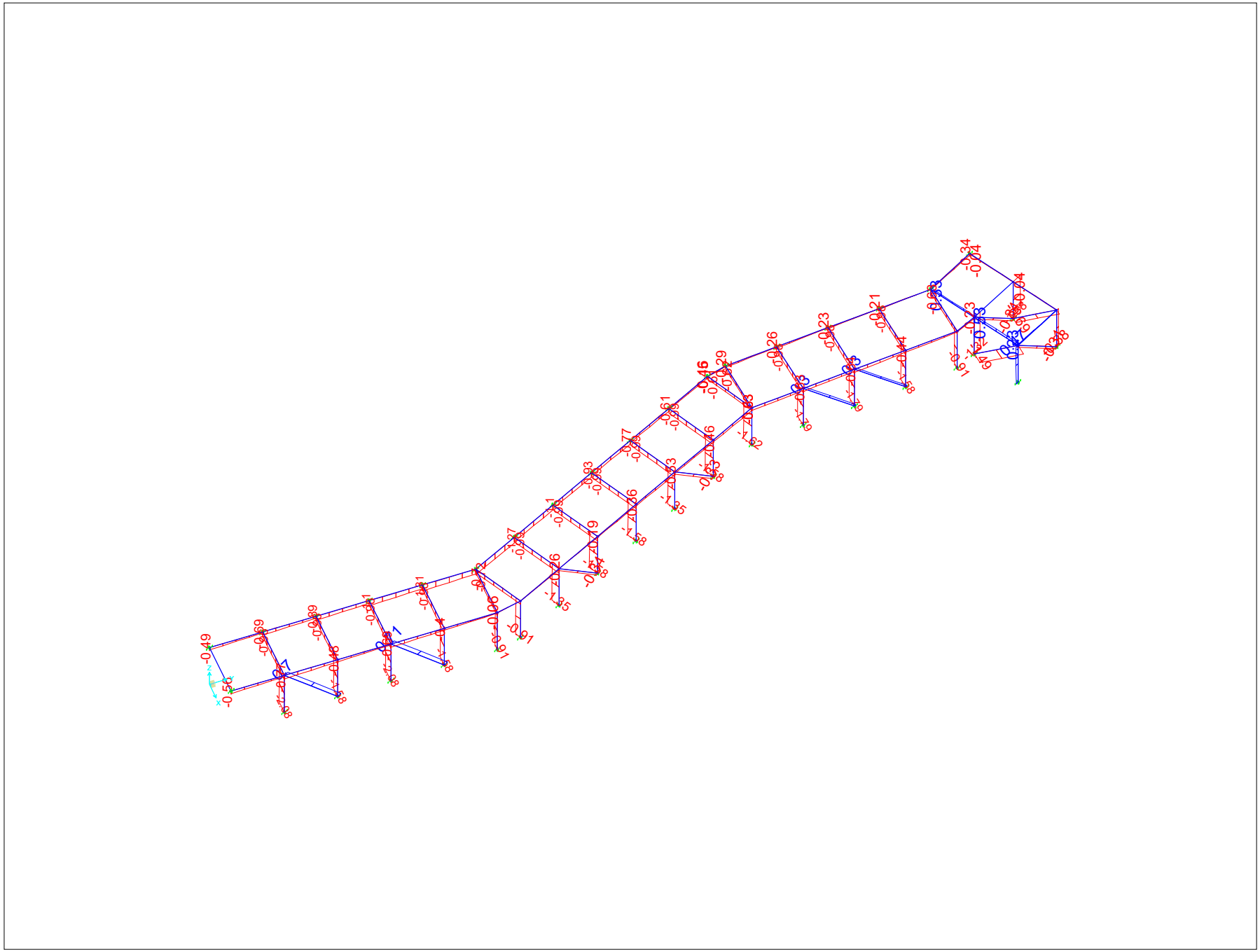


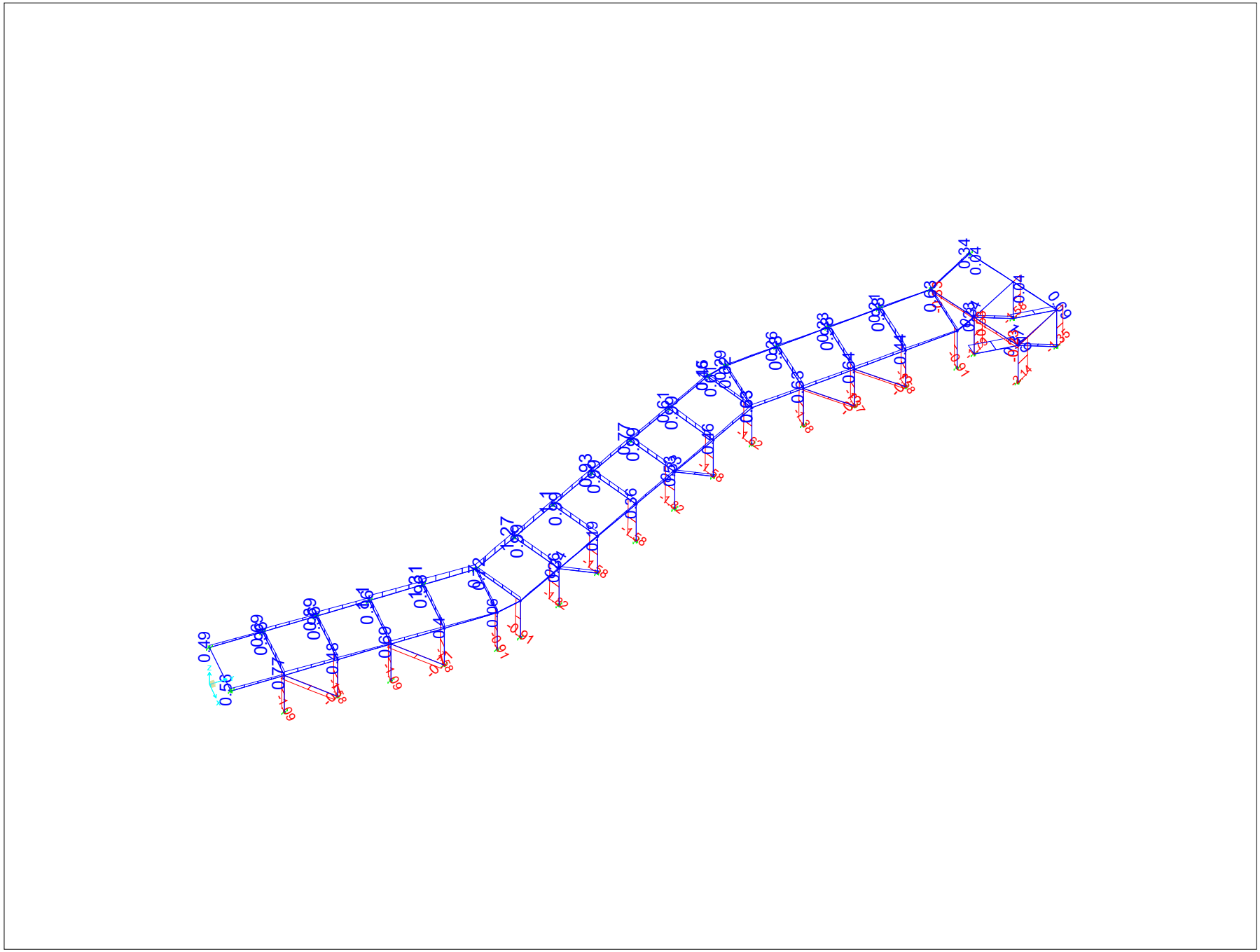


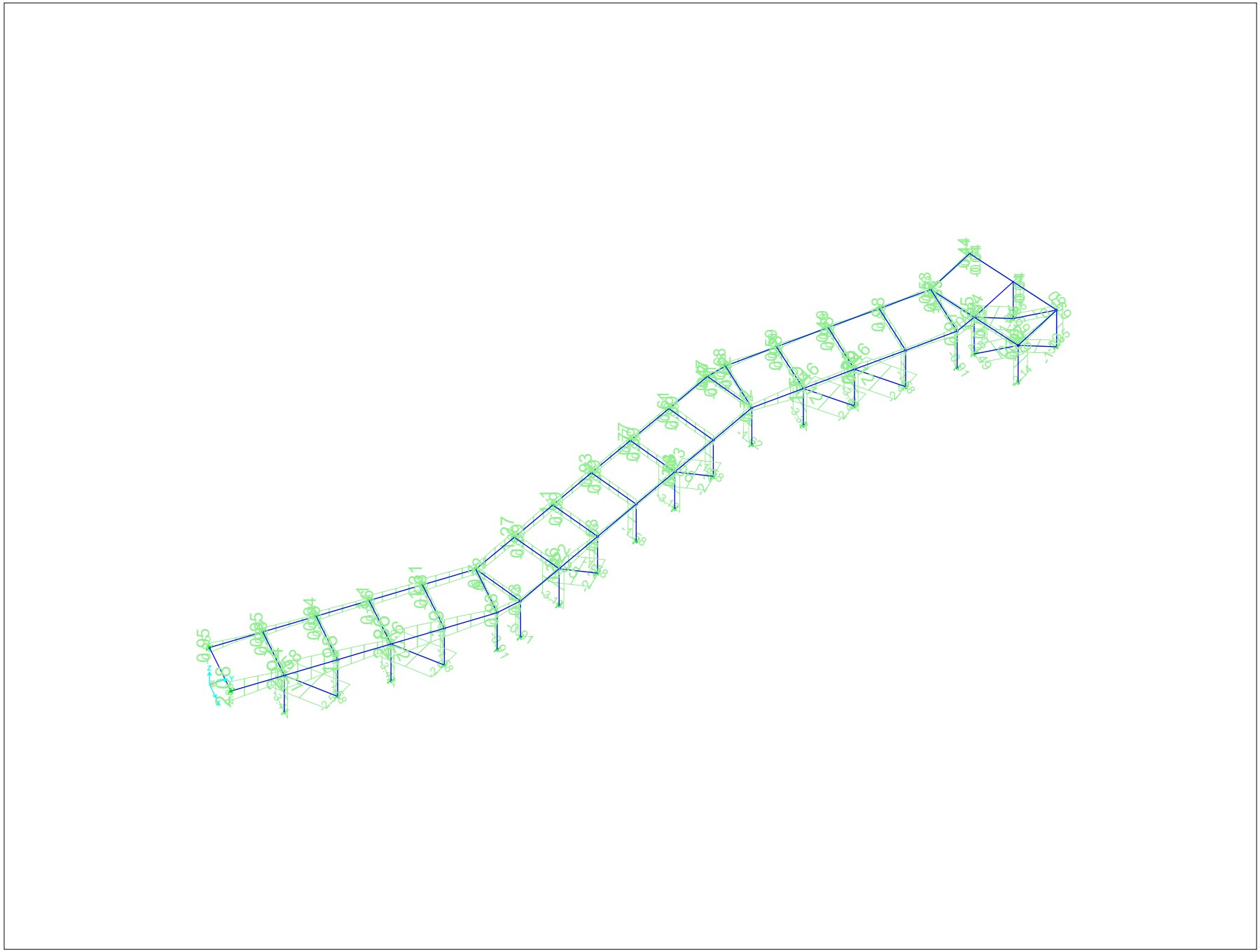


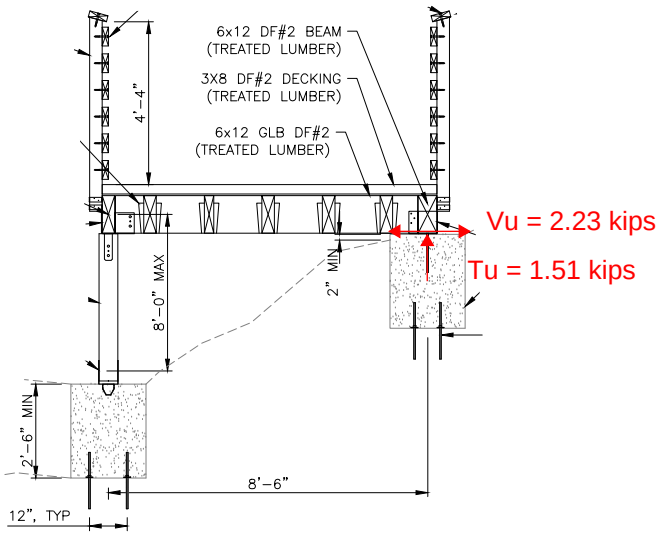


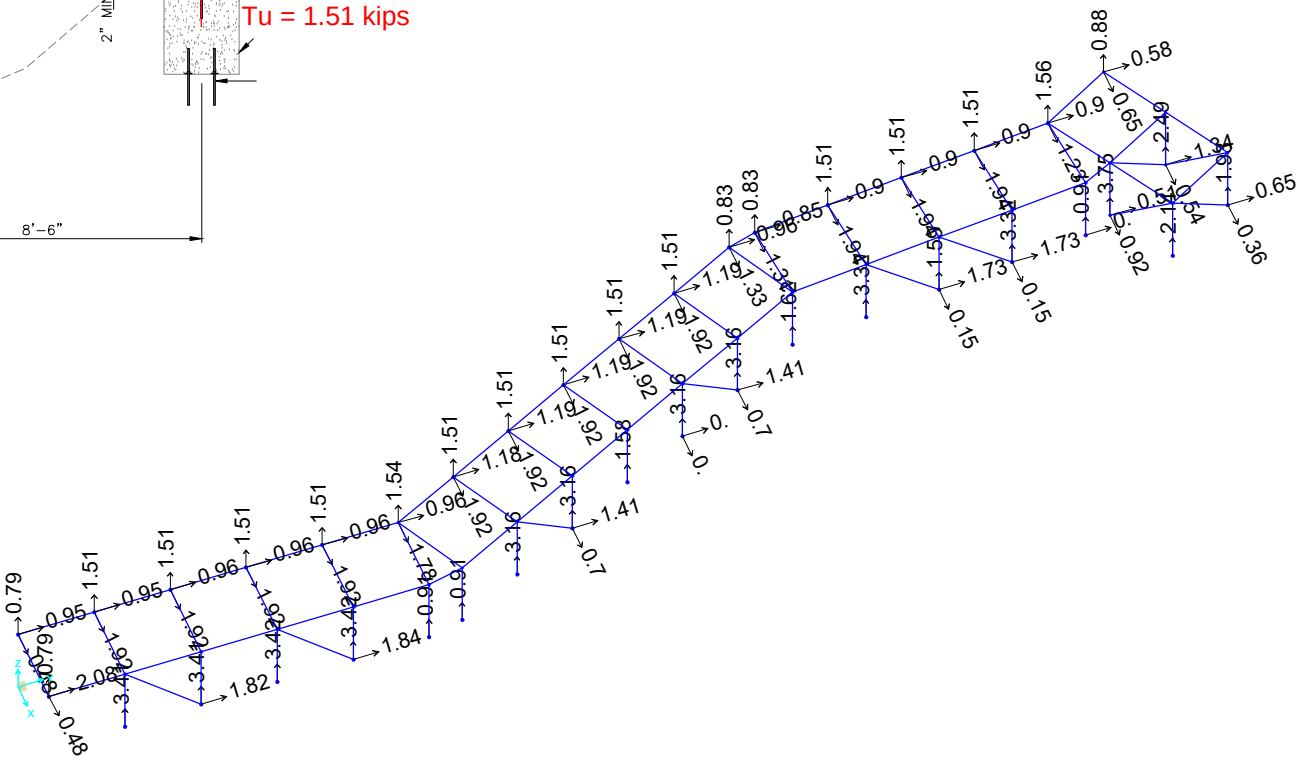


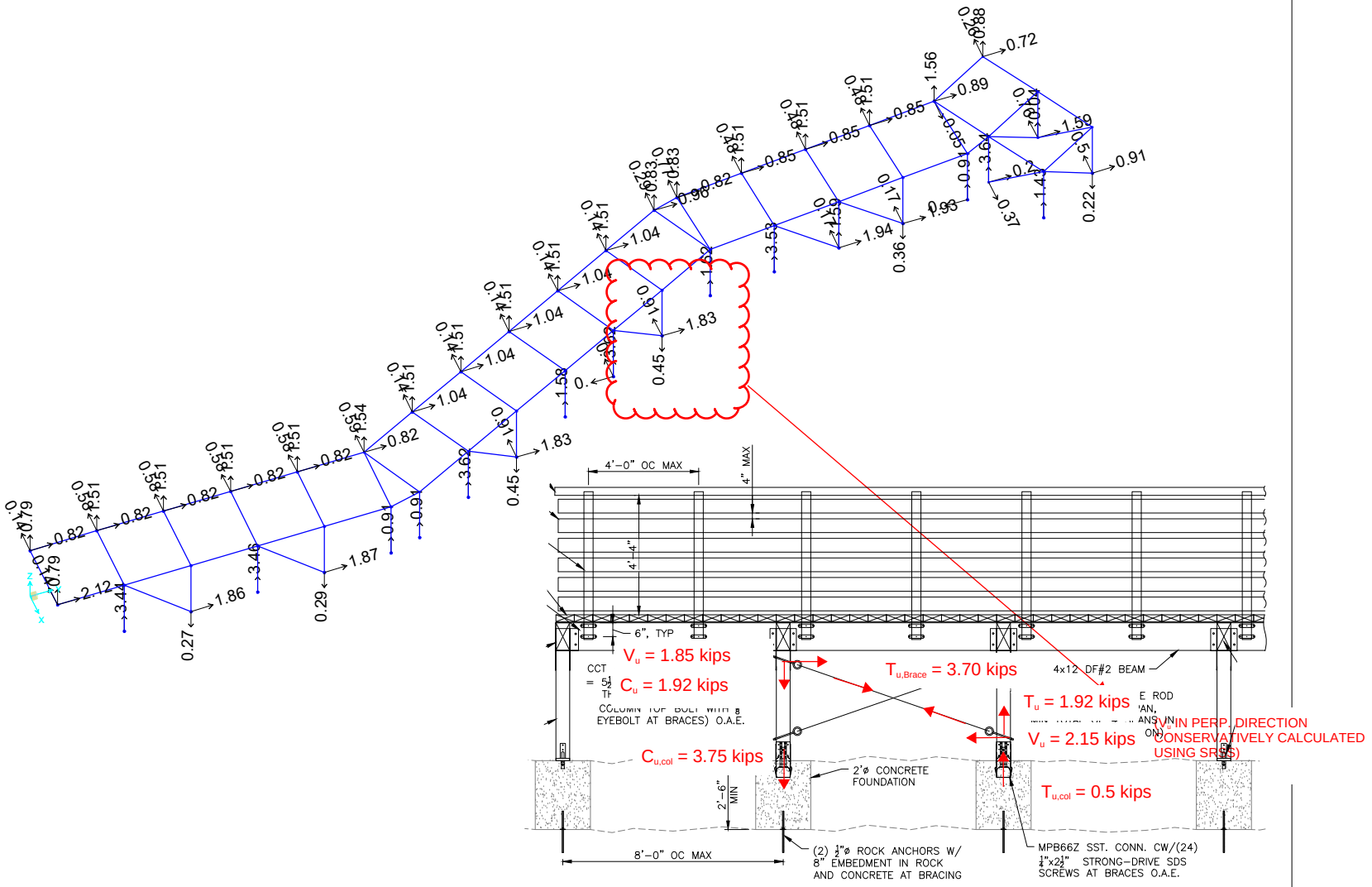


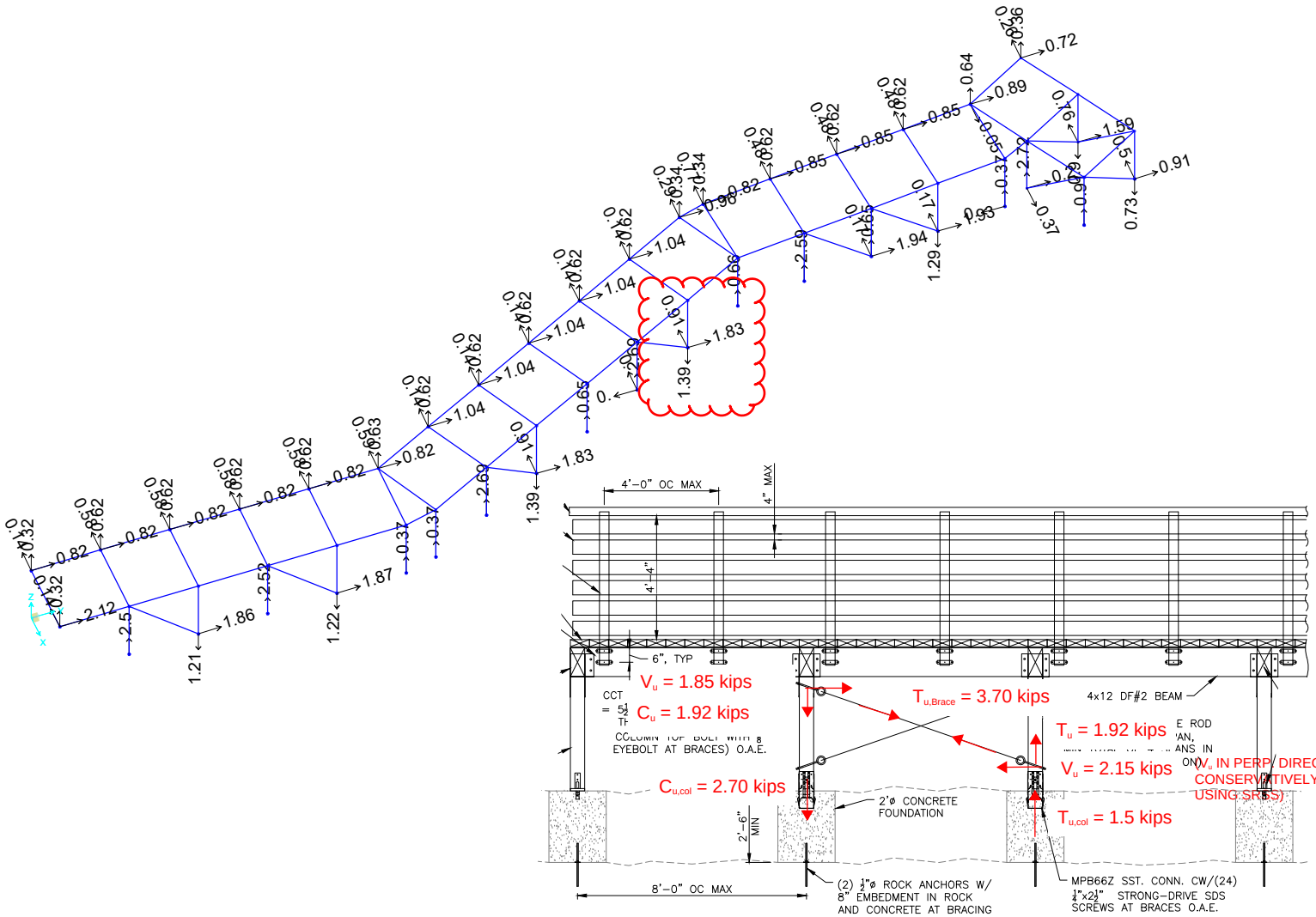





6x12 DF#2 BEAM
(TREATED LUMBER)
3X8 DF#2 DECKING
(TREATED LUMBER)
6x12 GLB DF#2
(TREATED LUMBER)
4'-4"
8'-0" MAX
2" MIN
2'-6" MIN
8'-6"
12", TYP
Vu = 2.23 kips
Tu = 1.51 kips




4'–0" OC MAX
4" MAX
4'–4"
6", TYP
V_u = 1.85 kips
C_u = 1.92 kips
$T_{u,Brace}$ = 3.70 kips
T_u = 1.92 kips
V_u = 2.15 kips
$C_{u,col}$ = 3.75 kips
$T_{u,col}$ = 0.5 kips
4x12 DF#2 BEAM
2'ø CONCRETE FOUNDATION
2'–6" MIN
8'–0" OC MAX
(2) ¾"ø ROCK ANCHORS W/ 8" EMBEDMENT IN ROCK AND CONCRETE AT BRACING
MPB66Z SST. CONN. CW/(24) ¼"x2½" STRONG–DRIVE SDS SCREWS AT BRACES O.A.E.
EYEBOLT AT BRACES) O.A.E.
V_u IN PERP. DIRECTION CONSERVATIVELY CALCULATED USING SRSS)


4'–0" OC MAX
4" MAX
4'–4"
6", TYP
V_u = 1.85 kips
C_u = 1.92 kips
$C_{u,col}$ = 2.70 kips
$T_{u,Brace}$ = 3.70 kips
T_u = 1.92 kips
V_u = 2.15 kips
$T_{u,col}$ = 1.5 kips
4x12 DF#2 BEAM
2'ø CONCRETE FOUNDATION
2'–6" MIN
8'–0" OC MAX
(2) 1"ø ROCK ANCHORS W/ 8" EMBEDMENT IN ROCK AND CONCRETE AT BRACING
MPB66Z SST. CONN. CW/(24) 1"x2½" STRONG–DRIVE SDS SCREWS AT BRACES O.A.E.
V_u IN PERP. DIRECTION CONSERVATIVELY CALCULATED USING SFRS)

exeltech a Bowman company	Project: TIMBER BOARDWALK CLB	Engineer: DM	
		Date: 07/29/2026	
	Subject: Bracing Design	Checker: TM	
		Date:	

Tension Only Bracing Design:

Max Bracing Force = T_{MAX} =3.70 kips ASD (See CSIBRIDGE ANALISYS)

T_n/Ω= min ($F_y x A_g/\Omega_y$, $F_u x A_e/\Omega_u$)

Diameter of Threaded Rod = 1/2"
$A_g = A_e = \pi x d^2/4 = \pi x 0.25/4 = 0.196$ in^2

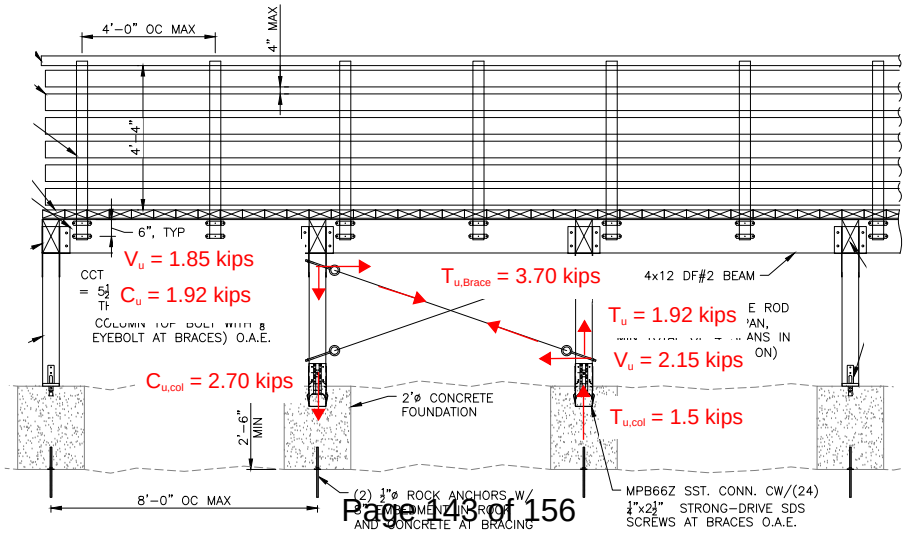
F_y = 36 ksi, F_u = 58 ksi

T_n/Ω= min (36 ksix0.196 in^2/1.67, 58ksix0.196 in^2/2.0)

T_n/Ω= min (4.22 kips, 5.68 kips) = 4.22 kips > 3.70 kips, OK

Capacity of the Turnbuckle = 3.67 kips ASD =~ 3.7 kip, OK (D/C=1.01)
(See attached cutsheet from Portland Bolt)

Capacity of the 1-1/8" Eye Bolt @45^O to 90^O load direction = 15x0.25 = 3.75 kips ASD > 3.7 kips, OK
(See attached cutsheet from Crossby Group)
Assuming 2"x2" Sqaure washer plate and 45O load direction:
$f_{cp,max}$ =3.75 kips*cos(45)/4in^2 = 665 psi< $C_D x f_{cp}$ = 1.6x650= 1000 psi (DF#2)



Portland Bolt & MANUFACTURING COMPANY Established 1912

(800) 547-6758
sales@portlandbolt.com

Turnbuckles

F1145 A668

Turnbuckles are provided as components of tie rod assemblies that Portland Bolt manufactures and are often used in conjunction with clevises. Turnbuckles possess right hand internal threads on one end and left hand internal threads on the other. By rotating the turnbuckle, the tie rod assembly is drawn tight.

Turnbuckles are measured by the length of the take-up as opposed to overall length. Therefore, a 2″ x 6″ turnbuckle refers to a turnbuckle with a 6″ window (“A” dimension in the line drawing on this page). Turnbuckles are typically not specified by their overall length, which in this example is 11-5/8″.

Our new tie rod calculator will quickly determine rod lengths when given overall pin-to-pin dimensions of a tie rod assembly.

Availability

Turnbuckles are stocked in limited sizes, and most sizes that are not in stock are available within a day or two. Turnbuckles are provided in both plain finished and hot-dip galvanized medium carbon steel as well as stainless steel.

Dimensions

Dia. (D), in.	Standard Turnbuckles Dimensions, Inches					Weight in Pounds Length, Inches						Safe Working Load, Kips		Part Numbers (6 inch)	
	A	N	C	E	G	6	9	12	18	24	36	ASD	LRFD	Plain	Galvanized
1/2	6	25/32	7 9/16	11/16	1 5/16	.65	.90	1.20				3.67	5.50	18707	18719
5/8	6	15/16	7 7/8	13/16	1 1/2	.98	1.35	1.58	2.43			5.83	8.75	18708	18720
3/4	6	1 1/16	8 1/8	15/16	1 23/32	1.45	1.84	2.35	3.06			8.67	13.0	18709	18722
7/8	6	1 5/16	8 5/8	1 3/32	1 7/8	1.85		3.02	4.20			12.0	18.0	18710	18723
1	6	1 7/16	8 7/8	1 9/32	2 1/32	2.60		4.02	4.40	6.85	10.0	15.5	23.3	18711	18724
1 1/8	6	1 9/16	9 1/8	1 13/32	2 9/32	4.06		4.70	6.10			19.3	29.0	18712	18725
1 1/4	6	1 9/16	9 1/8	1 9/16	2 17/32	4.00		6.49	7.13	11.30	13.1	25.3	38.0	18713	18726
1 3/8	6	1 13/16	9 5/8	1 11/16	2 3/4	6.15						29.0	43.5	18714	18727

Dimensions per AISC *Manual of Steel Construction* thirteenth edition page 15-16

ASD - *Allowable Stress Design (according to the AISC 9th Ed.)* **LRFD** - *Load and Resistance Factor Design (according to AISC 3rd Ed.)*

FORGED EYE BOLT

WARNINGS & APPLICATION INSTRUCTIONS



Regular Nut Eye Bolt G-291



Shoulder Nut Eye Bolt G-277



Machinery Eye Bolt S-279 / M-279

Important Safety Information - Read & Follow

Inspection/Maintenance Safety:

- Always inspect eye bolt before use.
- Never use eye bolt that shows signs of wear or damage.
- Never use eye bolt if eye or shank is bent or elongated.
- Always be sure threads on shank and receiving holes are clean.
- Never machine, grind, or cut eye bolt.
- Do not leave threaded end of macinery eye bolt in aluminum loads for long periods of time as it may cause corrosion.

Assembly Safety:

- Never exceed load limits specified in Table I & Table 2.
- Never use regular nut eye bolts for angular lifts.
- Always use shoulder nut eye bolts (or machinery eye bolts) for angular lifts.
- For angular lifts, adjust working load as follows:

ANGLE FROM "IN-LINE"	ADJUSTED WORKING LOAD LIMIT
5 degrees	100% of rated working load
15 degrees	80% of rated working load
30 degrees	65% of rated working load
45 degrees	30% of rated working load
90 degrees	25% of rated working load

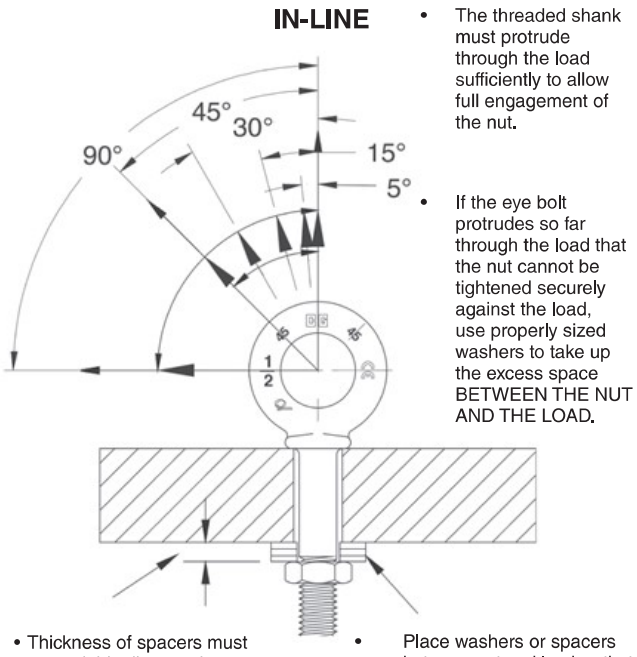
- Never undercut eye bolt to seat shoulder against the load.
- Always countersink receiving hole or use washers with sufficient I.D. to seat shoulder.
- Always screw eye bolt down completely for proper seating.
- Always tighten nuts securely against the load.

Table 1 (In-Line Load)	
Size (in)	Working Load Limit (lb)
1/4	650
5/16	1,200
3/8	1,550
1/2	2,600
5/8	5,200
3/4	7,200
7/8	10,600
1	13,300
1-1/8	15,000
1-1/4	21,000
1-1/2	24,000
1-3/4	34,000
2	42,000
2-1/2	65,000

⚠ WARNING

- **Load may slip or fall if proper eye bolt assembly and lifting procedures are not used.**
- **A falling load can seriously injure or kill.**
- **Read and understand these instructions, and follow all eye bolt safety information presented here.**
- **Read, understand, and follow information in diagrams and charts below before using eye bolt assemblies.**

Shoulder Nut Eye Bolt – Installation for Angular Loading



- The threaded shank must protrude through the load sufficiently to allow full engagement of the nut.
- If the eye bolt protrudes so far through the load that the nut cannot be tightened securely against the load, use properly sized washers to take up the excess space BETWEEN THE NUT AND THE LOAD.
- Thickness of spacers must exceed this distance between the bottom of the load and the last thread of the eye bolt.
- Place washers or spacers between nut and load so that when the nut is tightened securely, the shoulder is secured flush against the load surface.

Figure 1

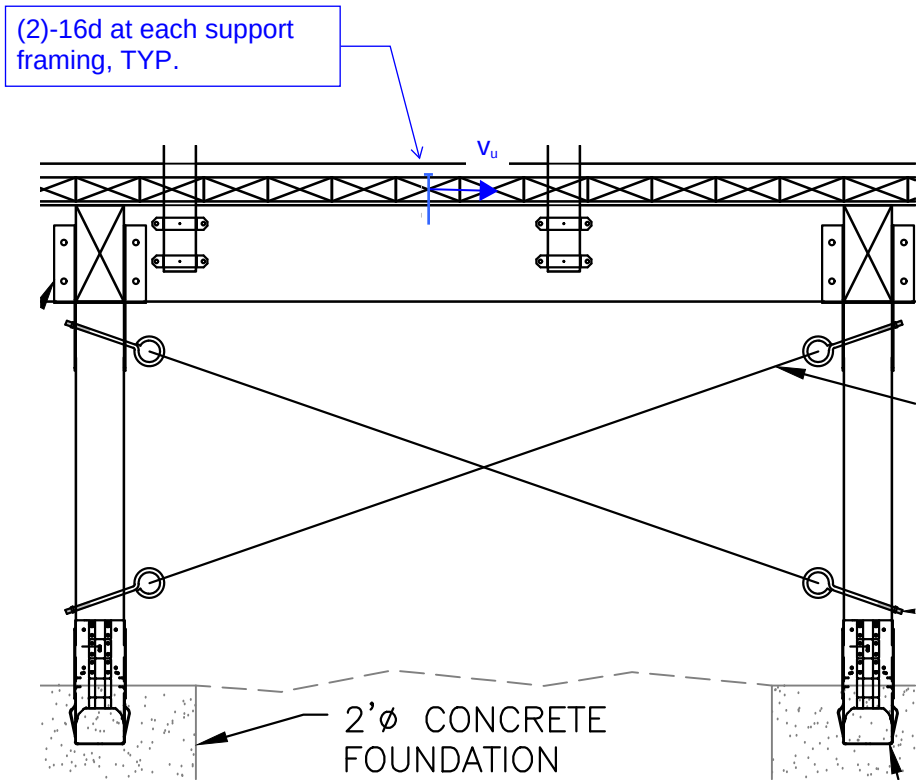
Table 2 (In-Line Load)	
Metric Size	Working Load Limit - kg
m6	200
m8	400
m10	640
m12	1000
m16	1800
m20	2500
m24	4000
m27	5000
m30	6000
m36	8500
m42	14000
m48	17300
m64	29500

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Diaphragm Design:

By observation, the framing joists and beams are supported by hangers that can transfer shear and uplift force. The deck planks, 3"x8" D.Fir, shall require to transfer the seismic load to its support framing:
Seismic shear force of each plank per foot:
$v_u = 0.7xW_{plank}xS_{DS}/2/B_{plank} = 0.7x0.972x7$ plfx8 ft/2/(7.5 in/12)= 31 plf (ASD)

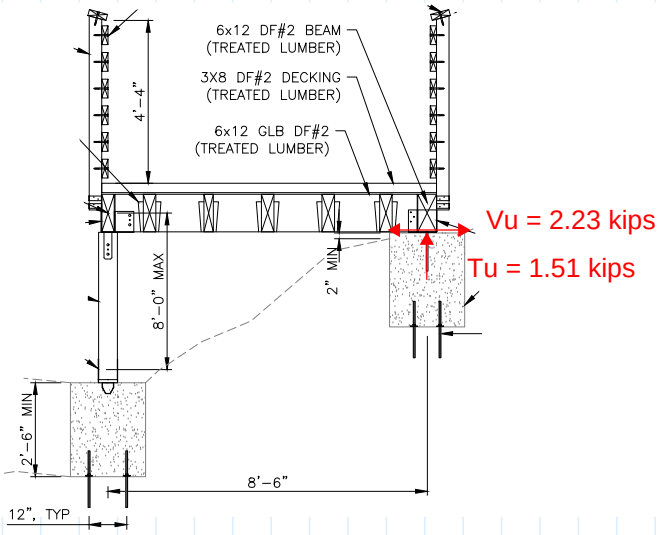
Per 2021 SPDWS Table 4.2D, for horizontal sheathed lumber:
v_n = 140 plf
$v_{all} = C_m x v_n/2.8 = 0.85x140/2.8 = 42.5$ plf (ASD) > vu =31 plf



BOARDWALK CONCRETE FOUNDATION

1. INTRODUCTION

This file is for checking the unreinforced (plain concrete) Concrete Sonotubes using ACI 318-19 Chapter 14



2. INPUTS (all inputs are from Sheet 66 of 68, unless noted otherwise)

State inputs:

$f'_c := 4000 \cdot psi$	concrete strength
$w_c := 0.150 \cdot kcf$	concrete unit weight
$D := 2\ ft$	Auger dia.
$H := 2.5\ ft$	Auger ht.
$H_{max} := 5.5\ ft$	max. auger ht. possible
$P_U := 1.51\ kip$	factored axial load & shear on auger (from CIS bridge model, '2026-05-21 Bridge w LPILE Springs-STEELCAP BEAM & PinPiles.bdb')
$T_U := 1.51\ kip$	
$V_U := 2.23\ kip$	
$\lambda := 1$	for normal weight concrete
$\phi := 0.60$	strength reduction factor for plain concrete, ACI 318-19 T 21.2.1

$A_g := \frac{\pi \cdot D^2}{4} = 3.1\ \textbf{ft}^2$ Auger area

$S := \frac{\pi \cdot D^3}{32} = 0.8\ \textbf{ft}^3$ Auger elastic sec. mod.

$M_U := V_U \cdot H = 5.6\ \textbf{ft} \cdot \textbf{kip}$

$M_{U.max} := V_U \cdot H_{max} = 12.3\ \textbf{ft} \cdot \textbf{kip}$

$f_r := \phi \cdot 5\ \textbf{psi} \cdot \lambda \cdot \sqrt{\frac{f'_c}{\textbf{psi}}} = 189.7\ \textbf{psi}$ 14.5.2, ACI 318-19

$\phi \cdot f_r = 113.8\ \textbf{psi}$

3. CHECKS

3a - Flexure

$M_n := min\left(f_r \cdot S, 0.85 \cdot f'_c \cdot S\right) = 21.5\ \textbf{ft} \cdot \textbf{kip}$ 14.5.2, ACI 318-19

$\frac{M_U}{\phi \cdot M_n} = 0.433$ DCR for flexure

$\frac{M_{U.max}}{\phi \cdot M_n} = 0.953$ DCR for flexure, max Ht.

3b - Axial Compression

$l_c := H = 2.5\ \textbf{ft}$ vertical distance between lateral supports or the structural height of the plain concrete element

$h := D = 2\ \textbf{ft}$ overall cross-sectional thickness of the member measured parallel to the direction of the applied lateral load

$P_n := 0.60\ f'_c \cdot A_g \cdot \left(1 - \left(\frac{l_c}{32 \cdot h}\right)^2\right) = 1084.1\ \textbf{kip}$ 14.5.3.1, ACI 318-19

$P_{n.Hmax} := 0.60 \cdot f'_c \cdot A_g \cdot \left(1 - \left(\frac{H_{max}}{32 \cdot h}\right)^2\right) = 1077.7\ \textbf{kip}$ 14.5.3.1, ACI 318-19, Pn for max. ht

$\frac{P_u}{\phi \cdot P_n} = 0.002$ DCR for axial compression

$\frac{P_u}{\phi \cdot P_{n.Hmax}} = 0.002$ DCR for axial compression, max ht.

3c - Combined Axial Compression and flexure

Tension face check:

$f_t := \frac{M_u}{S} + \frac{T_u}{A_g} = 52.6\ \textit{psi}$ tension stress at bottom of auger

$\frac{f_t}{\phi \cdot f_r} = 0.46$

if $f_t \le \phi \cdot f_r$ = "OK"
  "OK"
else
  "NOT OK"

Table 14.5.4.1, ACI 318-19

$f_{t.max} := \frac{M_{u.max}}{S} + \frac{T_u}{A_g} = 111.8\ \textit{psi}$ tension stress at bottom of auger, max. ht. case

$\frac{f_{t.max}}{\phi \cdot f_r} = 0.98$

if $f_{t.max} \le \phi \cdot f_r$ = "OK"
  "OK"
else
  "NOT OK"

Table 14.5.4.1, ACI 318-19

Compression face check:

$\frac{M_u}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} = 0.435$ comp. stress at bottom of auger

$$\text{if } \frac{M_u}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} \le 1 \text{ = "OK"}$$
$$\text{else}$$
$$\text{"NOT OK"}$$

Table 14.5.4.1, ACI 318-19

$$\frac{M_{u.max}}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} = 0.955$$

comp. stress at bottom of auger, max. ht. case

$$\text{if } \frac{M_{u.max}}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} \le 1 \text{ = "OK"}$$
$$\text{else}$$
$$\text{"NOT OK"}$$

Table 14.5.4.1, ACI 318-19

3d - Nominal Shear Strength

$V_n := \frac{4}{3}\ psi \cdot \lambda \cdot \sqrt{\frac{f'_c}{psi}} \cdot A_g = 38.1\ kip$ Nominal shear strength

Table 14.5.5.1, ACI 318-19

$\frac{V_u}{\phi \cdot V_n} = 0.097$ DCR for shear

3e - Bearing

$B_n := 0.85 \cdot f'_c \cdot A_g = 1538.1\ kip$ Nominal bearing strength

Table 14.5.6.1, ACI 318-19

$\frac{V_u}{\phi \cdot B_n} = 0.002$ DCR for bearing

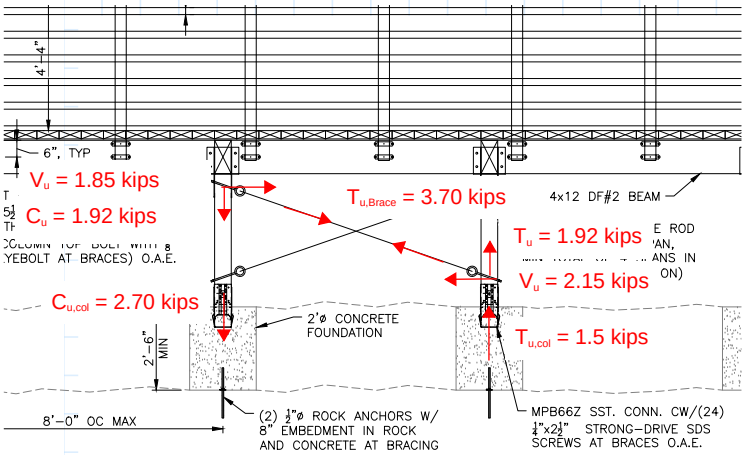
4 - Conclusion

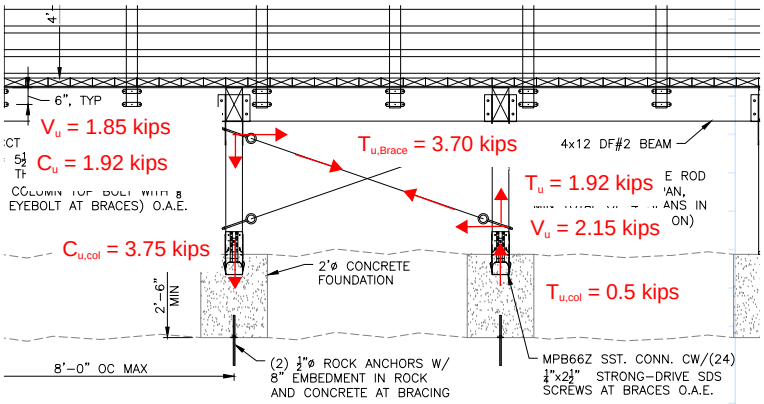
- Auger with given dimensions (2.5 ft Ht & 2 ft dia) is "OK" for the given loads.

- For the given load 2 ft dia. max. possible Ht. of Auger is 5.5 ft

1. INTRODUCTION

This file is for checking the unreinforced (plain concrete) Concrete Sonotubes using ACI 318-19 Chapter 14





2. INPUTS

State inputs:

$f'_c := 4000 \cdot psi$	concrete strength
$w_c := 0.150 \cdot kcf$	concrete unit weight
$D := 2\ ft$	Auger dia.
$H := 2.5\ ft$	Auger Ht.
$H_{max} := 5.5\ ft$	max. auger Ht. possible
$P_U := 3.75\ kip$	factored axial load & shear on auger (from CIS bridge model, '2026-05-21 Bridge w LPILE Springs-STEELCAP BEAM & PinPiles.bdb')
$T_U := 3.75\ kip$	
$V_U := 1.85\ kip$	
$\lambda := 1$	for normal weight concrete
$\phi := 0.60$	strength reduction factor for plain concrete, ACI 318-19 T 21.2.1

$A_g := \frac{\pi \cdot D^2}{4} = 3.1\ \textbf{ft}^2$ Auger area

$S := \frac{\pi \cdot D^3}{32} = 0.8\ \textbf{ft}^3$ Auger elastic sec. mod.

$M_U := V_U \cdot H = 4.6\ \textbf{ft} \cdot \textbf{kip}$

$M_{U.max} := V_U \cdot H_{max} = 10.2\ \textbf{ft} \cdot \textbf{kip}$

$f_r := \phi \cdot 5\ \textbf{psi} \cdot \lambda \cdot \sqrt{\frac{f'_c}{\textbf{psi}}} = 189.7\ \textbf{psi}$ 14.5.2, ACI 318-19

$\phi \cdot f_r = 113.8\ \textbf{psi}$

3. CHECKS

3a - Flexure

$M_n := min\left(f_r \cdot S, 0.85 \cdot f'_c \cdot S\right) = 21.5\ \textbf{ft} \cdot \textbf{kip}$ 14.5.2, ACI 318-19

$\frac{M_U}{\phi \cdot M_n} = 0.359$ DCR for flexure

$\frac{M_{U.max}}{\phi \cdot M_n} = 0.790$ DCR for flexure, max Ht.

3b - Axial Compression

$l_c := H = 2.5\ \textbf{ft}$ vertical distance between lateral supports or the structural height of the plain concrete element

$h := D = 2\ \textbf{ft}$ overall cross-sectional thickness of the member measured parallel to the direction of the applied lateral load

$P_n := 0.60\ f'_c \cdot A_g \cdot \left(1 - \left(\frac{l_c}{32 \cdot h}\right)^2\right) = 1084.1\ \textbf{kip}$ 14.5.3.1, ACI 318-19

$P_{n.Hmax} := 0.60 \cdot f'_c \cdot A_g \cdot \left(1 - \left(\frac{H_{max}}{32 \cdot h}\right)^2\right) = 1077.7\ \textbf{kip}$ 14.5.3.1, ACI 318-19, Pn for max. Ht

$\frac{P_u}{\phi \cdot P_n} = 0.006$ DCR for axial compression

$\frac{P_u}{\phi \cdot P_{n.Hmax}} = 0.006$ DCR for axial compression, max Ht.

3c - Combined Axial Compression and flexure

Tension face check:

$f_t := \frac{M_u}{S} + \frac{T_u}{A_g} = 49.2\ \textit{psi}$ tension stress at bottom of auger

$\frac{f_t}{\phi \cdot f_r} = 0.43$

if $f_t \le \phi \cdot f_r$ "OK"; else "NOT OK" Table 14.5.4.1, ACI 318-19

$f_{t.max} := \frac{M_{u.max}}{S} + \frac{T_u}{A_g} = 98.3\ \textit{psi}$ tension stress at bottom of auger, max. Ht. case

$\frac{f_{t.max}}{\phi \cdot f_r} = 0.86$

if $f_{t.max} \le \phi \cdot f_r$ "OK"; else "NOT OK" Table 14.5.4.1, ACI 318-19

Compression face check:

$\frac{M_u}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} = 0.365$ comp. stress at bottom of auger

$$\text{if } \frac{M_u}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} \le 1 \text{ "OK" else "NOT OK"} = \text{"OK"}$$

Table 14.5.4.1, ACI 318-19

$$\frac{M_{u.max}}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} = 0.796$$

comp. stress at bottom of auger, max. Ht. case

$$\text{if } \frac{M_{u.max}}{\phi \cdot M_n} + \frac{P_u}{\phi \cdot P_n} \le 1 \text{ "OK" else "NOT OK"} = \text{"OK"}$$

Table 14.5.4.1, ACI 318-19

3d - Nominal Shear Strength

$V_n := \frac{4}{3}\ \textit{psi} \cdot \lambda \cdot \sqrt{\frac{f'_c}{\textit{psi}}} \cdot A_g = 38.1\ \textit{kip}$ Nominal shear strength Table 14.5.5.1, ACI 318-19

$$\frac{V_u}{\phi \cdot V_n} = 0.081$$

DCR for shear

3e - Bearing

$B_n := 0.85 \cdot f'_c \cdot A_g = 1538.1\ \textit{kip}$ Nominal bearing strength Table 14.5.6.1, ACI 318-19

$$\frac{V_u}{\phi \cdot B_n} = 0.002$$

DCR for bearing

4 - Conclusion

- Auger with given dimensions (2.5 ft Ht & 2 ft dia) is "OK" for the given loads.

- For the given load 2 ft dia. max. possible Ht. of Auger is 5.5 ft

Rock Dowel/Anchor Design:

Max Bracing Force = T_{MAX} =3.70 kips ASD (See CSIBRIDGE ANALISYS)
Max Shear Force = V_{MAX} =2.25 kips ASD (See CSIBRIDGE ANALISYS)

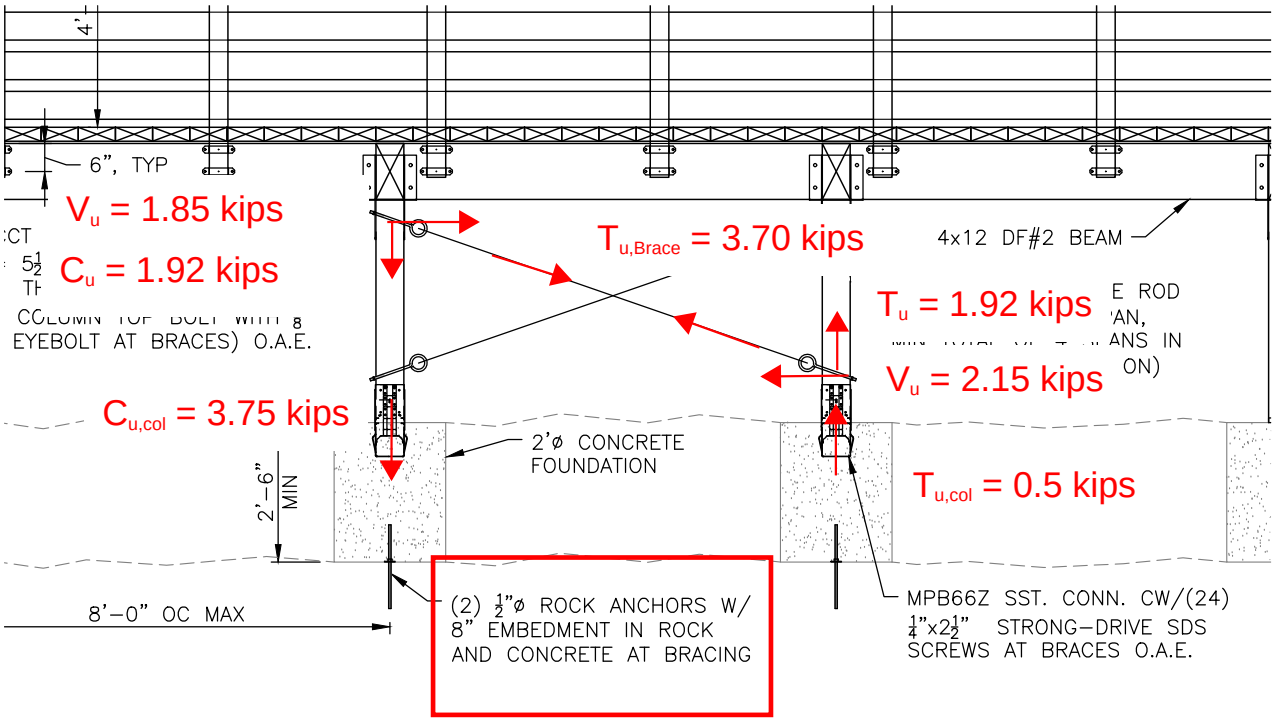
Capacity of the 1/2" Dia. Rock Dowel/Anchor shall be greater than 2.25 kips/2 = 1.13 kips (ASD)

Foundation Design:

Concrete Foundation on soil per Geotechnical engineer recommendation shall have 1660 psf allowable bearing capacity.
$A_{Footing} = \pi x D^2/4 = 3.14x4/4 = 3.14$ sqf

Gravity Load Combination, DL+LL (Per Enercalc results):
$Q_{all} = C_{u,\,col}/A_{Footing}$ = (1.14+2.16) kipsx1000/3.14 sqf= 10510 psf < 1660 psf

Seismic Load Combination, DL+Emh+Emv:
$Q_{all} = C_{u,\,col}/A_{Footing}$ = 3.75 kipsx1000/3.14 sqf = 1195 psf < 1660 psf



Appendix A

CSiBridge Model and Analysis Results

Beaverton Marsh Multi-Modal Trail

BOWMAN CONSULTING GROUP LTD.



License #No9oJ6m9bOp+eeT5gWKU

CSiBridge Analysis and Design Report

Prepared by

Bowman

Model Name: 2026-07-01 Bridge w LPILE Springs-STEELCAP BEAM & PinPiles.bdb

6 August 2026

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1. Model geometry

This section provides model geometry information, including items such as the layout line and lane definitions.

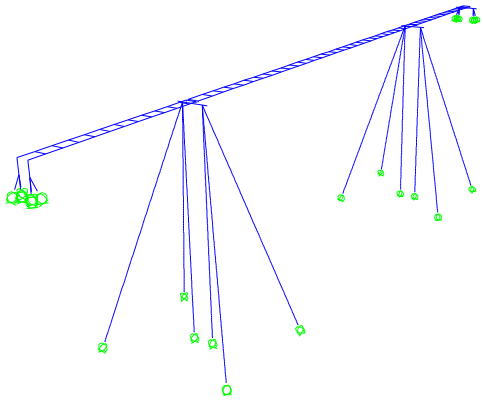


Figure 1: Finite element model

1.1. Layout Line

Table 1: Bridge Layout Line 2 - Horizontal Layout Data, Part 1 of 2

Table 1: Bridge Layout Line 2 - Horizontal Layout Data, Part 1 of 2

LayoutLine	SegType	Station	Radius	Bearing	CoordSys	X
		ft	ft			ft
BLL1	Initial Station and Bearing	0.		N900000E	GLOBAL	0.
BLL1	Straight at Previous Bearing to End	310.			GLOBAL	310.

Table 1: Bridge Layout Line 2 - Horizontal Layout Data, Part 2 of 2

Table 1: Bridge Layout Line 2 - Horizontal Layout Data, Part 2 of 2

LayoutLine	Y	GlobalX	GlobalY
	ft	ft	ft
BLL1	0.	0.	0.
BLL1	0.	310.	0.

Table 2: Bridge Layout Line 3 - Vertical Layout Data

Table 2: Bridge Layout Line 3 - Vertical Layout Data

LayoutLine	SegType	Station	Grade	CoordSys	Z	GlobalZ
		ft	Percent		ft	ft
BLL1	Initial Station, Elevation Z and Grade	0.	0.	GLOBAL	0.	0.
BLL1	Constant at Previous Grade to End	310.	0.	GLOBAL	0.	0.

1.2. Lanes

Table 3: Lane Definition Data, Part 1 of 3

Table 3: Lane Definition Data, Part 1 of 3

Lane	LaneFrom	LayoutLine	Station	LaneType	Width	Offset	Radius	LoadGroup
			ft		ft	ft	ft	
LANE1	Layout Line	BLL1	0.	Floating Lane Set	8.	0.	0.	Default
LANE1	Layout Line	BLL1	310.		8.	0.	0.	Default

Table 3: Lane Definition Data, Part 2 of 3

Table 3: Lane Definition Data, Part 2 of 3

Lane	DiscAlong	DiscAcross	DiscSpan	DiscSpanFac	DiscLane	DiscLaneFac	LeftType	RightType
	ft	ft						
LANE1	10.	4.	Yes	4.	Yes	10.	Interior	Interior
LANE1								

Table 3: Lane Definition Data, Part 3 of 3

Table 3: Lane Definition Data, Part 3 of 3

Lane	Color	Notes
LANE1	Magenta	
LANE1		

1.3. Spans

Table 4: Bridge Object Definitions 03 - Spans 1 - General

Table 4: Bridge Object Definitions 03 - Spans 1 - General

BridgeObj	SpanName	BridgeSect	Variation
BOBJ1	Span 1	BSEC1	No
BOBJ1	Span 2	BSEC1	No
BOBJ1	Span 3	BSEC1	No

1.4. Bridge Sections

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 1 of 4

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 1 of 4

Section	Material	NumIntGird	TotalWidth	GirdLayout	DiffSpacing	DiffHaunch	DiffSection
			ft				
BSEC1	4000Psi	0	8.	Along Layout Line	No	No	No

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 2 of 4

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 2 of 4

Section	TopSlabThk	HaunchHSame	GirdSecSame	GirdAreaObj	WebMesh	OverhangBot	TopSlabProf
	ft	ft			ft		
BSEC1	1.	0.25	FSEC1	Mixed	1.	Top of Flange	Flat

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 3 of 4

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 3 of 4

Section	LOLength	LOFillDist	LOOuterThk	ROLength	ROFillDist	ROOuterThk	FHoriz1	FHoriz2
	ft	ft	ft	ft	ft	ft	ft	ft
BSEC1	1.	0.63	1.	1.	0.63	1.	0.1	0.1

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 4 of 4

Table 5: Bridge Section Definitions 05 - Steel I Girders 1 - General, Part 4 of 4

Section	CurbLoc	CurbLeft	CurbRight	CurbMedian	CurbMWidth	RefPtOffX	RefPtOffY
		ft	ft	ft	ft	ft	ft
BSEC1	Program Determined	0.	0.	0.	0.	0.	0.

1.5. Abutments

Table 6: Bridge Abutment Definitions

Table 6: Bridge Abutment Definitions

Abutment	SuperConn	SubType	FSProp
BABT1	Bottom	Spring	Fixed

Table 7: Bridge Object Definitions 06 - Abutments, Part 1 of 2

Table 7: Bridge Object Definitions 06 - Abutments, Part 1 of 2

BridgeObj	Location	SupportName	BearingDir	DiaphProp	SubType	BentProp	SubElev	HorizOff
							ft	ft
BOBJ1	Start	Start Abutment	Default	CF_V	Bent	BENT1	-6.0833	0.
BOBJ1	End	Span 3	Default	CF_V	Bent	BENT1	-6.0833	0.

Table 7: Bridge Object Definitions 06 - Abutments, Part 2 of 2

Table 7: Bridge Object Definitions 06 - Abutments, Part 2 of 2

BridgeObj	Location	SupportName	BearProp	BearResProp	BearElev	BearAngle
					ft	Degrees
BOBJ1	Start	Start Abutment	Pinned (Stiff)	None	-5.5833	0.

Table 7: Bridge Object Definitions 06 - Abutments, Part 2 of 2

BridgeObj	Location	SupportName	BearProp	BearResProp	BearElev	BearAngle
					ft	Degrees
BOBJ1	End	Span 3	RollerLongit (Stiff)	None	-5.5833	0.

1.6. Bents

Table 8: Bridge Bent Definitions 1 - General

Table 8: Bridge Bent Definitions 1 - General

Bent	BeamLength	BeamSect	SuppType	Type	SuperConn1	NumCols	FSProp
	ft						
BENT1	9.	3x3CAPBEAM	Column	Single	Bottom	2	

Table 9: Bridge Bent Definitions 2 - Column Data, Part 1 of 4

Table 9: Bridge Bent Definitions 2 - Column Data, Part 1 of 4

Bent	ColNum	Section	Distance	Height	Angle	ColSupport	RHLong	RHTrans
			ft	ft	Degrees			
BENT1	1	8inSTDPIPE	0.5	85.5	0.	Pinned	1.	1.
BENT1	2	8inSTDPIPE	8.5	85.5	0.	Pinned	1.	1.

Table 9: Bridge Bent Definitions 2 - Column Data, Part 2 of 4

Table 9: Bridge Bent Definitions 2 - Column Data, Part 2 of 4

Bent	ColNum	Section	ColSupport	HingeTop	HingeBot	R1Release	R2Release	R3Release
BENT1	1	8inSTDPIPE	Pinned	Auto	Auto	Fixed	Fixed	Fixed
BENT1	2	8inSTDPIPE	Pinned	Auto	Auto	Fixed	Fixed	Fixed

Table 9: Bridge Bent Definitions 2 - Column Data, Part 3 of 4

Table 9: Bridge Bent Definitions 2 - Column Data, Part 3 of 4

Bent	ColNum	Section	ColSupport	R1Release	R2Release	R3Release	SReductFact	EffLFactM33
BENT1	1	8inSTDPIPE	Pinned	Fixed	Fixed	Fixed	0.75	1.
BENT1	2	8inSTDPIPE	Pinned	Fixed	Fixed	Fixed	0.75	1.

Table 9: Bridge Bent Definitions 2 - Column Data, Part 4 of 4

Table 9: Bridge Bent Definitions 2 - Column Data, Part 4 of 4

Bent	ColNum	Section	ColSupport	R1Release	R2Release	R3Release	EffLFactM22
BENT1	1	8inSTDPIPE	Pinned	Fixed	Fixed	Fixed	1.
BENT1	2	8inSTDPIPE	Pinned	Fixed	Fixed	Fixed	1.

Table 10: Bridge Object Definitions 07 - Bents, Part 1 of 2

Table 10: Bridge Object Definitions 07 - Bents, Part 1 of 2

BridgeObj	SpanName	BentProp	Continuous	SupportName	BearingDir	BentElev	HorizOff	DiaphBefore
						ft	ft	
BOBJ1	Span 1	BENT1	Yes	Span 1	Default	-6.0833	0.	CF_V
BOBJ1	Span 2	BENT1	Yes	Span 2	Default	-6.0833	0.	CF_V

Table 10: Bridge Object Definitions 07 - Bents, Part 2 of 2

Table 10: Bridge Object Definitions 07 - Bents, Part 2 of 2

BridgeObj	SpanName	SupportName	MeshAtBent	BearProp1	BrResProp1	BearElev1	BearAngle1
						ft	Degrees
BOBJ1	Span 1	Span 1	Yes	RollerLongit (Stiff)	None	-5.5833	0.
BOBJ1	Span 2	Span 2	Yes	RollerLongit (Stiff)	None	-5.5833	0.

1.7. Diaphragms

Table 11: Bridge Diaphragm Definitions, Part 1 of 3

Table 11: Bridge Diaphragm Definitions, Part 1 of 3

Diaph	DiaphType	IncConnPlat	IncHEcc	IncTopChord	IncBrace	IncBotChord	TopChord	TCPinned
CF_V	Brace	Yes	No	Yes	Yes	Yes	SEC_L	Yes

Table 11: Bridge Diaphragm Definitions, Part 2 of 3

Table 11: Bridge Diaphragm Definitions, Part 2 of 3

Diaph	TopOrient	BraceType	Brace	BracePinned	BraceOrient	BotChord	BCPinned	BotOrient
CF_V	LL-Up	V	SEC_L	Yes	LL-Up	SEC_L	Yes	LL-Up

Table 11: Bridge Diaphragm Definitions, Part 3 of 3

Table 11: Bridge Diaphragm Definitions, Part 3 of 3

Diaph	BraceTopElC	BraceBotOpt	BraceBotElC	MatCnPlat	WidthCnPlat	ThickCnPlat	BothSideWeb
	ft		ft		ft	ft	
CF_V	0.	Bottom of Adjacent Girder	0.	A709Gr50	0.5	0.025	No

1.8. Bearings

Table 12: Bridge Bearing Definitions, Part 1 of 2

Table 12: Bridge Bearing Definitions, Part 1 of 2

Bearing	Type	U1Type	U2Type	U3Type	R1Type	R2Type	R3Type	U1Stiff Kip/ft
Pinned (Fixed)	User	Fixed	Fixed	Fixed	Free	Free	Free	
Pinned (Stiff)	User	Partial Fixed	Partial Fixed	Partial Fixed	Free	Free	Free	685217.599
Roller (Fixed)	User	Fixed	Free	Free	Free	Free	Free	
Roller (Stiff)	User	Partial Fixed	Free	Free	Free	Free	Free	685217.599
RollerLongit (Fixed)	User	Fixed	Fixed	Free	Free	Free	Free	
RollerLongit (Stiff)	User	Partial Fixed	Partial Fixed	Free	Free	Free	Free	685217.599
RollerTransv (Fixed)	User	Fixed	Free	Fixed	Free	Free	Free	
RollerTransv (Stiff)	User	Partial Fixed	Free	Partial Fixed	Free	Free	Free	685217.599

Table 12: Bridge Bearing Definitions, Part 2 of 2

Table 12: Bridge Bearing Definitions, Part 2 of 2

Bearing	U2Stiff Kip/ft	U3Stiff Kip/ft
Pinned (Fixed)		
Pinned (Stiff)	685217.599	685217.599
Roller (Fixed)		
Roller (Stiff)		
RollerLongit (Fixed)		
RollerLongit (Stiff)	685217.599	
RollerTransv (Fixed)		
RollerTransv (Stiff)		685217.599

Table 13: Bridge Model Summary 01 - Bearing Supports

Table 13: Bridge Model Summary 01 - Bearing Supports

BridgeObj	SpanName	Station ft	Type	Bearing	BearProp	BearElev ft	BearAngle Degrees
BOBJ1	Start Abutment	0.	Bent	1	Pinned (Stiff)	-5.5833	0.
BOBJ1	Start Abutment	0.	Bent	2	Pinned (Stiff)	-5.5833	0.
BOBJ1	Span 1	70.	Bent	1	RollerLongit (Stiff)	-5.58333	0.
BOBJ1	Span 1	70.	Bent	2	RollerLongit (Stiff)	-5.58333	0.

Table 13: Bridge Model Summary 01 - Bearing Supports

BridgeObj	SpanName	Station	Type	Bearing	BearProp	BearElev	BearAngle
		ft				ft	Degrees
BOBJ1	Span 2	240.	Bent	1	RollerLongit (Stiff)	-5.58333	0.
BOBJ1	Span 2	240.	Bent	2	RollerLongit (Stiff)	-5.58333	0.
BOBJ1	Span 3	310.	Bent	1	RollerLongit (Stiff)	-5.58333	0.
BOBJ1	Span 3	310.	Bent	2	RollerLongit (Stiff)	-5.58333	0.

2. Material properties

This section provides material property information for materials used in the model.

Table 14: Material Properties 02 - Basic Mechanical Properties

Table 14: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	Kip/ft3	Kip-s2/ft4	Kip/ft2	Kip/ft2		1/F
4000Psi	1.5000E-01	4.6621E-03	519119.5	216299.79	0.2	5.5000E-06
A416Gr270	4.9000E-01	1.5230E-02	4104000.			6.5000E-06
A615Gr60	4.9000E-01	1.5230E-02	4176000.			6.5000E-06
A709Gr50	4.9000E-01	1.5230E-02	4176000.	1606153.85	0.3	6.5000E-06

Table 15: Material Properties 03a - Steel Data

Table 15: Material Properties 03a - Steel Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
A709Gr50	7200.	9360.	-0.1	Von Mises

Table 16: Material Properties 03b - Concrete Data

Table 16: Material Properties 03b - Concrete Data

Material	Fc	eFc	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
4000Psi	576.	576.	-0.1	Modified Darwin-Peck nold

Table 17: Material Properties 03e - Rebar Data

Table 17: Material Properties 03e - Rebar Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
A615Gr60	8640.	12960.	-0.1	Von Mises

Table 18: Material Properties 03f - Tendon Data

Table 18: Material Properties 03f - Tendon Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
A416Gr270	35294.4	38880.	-0.1	Von Mises

3. Section properties

This section provides section property information for objects used in the model.

3.1. Frames

Table 19: Frame Section Properties 01 - General, Part 1 of 7

Table 19: Frame Section Properties 01 - General, Part 1 of 7

SectionName	Material	Shape	t3	t2	FilletRadius	tf	tw
			ft	ft	ft	ft	ft
3x3CAPBEAM	4000Psi	Rectangular	3.	3.			
8ftDECK	4000Psi	Rectangular	1.	8.			
8inSTDPIPE	A709Gr50	Pipe	0.6667				0.041
BentBeam		Nonprismatic					
BentCol	4000Psi	Rectangular	3.	3.			
BRD1	4000Psi	Bridge Section					
BRD2	4000Psi	Bridge Section					
BRD3	4000Psi	Bridge Section					
FSEC1	A709Gr50	Built Up I	4.	1.25		0.16667	0.08333
FSEC2	4000Psi	Rectangular	2.5	3.33333			
FSEC3	4000Psi	Rectangular	4.	3.33333			
HP12X53	A709Gr50	I/Wide Flange	0.98333	1.	0.	0.03625	0.03625
HP16X88	A709Gr50	I/Wide Flange	1.275	1.30833	0.	0.045	0.045
HP18X157	A709Gr50	I/Wide Flange	1.475	1.49167	0.	0.0725	0.0725
HSS8X8X1/2	A709Gr50	Box/Tube	0.66667	0.66667	0.	0.03875	0.03875
Pipe4STD	A709Gr50	Pipe	0.375				0.01842
SEC_L	A709Gr50	Angle	0.33333	0.33333	0.	0.02083	0.02083
Truss Panel	A709Gr50	SD Section					
VAR1		Nonprismatic					
VAR2		Nonprismatic					
VAR3		Nonprismatic					
W16X36	A709Gr50	I/Wide Flange	1.325	0.5825	0.	0.03583	0.02458

Table 19: Frame Section Properties 01 - General, Part 2 of 7

Table 19: Frame Section Properties 01 - General, Part 2 of 7

SectionName	t2b	tfb
	ft	ft
3x3CAPBEAM		
8ftDECK		
8inSTDPIPE		
BentBeam		
BentCol		
BRD1		
BRD2		
BRD3		
FSEC1	1.25	0.16667
FSEC2		
FSEC3		
HP12X53	1.	0.03625
HP16X88	1.30833	0.045
HP18X157	1.49167	0.0725
HSS8X8X1/2		
Pipe4STD		
SEC_L		
Truss Panel		
VAR1		
VAR2		
VAR3		
W16X36	0.5825	0.03583

Table 19: Frame Section Properties 01 - General, Part 3 of 7

Table 19: Frame Section Properties 01 - General, Part 3 of 7

SectionName	S33Top	Area	S33Bot	TorsConst	S22Left	I33	I22	S22Right
	ft3	ft2	ft3	ft4	ft3	ft4	ft4	ft3
3x3CAPBEAM	4.5	9.	4.5	11.4075	4.5	6.75	6.75	4.5
8ftDECK	1.333333	8.	1.333333	2.456671	10.666667	0.666667	42.666667	10.666667
8inSTDPIPE	0.011882	0.0806	0.011882	0.007922	0.011882	0.003961	0.003961	0.011882
BentBeam								
BentCol	4.5	9.	4.5	11.4075	4.5	6.75	6.75	4.5
BRD1	31.014992	19.828	20.444697	3.571891	37.505397	62.637408	150.021589	37.505397
BRD2	31.014992	19.828	20.444697	3.571891	37.505397	62.637408	150.021589	37.505397
BRD3	31.014992	19.828	20.444697	3.571891	37.505397	62.637408	150.021589	37.505397
FSEC1	0.936986	0.7222	0.936986	0.004231	0.087088	1.873971	0.05443	0.087088
FSEC2	3.472222	8.3333	3.472222	9.374279	4.62963	4.340278	7.716049	4.62963
FSEC3	8.888889	13.3333	8.888889	24.498695	7.407407	17.777778	12.345679	7.407407
HP12X53	0.038548	0.1076	0.038548	0.000054	0.012249	0.018953	0.006125	0.012249
HP16X88	0.083969	0.1792	0.083969	0.000166	0.025728	0.05353	0.016831	0.025728
HP18X157	0.168053	0.3208	0.168053	0.00067	0.053861	0.123939	0.040172	0.053861
HSS8X8X1/2	0.018084	0.0938	0.018084	0.009838	0.018084	0.006028	0.006028	0.018084
Pipe4STD	0.001754	0.0206	0.001754	0.000656	0.001754	0.000329	0.000329	0.001754
SEC_L	0.000605	0.0135	0.00161	1.900E-06	0.00161	0.000147	0.000147	0.000605
Truss Panel	0.464367	0.2083	0.464367	0.021108	0.040871	1.315707	0.013624	0.040871
VAR1								
VAR2								
VAR3								

Table 19: Frame Section Properties 01 - General, Part 3 of 7

SectionName	S33Top	Area	S33Bot	TorsConst	S22Left	I33	I22	S22Right
	ft3	ft2	ft3	ft4	ft3	ft4	ft4	ft3
W16X36	0.032611	0.0736	0.032611	0.000026	0.004057	0.021605	0.001182	0.004057

Table 19: Frame Section Properties 01 - General, Part 4 of 7

Table 19: Frame Section Properties 01 - General, Part 4 of 7

SectionName	I23	AS2	AS3
	ft4	ft2	ft2
3x3CAPBEAM	0.	7.5	7.5
8ftDECK	0.	6.6667	6.6667
8inSTDPIPE	0.	0.0404	0.0404
BentBeam			
BentCol	0.	7.5	7.5
BRD1	0.	6.9677	7.3859
BRD2	0.	6.9677	7.3859
BRD3	0.	6.9677	7.3859
FSEC1	0.	0.3333	0.3472
FSEC2	0.	6.9444	6.9444
FSEC3	0.	11.1111	11.1111
HP12X53	3.469E-18	0.0356	0.0604
HP16X88	-1.388E-17	0.0574	0.0981
HP18X157	-5.551E-17	0.1069	0.1802
HSS8X8X1/2	3.469E-18	0.0517	0.0517
Pipe4STD	4.337E-19	0.0111	0.0111
SEC_L	0.000088	0.0069	0.0069
Truss Panel	0.	0.2083	0.1078
VAR1			
VAR2			
VAR3			
W16X36	3.469E-18	0.0326	0.0348

Table 19: Frame Section Properties 01 - General, Part 5 of 7

Table 19: Frame Section Properties 01 - General, Part 5 of 7

SectionName	CGOffset3	CGOffset2	Z33	Z22	EccV3	R33	Cw	R22
	ft	ft	ft3	ft3	ft	ft	ft6	ft
3x3CAPBEAM	0.	0.	6.75	6.75	0.	0.86603	0.	0.86603
8ftDECK	0.	0.	2.	16.	0.	0.28868	0.	2.3094
8inSTDPIPE	0.	0.	0.016074	0.016074	0.	0.22169	0.	0.22169
BentBeam								
BentCol	0.	0.	6.75	6.75	0.	0.86603	0.	0.86603
BRD1	1.776E-15	0.52208	40.010716	70.791667	0.	1.77737	0.	2.75066
BRD2	1.776E-15	0.52208	40.010716	70.791667	0.	1.77737	0.	2.75066
BRD3	1.776E-15	0.52208	40.010716	70.791667	0.	1.77737	0.	2.75066
FSEC1	0.	-4.441E-16	1.078704	0.136574	0.	1.61082	0.	0.27453
FSEC2	0.	0.	5.208333	6.944444	0.	0.72169	0.	0.96225
FSEC3	0.	0.	13.333333	11.111111	0.	1.1547	0.	0.96225
HP12X53	1.110E-16	5.551E-17	0.042824	0.018634	0.	0.41961	0.001366	0.23854
HP16X88	0.	-4.441E-16	0.093171	0.039468	0.	0.5466	0.006363	0.30649
HP18X157	3.331E-16	-1.110E-16	0.189236	0.082755	0.	0.62153	0.019759	0.35385
HSS8X8X1/2	1.665E-16	-5.551E-17	0.021701	0.021701	0.	0.25358	0.	0.25358
Pipe4STD	0.	0.	0.002344	0.002344	0.	0.12649	0.	0.12649
SEC_L	0.0756	-0.0756	0.001089	0.001089	-0.07998	0.10437	1.692E-08	0.10437

Table 19: Frame Section Properties 01 - General, Part 5 of 7

SectionName	CGOffset3	CGOffset2	Z33	Z22	EccV3	R33	Cw	R22
	ft	ft	ft3	ft3	ft	ft	ft6	ft
Truss Panel	0.	0.	0.520833	0.0489	0.	2.51304	0.	0.25572
VAR1								
VAR2								
VAR3								
W16X36	-5.551E-17	3.331E-16	0.037037	0.00625	0.	0.54176	0.000489	0.12669

Table 19: Frame Section Properties 01 - General, Part 6 of 7

Table 19: Frame Section Properties 01 - General, Part 6 of 7

SectionName	EccV2	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod	MMod
	ft							
3x3CAPBEAM	0.	1.	1.	1.	1.	1.	1.	1.
8ftDECK	0.	10000.	10000.	10000.	10000.	100000.	100000.	0.
8inSTDPIPE	0.	1.	1.	1.	1.	1.	1.	1.
BentBeam								
BentCol	0.	1.	1.	1.	1.	1.	1.	1.
BRD1	0.	1.	1.	1.	1.	1.	1.	0.651949
BRD2	0.	1.	1.	1.	1.	1.	1.	0.651949
BRD3	0.	1.	1.	1.	1.	1.	1.	0.651949
FSEC1	0.	1.	1.	1.	1.	1.	1.	1.
FSEC2	0.	1.	1.	1.	1.	1.	1.	1.
FSEC3	0.	1.	1.	1.	1.	1.	1.	1.
HP12X53	0.	1.	1.	1.	1.	1.	1.	1.
HP16X88	0.	1.	1.	1.	1.	1.	1.	1.
HP18X157	0.	1.	1.	1.	1.	1.	1.	1.
HSS8X8X1/2	0.	1.	1.	1.	1.	1.	1.	1.
Pipe4STD	0.	1.	1.	1.	1.	1.	1.	1.
SEC_L	0.07998	1.	1.	1.	1.	1.	1.	1.
Truss Panel	0.	1.	1.	1.	1.	1.	1.	0.
VAR1								
VAR2								
VAR3								
W16X36	0.	1.	1.	1.	1.	1.	1.	1.

Table 19: Frame Section Properties 01 - General, Part 7 of 7

Table 19: Frame Section Properties 01 - General, Part 7 of 7

SectionName	WMod
3x3CAPBEAM	1.
8ftDECK	0.
8inSTDPIPE	1.
BentBeam	
BentCol	1.
BRD1	0.651949
BRD2	0.651949
BRD3	0.651949
FSEC1	1.
FSEC2	1.
FSEC3	1.
HP12X53	1.

Table 19: Frame Section Properties 01 - General, Part 7 of 7

SectionName	WMod
HP16X88	1.
HP18X157	1.
HSS8X8X1/2	1.
Pipe4STD	1.
SEC_L	1.
Truss Panel	0.
VAR1	
VAR2	
VAR3	
W16X36	1.

Table 20: Frame Section Properties 02 - Concrete Column, Part 1 of 2

Table 20: Frame Section Properties 02 - Concrete Column, Part 1 of 2

SectionName	RebarMatL	RebarMatC	ReinfConfig	LatReinf	Cover	NumBars3Dir	NumBars2Dir
					ft		
3x3CAPBEAM	A615Gr60	A615Gr60	Rectangular	Ties	0.125	3	3
8ftDECK	A615Gr60	A615Gr60	Rectangular	Ties	0.125	3	3
BentCol	A615Gr60	A615Gr60	Rectangular	Ties	0.125	3	3
FSEC2	A615Gr60	A615Gr60	Rectangular	Ties	0.125	3	3
FSEC3	A615Gr60	A615Gr60	Rectangular	Ties	0.125	3	3

Table 20: Frame Section Properties 02 - Concrete Column, Part 2 of 2

Table 20: Frame Section Properties 02 - Concrete Column, Part 2 of 2

SectionName	BarSizeL	BarSizeC	SpacingC	NumCBars2	NumCBars3
			ft		
3x3CAPBEAM	#9	#4	0.5	2	2
8ftDECK	#9	#4	0.5	3	3
BentCol	#9	#4	0.5	3	3
FSEC2	#9	#4	0.5	3	3
FSEC3	#9	#4	0.5	3	3

Table 21: Frame Section Properties 05 - Nonprismatic

Table 21: Frame Section Properties 05 - Nonprismatic

SectionName	SegmentNum	StartSect	EndSect	AbsLength	VarLength	EI33Var	EI22Var
				ft			
BentBeam	1	FSEC2	FSEC3		5.	Parabolic	Linear
BentBeam	2	FSEC3	FSEC3		23.	Parabolic	Linear
BentBeam	3	FSEC3	FSEC2		5.	Parabolic	Linear
VAR1	1	BRD1	BRD1		0.125	Parabolic	Linear
VAR1	2	BRD1	BRD1		0.125	Parabolic	Linear
VAR1	3	BRD1	BRD1		0.125	Parabolic	Linear
VAR1	4	BRD1	BRD1		0.125	Parabolic	Linear
VAR1	5	BRD1	BRD1		0.125	Parabolic	Linear

Table 21: Frame Section Properties 05 - Nonprismatic

SectionName	SegmentNum	StartSect	EndSect	AbsLength	VarLength	EI33Var	EI22Var
				ft			
VAR1	6	BRD1	BRD1		0.125	Parabolic	Linear
VAR1	7	BRD1	BRD1		0.125	Parabolic	Linear
VAR1	8	BRD1	BRD1		0.125	Parabolic	Linear
VAR2	1	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	2	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	3	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	4	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	5	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	6	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	7	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	8	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	9	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	10	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	11	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	12	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	13	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	14	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	15	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	16	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	17	BRD2	BRD2		0.0556	Parabolic	Linear
VAR2	18	BRD2	BRD2		0.0556	Parabolic	Linear
VAR3	1	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	2	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	3	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	4	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	5	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	6	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	7	BRD3	BRD3		0.125	Parabolic	Linear
VAR3	8	BRD3	BRD3		0.125	Parabolic	Linear

Table 22: Frame Property Modifiers, Part 1 of 2

Table 22: Frame Property Modifiers, Part 1 of 2

Frame	AMod	AS2Mod	AS3Mod	JMod	I22Mod	I33Mod	MassMod	WeightMod
1411	1.	1.	1.	1.	1.	1.	1.	1.
1413	1.	1.	1.	1.	1.	1.	1.	1.
1417	1.	1.	1.	1.	1.	1.	1.	1.
1623	1.	1.	1.	1.	1.	1.	1.	1.
1624	1.	1.	1.	1.	1.	1.	1.	1.
1730	1.	1.	1.	1.	1.	1.	1.	1.
1836	1.	1.	1.	1.	1.	1.	1.	1.

Table 22: Frame Property Modifiers, Part 2 of 2

Table 22: Frame Property Modifiers, Part 2 of 2

Frame	EAModifier	EIModifier
1411	0.8	0.8
1413	0.8	0.8

Table 22: Frame Property Modifiers, Part 2 of 2

Frame	EAModifier	EIModifier
1417	0.8	0.8
1623	0.8	0.8
1624	0.8	0.8
1730	0.8	0.8
1836	0.8	0.8

3.2. Solids

Table 23: Solid Property Definitions

Table 23: Solid Property Definitions

SolidProp	Material	MatAngleA	MatAngleB	MatAngleC
		Degrees	Degrees	Degrees
Solid1	4000Psi	0.	0.	0.

4. Loading

This section provides loading information as applied to the model.

4.1. Load patterns

Table 24: Load Pattern Definitions

Table 24: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
DEAD	Dead	1.	
Sidewalk	Dead	0.	
DW	Wearing Surface	0.	
Temperature Pos	Temperature	0.	
Temperature Neg	Temperature	0.	
Haunch	Dead	0.	
SIPForm	Dead	0.	
Pedestrian	Pedestrian LL	0.	
DC	Dead	0.	
EQx	Quake	0.	None
EQy	Quake	0.	None
TEMP	Temperature	0.	

4.2. Vehicles

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 1 of 5

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 1 of 5

VehName	FromLibrary	LibraryName	FltAxleFac	AxleFac	UnifFac	SupportMom	IntSupport
HL-93M	Yes	AASHTO.xml	1.	1.33	1.	Yes	Yes
HL-93K	Yes	AASHTO.xml	1.	1.33	1.	Yes	Yes
HL-93S	Yes	AASHTO.xml	1.	1.33	1.	Yes	Yes
AML	Yes	AASHTO.xml	1.	1.	1.	Yes	Yes
HSn-44	Yes	AASHTO.xml	1.	20.	1.	Yes	Yes
HSn-44L	Yes	AASHTO.xml	20.	1.	20.	Yes	Yes
Hn-44	Yes	AASHTO.xml	1.	20.	1.	Yes	Yes
Hn-44L	Yes	AASHTO.xml	20.	1.	20.	Yes	Yes
HL-93LB	Yes	AASHTO.xml	1.	1.33	1.	Yes	Yes
HL-93F	Yes	AASHTO.xml	1.	1.15	1.	Yes	Yes

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 2 of 5

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 2 of 5

VehName	OtherResp	AxleMom	AxleMType	AxleMWidth	AxleMDbl	AxleOther	AxleOType
		Kip		ft		Kip	
HL-93M	Yes	0.	One Point		No	0.	One Point
HL-93K	Yes	0.	One Point		No	0.	One Point
HL-93S	No	0.	One Point		No	0.	One Point
AML	Yes	0.	One Point		No	0.	One Point
HSn-44	Yes	0.	One Point		No	0.	One Point
HSn-44L	Yes	0.9	Fixed Width Line	10.	Yes	1.3	Fixed Width Line
Hn-44	Yes	0.	One Point		No	0.	One Point
Hn-44L	Yes	0.9	Fixed Width Line	10.	Yes	1.3	Fixed Width Line
HL-93LB	No	0.	One Point		No	0.	One Point
HL-93F	Yes	0.	One Point		No	0.	One Point

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 3 of 5

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 3 of 5

VehName	AxleOWidth	LEffAxle	LEffUnif	ForStraddle	StraddleFac	NumInter	MinExtDist
	ft						ft
HL-93M		None	None	No		3	1.
HL-93K		None	None	No		4	1.
HL-93S		None	None	No		7	1.
AML		None	None	No		2	1.
HSn-44		None	None	No		3	1.
HSn-44L	10.	None	None	No		1	1.
Hn-44		None	None	No		2	1.
Hn-44L	10.	None	None	No		1	1.
HL-93LB		None	None	No		5	1.
HL-93F		None	None	No		3	1.

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 4 of 5

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 4 of 5

VehName	MinIntDist	StayInLane	CGHTAxle	CGHTUnif	Notes	AdjustSuper
	ft		ft	ft		
HL-93M	2.	No	0.	0.		No
HL-93K	2.	No	0.	0.		No
HL-93S	2.	No	0.	0.		No
AML	2.	No	0.	0.		No
HSn-44	2.	No	0.	0.		No
HSn-44L	2.	No	0.	0.		No
Hn-44	2.	No	0.	0.		No
Hn-44L	2.	No	0.	0.		No
HL-93LB	2.	No	0.	0.		No
HL-93F	2.	No	0.	0.		No

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 5 of 5

Table 25: Vehicles 2 - General Vehicles 1 - General, Part 5 of 5

VehName	IgnoreVert	Centrifugal	Braking	NosingForce	DesignType
				Kip	
HL-93M	No	No	No	0.	Vehicle Live
HL-93K	No	No	No	0.	Vehicle Live
HL-93S	No	No	No	0.	Vehicle Live
AML	No	No	No	0.	Vehicle Live
HSn-44	No	No	No	0.	Vehicle Live
HSn-44L	No	No	No	0.	Vehicle Live
Hn-44	No	No	No	0.	Vehicle Live
Hn-44L	No	No	No	0.	Vehicle Live
HL-93LB	No	No	No	0.	Vehicle Live
HL-93F	No	No	No	0.	Vehicle Fatigue

Table 26: Vehicles 3 - General Vehicles 2 - Loads, Part 1 of 2

Table 26: Vehicles 3 - General Vehicles 2 - Loads, Part 1 of 2

VehName	LoadType	InterUnif	UnifType	UnifWidth	InterAxle	AxleType	AxleWidth	InterMinD
		Kip/ft		ft	Kip		ft	ft
HL-93M	Leading Load	0.64	Fixed Width	10.	25.	Two Points	6.	
HL-93M	Fixed Length	0.64	Fixed Width	10.	25.	Two Points	6.	4.
HL-93M	Trailing Load	0.64	Fixed Width	10.				
HL-93K	Leading Load	0.64	Fixed Width	10.	8.	Two Points	6.	
HL-93K	Fixed Length	0.64	Fixed Width	10.	32.	Two Points	6.	14.
HL-93K	Variable Length	0.64	Fixed Width	10.	32.	Two Points	6.	14.
HL-93K	Trailing Load	0.64	Fixed Width	10.				
HL-93S	Leading Load	0.576	Fixed Width	10.	7.2	Two Points	6.	
HL-93S	Fixed Length	0.576	Fixed Width	10.	28.8	Two Points	6.	14.
HL-93S	Fixed Length	0.576	Fixed Width	10.	28.8	Two Points	6.	14.
HL-93S	Variable Length	0.576	Fixed Width	10.	7.2	Two Points	6.	50.
HL-93S	Fixed Length	0.576	Fixed Width	10.	28.8	Two Points	6.	14.
HL-93S	Fixed Length	0.576	Fixed Width	10.	28.8	Two Points	6.	14.

Table 26: Vehicles 3 - General Vehicles 2 - Loads, Part 1 of 2

VehName	LoadType	InterUnif	UnifType	UnifWidth	InterAxle	AxleType	AxleWidth	InterMinD
		Kip/ft		ft	Kip		ft	ft
HL-93S	Trailing Load	0.576	Fixed Width	10.				
AML	Leading Load	0.	Fixed Width	1.	24.	Two Points	6.	
AML	Fixed Length	0.	Fixed Width	1.	24.	Two Points	6.	4.
HSn-44	Leading Load	0.	Fixed Width	1.	0.4	Two Points	6.	
HSn-44	Fixed Length	0.	Fixed Width	1.	1.6	Two Points	6.	14.
HSn-44	Variable Length	0.	Fixed Width	1.	1.6	Two Points	6.	14.
HSn-44L	Trailing Load	0.032	Fixed Width	10.				
Hn-44	Leading Load	0.	Fixed Width	1.	0.4	Two Points	6.	
Hn-44	Fixed Length	0.	Fixed Width	1.	1.6	Two Points	6.	14.
Hn-44L	Trailing Load	0.032	Fixed Width	10.				
HL-93LB	Leading Load	0.64	Fixed Width	10.	25.	Two Points	6.	
HL-93LB	Fixed Length	0.64	Fixed Width	10.	25.	Two Points	6.	4.
HL-93LB	Variable Length	0.64	Fixed Width	10.	25.	Two Points	6.	26.
HL-93LB	Fixed Length	0.64	Fixed Width	10.	25.	Two Points	6.	4.
HL-93LB	Trailing Load	0.64	Fixed Width	10.				
HL-93F	Leading Load	0.	Fixed Width	1.	8.	Two Points	6.	
HL-93F	Fixed Length	0.	Fixed Width	1.	32.	Two Points	6.	14.
HL-93F	Fixed Length	0.	Fixed Width	1.	32.	Two Points	6.	30.

Table 26: Vehicles 3 - General Vehicles 2 - Loads, Part 2 of 2

Table 26: Vehicles 3 - General Vehicles 2 - Loads, Part 2 of 2

VehName	InterMaxD
	ft
HL-93M	
HL-93M	
HL-93M	
HL-93K	
HL-93K	
HL-93K	30.
HL-93K	
HL-93S	
HL-93S	
HL-93S	
HL-93S	0.
HL-93S	
HL-93S	
HL-93S	
AML	
AML	
HSn-44	
HSn-44	
HSn-44	30.
HSn-44L	
Hn-44	
Hn-44	

Table 26: Vehicles 3 - General Vehicles 2 - Loads, Part 2 of 2

VehName	InterMaxD ft
Hn-44L	
HL-93LB	
HL-93LB	
HL-93LB	40.
HL-93LB	
HL-93LB	
HL-93F	
HL-93F	
HL-93F	

Table 27: Vehicles 4 - Vehicle Classes

Table 27: Vehicles 4 - Vehicle Classes

VehClass	VehName	ScaleFactor
HL-93M	HL-93M	1.
HL-93K	HL-93K	1.
HL-93S	HL-93S	1.
AML	AML	1.
HSn-44	HSn-44	1.
HSn-44L	HSn-44L	1.
Hn-44	Hn-44	1.
Hn-44L	Hn-44L	1.
HL-93LB	HL-93LB	1.
HL-93F	HL-93F	1.
VECL1	HL-93M	1.
VECL1	HL-93K	1.
VECL1	HL-93S	1.

4.3. Bridge loading

Table 28: Bridge Load Definitions 02 - Line

Table 28: Bridge Load Definitions 02 - Line

Name	Type	CoordSys	Dir	RefLoc	Dist ft	FOverL Kip/ft
<BSEC1>BL1	Force	GLOBAL	Gravity	Left Edge of Deck	0.375	0.35
<BSEC1>BL2	Force	GLOBAL	Gravity	Right Edge of Deck	0.375	0.35
<BSEC1>Sp1_HL1	Force	GLOBAL	Gravity	Left Edge of Deck	1.	0.016
<BSEC1>Sp1_HL2	Force	GLOBAL	Gravity	Right Edge of Deck	1.	0.016
<BSEC1>Sp2_HL1	Force	GLOBAL	Gravity	Left Edge of Deck	1.	0.016
<BSEC1>Sp2_HL2	Force	GLOBAL	Gravity	Right Edge of Deck	1.	0.016

Table 28: Bridge Load Definitions 02 - Line

Name	Type	CoordSys	Dir	RefLoc	Dist	FOverL
					ft	Kip/ft
<BSEC1>Sp 3_HL1	Force	GLOBAL	Gravity	Left Edge of Deck	1.	0.016
<BSEC1>Sp 3_HL2	Force	GLOBAL	Gravity	Right Edge of Deck	1.	0.016

Table 29: Bridge Load Definitions 03 - Area, Part 1 of 2

Table 29: Bridge Load Definitions 03 - Area, Part 1 of 2

Name	Type	CoordSys	Dir	RefLocLft	DistLft	RefLocRgt
					ft	
<BSEC1>ConcPourPerm	Force	GLOBAL	Gravity	Left Edge of Deck	0.	Right Edge of Deck
<BSEC1>Sp 1_SIPFL1	Force	GLOBAL	Gravity	Left Edge of Deck	1.625	Left Edge of Deck
<BSEC1>Sp 2_SIPFL1	Force	GLOBAL	Gravity	Left Edge of Deck	1.625	Left Edge of Deck
<BSEC1>Sp 3_SIPFL1	Force	GLOBAL	Gravity	Left Edge of Deck	1.625	Left Edge of Deck

Table 29: Bridge Load Definitions 03 - Area, Part 2 of 2

Table 29: Bridge Load Definitions 03 - Area, Part 2 of 2

Name	DistRgt	FOverL2Lft	FOverL2Rgt
	ft	Kip/ft2	Kip/ft2
<BSEC1>ConcPourPerm	0.	6.250E-03	6.250E-03
<BSEC1>Sp 1_SIPFL1	6.375	0.015	0.015
<BSEC1>Sp 2_SIPFL1	6.375	0.015	0.015
<BSEC1>Sp 3_SIPFL1	6.375	0.015	0.015

5. Load cases

This section provides load case information.

5.1. Definitions

Table 30: Load Case Definitions, Part 1 of 2

Table 30: Load Case Definitions, Part 1 of 2

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesActOpt
DEAD	NonStatic	Zero				Prog Det
MODAL	LinModal	Zero				Prog Det
Pedestrian	NonStatic	Zero				Prog Det
DC	NonStatic	Zero				Prog Det
RSX	LinRespSpec		MODAL			Prog Det

Table 30: Load Case Definitions, Part 1 of 2

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesActOpt
RSY	LinRespSpec		MODAL			Prog Det
EQxp	NonStatic	Zero				Prog Det
EQxn	NonStatic	Zero				Prog Det
EQyp	NonStatic	Zero				Prog Det
EQyn	NonStatic	Zero				Prog Det
TEMP	NonStatic	Zero				Prog Det
EQmxp	LinStatic	Zero				Prog Det
EQmxn	LinStatic	Zero				Prog Det
EQmyp	LinStatic	Zero				Prog Det
EQmyn	LinStatic	Zero				Prog Det

Table 30: Load Case Definitions, Part 2 of 2

Table 30: Load Case Definitions, Part 2 of 2

Case	DesignAct
DEAD	Non-Composite
MODAL	Other
Pedestrian	Short-Term Composite
DC	Non-Composite
RSX	Short-Term Composite
RSY	Short-Term Composite
EQxp	Short-Term Composite
EQxn	Short-Term Composite
EQyp	Short-Term Composite
EQyn	Short-Term Composite
TEMP	Short-Term Composite
EQmxp	Short-Term Composite
EQmxn	Short-Term Composite
EQmyp	Short-Term Composite
EQmyn	Short-Term Composite

5.2. Static case load assignments

Table 31: Case - Static 1 - Load Assignments

Table 31: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.
Pedestrian	Load pattern	Pedestrian	1.
DC	Load pattern	DC	1.
DC	Load pattern	DEAD	1.
EQxp	Load pattern	EQx	1.
EQxn	Load pattern	EQx	-1.
EQyp	Load pattern	EQy	1.
EQyn	Load pattern	EQy	-1.
TEMP	Load pattern	TEMP	1.
EQmxp	Load pattern	EQx	2.
EQmxn	Load pattern	EQx	-2.
EQmyp	Load pattern	EQy	2.
EQmyn	Load pattern	EQy	-2.

5.3. Response spectrum case load assignments

Table 32: Case - Response Spectrum 1 - General, Part 1 of 2

Table 32: Case - Response Spectrum 1 - General, Part 1 of 2

Case	ModalCombo	GMCf1	GMCf2	PerRigid	DirCombo	MotionType	DampingType
		Cyc/sec	Cyc/sec				
RSX	CQC	1.0000E+00	0.0000E+00	SRSS	SRSS	Acceleration	Constant
RSY	CQC	1.0000E+00	0.0000E+00	SRSS	SRSS	Acceleration	Constant

Table 32: Case - Response Spectrum 1 - General, Part 2 of 2

Table 32: Case - Response Spectrum 1 - General, Part 2 of 2

Case	ConstDamp
RSX	0.05
RSY	0.05

Table 33: Case - Response Spectrum 2 - Load Assignments

Table 33: Case - Response Spectrum 2 - Load Assignments

Case	LoadType	LoadName	CoordSys	Function	Angle	TransAccSF
					Degrees	ft/sec2
RSX	Acceleration	U1	GLOBAL	San Juan Island	0.	9.9083
RSY	Acceleration	U2	GLOBAL	San Juan Island	0.	9.9083

6. Load combinations

This section provides load combination information.

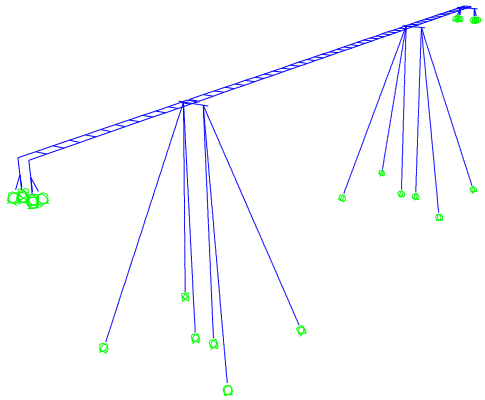
Table 34: Combination Definitions

Table 34: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
1.2DL+1.6LL	Linear Add	DC	1.2
1.2DL+1.6LL		Pedestrian	1.6
1.2DL+Ev+Ehx	Linear Add	DC	1.369
1.2DL+Ev+Ehx		EQxp	1.
1.2DL+Ev+Ehy	Linear Add	DC	1.369
1.2DL+Ev+Ehy		EQyp	1.
1.2DL+Ev-Ehx	Linear Add	DC	1.369
1.2DL+Ev-Ehx		EQxp	1.
1.2DL+Ev-Ehy	Linear Add	DC	1.369
1.2DL+Ev-Ehy		EQyp	-1.
0.9DL-Ev+Ehx	Linear Add	DC	0.731
0.9DL-Ev+Ehx		EQxp	1.
0.9DL-Ev-Ehx	Linear Add	DC	0.731
0.9DL-Ev-Ehx		EQxn	1.
0.9DL-Ev+Ehy	Linear Add	DC	0.731
0.9DL-Ev+Ehy		EQyp	1.
0.9DL-Ev-Ehy	Linear Add	DC	0.731
0.9DL-Ev-Ehy		EQyp	-1.
0.9DL-Ev+Emhx	Linear Add	DC	0.731
0.9DL-Ev+Emhx		EQmxp	1.
0.9DL-Ev-Emhx	Linear Add	DC	0.731
0.9DL-Ev-Emhx		EQmxn	1.
0.9DL-Ev+Emhy	Linear Add	DC	0.731
0.9DL-Ev+Emhy		EQmyp	1.
0.9DL-Ev-Emhy	Linear Add	DC	0.731
0.9DL-Ev-Emhy		EQmyn	1.

7. Structure results

This section provides structure results, including items such as structural periods and base reactions.



7.1. Modal results

Table 35: Modal Participating Mass Ratios

Table 35: Modal Participating Mass Ratios

OutputCase	StepNum	Period	UX	UY	UZ	SumUX	SumUY	SumUZ
		Sec						
MODAL	1.	1.273586	4.871E-08	0.56892	6.142E-12	4.871E-08	0.56892	6.142E-12
MODAL	2.	0.632649	8.067E-06	0.00863	6.386E-10	8.116E-06	0.57755	6.448E-10
MODAL	3.	0.564946	1.134E-05	1.730E-08	0.39527	1.946E-05	0.57755	0.39527
MODAL	4.	0.508151	0.0001	0.28685	3.497E-07	0.00012	0.8644	0.39527
MODAL	5.	0.460471	0.93271	3.685E-05	4.784E-05	0.93283	0.86443	0.39531
MODAL	6.	0.409177	2.737E-05	0.00931	2.067E-08	0.93286	0.87374	0.39531
MODAL	7.	0.312492	1.865E-06	0.01487	9.552E-11	0.93286	0.88861	0.39531
MODAL	8.	0.269272	3.460E-09	0.00267	1.078E-11	0.93286	0.89129	0.39531
MODAL	9.	0.253659	1.002E-06	4.115E-05	1.846E-07	0.93286	0.89133	0.39531
MODAL	10.	0.213723	9.561E-07	0.01116	1.739E-06	0.93286	0.90249	0.39532
MODAL	11.	0.184539	1.053E-06	0.00329	1.439E-05	0.93286	0.90579	0.39533
MODAL	12.	0.170471	3.046E-05	1.148E-07	1.958E-05	0.93289	0.90579	0.39535
MODAL	13.	0.163273	4.499E-07	0.01585	4.854E-05	0.93289	0.92164	0.3954
MODAL	14.	0.144549	3.363E-09	0.0017	0.0003	0.93289	0.92333	0.3957
MODAL	15.	0.133823	0.00012	3.098E-05	0.41458	0.93302	0.92337	0.81028
MODAL	16.	0.129242	3.271E-06	0.00324	0.03443	0.93302	0.92661	0.84471
MODAL	17.	0.128489	4.734E-05	0.00125	0.02653	0.93307	0.92786	0.87124
MODAL	18.	0.11618	2.716E-06	0.00081	0.00085	0.93307	0.92867	0.87209
MODAL	19.	0.112532	2.387E-08	3.387E-06	1.345E-05	0.93307	0.92867	0.8721
MODAL	20.	0.109776	3.551E-05	9.728E-09	0.01585	0.93311	0.92867	0.88796

7.2. Base reactions

Table 36: Base Reactions

Table 36: Base Reactions

OutputCase	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
RSX	41.317	0.236	0.401	0.1041	95.7322	40.5507
RSY	0.236	15.084	0.094	7.3243	24.7781	2425.7916
EQmxp	-62.586	-1.575E-11	-2.247E-11	-7.014E-10	-41.7446	-2.355E-09
EQmxn	62.586	1.575E-11	2.247E-11	7.014E-10	41.7446	2.355E-09
EQmyp	4.689E-11	-62.586	2.598E-11	41.7446	-8.430E-09	-9700.768
EQmyn	-4.689E-11	62.586	-2.598E-11	-41.7446	8.430E-09	9700.768

8. Joint results

This section provides joint results, including items such as displacements and reactions.

Table 37: Joint Reactions

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1	RSX	2.101E-04	2.240E-04	13.616	0.	0.	0.
1	RSY	3.204E-05	3.416E-05	2.076	0.	0.	0.
1	EQmxp	3.221E-04	3.434E-04	-20.867	0.	0.	0.
1	EQmxn	-3.221E-04	-3.434E-04	20.867	0.	0.	0.
1	EQmyp	1.148E-04	1.224E-04	-7.437	0.	0.	0.
1	EQmyn	-1.148E-04	-1.224E-04	7.437	0.	0.	0.
2	RSX	2.108E-04	2.247E-04	13.658	0.	0.	0.
2	RSY	3.087E-05	3.291E-05	2.	0.	0.	0.
2	EQmxp	3.221E-04	-3.434E-04	-20.867	0.	0.	0.
2	EQmxn	-3.221E-04	3.434E-04	20.867	0.	0.	0.
2	EQmyp	-1.131E-04	1.206E-04	7.329	0.	0.	0.
2	EQmyn	1.131E-04	-1.206E-04	-7.329	0.	0.	0.
3	RSX	0.	0.	0.039	0.	0.	0.
3	RSY	0.	0.	1.739	0.	0.	0.
3	EQmxp	0.	0.	-0.075	0.	0.	0.
3	EQmxn	0.	0.	0.075	0.	0.	0.
3	EQmyp	0.	0.	-3.846	0.	0.	0.
3	EQmyn	0.	0.	3.846	0.	0.	0.
4	RSX	0.	0.	0.072	0.	0.	0.
4	RSY	0.	0.	1.738	0.	0.	0.
4	EQmxp	0.	0.	-0.077	0.	0.	0.
4	EQmxn	0.	0.	0.077	0.	0.	0.
4	EQmyp	0.	0.	3.845	0.	0.	0.
4	EQmyn	0.	0.	-3.845	0.	0.	0.
9	RSX	2.094E-04	2.232E-04	13.566	0.	0.	0.
9	RSY	2.297E-05	2.449E-05	1.488	0.	0.	0.
9	EQmxp	3.199E-04	-3.410E-04	20.724	0.	0.	0.
9	EQmxn	-3.199E-04	3.410E-04	-20.724	0.	0.	0.
9	EQmyp	3.572E-05	-3.809E-05	2.315	0.	0.	0.
9	EQmyn	-3.572E-05	3.809E-05	-2.315	0.	0.	0.
10	RSX	2.090E-04	2.228E-04	13.539	0.	0.	0.
10	RSY	2.350E-05	2.505E-05	1.522	0.	0.	0.
10	EQmxp	3.198E-04	3.410E-04	20.722	0.	0.	0.
10	EQmxn	-3.198E-04	-3.410E-04	-20.722	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
10	EQmyp	-3.407E-05	-3.633E-05	-2.208	0.	0.	0.
10	EQmyn	3.407E-05	3.633E-05	2.208	0.	0.	0.
15	RSX	9.826E-10	2.269E-09	0.	0.	0.	0.
15	RSY	2.725E-08	1.483E-08	0.	0.	0.	0.
15	EQmxp	0.	-4.764E-20	0.	0.	0.	0.
15	EQmxn	0.	4.764E-20	0.	0.	0.	0.
15	EQmyp	0.	1.037E-16	0.	0.	0.	0.
15	EQmyn	0.	-1.037E-16	0.	0.	0.	0.
21	RSX	1.206E-04	1.286E-04	6.464	0.	0.	0.
21	RSY	7.972E-05	8.499E-05	4.274	0.	0.	0.
21	EQmxp	1.835E-04	-1.956E-04	9.837	0.	0.	0.
21	EQmxn	-1.835E-04	1.956E-04	-9.837	0.	0.	0.
21	EQmyp	-3.890E-04	4.147E-04	-20.853	0.	0.	0.
21	EQmyn	3.890E-04	-4.147E-04	20.853	0.	0.	0.
22	RSX	1.194E-04	1.273E-04	6.399	0.	0.	0.
22	RSY	8.058E-05	8.591E-05	4.32	0.	0.	0.
22	EQmxp	1.840E-04	1.962E-04	9.865	0.	0.	0.
22	EQmxn	-1.840E-04	-1.962E-04	-9.865	0.	0.	0.
22	EQmyp	3.924E-04	4.184E-04	21.035	0.	0.	0.
22	EQmyn	-3.924E-04	-4.184E-04	-21.035	0.	0.	0.
23	RSX	0.	0.	0.195	0.	0.	0.
23	RSY	0.	0.	5.408	0.	0.	0.
23	EQmxp	0.	0.	-0.342	0.	0.	0.
23	EQmxn	0.	0.	0.342	0.	0.	0.
23	EQmyp	0.	0.	-25.782	0.	0.	0.
23	EQmyn	0.	0.	25.782	0.	0.	0.
24	RSX	0.	0.	0.264	0.	0.	0.
24	RSY	0.	0.	5.409	0.	0.	0.
24	EQmxp	0.	0.	-0.261	0.	0.	0.
24	EQmxn	0.	0.	0.261	0.	0.	0.
24	EQmyp	0.	0.	25.789	0.	0.	0.
24	EQmyn	0.	0.	-25.789	0.	0.	0.
25	RSX	1.270E-04	1.354E-04	6.806	0.	0.	0.
25	RSY	6.459E-05	6.887E-05	3.463	0.	0.	0.
25	EQmxp	1.944E-04	2.072E-04	-10.419	0.	0.	0.
25	EQmxn	-1.944E-04	-2.072E-04	10.419	0.	0.	0.
25	EQmyp	3.065E-04	3.267E-04	-16.428	0.	0.	0.
25	EQmyn	-3.065E-04	-3.267E-04	16.428	0.	0.	0.
26	RSX	1.282E-04	1.367E-04	6.872	0.	0.	0.
26	RSY	6.357E-05	6.777E-05	3.408	0.	0.	0.
26	EQmxp	1.937E-04	-2.065E-04	-10.383	0.	0.	0.
26	EQmxn	-1.937E-04	2.065E-04	10.383	0.	0.	0.
26	EQmyp	-3.033E-04	3.234E-04	16.26	0.	0.	0.
26	EQmyn	3.033E-04	-3.234E-04	-16.26	0.	0.	0.
27	RSX	0.	0.	0.086	0.	0.	0.
27	RSY	0.	0.	5.568	0.	0.	0.
27	EQmxp	0.	0.	0.072	0.	0.	0.
27	EQmxn	0.	0.	-0.072	0.	0.	0.
27	EQmyp	0.	0.	-24.27	0.	0.	0.
27	EQmyn	0.	0.	24.27	0.	0.	0.
28	RSX	0.	0.	0.06	0.	0.	0.
28	RSY	0.	0.	5.57	0.	0.	0.
28	EQmxp	0.	0.	0.075	0.	0.	0.
28	EQmxn	0.	0.	-0.075	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
28	EQmyp	0.	0.	24.281	0.	0.	0.
28	EQmyn	0.	0.	-24.281	0.	0.	0.
29	RSX	1.241E-04	1.323E-04	6.65	0.	0.	0.
29	RSY	8.344E-05	8.896E-05	4.473	0.	0.	0.
29	EQmxp	1.890E-04	-2.015E-04	-10.133	0.	0.	0.
29	EQmxn	-1.890E-04	2.015E-04	10.133	0.	0.	0.
29	EQmyp	-3.776E-04	4.026E-04	20.241	0.	0.	0.
29	EQmyn	3.776E-04	-4.026E-04	-20.241	0.	0.	0.
30	RSX	1.235E-04	1.317E-04	6.622	0.	0.	0.
30	RSY	8.387E-05	8.942E-05	4.496	0.	0.	0.
30	EQmxp	1.890E-04	2.015E-04	-10.131	0.	0.	0.
30	EQmxn	-1.890E-04	-2.015E-04	10.131	0.	0.	0.
30	EQmyp	3.784E-04	4.034E-04	-20.283	0.	0.	0.
30	EQmyn	-3.784E-04	-4.034E-04	20.283	0.	0.	0.
31	RSX	1.257E-04	1.340E-04	6.74	0.	0.	0.
31	RSY	6.648E-05	7.088E-05	3.564	0.	0.	0.
31	EQmxp	1.915E-04	-2.042E-04	10.268	0.	0.	0.
31	EQmxn	-1.915E-04	2.042E-04	-10.268	0.	0.	0.
31	EQmyp	-2.882E-04	3.073E-04	-15.449	0.	0.	0.
31	EQmyn	2.882E-04	-3.073E-04	15.449	0.	0.	0.
32	RSX	1.250E-04	1.333E-04	6.703	0.	0.	0.
32	RSY	6.710E-05	7.154E-05	3.597	0.	0.	0.
32	EQmxp	1.915E-04	2.041E-04	10.264	0.	0.	0.
32	EQmxn	-1.915E-04	-2.041E-04	-10.264	0.	0.	0.
32	EQmyp	2.894E-04	3.085E-04	15.512	0.	0.	0.
32	EQmyn	-2.894E-04	-3.085E-04	-15.512	0.	0.	0.
104	RSX	0.125	0.016	0.	0.	0.	0.
104	RSY	8.773E-03	0.768	0.	0.	0.	0.
104	EQmxp	-0.192	1.394E-03	0.	0.	0.	0.
104	EQmxn	0.192	-1.394E-03	0.	0.	0.	0.
104	EQmyp	0.041	-1.554	0.	0.	0.	0.
104	EQmyn	-0.041	1.554	0.	0.	0.	0.
205	RSX	0.125	0.016	0.	0.	0.	0.
205	RSY	9.250E-03	0.768	0.	0.	0.	0.
205	EQmxp	-0.192	-6.961E-04	0.	0.	0.	0.
205	EQmxn	0.192	6.961E-04	0.	0.	0.	0.
205	EQmyp	-0.042	-1.554	0.	0.	0.	0.
205	EQmyn	0.042	1.554	0.	0.	0.	0.
294	RSX	2.548E-04	2.716E-04	1.941E-15	0.	0.	0.
294	RSY	3.731E-05	3.978E-05	2.439E-16	0.	0.	0.
294	EQmxp	-3.893E-04	4.150E-04	3.169E-15	0.	0.	0.
294	EQmxn	3.893E-04	-4.150E-04	-3.169E-15	0.	0.	0.
294	EQmyp	1.367E-04	-1.458E-04	-5.755E-16	0.	0.	0.
294	EQmyn	-1.367E-04	1.458E-04	5.755E-16	0.	0.	0.
309	RSX	2.540E-04	2.708E-04	1.642E-16	0.	0.	0.
309	RSY	3.872E-05	4.129E-05	6.002E-17	0.	0.	0.
309	EQmxp	-3.892E-04	-4.150E-04	-1.570E-15	0.	0.	0.
309	EQmxn	3.892E-04	4.150E-04	1.570E-15	0.	0.	0.
309	EQmyp	-1.387E-04	-1.479E-04	-9.107E-18	0.	0.	0.
309	EQmyn	1.387E-04	1.479E-04	9.107E-18	0.	0.	0.
518	RSX	2.526E-04	2.693E-04	1.413E-15	0.	0.	0.
518	RSY	2.840E-05	3.028E-05	1.098E-16	0.	0.	0.
518	EQmxp	-3.866E-04	-4.121E-04	-1.222E-15	0.	0.	0.
518	EQmxn	3.866E-04	4.121E-04	1.222E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
518	EQmyp	4.118E-05	4.390E-05	6.609E-17	0.	0.	0.
518	EQmyn	-4.118E-05	-4.390E-05	-6.609E-17	0.	0.	0.
624	RSX	2.531E-04	2.698E-04	8.645E-16	0.	0.	0.
624	RSY	2.776E-05	2.960E-05	1.881E-16	0.	0.	0.
624	EQmxp	-3.866E-04	4.122E-04	-2.316E-15	0.	0.	0.
624	EQmxn	3.866E-04	-4.122E-04	2.316E-15	0.	0.	0.
624	EQmyp	-4.318E-05	4.603E-05	-1.837E-16	0.	0.	0.
624	EQmyn	4.318E-05	-4.603E-05	1.837E-16	0.	0.	0.
738	RSX	0.01	2.081E-04	0.	0.	0.	0.
738	RSY	9.296E-04	0.021	0.	0.	0.	0.
738	EQmxp	-0.016	-5.838E-06	0.	0.	0.	0.
738	EQmxn	0.016	5.838E-06	0.	0.	0.	0.
738	EQmyp	3.606E-03	-0.092	0.	0.	0.	0.
738	EQmyn	-3.606E-03	0.092	0.	0.	0.	0.
739	RSX	0.024	5.257E-04	0.	0.	0.	0.
739	RSY	2.202E-03	0.053	0.	0.	0.	0.
739	EQmxp	-0.037	-1.646E-05	0.	0.	0.	0.
739	EQmxn	0.037	1.646E-05	0.	0.	0.	0.
739	EQmyp	8.538E-03	-0.233	0.	0.	0.	0.
739	EQmyn	-8.538E-03	0.233	0.	0.	0.	0.
740	RSX	0.027	6.171E-04	0.	0.	0.	0.
740	RSY	2.427E-03	0.062	0.	0.	0.	0.
740	EQmxp	-0.041	-2.116E-05	0.	0.	0.	0.
740	EQmxn	0.041	2.116E-05	0.	0.	0.	0.
740	EQmyp	9.406E-03	-0.274	0.	0.	0.	0.
740	EQmyn	-9.406E-03	0.274	0.	0.	0.	0.
741	RSX	0.028	6.917E-04	0.	0.	0.	0.
741	RSY	2.555E-03	0.07	0.	0.	0.	0.
741	EQmxp	-0.043	-2.564E-05	0.	0.	0.	0.
741	EQmxn	0.043	2.564E-05	0.	0.	0.	0.
741	EQmyp	9.894E-03	-0.307	0.	0.	0.	0.
741	EQmyn	-9.894E-03	0.307	0.	0.	0.	0.
742	RSX	0.029	7.505E-04	0.	0.	0.	0.
742	RSY	2.599E-03	0.076	0.	0.	0.	0.
742	EQmxp	-0.044	-2.982E-05	0.	0.	0.	0.
742	EQmxn	0.044	2.982E-05	0.	0.	0.	0.
742	EQmyp	0.01	-0.333	0.	0.	0.	0.
742	EQmyn	-0.01	0.333	0.	0.	0.	0.
743	RSX	0.029	7.940E-04	0.	0.	0.	0.
743	RSY	2.568E-03	0.08	0.	0.	0.	0.
743	EQmxp	-0.043	-3.365E-05	0.	0.	0.	0.
743	EQmxn	0.043	3.365E-05	0.	0.	0.	0.
743	EQmyp	9.927E-03	-0.352	0.	0.	0.	0.
743	EQmyn	-9.927E-03	0.352	0.	0.	0.	0.
744	RSX	0.026	7.901E-04	0.	0.	0.	0.
744	RSY	2.371E-03	0.08	0.	0.	0.	0.
744	EQmxp	-0.04	-3.560E-05	0.	0.	0.	0.
744	EQmxn	0.04	3.560E-05	0.	0.	0.	0.
744	EQmyp	9.158E-03	-0.35	0.	0.	0.	0.
744	EQmyn	-9.158E-03	0.35	0.	0.	0.	0.
745	RSX	0.022	7.234E-04	0.	0.	0.	0.
745	RSY	1.995E-03	0.073	0.	0.	0.	0.
745	EQmxp	-0.033	-3.463E-05	0.	0.	0.	0.
745	EQmxn	0.033	3.463E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
745	EQmyp	7.694E-03	-0.32	0.	0.	0.	0.
745	EQmyn	-7.694E-03	0.32	0.	0.	0.	0.
746	RSX	0.018	6.575E-04	0.	0.	0.	0.
746	RSY	1.639E-03	0.066	0.	0.	0.	0.
746	EQmxp	-0.027	-3.346E-05	0.	0.	0.	0.
746	EQmxn	0.027	3.346E-05	0.	0.	0.	0.
746	EQmyp	6.313E-03	-0.29	0.	0.	0.	0.
746	EQmyn	-6.313E-03	0.29	0.	0.	0.	0.
747	RSX	0.015	5.918E-04	0.	0.	0.	0.
747	RSY	1.300E-03	0.06	0.	0.	0.	0.
747	EQmxp	-0.022	-3.213E-05	0.	0.	0.	0.
747	EQmxn	0.022	3.213E-05	0.	0.	0.	0.
747	EQmyp	4.995E-03	-0.261	0.	0.	0.	0.
747	EQmyn	-4.995E-03	0.261	0.	0.	0.	0.
748	RSX	0.011	5.115E-04	0.	0.	0.	0.
748	RSY	9.466E-04	0.052	0.	0.	0.	0.
748	EQmxp	-0.016	-2.980E-05	0.	0.	0.	0.
748	EQmxn	0.016	2.980E-05	0.	0.	0.	0.
748	EQmyp	3.623E-03	-0.225	0.	0.	0.	0.
748	EQmyn	-3.623E-03	0.225	0.	0.	0.	0.
749	RSX	6.945E-03	4.207E-04	0.	0.	0.	0.
749	RSY	5.994E-04	0.042	0.	0.	0.	0.
749	EQmxp	-9.961E-03	-2.656E-05	0.	0.	0.	0.
749	EQmxn	9.961E-03	2.656E-05	0.	0.	0.	0.
749	EQmyp	2.277E-03	-0.185	0.	0.	0.	0.
749	EQmyn	-2.277E-03	0.185	0.	0.	0.	0.
750	RSX	3.519E-03	3.349E-04	0.	0.	0.	0.
750	RSY	2.901E-04	0.034	0.	0.	0.	0.
750	EQmxp	-4.776E-03	-2.328E-05	0.	0.	0.	0.
750	EQmxn	4.776E-03	2.328E-05	0.	0.	0.	0.
750	EQmyp	1.079E-03	-0.147	0.	0.	0.	0.
750	EQmyn	-1.079E-03	0.147	0.	0.	0.	0.
751	RSX	4.867E-04	2.541E-04	0.	0.	0.	0.
751	RSY	2.386E-05	0.026	0.	0.	0.	0.
751	EQmxp	-1.976E-04	-1.999E-05	0.	0.	0.	0.
751	EQmxn	1.976E-04	1.999E-05	0.	0.	0.	0.
751	EQmyp	2.163E-05	-0.111	0.	0.	0.	0.
751	EQmyn	-2.163E-05	0.111	0.	0.	0.	0.
752	RSX	2.171E-03	1.786E-04	0.	0.	0.	0.
752	RSY	2.235E-04	0.018	0.	0.	0.	0.
752	EQmxp	3.804E-03	-1.673E-05	0.	0.	0.	0.
752	EQmxn	-3.804E-03	1.673E-05	0.	0.	0.	0.
752	EQmyp	-9.022E-04	-0.078	0.	0.	0.	0.
752	EQmyn	9.022E-04	0.078	0.	0.	0.	0.
753	RSX	4.482E-03	1.082E-04	0.	0.	0.	0.
753	RSY	4.304E-04	0.011	0.	0.	0.	0.
753	EQmxp	7.273E-03	-1.350E-05	0.	0.	0.	0.
753	EQmxn	-7.273E-03	1.350E-05	0.	0.	0.	0.
753	EQmyp	-1.703E-03	-0.046	0.	0.	0.	0.
753	EQmyn	1.703E-03	0.046	0.	0.	0.	0.
754	RSX	6.500E-03	4.234E-05	0.	0.	0.	0.
754	RSY	6.107E-04	4.115E-03	0.	0.	0.	0.
754	EQmxp	0.01	-1.032E-05	0.	0.	0.	0.
754	EQmxn	-0.01	1.032E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
754	EQmyp	-2.398E-03	-0.017	0.	0.	0.	0.
754	EQmyn	2.398E-03	0.017	0.	0.	0.	0.
755	RSX	8.327E-03	2.203E-05	0.	0.	0.	0.
755	RSY	7.735E-04	2.317E-03	0.	0.	0.	0.
755	EQmxp	0.013	-7.133E-06	0.	0.	0.	0.
755	EQmxn	-0.013	7.133E-06	0.	0.	0.	0.
755	EQmyp	-3.026E-03	0.011	0.	0.	0.	0.
755	EQmyn	3.026E-03	-0.011	0.	0.	0.	0.
756	RSX	0.01	8.898E-05	0.	0.	0.	0.
756	RSY	9.468E-04	9.101E-03	0.	0.	0.	0.
756	EQmxp	0.016	-3.768E-06	0.	0.	0.	0.
756	EQmxn	-0.016	3.768E-06	0.	0.	0.	0.
756	EQmyp	-3.693E-03	0.041	0.	0.	0.	0.
756	EQmyn	3.693E-03	-0.041	0.	0.	0.	0.
757	RSX	0.014	1.857E-04	0.	0.	0.	0.
757	RSY	1.241E-03	0.019	0.	0.	0.	0.
757	EQmxp	0.021	5.483E-07	0.	0.	0.	0.
757	EQmxn	-0.021	-5.483E-07	0.	0.	0.	0.
757	EQmyp	-4.830E-03	0.084	0.	0.	0.	0.
757	EQmyn	4.830E-03	-0.084	0.	0.	0.	0.
758	RSX	0.038	7.177E-04	0.	0.	0.	0.
758	RSY	3.446E-03	0.073	0.	0.	0.	0.
758	EQmxp	0.058	1.758E-05	0.	0.	0.	0.
758	EQmxn	-0.058	-1.758E-05	0.	0.	0.	0.
758	EQmyp	-0.013	0.32	0.	0.	0.	0.
758	EQmyn	0.013	-0.32	0.	0.	0.	0.
759	RSX	0.01	2.682E-04	0.	0.	0.	0.
759	RSY	9.425E-04	0.027	0.	0.	0.	0.
759	EQmxp	0.016	1.051E-05	0.	0.	0.	0.
759	EQmxn	-0.016	-1.051E-05	0.	0.	0.	0.
759	EQmyp	-3.647E-03	0.119	0.	0.	0.	0.
759	EQmyn	3.647E-03	-0.119	0.	0.	0.	0.
760	RSX	4.142E-03	1.496E-04	0.	0.	0.	0.
760	RSY	3.685E-04	0.015	0.	0.	0.	0.
760	EQmxp	6.157E-03	7.663E-06	0.	0.	0.	0.
760	EQmxn	-6.157E-03	-7.663E-06	0.	0.	0.	0.
760	EQmyp	-1.418E-03	0.066	0.	0.	0.	0.
760	EQmyn	1.418E-03	-0.066	0.	0.	0.	0.
761	RSX	1.772E-03	1.029E-04	0.	0.	0.	0.
761	RSY	1.532E-04	0.01	0.	0.	0.	0.
761	EQmxp	2.546E-03	6.414E-06	0.	0.	0.	0.
761	EQmxn	-2.546E-03	-6.414E-06	0.	0.	0.	0.
761	EQmyp	-5.825E-04	0.045	0.	0.	0.	0.
761	EQmyn	5.825E-04	-0.045	0.	0.	0.	0.
762	RSX	4.776E-04	7.490E-05	0.	0.	0.	0.
762	RSY	3.604E-05	7.522E-03	0.	0.	0.	0.
762	EQmxp	5.789E-04	5.535E-06	0.	0.	0.	0.
762	EQmxn	-5.789E-04	-5.535E-06	0.	0.	0.	0.
762	EQmyp	-1.275E-04	0.033	0.	0.	0.	0.
762	EQmyn	1.275E-04	-0.033	0.	0.	0.	0.
763	RSX	3.383E-04	5.383E-05	0.	0.	0.	0.
763	RSY	3.810E-05	5.393E-03	0.	0.	0.	0.
763	EQmxp	-6.531E-04	4.703E-06	0.	0.	0.	0.
763	EQmxn	6.531E-04	-4.703E-06	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
763	EQmyp	1.571E-04	0.023	0.	0.	0.	0.
763	EQmyn	-1.571E-04	-0.023	0.	0.	0.	0.
764	RSX	8.583E-04	3.679E-05	0.	0.	0.	0.
764	RSY	8.439E-05	3.673E-03	0.	0.	0.	0.
764	EQmxp	-1.430E-03	3.880E-06	0.	0.	0.	0.
764	EQmxn	1.430E-03	-3.880E-06	0.	0.	0.	0.
764	EQmyp	3.362E-04	0.016	0.	0.	0.	0.
764	EQmyn	-3.362E-04	-0.016	0.	0.	0.	0.
765	RSX	1.169E-03	2.270E-05	0.	0.	0.	0.
765	RSY	1.116E-04	2.253E-03	0.	0.	0.	0.
765	EQmxp	-1.885E-03	3.073E-06	0.	0.	0.	0.
765	EQmxn	1.885E-03	-3.073E-06	0.	0.	0.	0.
765	EQmyp	4.407E-04	9.654E-03	0.	0.	0.	0.
765	EQmyn	-4.407E-04	-9.654E-03	0.	0.	0.	0.
766	RSX	1.318E-03	1.105E-05	0.	0.	0.	0.
766	RSY	1.241E-04	1.081E-03	0.	0.	0.	0.
766	EQmxp	-2.092E-03	2.290E-06	0.	0.	0.	0.
766	EQmxn	2.092E-03	-2.290E-06	0.	0.	0.	0.
766	EQmyp	4.877E-04	4.541E-03	0.	0.	0.	0.
766	EQmyn	-4.877E-04	-4.541E-03	0.	0.	0.	0.
767	RSX	1.338E-03	1.805E-06	0.	0.	0.	0.
767	RSY	1.249E-04	1.406E-04	0.	0.	0.	0.
767	EQmxp	-2.102E-03	1.552E-06	0.	0.	0.	0.
767	EQmxn	2.102E-03	-1.552E-06	0.	0.	0.	0.
767	EQmyp	4.892E-04	4.315E-04	0.	0.	0.	0.
767	EQmyn	-4.892E-04	-4.315E-04	0.	0.	0.	0.
768	RSX	1.254E-03	5.684E-06	0.	0.	0.	0.
768	RSY	1.162E-04	5.905E-04	0.	0.	0.	0.
768	EQmxp	-1.954E-03	8.784E-07	0.	0.	0.	0.
768	EQmxn	1.954E-03	-8.784E-07	0.	0.	0.	0.
768	EQmyp	4.541E-04	-2.709E-03	0.	0.	0.	0.
768	EQmyn	-4.541E-04	2.709E-03	0.	0.	0.	0.
769	RSX	1.087E-03	1.072E-05	0.	0.	0.	0.
769	RSY	9.999E-05	1.095E-03	0.	0.	0.	0.
769	EQmxp	-1.680E-03	2.919E-07	0.	0.	0.	0.
769	EQmxn	1.680E-03	-2.919E-07	0.	0.	0.	0.
769	EQmyp	3.898E-04	-4.883E-03	0.	0.	0.	0.
769	EQmyn	-3.898E-04	4.883E-03	0.	0.	0.	0.
770	RSX	8.542E-04	1.356E-05	0.	0.	0.	0.
770	RSY	7.799E-05	1.376E-03	0.	0.	0.	0.
770	EQmxp	-1.309E-03	-1.853E-07	0.	0.	0.	0.
770	EQmxn	1.309E-03	1.853E-07	0.	0.	0.	0.
770	EQmyp	3.032E-04	-6.079E-03	0.	0.	0.	0.
770	EQmyn	-3.032E-04	6.079E-03	0.	0.	0.	0.
771	RSX	5.684E-04	1.435E-05	0.	0.	0.	0.
771	RSY	5.126E-05	1.451E-03	0.	0.	0.	0.
771	EQmxp	-8.585E-04	-5.537E-07	0.	0.	0.	0.
771	EQmxn	8.585E-04	5.537E-07	0.	0.	0.	0.
771	EQmyp	1.984E-04	-6.371E-03	0.	0.	0.	0.
771	EQmyn	-1.984E-04	6.371E-03	0.	0.	0.	0.
772	RSX	2.990E-05	3.314E-05	0.	0.	0.	0.
772	RSY	2.619E-06	3.325E-03	0.	0.	0.	0.
772	EQmxp	2.914E-05	-2.642E-06	0.	0.	0.	0.
772	EQmxn	-2.914E-05	2.642E-06	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
772	EQmyp	-9.951E-06	-0.014	0.	0.	0.	0.
772	EQmyn	9.951E-06	0.014	0.	0.	0.	0.
773	RSX	3.567E-04	2.623E-06	0.	0.	0.	0.
773	RSY	3.293E-05	2.693E-04	0.	0.	0.	0.
773	EQmxp	5.534E-04	-1.682E-07	0.	0.	0.	0.
773	EQmxn	-5.534E-04	1.682E-07	0.	0.	0.	0.
773	EQmyp	-1.285E-04	1.212E-03	0.	0.	0.	0.
773	EQmyn	1.285E-04	-1.212E-03	0.	0.	0.	0.
774	RSX	3.074E-04	4.212E-06	0.	0.	0.	0.
774	RSY	2.814E-05	4.281E-04	0.	0.	0.	0.
774	EQmxp	4.724E-04	1.279E-08	0.	0.	0.	0.
774	EQmxn	-4.724E-04	-1.279E-08	0.	0.	0.	0.
774	EQmyp	-1.095E-04	1.897E-03	0.	0.	0.	0.
774	EQmyn	1.095E-04	-1.897E-03	0.	0.	0.	0.
775	RSX	2.173E-04	3.672E-06	0.	0.	0.	0.
775	RSY	1.981E-05	3.724E-04	0.	0.	0.	0.
775	EQmxp	3.324E-04	6.512E-08	0.	0.	0.	0.
775	EQmxn	-3.324E-04	-6.512E-08	0.	0.	0.	0.
775	EQmyp	-7.698E-05	1.644E-03	0.	0.	0.	0.
775	EQmyn	7.698E-05	-1.644E-03	0.	0.	0.	0.
776	RSX	1.202E-04	2.443E-06	0.	0.	0.	0.
776	RSY	1.091E-05	2.473E-04	0.	0.	0.	0.
776	EQmxp	1.829E-04	6.922E-08	0.	0.	0.	0.
776	EQmxn	-1.829E-04	-6.922E-08	0.	0.	0.	0.
776	EQmyp	-4.233E-05	1.089E-03	0.	0.	0.	0.
776	EQmyn	4.233E-05	-1.089E-03	0.	0.	0.	0.
777	RSX	3.441E-05	1.064E-06	0.	0.	0.	0.
777	RSY	3.081E-06	1.074E-04	0.	0.	0.	0.
777	EQmxp	5.153E-05	4.924E-08	0.	0.	0.	0.
777	EQmxn	-5.153E-05	-4.924E-08	0.	0.	0.	0.
777	EQmyp	-1.189E-05	4.706E-04	0.	0.	0.	0.
777	EQmyn	1.189E-05	-4.706E-04	0.	0.	0.	0.
778	RSX	4.257E-05	3.660E-07	0.	0.	0.	0.
778	RSY	3.924E-06	3.745E-05	0.	0.	0.	0.
778	EQmxp	-6.593E-05	1.581E-08	0.	0.	0.	0.
778	EQmxn	6.593E-05	-1.581E-08	0.	0.	0.	0.
778	EQmyp	1.531E-05	-1.677E-04	0.	0.	0.	0.
778	EQmyn	-1.531E-05	1.677E-04	0.	0.	0.	0.
779	RSX	2.987E-05	5.828E-07	0.	0.	0.	0.
779	RSY	2.714E-06	5.899E-05	0.	0.	0.	0.
779	EQmxp	-4.551E-05	-1.523E-08	0.	0.	0.	0.
779	EQmxn	4.551E-05	1.523E-08	0.	0.	0.	0.
779	EQmyp	1.053E-05	-2.599E-04	0.	0.	0.	0.
779	EQmyn	-1.053E-05	2.599E-04	0.	0.	0.	0.
780	RSX	3.024E-06	1.136E-07	0.	0.	0.	0.
780	RSY	2.684E-07	1.144E-05	0.	0.	0.	0.
780	EQmxp	-4.483E-06	-5.938E-09	0.	0.	0.	0.
780	EQmxn	4.483E-06	5.938E-09	0.	0.	0.	0.
780	EQmyp	1.032E-06	-5.006E-05	0.	0.	0.	0.
780	EQmyn	-1.032E-06	5.006E-05	0.	0.	0.	0.
781	RSX	1.645E-06	2.396E-08	0.	0.	0.	0.
781	RSY	1.510E-07	2.435E-06	0.	0.	0.	0.
781	EQmxp	2.525E-06	1.840E-10	0.	0.	0.	0.
781	EQmxn	-2.525E-06	-1.840E-10	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
781	EQmyp	-5.853E-07	1.078E-05	0.	0.	0.	0.
781	EQmyn	5.853E-07	-1.078E-05	0.	0.	0.	0.
782	RSX	5.655E-07	1.174E-08	0.	0.	0.	0.
782	RSY	5.170E-08	1.176E-06	0.	0.	0.	0.
782	EQmxp	8.606E-07	3.360E-10	0.	0.	0.	0.
782	EQmxn	-8.606E-07	-3.360E-10	0.	0.	0.	0.
782	EQmyp	-1.991E-07	5.179E-06	0.	0.	0.	0.
782	EQmyn	1.991E-07	-5.179E-06	0.	0.	0.	0.
783	RSX	1.597E-08	1.650E-09	0.	0.	0.	0.
783	RSY	9.011E-09	1.108E-07	0.	0.	0.	0.
783	EQmxp	2.353E-08	7.139E-11	0.	0.	0.	0.
783	EQmxn	-2.353E-08	-7.139E-11	0.	0.	0.	0.
783	EQmyp	-5.369E-09	4.845E-07	0.	0.	0.	0.
783	EQmyn	5.369E-09	-4.845E-07	0.	0.	0.	0.
784	RSX	4.685E-08	3.919E-09	0.	0.	0.	0.
784	RSY	5.792E-08	1.036E-07	0.	0.	0.	0.
784	EQmxp	-7.740E-08	-1.837E-11	0.	0.	0.	0.
784	EQmxn	7.740E-08	1.837E-11	0.	0.	0.	0.
784	EQmyp	1.792E-08	-4.005E-07	0.	0.	0.	0.
784	EQmyn	-1.792E-08	4.005E-07	0.	0.	0.	0.
785	RSX	1.668E-11	9.920E-12	0.	0.	0.	0.
785	RSY	1.503E-10	1.383E-10	0.	0.	0.	0.
785	EQmxp	-3.698E-11	-2.230E-14	0.	0.	0.	0.
785	EQmxn	3.698E-11	2.230E-14	0.	0.	0.	0.
785	EQmyp	8.547E-12	-2.659E-10	0.	0.	0.	0.
785	EQmyn	-8.547E-12	2.659E-10	0.	0.	0.	0.
786	RSX	4.042E-11	5.201E-11	0.	0.	0.	0.
786	RSY	7.579E-10	6.379E-10	0.	0.	0.	0.
786	EQmxp	-9.508E-11	-7.049E-14	0.	0.	0.	0.
786	EQmxn	9.508E-11	7.049E-14	0.	0.	0.	0.
786	EQmyp	2.196E-11	-7.561E-10	0.	0.	0.	0.
786	EQmyn	-2.196E-11	7.561E-10	0.	0.	0.	0.
787	RSX	9.542E-11	1.292E-10	0.	0.	0.	0.
787	RSY	1.808E-09	1.473E-09	0.	0.	0.	0.
787	EQmxp	-1.422E-10	-1.166E-13	0.	0.	0.	0.
787	EQmxn	1.422E-10	1.166E-13	0.	0.	0.	0.
787	EQmyp	3.283E-11	-1.193E-09	0.	0.	0.	0.
787	EQmyn	-3.283E-11	1.193E-09	0.	0.	0.	0.
788	RSX	1.948E-10	2.296E-10	0.	0.	0.	0.
788	RSY	3.100E-09	2.488E-09	0.	0.	0.	0.
788	EQmxp	-1.665E-10	-1.457E-13	0.	0.	0.	0.
788	EQmxn	1.665E-10	1.457E-13	0.	0.	0.	0.
788	EQmyp	3.842E-11	-1.447E-09	0.	0.	0.	0.
788	EQmyn	-3.842E-11	1.447E-09	0.	0.	0.	0.
789	RSX	3.246E-10	3.373E-10	0.	0.	0.	0.
789	RSY	4.437E-09	3.556E-09	0.	0.	0.	0.
789	EQmxp	-1.654E-10	-1.526E-13	0.	0.	0.	0.
789	EQmxn	1.654E-10	1.526E-13	0.	0.	0.	0.
789	EQmyp	3.817E-11	-1.481E-09	0.	0.	0.	0.
789	EQmyn	-3.817E-11	1.481E-09	0.	0.	0.	0.
790	RSX	4.656E-10	4.361E-10	0.	0.	0.	0.
790	RSY	5.645E-09	4.605E-09	0.	0.	0.	0.
790	EQmxp	-1.437E-10	-1.392E-13	0.	0.	0.	0.
790	EQmxn	1.437E-10	1.392E-13	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
790	EQmyp	3.315E-11	-1.323E-09	0.	0.	0.	0.
790	EQmyn	-3.315E-11	1.323E-09	0.	0.	0.	0.
791	RSX	5.957E-10	5.084E-10	0.	0.	0.	0.
791	RSY	6.527E-09	5.605E-09	0.	0.	0.	0.
791	EQmxp	-1.093E-10	-1.117E-13	0.	0.	0.	0.
791	EQmxn	1.093E-10	1.117E-13	0.	0.	0.	0.
791	EQmyp	2.521E-11	-1.038E-09	0.	0.	0.	0.
791	EQmyn	-2.521E-11	1.038E-09	0.	0.	0.	0.
792	RSX	7.030E-10	5.452E-10	0.	0.	0.	0.
792	RSY	7.104E-09	6.442E-09	0.	0.	0.	0.
792	EQmxp	-7.089E-11	-7.794E-14	0.	0.	0.	0.
792	EQmxn	7.089E-11	7.794E-14	0.	0.	0.	0.
792	EQmyp	1.634E-11	-7.037E-10	0.	0.	0.	0.
792	EQmyn	-1.634E-11	7.037E-10	0.	0.	0.	0.
793	RSX	7.789E-10	5.495E-10	0.	0.	0.	0.
793	RSY	7.461E-09	7.044E-09	0.	0.	0.	0.
793	EQmxp	-3.556E-11	-4.483E-14	0.	0.	0.	0.
793	EQmxn	3.556E-11	4.483E-14	0.	0.	0.	0.
793	EQmyp	8.190E-12	-3.846E-10	0.	0.	0.	0.
793	EQmyn	-8.190E-12	3.846E-10	0.	0.	0.	0.
794	RSX	8.190E-10	5.360E-10	0.	0.	0.	0.
794	RSY	7.668E-09	7.444E-09	0.	0.	0.	0.
794	EQmxp	-7.870E-12	-1.727E-14	0.	0.	0.	0.
794	EQmxn	7.870E-12	1.727E-14	0.	0.	0.	0.
794	EQmyp	1.804E-12	-1.256E-10	0.	0.	0.	0.
794	EQmyn	-1.804E-12	1.256E-10	0.	0.	0.	0.
795	RSX	8.284E-10	5.152E-10	0.	0.	0.	0.
795	RSY	7.771E-09	7.664E-09	0.	0.	0.	0.
795	EQmxp	1.037E-11	2.272E-15	0.	0.	0.	0.
795	EQmxn	-1.037E-11	-2.272E-15	0.	0.	0.	0.
795	EQmyp	-2.402E-12	5.262E-11	0.	0.	0.	0.
795	EQmyn	2.402E-12	-5.262E-11	0.	0.	0.	0.
796	RSX	8.095E-10	4.881E-10	0.	0.	0.	0.
796	RSY	7.955E-09	7.878E-09	0.	0.	0.	0.
796	EQmxp	1.963E-11	1.355E-14	0.	0.	0.	0.
796	EQmxn	-1.963E-11	-1.355E-14	0.	0.	0.	0.
796	EQmyp	-4.534E-12	1.506E-10	0.	0.	0.	0.
796	EQmyn	4.534E-12	-1.506E-10	0.	0.	0.	0.
797	RSX	7.723E-10	4.624E-10	0.	0.	0.	0.
797	RSY	8.404E-09	8.108E-09	0.	0.	0.	0.
797	EQmxp	2.178E-11	1.786E-14	0.	0.	0.	0.
797	EQmxn	-2.178E-11	-1.786E-14	0.	0.	0.	0.
797	EQmyp	-5.028E-12	1.826E-10	0.	0.	0.	0.
797	EQmyn	5.028E-12	-1.826E-10	0.	0.	0.	0.
798	RSX	7.162E-10	4.436E-10	0.	0.	0.	0.
798	RSY	8.907E-09	8.275E-09	0.	0.	0.	0.
798	EQmxp	1.929E-11	1.724E-14	0.	0.	0.	0.
798	EQmxn	-1.929E-11	-1.724E-14	0.	0.	0.	0.
798	EQmyp	-4.452E-12	1.696E-10	0.	0.	0.	0.
798	EQmyn	4.452E-12	-1.696E-10	0.	0.	0.	0.
799	RSX	6.401E-10	4.346E-10	0.	0.	0.	0.
799	RSY	9.211E-09	8.160E-09	0.	0.	0.	0.
799	EQmxp	1.453E-11	1.386E-14	0.	0.	0.	0.
799	EQmxn	-1.453E-11	-1.386E-14	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
799	EQmyp	-3.353E-12	1.326E-10	0.	0.	0.	0.
799	EQmyn	3.353E-12	-1.326E-10	0.	0.	0.	0.
800	RSX	5.636E-10	4.443E-10	0.	0.	0.	0.
800	RSY	9.288E-09	7.764E-09	0.	0.	0.	0.
800	EQmxp	9.337E-12	9.519E-15	0.	0.	0.	0.
800	EQmxn	-9.337E-12	-9.519E-15	0.	0.	0.	0.
800	EQmyp	-2.153E-12	8.857E-11	0.	0.	0.	0.
800	EQmyn	2.153E-12	-8.857E-11	0.	0.	0.	0.
801	RSX	5.190E-10	4.791E-10	0.	0.	0.	0.
801	RSY	9.054E-09	7.319E-09	0.	0.	0.	0.
801	EQmxp	4.864E-12	5.455E-15	0.	0.	0.	0.
801	EQmxn	-4.864E-12	-5.455E-15	0.	0.	0.	0.
801	EQmyp	-1.121E-12	4.887E-11	0.	0.	0.	0.
801	EQmyn	1.121E-12	-4.887E-11	0.	0.	0.	0.
802	RSX	5.062E-10	5.348E-10	0.	0.	0.	0.
802	RSY	8.691E-09	6.897E-09	0.	0.	0.	0.
802	EQmxp	1.634E-12	2.317E-15	0.	0.	0.	0.
802	EQmxn	-1.634E-12	-2.317E-15	0.	0.	0.	0.
802	EQmyp	-3.761E-13	1.909E-11	0.	0.	0.	0.
802	EQmyn	3.761E-13	-1.909E-11	0.	0.	0.	0.
803	RSX	5.142E-10	6.020E-10	0.	0.	0.	0.
803	RSY	8.124E-09	6.470E-09	0.	0.	0.	0.
803	EQmxp	-3.037E-13	2.856E-16	0.	0.	0.	0.
803	EQmxn	3.037E-13	-2.856E-16	0.	0.	0.	0.
803	EQmyp	7.076E-14	4.008E-13	0.	0.	0.	0.
803	EQmyn	-7.076E-14	-4.008E-13	0.	0.	0.	0.
804	RSX	5.270E-10	6.562E-10	0.	0.	0.	0.
804	RSY	7.647E-09	6.138E-09	0.	0.	0.	0.
804	EQmxp	-1.184E-12	-7.644E-16	0.	0.	0.	0.
804	EQmxn	1.184E-12	7.644E-16	0.	0.	0.	0.
804	EQmyp	2.737E-13	-8.792E-12	0.	0.	0.	0.
804	EQmyn	-2.737E-13	8.792E-12	0.	0.	0.	0.
805	RSX	5.408E-10	6.958E-10	0.	0.	0.	0.
805	RSY	7.076E-09	6.030E-09	0.	0.	0.	0.
805	EQmxp	-1.349E-12	-1.101E-15	0.	0.	0.	0.
805	EQmxn	1.349E-12	1.101E-15	0.	0.	0.	0.
805	EQmyp	3.115E-13	-1.129E-11	0.	0.	0.	0.
805	EQmyn	-3.115E-13	1.129E-11	0.	0.	0.	0.
806	RSX	5.387E-10	7.003E-10	0.	0.	0.	0.
806	RSY	6.672E-09	6.213E-09	0.	0.	0.	0.
806	EQmxp	-1.127E-12	-1.015E-15	0.	0.	0.	0.
806	EQmxn	1.127E-12	1.015E-15	0.	0.	0.	0.
806	EQmyp	2.600E-13	-9.949E-12	0.	0.	0.	0.
806	EQmyn	-2.600E-13	9.949E-12	0.	0.	0.	0.
807	RSX	5.343E-10	6.655E-10	0.	0.	0.	0.
807	RSY	6.621E-09	6.584E-09	0.	0.	0.	0.
807	EQmxp	-7.668E-13	-7.429E-16	0.	0.	0.	0.
807	EQmxn	7.668E-13	7.429E-16	0.	0.	0.	0.
807	EQmyp	1.769E-13	-7.059E-12	0.	0.	0.	0.
807	EQmyn	-1.769E-13	7.059E-12	0.	0.	0.	0.
808	RSX	5.351E-10	6.156E-10	0.	0.	0.	0.
808	RSY	7.051E-09	7.369E-09	0.	0.	0.	0.
808	EQmxp	-4.238E-13	-4.456E-16	0.	0.	0.	0.
808	EQmxn	4.238E-13	4.456E-16	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
808	EQmyp	9.772E-14	-4.095E-12	0.	0.	0.	0.
808	EQmyn	-9.772E-14	4.095E-12	0.	0.	0.	0.
809	RSX	5.445E-10	5.700E-10	0.	0.	0.	0.
809	RSY	7.566E-09	8.284E-09	0.	0.	0.	0.
809	EQmxp	-1.689E-13	-2.059E-16	0.	0.	0.	0.
809	EQmxn	1.689E-13	2.059E-16	0.	0.	0.	0.
809	EQmyp	3.891E-14	-1.788E-12	0.	0.	0.	0.
809	EQmyn	-3.891E-14	1.788E-12	0.	0.	0.	0.
810	RSX	5.733E-10	5.525E-10	0.	0.	0.	0.
810	RSY	8.271E-09	8.946E-09	0.	0.	0.	0.
810	EQmxp	-1.536E-14	-4.994E-17	0.	0.	0.	0.
810	EQmxn	1.536E-14	4.994E-17	0.	0.	0.	0.
810	EQmyp	3.501E-15	-3.347E-13	0.	0.	0.	0.
810	EQmyn	-3.501E-15	3.347E-13	0.	0.	0.	0.
811	RSX	6.026E-10	5.309E-10	0.	0.	0.	0.
811	RSY	8.979E-09	9.011E-09	0.	0.	0.	0.
811	EQmxp	5.498E-14	3.013E-17	0.	0.	0.	0.
811	EQmxn	-5.498E-14	-3.013E-17	0.	0.	0.	0.
811	EQmyp	-1.271E-14	3.787E-13	0.	0.	0.	0.
811	EQmyn	1.271E-14	-3.787E-13	0.	0.	0.	0.
812	RSX	6.237E-10	5.131E-10	0.	0.	0.	0.
812	RSY	9.316E-09	8.818E-09	0.	0.	0.	0.
812	EQmxp	7.089E-14	5.657E-17	0.	0.	0.	0.
812	EQmxn	-7.089E-14	-5.657E-17	0.	0.	0.	0.
812	EQmyp	-1.637E-14	5.859E-13	0.	0.	0.	0.
812	EQmyn	1.637E-14	-5.859E-13	0.	0.	0.	0.
813	RSX	6.245E-10	4.882E-10	0.	0.	0.	0.
813	RSY	8.893E-09	8.527E-09	0.	0.	0.	0.
813	EQmxp	5.902E-14	5.287E-17	0.	0.	0.	0.
813	EQmxn	-5.902E-14	-5.287E-17	0.	0.	0.	0.
813	EQmyp	-1.362E-14	5.196E-13	0.	0.	0.	0.
813	EQmyn	1.362E-14	-5.196E-13	0.	0.	0.	0.
814	RSX	5.839E-10	4.773E-10	0.	0.	0.	0.
814	RSY	7.861E-09	8.840E-09	0.	0.	0.	0.
814	EQmxp	3.833E-14	3.722E-17	0.	0.	0.	0.
814	EQmxn	-3.833E-14	-3.722E-17	0.	0.	0.	0.
814	EQmyp	-8.842E-15	3.533E-13	0.	0.	0.	0.
814	EQmyn	8.842E-15	-3.533E-13	0.	0.	0.	0.
815	RSX	5.048E-10	4.790E-10	0.	0.	0.	0.
815	RSY	6.986E-09	9.587E-09	0.	0.	0.	0.
815	EQmxp	1.943E-14	2.068E-17	0.	0.	0.	0.
815	EQmxn	-1.943E-14	-2.068E-17	0.	0.	0.	0.
815	EQmyp	-4.480E-15	1.891E-13	0.	0.	0.	0.
815	EQmyn	4.480E-15	-1.891E-13	0.	0.	0.	0.
816	RSX	4.292E-10	4.710E-10	0.	0.	0.	0.
816	RSY	6.200E-09	1.005E-08	0.	0.	0.	0.
816	EQmxp	6.411E-15	8.267E-18	0.	0.	0.	0.
816	EQmxn	-6.411E-15	-8.267E-18	0.	0.	0.	0.
816	EQmyp	-1.476E-15	7.036E-14	0.	0.	0.	0.
816	EQmyn	1.476E-15	-7.036E-14	0.	0.	0.	0.
817	RSX	3.743E-10	4.538E-10	0.	0.	0.	0.
817	RSY	5.492E-09	1.009E-08	0.	0.	0.	0.
817	EQmxp	-5.853E-16	9.882E-19	0.	0.	0.	0.
817	EQmxn	5.853E-16	-9.882E-19	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
817	EQmyp	1.369E-16	3.186E-15	0.	0.	0.	0.
817	EQmyn	-1.369E-16	-3.186E-15	0.	0.	0.	0.
818	RSX	3.461E-10	4.314E-10	0.	0.	0.	0.
818	RSY	5.390E-09	9.448E-09	0.	0.	0.	0.
818	EQmxp	-3.169E-15	-2.158E-18	0.	0.	0.	0.
818	EQmxn	3.169E-15	2.158E-18	0.	0.	0.	0.
818	EQmyp	7.320E-16	-2.415E-14	0.	0.	0.	0.
818	EQmyn	-7.320E-16	2.415E-14	0.	0.	0.	0.
819	RSX	3.635E-10	4.224E-10	0.	0.	0.	0.
819	RSY	6.101E-09	8.210E-09	0.	0.	0.	0.
819	EQmxp	-3.246E-15	-2.749E-18	0.	0.	0.	0.
819	EQmxn	3.246E-15	2.749E-18	0.	0.	0.	0.
819	EQmyp	7.492E-16	-2.770E-14	0.	0.	0.	0.
819	EQmyn	-7.492E-16	2.770E-14	0.	0.	0.	0.
820	RSX	4.131E-10	4.362E-10	0.	0.	0.	0.
820	RSY	7.001E-09	6.802E-09	0.	0.	0.	0.
820	EQmxp	-2.311E-15	-2.160E-18	0.	0.	0.	0.
820	EQmxn	2.311E-15	2.160E-18	0.	0.	0.	0.
820	EQmyp	5.333E-16	-2.084E-14	0.	0.	0.	0.
820	EQmyn	-5.333E-16	2.084E-14	0.	0.	0.	0.
821	RSX	4.999E-10	4.398E-10	0.	0.	0.	0.
821	RSY	7.901E-09	5.719E-09	0.	0.	0.	0.
821	EQmxp	-1.260E-15	-1.284E-18	0.	0.	0.	0.
821	EQmxn	1.260E-15	1.284E-18	0.	0.	0.	0.
821	EQmyp	2.905E-16	-1.195E-14	0.	0.	0.	0.
821	EQmyn	-2.905E-16	1.195E-14	0.	0.	0.	0.
822	RSX	5.952E-10	4.679E-10	0.	0.	0.	0.
822	RSY	9.060E-09	5.478E-09	0.	0.	0.	0.
822	EQmxp	-4.799E-16	-5.630E-19	0.	0.	0.	0.
822	EQmxn	4.799E-16	5.630E-19	0.	0.	0.	0.
822	EQmyp	1.106E-16	-4.959E-15	0.	0.	0.	0.
822	EQmyn	-1.106E-16	4.959E-15	0.	0.	0.	0.
823	RSX	6.257E-10	5.215E-10	0.	0.	0.	0.
823	RSY	9.547E-09	5.894E-09	0.	0.	0.	0.
823	EQmxp	-4.209E-17	-1.210E-19	0.	0.	0.	0.
823	EQmxn	4.209E-17	1.210E-19	0.	0.	0.	0.
823	EQmyp	9.613E-18	-8.297E-16	0.	0.	0.	0.
823	EQmyn	-9.613E-18	8.297E-16	0.	0.	0.	0.
824	RSX	6.100E-10	5.804E-10	0.	0.	0.	0.
824	RSY	9.030E-09	5.768E-09	0.	0.	0.	0.
824	EQmxp	1.313E-16	7.889E-20	0.	0.	0.	0.
824	EQmxn	-1.313E-16	-7.889E-20	0.	0.	0.	0.
824	EQmyp	-3.036E-17	9.425E-16	0.	0.	0.	0.
824	EQmyn	3.036E-17	-9.425E-16	0.	0.	0.	0.
825	RSX	6.173E-10	6.313E-10	0.	0.	0.	0.
825	RSY	8.368E-09	5.248E-09	0.	0.	0.	0.
825	EQmxp	1.520E-16	1.259E-19	0.	0.	0.	0.
825	EQmxn	-1.520E-16	-1.259E-19	0.	0.	0.	0.
825	EQmyp	-3.509E-17	1.282E-15	0.	0.	0.	0.
825	EQmyn	3.509E-17	-1.282E-15	0.	0.	0.	0.
826	RSX	6.948E-10	6.488E-10	0.	0.	0.	0.
826	RSY	7.360E-09	4.982E-09	0.	0.	0.	0.
826	EQmxp	1.100E-16	1.018E-19	0.	0.	0.	0.
826	EQmxn	-1.100E-16	-1.018E-19	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
826	EQmyp	-2.539E-17	9.867E-16	0.	0.	0.	0.
826	EQmyn	2.539E-17	-9.867E-16	0.	0.	0.	0.
827	RSX	7.704E-10	6.646E-10	0.	0.	0.	0.
827	RSY	6.530E-09	5.136E-09	0.	0.	0.	0.
827	EQmxp	5.899E-17	5.981E-20	0.	0.	0.	0.
827	EQmxn	-5.899E-17	-5.981E-20	0.	0.	0.	0.
827	EQmyp	-1.361E-17	5.578E-16	0.	0.	0.	0.
827	EQmyn	1.361E-17	-5.578E-16	0.	0.	0.	0.
828	RSX	8.004E-10	6.333E-10	0.	0.	0.	0.
828	RSY	6.990E-09	5.853E-09	0.	0.	0.	0.
828	EQmxp	2.153E-17	2.523E-20	0.	0.	0.	0.
828	EQmxn	-2.153E-17	-2.523E-20	0.	0.	0.	0.
828	EQmyp	-4.962E-18	2.223E-16	0.	0.	0.	0.
828	EQmyn	4.962E-18	-2.223E-16	0.	0.	0.	0.
829	RSX	7.602E-10	5.591E-10	0.	0.	0.	0.
829	RSY	8.435E-09	6.762E-09	0.	0.	0.	0.
829	EQmxp	1.472E-18	0.	0.	0.	0.	0.
829	EQmxn	-1.472E-18	0.	0.	0.	0.	0.
829	EQmyp	-3.354E-19	3.268E-17	0.	0.	0.	0.
829	EQmyn	3.354E-19	-3.268E-17	0.	0.	0.	0.
830	RSX	6.573E-10	4.542E-10	0.	0.	0.	0.
830	RSY	9.170E-09	6.565E-09	0.	0.	0.	0.
830	EQmxp	-5.555E-18	0.	0.	0.	0.	0.
830	EQmxn	5.555E-18	0.	0.	0.	0.	0.
830	EQmyp	1.284E-18	-4.034E-17	0.	0.	0.	0.
830	EQmyn	-1.284E-18	4.034E-17	0.	0.	0.	0.
831	RSX	5.938E-10	4.323E-10	0.	0.	0.	0.
831	RSY	1.028E-08	6.572E-09	0.	0.	0.	0.
831	EQmxp	-6.552E-18	0.	0.	0.	0.	0.
831	EQmxn	6.552E-18	0.	0.	0.	0.	0.
831	EQmyp	1.513E-18	-5.535E-17	0.	0.	0.	0.
831	EQmyn	-1.513E-18	5.535E-17	0.	0.	0.	0.
832	RSX	6.171E-10	5.194E-10	0.	0.	0.	0.
832	RSY	1.206E-08	6.995E-09	0.	0.	0.	0.
832	EQmxp	-5.477E-18	0.	0.	0.	0.	0.
832	EQmxn	5.477E-18	0.	0.	0.	0.	0.
832	EQmyp	1.264E-18	-4.935E-17	0.	0.	0.	0.
832	EQmyn	-1.264E-18	4.935E-17	0.	0.	0.	0.
833	RSX	5.662E-10	5.889E-10	0.	0.	0.	0.
833	RSY	1.120E-08	5.791E-09	0.	0.	0.	0.
833	EQmxp	-2.432E-18	0.	0.	0.	0.	0.
833	EQmxn	2.432E-18	0.	0.	0.	0.	0.
833	EQmyp	5.608E-19	-2.364E-17	0.	0.	0.	0.
833	EQmyn	-5.608E-19	2.364E-17	0.	0.	0.	0.
834	RSX	5.144E-10	6.315E-10	0.	0.	0.	0.
834	RSY	1.064E-08	5.781E-09	0.	0.	0.	0.
834	EQmxp	-1.725E-19	0.	0.	0.	0.	0.
834	EQmxn	1.725E-19	0.	0.	0.	0.	0.
834	EQmyp	3.946E-20	-3.070E-18	0.	0.	0.	0.
834	EQmyn	-3.946E-20	3.070E-18	0.	0.	0.	0.
835	RSX	5.570E-10	5.905E-10	0.	0.	0.	0.
835	RSY	9.563E-09	7.344E-09	0.	0.	0.	0.
835	EQmxp	5.973E-19	0.	0.	0.	0.	0.
835	EQmxn	-5.973E-19	0.	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
835	EQmyp	-1.380E-19	4.698E-18	0.	0.	0.	0.
835	EQmyn	1.380E-19	-4.698E-18	0.	0.	0.	0.
836	RSX	5.854E-10	5.312E-10	0.	0.	0.	0.
836	RSY	7.827E-09	8.148E-09	0.	0.	0.	0.
836	EQmxp	4.870E-19	0.	0.	0.	0.	0.
836	EQmxn	-4.870E-19	0.	0.	0.	0.	0.
836	EQmyp	-1.124E-19	4.289E-18	0.	0.	0.	0.
836	EQmyn	1.124E-19	-4.289E-18	0.	0.	0.	0.
837	RSX	6.062E-10	4.772E-10	0.	0.	0.	0.
837	RSY	7.352E-09	9.473E-09	0.	0.	0.	0.
837	EQmxp	1.722E-19	0.	0.	0.	0.	0.
837	EQmxn	-1.722E-19	0.	0.	0.	0.	0.
837	EQmyp	-3.971E-20	1.669E-18	0.	0.	0.	0.
837	EQmyn	3.971E-20	-1.669E-18	0.	0.	0.	0.
838	RSX	2.937E-10	2.906E-10	0.	0.	0.	0.
838	RSY	3.029E-09	3.349E-09	0.	0.	0.	0.
838	EQmxp	-6.194E-20	0.	0.	0.	0.	0.
838	EQmxn	6.194E-20	0.	0.	0.	0.	0.
838	EQmyp	1.431E-20	-4.682E-19	0.	0.	0.	0.
838	EQmyn	-1.431E-20	4.682E-19	0.	0.	0.	0.
841	RSX	9.466E-03	1.341E-04	3.642E-19	0.	0.	0.
841	RSY	6.469E-04	0.013	4.592E-19	0.	0.	0.
841	EQmxp	-0.014	6.141E-06	4.337E-19	0.	0.	0.
841	EQmxn	0.014	-6.141E-06	-4.337E-19	0.	0.	0.
841	EQmyp	1.722E-03	-0.058	-3.469E-18	0.	0.	0.
841	EQmyn	-1.722E-03	0.058	3.469E-18	0.	0.	0.
842	RSX	8.158E-03	1.155E-04	7.349E-19	0.	0.	0.
842	RSY	5.569E-04	0.011	2.396E-19	0.	0.	0.
842	EQmxp	-0.012	5.283E-06	4.337E-19	0.	0.	0.
842	EQmxn	0.012	-5.283E-06	-4.337E-19	0.	0.	0.
842	EQmyp	1.481E-03	-0.05	0.	0.	0.	0.
842	EQmyn	-1.481E-03	0.05	0.	0.	0.	0.
843	RSX	0.019	2.699E-04	0.	0.	0.	0.
843	RSY	1.300E-03	0.027	5.703E-20	0.	0.	0.
843	EQmxp	-0.029	1.232E-05	-8.674E-19	0.	0.	0.
843	EQmxn	0.029	-1.232E-05	8.674E-19	0.	0.	0.
843	EQmyp	3.454E-03	-0.117	3.469E-18	0.	0.	0.
843	EQmyn	-3.454E-03	0.117	-3.469E-18	0.	0.	0.
844	RSX	0.021	2.932E-04	7.436E-19	0.	0.	0.
844	RSY	1.410E-03	0.029	9.315E-19	0.	0.	0.
844	EQmxp	-0.031	1.336E-05	0.	0.	0.	0.
844	EQmxn	0.031	-1.336E-05	0.	0.	0.	0.
844	EQmyp	3.745E-03	-0.127	3.469E-18	0.	0.	0.
844	EQmyn	-3.745E-03	0.127	-3.469E-18	0.	0.	0.
845	RSX	0.021	3.038E-04	1.710E-20	0.	0.	0.
845	RSY	1.459E-03	0.03	9.132E-19	0.	0.	0.
845	EQmxp	-0.032	1.381E-05	0.	0.	0.	0.
845	EQmxn	0.032	-1.381E-05	0.	0.	0.	0.
845	EQmyp	3.871E-03	-0.131	-6.939E-18	0.	0.	0.
845	EQmyn	-3.871E-03	0.131	6.939E-18	0.	0.	0.
846	RSX	0.021	3.036E-04	7.391E-19	0.	0.	0.
846	RSY	1.456E-03	0.03	2.031E-19	0.	0.	0.
846	EQmxp	-0.032	1.376E-05	0.	0.	0.	0.
846	EQmxn	0.032	-1.376E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
846	EQmyp	3.858E-03	-0.131	-6.939E-18	0.	0.	0.
846	EQmyn	-3.858E-03	0.131	6.939E-18	0.	0.	0.
847	RSX	0.021	2.938E-04	1.482E-18	0.	0.	0.
847	RSY	1.407E-03	0.029	9.331E-19	0.	0.	0.
847	EQmxp	-0.031	1.328E-05	-1.735E-18	0.	0.	0.
847	EQmxn	0.031	-1.328E-05	1.735E-18	0.	0.	0.
847	EQmyp	3.722E-03	-0.126	0.	0.	0.	0.
847	EQmyn	-3.722E-03	0.126	0.	0.	0.	0.
848	RSX	0.019	2.646E-04	1.759E-20	0.	0.	0.
848	RSY	1.264E-03	0.026	1.210E-18	0.	0.	0.
848	EQmxp	-0.028	1.191E-05	-8.674E-19	0.	0.	0.
848	EQmxn	0.028	-1.191E-05	8.674E-19	0.	0.	0.
848	EQmyp	3.339E-03	-0.113	-3.469E-18	0.	0.	0.
848	EQmyn	-3.339E-03	0.113	3.469E-18	0.	0.	0.
849	RSX	0.015	2.155E-04	1.808E-20	0.	0.	0.
849	RSY	1.026E-03	0.021	1.850E-18	0.	0.	0.
849	EQmxp	-0.023	9.649E-06	0.	0.	0.	0.
849	EQmxn	0.023	-9.649E-06	0.	0.	0.	0.
849	EQmyp	2.705E-03	-0.092	3.469E-18	0.	0.	0.
849	EQmyn	-2.705E-03	0.092	-3.469E-18	0.	0.	0.
850	RSX	0.012	1.694E-04	1.834E-18	0.	0.	0.
850	RSY	8.031E-04	0.016	1.856E-18	0.	0.	0.
850	EQmxp	-0.018	7.526E-06	0.	0.	0.	0.
850	EQmxn	0.018	-7.526E-06	0.	0.	0.	0.
850	EQmyp	2.110E-03	-0.072	6.939E-18	0.	0.	0.
850	EQmyn	-2.110E-03	0.072	-6.939E-18	0.	0.	0.
851	RSX	8.906E-03	1.254E-04	7.337E-19	0.	0.	0.
851	RSY	5.907E-04	0.012	6.096E-19	0.	0.	0.
851	EQmxp	-0.013	5.506E-06	-2.168E-18	0.	0.	0.
851	EQmxn	0.013	-5.506E-06	2.168E-18	0.	0.	0.
851	EQmyp	1.544E-03	-0.052	6.939E-18	0.	0.	0.
851	EQmyn	-1.544E-03	0.052	-6.939E-18	0.	0.	0.
852	RSX	5.753E-03	8.080E-05	1.105E-18	0.	0.	0.
852	RSY	3.755E-04	7.699E-03	4.600E-19	0.	0.	0.
852	EQmxp	-8.113E-03	3.463E-06	1.952E-18	0.	0.	0.
852	EQmxn	8.113E-03	-3.463E-06	-1.952E-18	0.	0.	0.
852	EQmyp	9.709E-04	-0.033	3.469E-18	0.	0.	0.
852	EQmyn	-9.709E-04	0.033	-3.469E-18	0.	0.	0.
853	RSX	2.734E-03	3.808E-05	2.669E-18	0.	0.	0.
853	RSY	1.702E-04	3.482E-03	1.494E-18	0.	0.	0.
853	EQmxp	-3.555E-03	1.517E-06	1.626E-18	0.	0.	0.
853	EQmxn	3.555E-03	-1.517E-06	-1.626E-18	0.	0.	0.
853	EQmyp	4.254E-04	-0.014	-5.204E-18	0.	0.	0.
853	EQmyn	-4.254E-04	0.014	5.204E-18	0.	0.	0.
854	RSX	5.103E-05	1.204E-06	2.480E-19	0.	0.	0.
854	RSY	1.688E-05	3.281E-04	4.332E-19	0.	0.	0.
854	EQmxp	4.861E-04	-2.075E-07	3.388E-19	0.	0.	0.
854	EQmxn	-4.861E-04	2.075E-07	-3.388E-19	0.	0.	0.
854	EQmyp	-5.817E-05	1.972E-03	-2.385E-18	0.	0.	0.
854	EQmyn	5.817E-05	-1.972E-03	2.385E-18	0.	0.	0.
855	RSX	2.322E-03	3.348E-05	1.009E-18	0.	0.	0.
855	RSY	1.738E-04	3.579E-03	1.403E-18	0.	0.	0.
855	EQmxp	4.051E-03	-1.729E-06	-2.927E-18	0.	0.	0.
855	EQmxn	-4.051E-03	1.729E-06	2.927E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
855	EQmyp	-4.848E-04	0.016	6.939E-18	0.	0.	0.
855	EQmyn	4.848E-04	-0.016	-6.939E-18	0.	0.	0.
856	RSX	4.416E-03	6.308E-05	7.378E-19	0.	0.	0.
856	RSY	3.154E-04	6.488E-03	7.685E-20	0.	0.	0.
856	EQmxp	7.187E-03	-3.067E-06	1.518E-18	0.	0.	0.
856	EQmxn	-7.187E-03	3.067E-06	-1.518E-18	0.	0.	0.
856	EQmyp	-8.600E-04	0.029	-6.072E-18	0.	0.	0.
856	EQmyn	8.600E-04	-0.029	6.072E-18	0.	0.	0.
857	RSX	6.271E-03	8.929E-05	2.207E-18	0.	0.	0.
857	RSY	4.407E-04	9.061E-03	8.040E-19	0.	0.	0.
857	EQmxp	9.956E-03	-4.250E-06	4.770E-18	0.	0.	0.
857	EQmxn	-9.956E-03	4.250E-06	-4.770E-18	0.	0.	0.
857	EQmyp	-1.191E-03	0.04	-6.939E-18	0.	0.	0.
857	EQmyn	1.191E-03	-0.04	6.939E-18	0.	0.	0.
858	RSX	6.321E-03	8.985E-05	2.573E-18	0.	0.	0.
858	RSY	4.404E-04	9.054E-03	1.516E-18	0.	0.	0.
858	EQmxp	9.904E-03	-4.227E-06	4.337E-18	0.	0.	0.
858	EQmxn	-9.904E-03	4.227E-06	-4.337E-18	0.	0.	0.
858	EQmyp	-1.185E-03	0.04	-8.674E-18	0.	0.	0.
858	EQmyn	1.185E-03	-0.04	8.674E-18	0.	0.	0.
859	RSX	7.264E-03	1.031E-04	2.211E-18	0.	0.	0.
859	RSY	5.033E-04	0.01	4.808E-19	0.	0.	0.
859	EQmxp	0.011	-4.816E-06	-8.674E-19	0.	0.	0.
859	EQmxn	-0.011	4.816E-06	8.674E-19	0.	0.	0.
859	EQmyp	-1.350E-03	0.046	0.	0.	0.	0.
859	EQmyn	1.350E-03	-0.046	0.	0.	0.	0.
860	RSX	8.053E-03	1.143E-04	1.103E-18	0.	0.	0.
860	RSY	5.557E-04	0.011	4.821E-19	0.	0.	0.
860	EQmxp	0.012	-5.304E-06	-3.903E-18	0.	0.	0.
860	EQmxn	-0.012	5.304E-06	3.903E-18	0.	0.	0.
860	EQmyp	-1.487E-03	0.05	3.469E-18	0.	0.	0.
860	EQmyn	1.487E-03	-0.05	-3.469E-18	0.	0.	0.
861	RSX	8.899E-03	1.262E-04	5.510E-18	0.	0.	0.
861	RSY	6.118E-04	0.013	3.055E-18	0.	0.	0.
861	EQmxp	0.014	-5.828E-06	-9.107E-18	0.	0.	0.
861	EQmxn	-0.014	5.828E-06	9.107E-18	0.	0.	0.
861	EQmyp	-1.634E-03	0.055	1.735E-17	0.	0.	0.
861	EQmyn	1.634E-03	-0.055	-1.735E-17	0.	0.	0.
862	RSX	0.011	1.503E-04	1.082E-18	0.	0.	0.
862	RSY	7.264E-04	0.015	3.767E-18	0.	0.	0.
862	EQmxp	0.016	-6.905E-06	-4.337E-19	0.	0.	0.
862	EQmxn	-0.016	6.905E-06	4.337E-19	0.	0.	0.
862	EQmyp	-1.936E-03	0.066	6.939E-18	0.	0.	0.
862	EQmyn	1.936E-03	-0.066	-6.939E-18	0.	0.	0.
863	RSX	0.026	3.731E-04	1.626E-17	0.	0.	0.
863	RSY	1.796E-03	0.037	3.509E-18	0.	0.	0.
863	EQmxp	0.04	-1.702E-05	-4.510E-17	0.	0.	0.
863	EQmxn	-0.04	1.702E-05	4.510E-17	0.	0.	0.
863	EQmyp	-4.773E-03	0.162	1.110E-16	0.	0.	0.
863	EQmyn	4.773E-03	-0.162	-1.110E-16	0.	0.	0.
864	RSX	6.106E-03	8.630E-05	1.985E-17	0.	0.	0.
864	RSY	4.126E-04	8.474E-03	8.209E-18	0.	0.	0.
864	EQmxp	9.117E-03	-3.891E-06	-3.816E-17	0.	0.	0.
864	EQmxn	-9.117E-03	3.891E-06	3.816E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
864	EQmyp	-1.091E-03	0.037	7.459E-17	0.	0.	0.
864	EQmyn	1.091E-03	-0.037	-7.459E-17	0.	0.	0.
865	RSX	1.701E-03	2.394E-05	3.100E-18	0.	0.	0.
865	RSY	1.124E-04	2.306E-03	4.993E-18	0.	0.	0.
865	EQmxp	2.449E-03	-1.045E-06	-8.457E-18	0.	0.	0.
865	EQmxn	-2.449E-03	1.045E-06	8.457E-18	0.	0.	0.
865	EQmyp	-2.930E-04	9.935E-03	8.674E-18	0.	0.	0.
865	EQmyn	2.930E-04	-9.935E-03	-8.674E-18	0.	0.	0.
866	RSX	8.178E-05	1.056E-06	7.894E-18	0.	0.	0.
866	RSY	3.249E-06	5.790E-05	5.766E-18	0.	0.	0.
866	EQmxp	1.844E-06	-7.870E-10	5.777E-18	0.	0.	0.
866	EQmxn	-1.844E-06	7.870E-10	-5.777E-18	0.	0.	0.
866	EQmyp	-2.206E-07	7.480E-06	9.369E-18	0.	0.	0.
866	EQmyn	2.206E-07	-7.480E-06	-9.369E-18	0.	0.	0.
867	RSX	7.628E-04	1.093E-05	3.696E-18	0.	0.	0.
867	RSY	5.531E-05	1.138E-03	5.946E-18	0.	0.	0.
867	EQmxp	-1.270E-03	5.421E-07	1.529E-17	0.	0.	0.
867	EQmxn	1.270E-03	-5.421E-07	-1.529E-17	0.	0.	0.
867	EQmyp	1.520E-04	-5.154E-03	-1.128E-17	0.	0.	0.
867	EQmyn	-1.520E-04	5.154E-03	1.128E-17	0.	0.	0.
868	RSX	1.240E-03	1.767E-05	6.858E-18	0.	0.	0.
868	RSY	8.750E-05	1.800E-03	3.277E-18	0.	0.	0.
868	EQmxp	-1.982E-03	8.458E-07	1.106E-17	0.	0.	0.
868	EQmxn	1.982E-03	-8.458E-07	-1.106E-17	0.	0.	0.
868	EQmyp	2.371E-04	-8.040E-03	1.041E-17	0.	0.	0.
868	EQmyn	-2.371E-04	8.040E-03	-1.041E-17	0.	0.	0.
869	RSX	1.486E-03	2.114E-05	1.028E-17	0.	0.	0.
869	RSY	1.039E-04	2.136E-03	1.007E-17	0.	0.	0.
869	EQmxp	-2.341E-03	9.994E-07	6.288E-18	0.	0.	0.
869	EQmxn	2.341E-03	-9.994E-07	-6.288E-18	0.	0.	0.
869	EQmyp	2.802E-04	-9.500E-03	-2.776E-17	0.	0.	0.
869	EQmyn	-2.802E-04	9.500E-03	2.776E-17	0.	0.	0.
870	RSX	1.572E-03	2.233E-05	1.323E-17	0.	0.	0.
870	RSY	1.093E-04	2.248E-03	1.357E-17	0.	0.	0.
870	EQmxp	-2.457E-03	1.049E-06	-1.301E-18	0.	0.	0.
870	EQmxn	2.457E-03	-1.049E-06	1.301E-18	0.	0.	0.
870	EQmyp	2.940E-04	-9.967E-03	3.860E-17	0.	0.	0.
870	EQmyn	-2.940E-04	9.967E-03	-3.860E-17	0.	0.	0.
871	RSX	1.539E-03	2.185E-05	1.101E-17	0.	0.	0.
871	RSY	1.066E-04	2.192E-03	8.843E-18	0.	0.	0.
871	EQmxp	-2.391E-03	1.021E-06	8.565E-18	0.	0.	0.
871	EQmxn	2.391E-03	-1.021E-06	-8.565E-18	0.	0.	0.
871	EQmyp	2.861E-04	-9.702E-03	-4.163E-17	0.	0.	0.
871	EQmyn	-2.861E-04	9.702E-03	4.163E-17	0.	0.	0.
872	RSX	1.419E-03	2.014E-05	1.931E-17	0.	0.	0.
872	RSY	9.803E-05	2.015E-03	7.523E-18	0.	0.	0.
872	EQmxp	-2.194E-03	9.364E-07	-1.399E-17	0.	0.	0.
872	EQmxn	2.194E-03	-9.364E-07	1.399E-17	0.	0.	0.
872	EQmyp	2.625E-04	-8.901E-03	6.072E-17	0.	0.	0.
872	EQmyn	-2.625E-04	8.901E-03	-6.072E-17	0.	0.	0.
873	RSX	1.239E-03	1.757E-05	2.752E-17	0.	0.	0.
873	RSY	8.528E-05	1.753E-03	1.294E-17	0.	0.	0.
873	EQmxp	-1.905E-03	8.131E-07	-1.084E-17	0.	0.	0.
873	EQmxn	1.905E-03	-8.131E-07	1.084E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
873	EQmyp	2.280E-04	-7.730E-03	-3.231E-17	0.	0.	0.
873	EQmyn	-2.280E-04	7.730E-03	3.231E-17	0.	0.	0.
874	RSX	7.055E-04	9.998E-06	2.033E-18	0.	0.	0.
874	RSY	4.838E-05	9.941E-04	1.287E-17	0.	0.	0.
874	EQmxp	-1.078E-03	4.602E-07	9.758E-18	0.	0.	0.
874	EQmxn	1.078E-03	-4.602E-07	-9.758E-18	0.	0.	0.
874	EQmyp	1.290E-04	-4.375E-03	-7.156E-18	0.	0.	0.
874	EQmyn	-1.290E-04	4.375E-03	7.156E-18	0.	0.	0.
875	RSX	4.840E-04	6.852E-06	2.245E-17	0.	0.	0.
875	RSY	3.300E-05	6.779E-04	1.244E-17	0.	0.	0.
875	EQmxp	-7.330E-04	3.129E-07	4.708E-17	0.	0.	0.
875	EQmxn	7.330E-04	-3.129E-07	-4.708E-17	0.	0.	0.
875	EQmyp	8.772E-05	-2.974E-03	-4.922E-17	0.	0.	0.
875	EQmyn	-8.772E-05	2.974E-03	4.922E-17	0.	0.	0.
876	RSX	2.680E-04	3.786E-06	1.620E-17	0.	0.	0.
876	RSY	1.806E-05	3.708E-04	7.325E-18	0.	0.	0.
876	EQmxp	-3.983E-04	1.700E-07	5.852E-17	0.	0.	0.
876	EQmxn	3.983E-04	-1.700E-07	-5.852E-17	0.	0.	0.
876	EQmyp	4.766E-05	-1.616E-03	-9.682E-17	0.	0.	0.
876	EQmyn	-4.766E-05	1.616E-03	9.682E-17	0.	0.	0.
877	RSX	6.153E-05	8.577E-07	1.295E-16	0.	0.	0.
877	RSY	3.840E-06	7.857E-05	7.280E-17	0.	0.	0.
877	EQmxp	-8.036E-05	3.430E-08	-9.315E-17	0.	0.	0.
877	EQmxn	8.036E-05	-3.430E-08	9.315E-17	0.	0.	0.
877	EQmyp	9.616E-06	-3.260E-04	4.747E-16	0.	0.	0.
877	EQmyn	-9.616E-06	3.260E-04	-4.747E-16	0.	0.	0.
878	RSX	7.056E-04	1.004E-05	7.164E-16	0.	0.	0.
878	RSY	4.948E-05	1.017E-03	8.576E-16	0.	0.	0.
878	EQmxp	1.117E-03	-4.767E-07	2.809E-15	0.	0.	0.
878	EQmxn	-1.117E-03	4.767E-07	-2.809E-15	0.	0.	0.
878	EQmyp	-1.336E-04	4.531E-03	-3.532E-15	0.	0.	0.
878	EQmyn	1.336E-04	-4.531E-03	3.532E-15	0.	0.	0.
879	RSX	1.785E-04	2.528E-06	1.937E-16	0.	0.	0.
879	RSY	1.221E-05	2.508E-04	7.429E-17	0.	0.	0.
879	EQmxp	2.716E-04	-1.159E-07	3.045E-17	0.	0.	0.
879	EQmxn	-2.716E-04	1.159E-07	-3.045E-17	0.	0.	0.
879	EQmyp	-3.251E-05	1.102E-03	-2.010E-16	0.	0.	0.
879	EQmyn	3.251E-05	-1.102E-03	2.010E-16	0.	0.	0.
880	RSX	1.111E-04	1.570E-06	3.304E-16	0.	0.	0.
880	RSY	7.523E-06	1.545E-04	2.157E-16	0.	0.	0.
880	EQmxp	1.664E-04	-7.104E-08	4.609E-16	0.	0.	0.
880	EQmxn	-1.664E-04	7.104E-08	-4.609E-16	0.	0.	0.
880	EQmyp	-1.992E-05	6.753E-04	-7.300E-16	0.	0.	0.
880	EQmyn	1.992E-05	-6.753E-04	7.300E-16	0.	0.	0.
881	RSX	6.329E-05	8.935E-07	1.086E-16	0.	0.	0.
881	RSY	4.252E-06	8.730E-05	6.316E-17	0.	0.	0.
881	EQmxp	9.360E-05	-3.995E-08	1.008E-16	0.	0.	0.
881	EQmxn	-9.360E-05	3.995E-08	-1.008E-16	0.	0.	0.
881	EQmyp	-1.120E-05	3.798E-04	-4.018E-16	0.	0.	0.
881	EQmyn	1.120E-05	-3.798E-04	4.018E-16	0.	0.	0.
882	RSX	2.601E-05	3.661E-07	5.017E-16	0.	0.	0.
882	RSY	1.722E-06	3.532E-05	2.270E-16	0.	0.	0.
882	EQmxp	3.754E-05	-1.603E-08	5.959E-16	0.	0.	0.
882	EQmxn	-3.754E-05	1.603E-08	-5.959E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
882	EQmyp	-4.493E-06	1.523E-04	-1.222E-15	0.	0.	0.
882	EQmyn	4.493E-06	-1.523E-04	1.222E-15	0.	0.	0.
883	RSX	5.354E-07	9.226E-09	5.648E-16	0.	0.	0.
883	RSY	7.088E-08	1.437E-06	1.020E-15	0.	0.	0.
883	EQmxp	-1.876E-06	8.004E-10	-1.688E-15	0.	0.	0.
883	EQmxn	1.876E-06	-8.004E-10	1.688E-15	0.	0.	0.
883	EQmyp	2.244E-07	-7.610E-06	3.288E-15	0.	0.	0.
883	EQmyn	-2.244E-07	7.610E-06	-3.288E-15	0.	0.	0.
884	RSX	2.015E-05	2.857E-07	2.527E-15	0.	0.	0.
884	RSY	1.376E-06	2.827E-05	9.622E-16	0.	0.	0.
884	EQmxp	-3.059E-05	1.306E-08	-3.078E-15	0.	0.	0.
884	EQmxn	3.059E-05	-1.306E-08	3.078E-15	0.	0.	0.
884	EQmyp	3.661E-06	-1.241E-04	5.868E-15	0.	0.	0.
884	EQmyn	-3.661E-06	1.241E-04	-5.868E-15	0.	0.	0.
885	RSX	6.994E-06	9.877E-08	5.273E-15	0.	0.	0.
885	RSY	4.650E-07	9.543E-06	2.022E-15	0.	0.	0.
885	EQmxp	-1.017E-05	4.340E-09	7.978E-15	0.	0.	0.
885	EQmxn	1.017E-05	-4.340E-09	-7.978E-15	0.	0.	0.
885	EQmyp	1.217E-06	-4.126E-05	-1.969E-14	0.	0.	0.
885	EQmyn	-1.217E-06	4.126E-05	1.969E-14	0.	0.	0.
886	RSX	4.839E-07	6.785E-09	8.252E-15	0.	0.	0.
886	RSY	3.695E-08	7.534E-07	5.132E-15	0.	0.	0.
886	EQmxp	8.557E-07	-3.649E-10	-4.051E-15	0.	0.	0.
886	EQmxn	-8.557E-07	3.649E-10	4.051E-15	0.	0.	0.
886	EQmyp	-1.024E-07	3.472E-06	1.696E-14	0.	0.	0.
886	EQmyn	1.024E-07	-3.472E-06	-1.696E-14	0.	0.	0.
887	RSX	5.633E-07	7.738E-09	3.571E-15	0.	0.	0.
887	RSY	3.852E-08	7.821E-07	3.229E-15	0.	0.	0.
887	EQmxp	8.413E-07	-3.594E-10	-3.592E-15	0.	0.	0.
887	EQmxn	-8.413E-07	3.594E-10	3.592E-15	0.	0.	0.
887	EQmyp	-1.007E-07	3.413E-06	1.176E-14	0.	0.	0.
887	EQmyn	1.007E-07	-3.413E-06	-1.176E-14	0.	0.	0.
888	RSX	1.199E-07	1.634E-09	5.967E-15	0.	0.	0.
888	RSY	1.222E-08	1.623E-07	1.284E-15	0.	0.	0.
888	EQmxp	1.721E-07	-7.325E-11	8.535E-17	0.	0.	0.
888	EQmxn	-1.721E-07	7.325E-11	-8.535E-17	0.	0.	0.
888	EQmyp	-2.060E-08	6.982E-07	-6.813E-15	0.	0.	0.
888	EQmyn	2.060E-08	-6.982E-07	6.813E-15	0.	0.	0.
889	RSX	1.373E-08	2.558E-10	2.822E-16	0.	0.	0.
889	RSY	2.168E-09	2.008E-08	1.275E-15	0.	0.	0.
889	EQmxp	-2.175E-08	8.918E-12	-3.292E-16	0.	0.	0.
889	EQmxn	2.175E-08	-8.918E-12	3.292E-16	0.	0.	0.
889	EQmyp	2.606E-09	-8.823E-08	8.171E-15	0.	0.	0.
889	EQmyn	-2.606E-09	8.823E-08	-8.171E-15	0.	0.	0.
890	RSX	1.339E-08	9.390E-10	3.699E-15	0.	0.	0.
890	RSY	1.811E-08	2.113E-08	4.607E-16	0.	0.	0.
890	EQmxp	-1.846E-08	8.207E-12	-7.459E-16	0.	0.	0.
890	EQmxn	1.846E-08	-8.207E-12	7.459E-16	0.	0.	0.
890	EQmyp	2.206E-09	-7.491E-08	4.351E-16	0.	0.	0.
890	EQmyn	-2.206E-09	7.491E-08	-4.351E-16	0.	0.	0.
891	RSX	4.004E-09	3.975E-09	1.608E-15	0.	0.	0.
891	RSY	7.511E-08	5.197E-08	2.598E-15	0.	0.	0.
891	EQmxp	-1.492E-09	4.720E-13	-1.148E-15	0.	0.	0.
891	EQmxn	1.492E-09	-4.720E-13	1.148E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
891	EQmyp	1.808E-10	-6.051E-09	-6.040E-15	0.	0.	0.
891	EQmyn	-1.808E-10	6.051E-09	6.040E-15	0.	0.	0.
892	RSX	1.393E-11	1.033E-11	7.540E-19	0.	0.	0.
892	RSY	1.860E-10	1.207E-10	7.036E-19	0.	0.	0.
892	EQmxp	3.174E-12	-1.396E-15	-5.602E-19	0.	0.	0.
892	EQmxn	-3.174E-12	1.396E-15	5.602E-19	0.	0.	0.
892	EQmyp	-3.839E-13	1.287E-11	3.592E-18	0.	0.	0.
892	EQmyn	3.839E-13	-1.287E-11	-3.592E-18	0.	0.	0.
893	RSX	6.930E-11	5.248E-11	4.407E-19	0.	0.	0.
893	RSY	9.436E-10	5.875E-10	6.195E-19	0.	0.	0.
893	EQmxp	1.194E-11	-6.380E-15	-1.389E-18	0.	0.	0.
893	EQmxn	-1.194E-11	6.380E-15	1.389E-18	0.	0.	0.
893	EQmyp	-1.423E-12	4.846E-11	-4.405E-18	0.	0.	0.
893	EQmyn	1.423E-12	-4.846E-11	4.405E-18	0.	0.	0.
894	RSX	1.622E-10	1.262E-10	9.973E-19	0.	0.	0.
894	RSY	2.304E-09	1.395E-09	2.280E-18	0.	0.	0.
894	EQmxp	2.107E-11	-1.197E-14	-7.818E-18	0.	0.	0.
894	EQmxn	-2.107E-11	1.197E-14	7.818E-18	0.	0.	0.
894	EQmyp	-2.514E-12	8.551E-11	2.051E-17	0.	0.	0.
894	EQmyn	2.514E-12	-8.551E-11	-2.051E-17	0.	0.	0.
895	RSX	2.768E-10	2.214E-10	6.832E-18	0.	0.	0.
895	RSY	4.088E-09	2.445E-09	2.890E-18	0.	0.	0.
895	EQmxp	2.731E-11	-2.008E-14	8.043E-18	0.	0.	0.
895	EQmxn	-2.731E-11	2.008E-14	-8.043E-18	0.	0.	0.
895	EQmyp	-3.239E-12	1.109E-10	-7.003E-19	0.	0.	0.
895	EQmyn	3.239E-12	-1.109E-10	7.003E-19	0.	0.	0.
896	RSX	3.978E-10	3.246E-10	4.455E-18	0.	0.	0.
896	RSY	5.951E-09	3.569E-09	3.382E-18	0.	0.	0.
896	EQmxp	2.937E-11	-3.024E-14	2.302E-18	0.	0.	0.
896	EQmxn	-2.937E-11	3.024E-14	-2.302E-18	0.	0.	0.
896	EQmyp	-3.503E-12	1.193E-10	-4.587E-18	0.	0.	0.
896	EQmyn	3.503E-12	-1.193E-10	4.587E-18	0.	0.	0.
897	RSX	5.105E-10	4.202E-10	6.029E-18	0.	0.	0.
897	RSY	7.560E-09	4.589E-09	1.076E-18	0.	0.	0.
897	EQmxp	2.743E-11	-4.099E-14	4.534E-18	0.	0.	0.
897	EQmxn	-2.743E-11	4.099E-14	-4.534E-18	0.	0.	0.
897	EQmyp	-3.305E-12	1.113E-10	1.186E-18	0.	0.	0.
897	EQmyn	3.305E-12	-1.113E-10	-1.186E-18	0.	0.	0.
898	RSX	5.998E-10	4.942E-10	3.081E-18	0.	0.	0.
898	RSY	8.657E-09	5.372E-09	9.361E-19	0.	0.	0.
898	EQmxp	2.254E-11	-5.397E-14	1.204E-18	0.	0.	0.
898	EQmxn	-2.254E-11	5.397E-14	-1.204E-18	0.	0.	0.
898	EQmyp	-2.694E-12	9.157E-11	2.938E-17	0.	0.	0.
898	EQmyn	2.694E-12	-9.157E-11	-2.938E-17	0.	0.	0.
899	RSX	6.509E-10	5.383E-10	1.449E-17	0.	0.	0.
899	RSY	9.070E-09	5.748E-09	1.333E-17	0.	0.	0.
899	EQmxp	1.622E-11	-6.162E-14	-1.482E-17	0.	0.	0.
899	EQmxn	-1.622E-11	6.162E-14	1.482E-17	0.	0.	0.
899	EQmyp	-2.000E-12	6.583E-11	7.951E-17	0.	0.	0.
899	EQmyn	2.000E-12	-6.583E-11	-7.951E-17	0.	0.	0.
900	RSX	6.620E-10	5.560E-10	1.363E-17	0.	0.	0.
900	RSY	8.783E-09	5.641E-09	7.200E-18	0.	0.	0.
900	EQmxp	9.781E-12	-7.292E-14	5.648E-18	0.	0.	0.
900	EQmxn	-9.781E-12	7.292E-14	-5.648E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
900	EQmyp	-1.177E-12	3.980E-11	1.520E-17	0.	0.	0.
900	EQmyn	1.177E-12	-3.980E-11	-1.520E-17	0.	0.	0.
901	RSX	6.405E-10	5.555E-10	1.984E-17	0.	0.	0.
901	RSY	8.057E-09	5.253E-09	1.220E-17	0.	0.	0.
901	EQmxp	4.283E-12	-7.541E-14	-2.881E-17	0.	0.	0.
901	EQmxn	-4.283E-12	7.541E-14	2.881E-17	0.	0.	0.
901	EQmyp	-5.470E-13	1.747E-11	5.747E-17	0.	0.	0.
901	EQmyn	5.470E-13	-1.747E-11	-5.747E-17	0.	0.	0.
902	RSX	6.116E-10	5.461E-10	3.052E-17	0.	0.	0.
902	RSY	7.276E-09	4.886E-09	6.433E-18	0.	0.	0.
902	EQmxp	2.296E-13	-8.094E-14	1.606E-17	0.	0.	0.
902	EQmxn	-2.296E-13	8.094E-14	-1.606E-17	0.	0.	0.
902	EQmyp	2.103E-14	1.169E-12	9.337E-18	0.	0.	0.
902	EQmyn	-2.103E-14	-1.169E-12	-9.337E-18	0.	0.	0.
903	RSX	5.901E-10	5.289E-10	1.594E-17	0.	0.	0.
903	RSY	6.818E-09	4.732E-09	1.604E-18	0.	0.	0.
903	EQmxp	-2.197E-12	-7.261E-14	1.029E-17	0.	0.	0.
903	EQmxn	2.197E-12	7.261E-14	-1.029E-17	0.	0.	0.
903	EQmyp	2.294E-13	-8.812E-12	2.444E-17	0.	0.	0.
903	EQmyn	-2.294E-13	8.812E-12	-2.444E-17	0.	0.	0.
904	RSX	5.774E-10	5.198E-10	2.778E-17	0.	0.	0.
904	RSY	6.875E-09	4.949E-09	2.756E-17	0.	0.	0.
904	EQmxp	-3.292E-12	-6.759E-14	-5.677E-17	0.	0.	0.
904	EQmxn	3.292E-12	6.759E-14	5.677E-17	0.	0.	0.
904	EQmyp	4.566E-13	-1.311E-11	6.301E-17	0.	0.	0.
904	EQmyn	-4.566E-13	1.311E-11	-6.301E-17	0.	0.	0.
905	RSX	5.638E-10	5.425E-10	1.266E-17	0.	0.	0.
905	RSY	7.286E-09	5.537E-09	1.657E-17	0.	0.	0.
905	EQmxp	-3.344E-12	-4.255E-14	-6.004E-17	0.	0.	0.
905	EQmxn	3.344E-12	4.255E-14	6.004E-17	0.	0.	0.
905	EQmyp	4.073E-13	-1.345E-11	6.878E-17	0.	0.	0.
905	EQmyn	-4.073E-13	1.345E-11	-6.878E-17	0.	0.	0.
906	RSX	5.019E-10	5.470E-10	2.159E-17	0.	0.	0.
906	RSY	7.300E-09	5.656E-09	7.295E-18	0.	0.	0.
906	EQmxp	-2.608E-12	-2.663E-14	-4.011E-17	0.	0.	0.
906	EQmxn	2.608E-12	2.663E-14	4.011E-17	0.	0.	0.
906	EQmyp	4.244E-13	-1.032E-11	7.287E-17	0.	0.	0.
906	EQmyn	-4.244E-13	1.032E-11	-7.287E-17	0.	0.	0.
907	RSX	4.866E-10	6.086E-10	2.152E-18	0.	0.	0.
907	RSY	8.128E-09	6.243E-09	1.441E-17	0.	0.	0.
907	EQmxp	-1.874E-12	3.490E-15	4.791E-17	0.	0.	0.
907	EQmxn	1.874E-12	-3.490E-15	-4.791E-17	0.	0.	0.
907	EQmyp	2.270E-13	-7.562E-12	6.925E-17	0.	0.	0.
907	EQmyn	-2.270E-13	7.562E-12	-6.925E-17	0.	0.	0.
908	RSX	4.848E-10	6.600E-10	1.559E-17	0.	0.	0.
908	RSY	8.756E-09	6.899E-09	1.065E-17	0.	0.	0.
908	EQmxp	-1.210E-12	2.856E-14	3.665E-17	0.	0.	0.
908	EQmxn	1.210E-12	-2.856E-14	-3.665E-17	0.	0.	0.
908	EQmyp	3.058E-13	-4.643E-12	4.251E-17	0.	0.	0.
908	EQmyn	-3.058E-13	4.643E-12	-4.251E-17	0.	0.	0.
909	RSX	4.976E-10	6.924E-10	7.690E-17	0.	0.	0.
909	RSY	9.007E-09	7.536E-09	3.236E-17	0.	0.	0.
909	EQmxp	-6.323E-13	7.829E-14	9.968E-17	0.	0.	0.
909	EQmxn	6.323E-13	-7.829E-14	-9.968E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
909	EQmyp	2.175E-13	-2.395E-12	-2.218E-16	0.	0.	0.
909	EQmyn	-2.175E-13	2.395E-12	2.218E-16	0.	0.	0.
910	RSX	5.275E-10	6.982E-10	6.804E-17	0.	0.	0.
910	RSY	8.691E-09	7.791E-09	2.939E-17	0.	0.	0.
910	EQmxp	-2.878E-13	1.045E-13	7.198E-17	0.	0.	0.
910	EQmxn	2.878E-13	-1.045E-13	-7.198E-17	0.	0.	0.
910	EQmyp	3.701E-13	-7.286E-13	-2.322E-16	0.	0.	0.
910	EQmyn	-3.701E-13	7.286E-13	2.322E-16	0.	0.	0.
911	RSX	5.607E-10	6.895E-10	7.410E-17	0.	0.	0.
911	RSY	8.035E-09	7.681E-09	4.137E-17	0.	0.	0.
911	EQmxp	-2.218E-14	1.110E-13	1.146E-16	0.	0.	0.
911	EQmxn	2.218E-14	-1.110E-13	-1.146E-16	0.	0.	0.
911	EQmyp	2.026E-13	1.329E-13	-2.810E-16	0.	0.	0.
911	EQmyn	-2.026E-13	-1.329E-13	2.810E-16	0.	0.	0.
912	RSX	5.842E-10	6.706E-10	2.001E-17	0.	0.	0.
912	RSY	7.269E-09	7.666E-09	3.174E-17	0.	0.	0.
912	EQmxp	1.177E-13	8.258E-14	-9.241E-17	0.	0.	0.
912	EQmxn	-1.177E-13	-8.258E-14	9.241E-17	0.	0.	0.
912	EQmyp	5.342E-14	5.219E-13	1.990E-16	0.	0.	0.
912	EQmyn	-5.342E-14	-5.219E-13	-1.990E-16	0.	0.	0.
913	RSX	5.809E-10	6.493E-10	1.347E-17	0.	0.	0.
913	RSY	6.695E-09	7.842E-09	1.955E-17	0.	0.	0.
913	EQmxp	1.537E-13	-2.812E-14	5.242E-18	0.	0.	0.
913	EQmxn	-1.537E-13	2.812E-14	-5.242E-18	0.	0.	0.
913	EQmyp	7.681E-14	8.541E-13	-8.904E-17	0.	0.	0.
913	EQmyn	-7.681E-14	-8.541E-13	8.904E-17	0.	0.	0.
914	RSX	5.742E-10	6.350E-10	1.788E-17	0.	0.	0.
914	RSY	6.399E-09	7.841E-09	2.286E-17	0.	0.	0.
914	EQmxp	3.621E-13	-2.676E-13	-8.579E-17	0.	0.	0.
914	EQmxn	-3.621E-13	2.676E-13	8.579E-17	0.	0.	0.
914	EQmyp	-4.711E-13	1.112E-12	7.854E-17	0.	0.	0.
914	EQmyn	4.711E-13	-1.112E-12	-7.854E-17	0.	0.	0.
915	RSX	5.694E-10	6.111E-10	1.558E-17	0.	0.	0.
915	RSY	6.126E-09	7.400E-09	1.978E-17	0.	0.	0.
915	EQmxp	7.349E-13	-7.669E-13	3.697E-17	0.	0.	0.
915	EQmxn	-7.349E-13	7.669E-13	-3.697E-17	0.	0.	0.
915	EQmyp	-1.261E-12	1.954E-12	3.713E-17	0.	0.	0.
915	EQmyn	1.261E-12	-1.954E-12	-3.713E-17	0.	0.	0.
916	RSX	5.531E-10	5.749E-10	1.745E-17	0.	0.	0.
916	RSY	5.671E-09	6.949E-09	4.915E-17	0.	0.	0.
916	EQmxp	1.470E-12	-1.551E-12	1.758E-16	0.	0.	0.
916	EQmxn	-1.470E-12	1.551E-12	-1.758E-16	0.	0.	0.
916	EQmyp	-2.888E-12	3.258E-12	-1.425E-16	0.	0.	0.
916	EQmyn	2.888E-12	-3.258E-12	1.425E-16	0.	0.	0.
917	RSX	5.300E-10	5.450E-10	3.205E-17	0.	0.	0.
917	RSY	4.884E-09	6.989E-09	1.032E-17	0.	0.	0.
917	EQmxp	2.376E-12	-2.613E-12	6.401E-17	0.	0.	0.
917	EQmxn	-2.376E-12	2.613E-12	-6.401E-17	0.	0.	0.
917	EQmyp	-4.659E-12	5.336E-12	2.620E-17	0.	0.	0.
917	EQmyn	4.659E-12	-5.336E-12	-2.620E-17	0.	0.	0.
918	RSX	5.105E-10	5.390E-10	1.954E-17	0.	0.	0.
918	RSY	4.101E-09	7.521E-09	4.846E-18	0.	0.	0.
918	EQmxp	3.334E-12	-3.602E-12	1.148E-17	0.	0.	0.
918	EQmxn	-3.334E-12	3.602E-12	-1.148E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
918	EQmyp	-6.691E-12	7.166E-12	1.564E-16	0.	0.	0.
918	EQmyn	6.691E-12	-7.166E-12	-1.564E-16	0.	0.	0.
919	RSX	5.015E-10	5.310E-10	3.377E-17	0.	0.	0.
919	RSY	3.719E-09	7.901E-09	2.017E-17	0.	0.	0.
919	EQmxp	3.389E-12	-3.693E-12	-3.823E-17	0.	0.	0.
919	EQmxn	-3.389E-12	3.693E-12	3.823E-17	0.	0.	0.
919	EQmyp	-6.753E-12	7.364E-12	4.910E-17	0.	0.	0.
919	EQmyn	6.753E-12	-7.364E-12	-4.910E-17	0.	0.	0.
920	RSX	4.896E-10	5.299E-10	2.008E-18	0.	0.	0.
920	RSY	3.703E-09	8.068E-09	1.285E-17	0.	0.	0.
920	EQmxp	1.090E-12	-1.169E-12	-6.602E-17	0.	0.	0.
920	EQmxn	-1.090E-12	1.169E-12	6.602E-17	0.	0.	0.
920	EQmyp	-2.264E-12	2.238E-12	5.299E-17	0.	0.	0.
920	EQmyn	2.264E-12	-2.238E-12	-5.299E-17	0.	0.	0.
921	RSX	4.765E-10	5.381E-10	1.343E-17	0.	0.	0.
921	RSY	3.979E-09	8.366E-09	4.137E-17	0.	0.	0.
921	EQmxp	-6.285E-12	6.621E-12	-2.509E-17	0.	0.	0.
921	EQmxn	6.285E-12	-6.621E-12	2.509E-17	0.	0.	0.
921	EQmyp	1.260E-11	-1.320E-11	1.020E-16	0.	0.	0.
921	EQmyn	-1.260E-11	1.320E-11	-1.020E-16	0.	0.	0.
922	RSX	4.207E-10	5.214E-10	1.855E-17	0.	0.	0.
922	RSY	4.379E-09	8.102E-09	1.202E-17	0.	0.	0.
922	EQmxp	-2.064E-11	2.198E-11	2.665E-17	0.	0.	0.
922	EQmxn	2.064E-11	-2.198E-11	-2.665E-17	0.	0.	0.
922	EQmyp	4.118E-11	-4.394E-11	-4.578E-17	0.	0.	0.
922	EQmyn	-4.118E-11	4.394E-11	4.578E-17	0.	0.	0.
923	RSX	3.985E-10	5.305E-10	5.918E-17	0.	0.	0.
923	RSY	5.573E-09	8.212E-09	4.940E-17	0.	0.	0.
923	EQmxp	-4.523E-11	4.815E-11	3.439E-17	0.	0.	0.
923	EQmxn	4.523E-11	-4.815E-11	-3.439E-17	0.	0.	0.
923	EQmyp	9.037E-11	-9.615E-11	-3.287E-16	0.	0.	0.
923	EQmyn	-9.037E-11	9.615E-11	3.287E-16	0.	0.	0.
924	RSX	4.207E-10	5.414E-10	7.899E-17	0.	0.	0.
924	RSY	7.268E-09	8.248E-09	4.123E-17	0.	0.	0.
924	EQmxp	-7.749E-11	8.261E-11	1.399E-17	0.	0.	0.
924	EQmxn	7.749E-11	-8.261E-11	-1.399E-17	0.	0.	0.
924	EQmyp	1.547E-10	-1.651E-10	-8.977E-17	0.	0.	0.
924	EQmyn	-1.547E-10	1.651E-10	8.977E-17	0.	0.	0.
925	RSX	4.774E-10	5.361E-10	1.264E-16	0.	0.	0.
925	RSY	8.499E-09	8.013E-09	4.422E-17	0.	0.	0.
925	EQmxp	-1.047E-10	1.115E-10	4.819E-17	0.	0.	0.
925	EQmxn	1.047E-10	-1.115E-10	-4.819E-17	0.	0.	0.
925	EQmyp	2.093E-10	-2.226E-10	-2.351E-16	0.	0.	0.
925	EQmyn	-2.093E-10	2.226E-10	2.351E-16	0.	0.	0.
926	RSX	5.439E-10	5.163E-10	6.309E-17	0.	0.	0.
926	RSY	8.894E-09	7.974E-09	3.753E-17	0.	0.	0.
926	EQmxp	-9.316E-11	9.926E-11	-1.431E-16	0.	0.	0.
926	EQmxn	9.316E-11	-9.926E-11	1.431E-16	0.	0.	0.
926	EQmyp	1.861E-10	-1.983E-10	1.423E-16	0.	0.	0.
926	EQmyn	-1.861E-10	1.983E-10	-1.423E-16	0.	0.	0.
927	RSX	6.401E-10	4.487E-10	1.423E-16	0.	0.	0.
927	RSY	8.408E-09	8.831E-09	3.417E-17	0.	0.	0.
927	EQmxp	2.127E-11	-2.269E-11	-8.414E-17	0.	0.	0.
927	EQmxn	-2.127E-11	2.269E-11	8.414E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
927	EQmyp	-4.260E-11	4.522E-11	3.440E-16	0.	0.	0.
927	EQmyn	4.260E-11	-4.522E-11	-3.440E-16	0.	0.	0.
928	RSX	8.145E-10	3.491E-10	9.886E-17	0.	0.	0.
928	RSY	7.839E-09	1.024E-08	9.458E-17	0.	0.	0.
928	EQmxp	3.355E-10	-3.578E-10	1.816E-16	0.	0.	0.
928	EQmxn	-3.355E-10	3.578E-10	-1.816E-16	0.	0.	0.
928	EQmyp	-6.700E-10	7.148E-10	-1.304E-16	0.	0.	0.
928	EQmyn	6.700E-10	-7.148E-10	1.304E-16	0.	0.	0.
929	RSX	1.137E-09	5.439E-10	2.097E-17	0.	0.	0.
929	RSY	6.906E-09	1.156E-08	2.616E-17	0.	0.	0.
929	EQmxp	9.531E-10	-1.016E-09	2.309E-18	0.	0.	0.
929	EQmxn	-9.531E-10	1.016E-09	-2.309E-18	0.	0.	0.
929	EQmyp	-1.904E-09	2.030E-09	-5.843E-17	0.	0.	0.
929	EQmyn	1.904E-09	-2.030E-09	5.843E-17	0.	0.	0.
930	RSX	1.688E-09	1.121E-09	1.877E-17	0.	0.	0.
930	RSY	6.313E-09	1.216E-08	1.389E-17	0.	0.	0.
930	EQmxp	1.894E-09	-2.020E-09	-9.173E-17	0.	0.	0.
930	EQmxn	-1.894E-09	2.020E-09	9.173E-17	0.	0.	0.
930	EQmyp	-3.784E-09	4.034E-09	2.990E-16	0.	0.	0.
930	EQmyn	3.784E-09	-4.034E-09	-2.990E-16	0.	0.	0.
931	RSX	2.267E-09	1.763E-09	1.158E-16	0.	0.	0.
931	RSY	6.763E-09	1.186E-08	1.626E-17	0.	0.	0.
931	EQmxp	2.900E-09	-3.092E-09	3.166E-17	0.	0.	0.
931	EQmxn	-2.900E-09	3.092E-09	-3.166E-17	0.	0.	0.
931	EQmyp	-5.793E-09	6.176E-09	-2.482E-16	0.	0.	0.
931	EQmyn	5.793E-09	-6.176E-09	2.482E-16	0.	0.	0.
932	RSX	2.356E-09	1.842E-09	3.882E-17	0.	0.	0.
932	RSY	7.827E-09	1.076E-08	1.023E-17	0.	0.	0.
932	EQmxp	3.101E-09	-3.306E-09	1.298E-17	0.	0.	0.
932	EQmxn	-3.101E-09	3.306E-09	-1.298E-17	0.	0.	0.
932	EQmyp	-6.194E-09	6.605E-09	1.446E-16	0.	0.	0.
932	EQmyn	6.194E-09	-6.605E-09	-1.446E-16	0.	0.	0.
933	RSX	7.983E-10	3.540E-10	1.093E-16	0.	0.	0.
933	RSY	8.213E-09	9.183E-09	9.782E-18	0.	0.	0.
933	EQmxp	6.089E-10	-6.492E-10	-1.248E-16	0.	0.	0.
933	EQmxn	-6.089E-10	6.492E-10	1.248E-16	0.	0.	0.
933	EQmyp	-1.216E-09	1.297E-09	1.213E-16	0.	0.	0.
933	EQmyn	1.216E-09	-1.297E-09	-1.213E-16	0.	0.	0.
934	RSX	4.669E-09	5.952E-09	5.449E-18	0.	0.	0.
934	RSY	8.424E-09	8.983E-09	3.462E-17	0.	0.	0.
934	EQmxp	-7.690E-09	8.199E-09	-1.877E-18	0.	0.	0.
934	EQmxn	7.690E-09	-8.199E-09	1.877E-18	0.	0.	0.
934	EQmyp	1.536E-08	-1.638E-08	1.458E-16	0.	0.	0.
934	EQmyn	-1.536E-08	1.638E-08	-1.458E-16	0.	0.	0.
935	RSX	1.621E-08	1.840E-08	8.991E-17	0.	0.	0.
935	RSY	1.333E-08	1.438E-08	3.491E-17	0.	0.	0.
935	EQmxp	-2.544E-08	2.712E-08	5.748E-17	0.	0.	0.
935	EQmxn	2.544E-08	-2.712E-08	-5.748E-17	0.	0.	0.
935	EQmyp	5.081E-08	-5.417E-08	3.083E-17	0.	0.	0.
935	EQmyn	-5.081E-08	5.417E-08	-3.083E-17	0.	0.	0.
936	RSX	3.481E-08	3.827E-08	4.879E-17	0.	0.	0.
936	RSY	2.493E-08	2.678E-08	5.759E-17	0.	0.	0.
936	EQmxp	-5.393E-08	5.750E-08	3.823E-17	0.	0.	0.
936	EQmxn	5.393E-08	-5.750E-08	-3.823E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
936	EQmyp	1.077E-07	-1.148E-07	-2.177E-16	0.	0.	0.
936	EQmyn	-1.077E-07	1.148E-07	2.177E-16	0.	0.	0.
937	RSX	5.535E-08	6.008E-08	1.544E-16	0.	0.	0.
937	RSY	3.845E-08	4.121E-08	6.783E-17	0.	0.	0.
937	EQmxp	-8.527E-08	9.091E-08	-2.380E-16	0.	0.	0.
937	EQmxn	8.527E-08	-9.091E-08	2.380E-16	0.	0.	0.
937	EQmyp	1.703E-07	-1.816E-07	3.535E-16	0.	0.	0.
937	EQmyn	-1.703E-07	1.816E-07	-3.535E-16	0.	0.	0.
938	RSX	5.684E-08	6.149E-08	6.290E-17	0.	0.	0.
938	RSY	3.932E-08	4.226E-08	5.122E-17	0.	0.	0.
938	EQmxp	-8.743E-08	9.321E-08	-2.496E-16	0.	0.	0.
938	EQmxn	8.743E-08	-9.321E-08	2.496E-16	0.	0.	0.
938	EQmyp	1.746E-07	-1.862E-07	1.901E-16	0.	0.	0.
938	EQmyn	-1.746E-07	1.862E-07	-1.901E-16	0.	0.	0.
939	RSX	2.366E-09	3.325E-09	1.101E-16	0.	0.	0.
939	RSY	6.468E-09	9.557E-09	1.927E-17	0.	0.	0.
939	EQmxp	-4.286E-09	4.570E-09	1.110E-16	0.	0.	0.
939	EQmxn	4.286E-09	-4.570E-09	-1.110E-16	0.	0.	0.
939	EQmyp	8.561E-09	-9.128E-09	-3.954E-16	0.	0.	0.
939	EQmyn	-8.561E-09	9.128E-09	3.954E-16	0.	0.	0.
940	RSX	1.776E-07	1.885E-07	1.331E-18	0.	0.	0.
940	RSY	1.191E-07	1.274E-07	2.355E-17	0.	0.	0.
940	EQmxp	2.699E-07	-2.878E-07	-4.702E-17	0.	0.	0.
940	EQmxn	-2.699E-07	2.878E-07	4.702E-17	0.	0.	0.
940	EQmyp	-5.391E-07	5.748E-07	3.928E-17	0.	0.	0.
940	EQmyn	5.391E-07	-5.748E-07	-3.928E-17	0.	0.	0.
941	RSX	6.633E-07	7.063E-07	1.281E-16	0.	0.	0.
941	RSY	4.456E-07	4.755E-07	5.255E-17	0.	0.	0.
941	EQmxp	1.010E-06	-1.077E-06	-1.793E-16	0.	0.	0.
941	EQmxn	-1.010E-06	1.077E-06	1.793E-16	0.	0.	0.
941	EQmyp	-2.017E-06	2.151E-06	5.465E-16	0.	0.	0.
941	EQmyn	2.017E-06	-2.151E-06	-5.465E-16	0.	0.	0.
942	RSX	2.121E-06	2.261E-06	3.947E-18	0.	0.	0.
942	RSY	1.426E-06	1.521E-06	6.440E-17	0.	0.	0.
942	EQmxp	3.231E-06	-3.445E-06	1.019E-16	0.	0.	0.
942	EQmxn	-3.231E-06	3.445E-06	-1.019E-16	0.	0.	0.
942	EQmyp	-6.455E-06	6.882E-06	1.968E-16	0.	0.	0.
942	EQmyn	6.455E-06	-6.882E-06	-1.968E-16	0.	0.	0.
943	RSX	3.832E-06	4.085E-06	1.961E-16	0.	0.	0.
943	RSY	2.577E-06	2.748E-06	1.350E-16	0.	0.	0.
943	EQmxp	5.839E-06	-6.225E-06	2.048E-16	0.	0.	0.
943	EQmxn	-5.839E-06	6.225E-06	-2.048E-16	0.	0.	0.
943	EQmyp	-1.166E-05	1.243E-05	2.923E-16	0.	0.	0.
943	EQmyn	1.166E-05	-1.243E-05	-2.923E-16	0.	0.	0.
944	RSX	5.537E-07	5.894E-07	2.153E-16	0.	0.	0.
944	RSY	3.721E-07	3.970E-07	1.455E-16	0.	0.	0.
944	EQmxp	8.430E-07	-8.987E-07	1.003E-16	0.	0.	0.
944	EQmxn	-8.430E-07	8.987E-07	-1.003E-16	0.	0.	0.
944	EQmyp	-1.684E-06	1.795E-06	3.502E-17	0.	0.	0.
944	EQmyn	1.684E-06	-1.795E-06	-3.502E-17	0.	0.	0.
945	RSX	2.402E-05	2.561E-05	4.525E-16	0.	0.	0.
945	RSY	1.616E-05	1.723E-05	3.207E-16	0.	0.	0.
945	EQmxp	-3.660E-05	3.902E-05	1.322E-16	0.	0.	0.
945	EQmxn	3.660E-05	-3.902E-05	-1.322E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
945	EQmyp	7.311E-05	-7.795E-05	-1.020E-15	0.	0.	0.
945	EQmyn	-7.311E-05	7.795E-05	1.020E-15	0.	0.	0.
946	RSX	1.072E-04	1.143E-04	9.032E-16	0.	0.	0.
946	RSY	7.211E-05	7.688E-05	3.695E-16	0.	0.	0.
946	EQmxp	-1.634E-04	1.742E-04	-1.020E-15	0.	0.	0.
946	EQmxn	1.634E-04	-1.742E-04	1.020E-15	0.	0.	0.
946	EQmyp	3.263E-04	-3.479E-04	2.617E-15	0.	0.	0.
946	EQmyn	-3.263E-04	3.479E-04	-2.617E-15	0.	0.	0.
947	RSX	0.01	2.105E-04	0.	0.	0.	0.
947	RSY	9.319E-04	0.021	0.	0.	0.	0.
947	EQmxp	-0.016	4.804E-06	0.	0.	0.	0.
947	EQmxn	0.016	-4.804E-06	0.	0.	0.	0.
947	EQmyp	-3.687E-03	-0.092	0.	0.	0.	0.
947	EQmyn	3.687E-03	0.092	0.	0.	0.	0.
948	RSX	0.024	5.327E-04	0.	0.	0.	0.
948	RSY	2.207E-03	0.053	0.	0.	0.	0.
948	EQmxp	-0.037	1.356E-05	0.	0.	0.	0.
948	EQmxn	0.037	-1.356E-05	0.	0.	0.	0.
948	EQmyp	-8.728E-03	-0.233	0.	0.	0.	0.
948	EQmyn	8.728E-03	0.233	0.	0.	0.	0.
949	RSX	0.027	6.260E-04	0.	0.	0.	0.
949	RSY	2.433E-03	0.062	0.	0.	0.	0.
949	EQmxp	-0.041	1.745E-05	0.	0.	0.	0.
949	EQmxn	0.041	-1.745E-05	0.	0.	0.	0.
949	EQmyp	-9.616E-03	-0.274	0.	0.	0.	0.
949	EQmyn	9.616E-03	0.274	0.	0.	0.	0.
950	RSX	0.028	7.026E-04	0.	0.	0.	0.
950	RSY	2.561E-03	0.07	0.	0.	0.	0.
950	EQmxp	-0.043	2.116E-05	0.	0.	0.	0.
950	EQmxn	0.043	-2.116E-05	0.	0.	0.	0.
950	EQmyp	-0.01	-0.307	0.	0.	0.	0.
950	EQmyn	0.01	0.307	0.	0.	0.	0.
951	RSX	0.029	7.632E-04	0.	0.	0.	0.
951	RSY	2.605E-03	0.076	0.	0.	0.	0.
951	EQmxp	-0.044	2.463E-05	0.	0.	0.	0.
951	EQmxn	0.044	-2.463E-05	0.	0.	0.	0.
951	EQmyp	-0.01	-0.333	0.	0.	0.	0.
951	EQmyn	0.01	0.333	0.	0.	0.	0.
952	RSX	0.029	8.083E-04	0.	0.	0.	0.
952	RSY	2.573E-03	0.08	0.	0.	0.	0.
952	EQmxp	-0.043	2.780E-05	0.	0.	0.	0.
952	EQmxn	0.043	-2.780E-05	0.	0.	0.	0.
952	EQmyp	-0.01	-0.352	0.	0.	0.	0.
952	EQmyn	0.01	0.352	0.	0.	0.	0.
953	RSX	0.026	8.052E-04	0.	0.	0.	0.
953	RSY	2.376E-03	0.08	0.	0.	0.	0.
953	EQmxp	-0.04	2.942E-05	0.	0.	0.	0.
953	EQmxn	0.04	-2.942E-05	0.	0.	0.	0.
953	EQmyp	-9.363E-03	-0.35	0.	0.	0.	0.
953	EQmyn	9.363E-03	0.35	0.	0.	0.	0.
954	RSX	0.022	7.382E-04	0.	0.	0.	0.
954	RSY	1.999E-03	0.073	0.	0.	0.	0.
954	EQmxp	-0.033	2.863E-05	0.	0.	0.	0.
954	EQmxn	0.033	-2.863E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
954	EQmyp	-7.866E-03	-0.32	0.	0.	0.	0.
954	EQmyn	7.866E-03	0.32	0.	0.	0.	0.
955	RSX	0.018	6.718E-04	0.	0.	0.	0.
955	RSY	1.642E-03	0.066	0.	0.	0.	0.
955	EQmxp	-0.027	2.768E-05	0.	0.	0.	0.
955	EQmxn	0.027	-2.768E-05	0.	0.	0.	0.
955	EQmyp	-6.454E-03	-0.29	0.	0.	0.	0.
955	EQmyn	6.454E-03	0.29	0.	0.	0.	0.
956	RSX	0.015	6.055E-04	0.	0.	0.	0.
956	RSY	1.302E-03	0.06	0.	0.	0.	0.
956	EQmxp	-0.022	2.658E-05	0.	0.	0.	0.
956	EQmxn	0.022	-2.658E-05	0.	0.	0.	0.
956	EQmyp	-5.107E-03	-0.261	0.	0.	0.	0.
956	EQmyn	5.107E-03	0.261	0.	0.	0.	0.
957	RSX	0.011	5.242E-04	0.	0.	0.	0.
957	RSY	9.477E-04	0.052	0.	0.	0.	0.
957	EQmxp	-0.016	2.467E-05	0.	0.	0.	0.
957	EQmxn	0.016	-2.467E-05	0.	0.	0.	0.
957	EQmyp	-3.704E-03	-0.225	0.	0.	0.	0.
957	EQmyn	3.704E-03	0.225	0.	0.	0.	0.
958	RSX	6.950E-03	4.321E-04	0.	0.	0.	0.
958	RSY	5.997E-04	0.042	0.	0.	0.	0.
958	EQmxp	-9.961E-03	2.200E-05	0.	0.	0.	0.
958	EQmxn	9.961E-03	-2.200E-05	0.	0.	0.	0.
958	EQmyp	-2.329E-03	-0.185	0.	0.	0.	0.
958	EQmyn	2.329E-03	0.185	0.	0.	0.	0.
959	RSX	3.522E-03	3.449E-04	0.	0.	0.	0.
959	RSY	2.897E-04	0.034	0.	0.	0.	0.
959	EQmxp	-4.776E-03	1.929E-05	0.	0.	0.	0.
959	EQmxn	4.776E-03	-1.929E-05	0.	0.	0.	0.
959	EQmyp	-1.104E-03	-0.147	0.	0.	0.	0.
959	EQmyn	1.104E-03	0.147	0.	0.	0.	0.
960	RSX	4.874E-04	2.627E-04	0.	0.	0.	0.
960	RSY	2.258E-05	0.026	0.	0.	0.	0.
960	EQmxp	-1.975E-04	1.657E-05	0.	0.	0.	0.
960	EQmxn	1.975E-04	-1.657E-05	0.	0.	0.	0.
960	EQmyp	-2.248E-05	-0.111	0.	0.	0.	0.
960	EQmyn	2.248E-05	0.111	0.	0.	0.	0.
961	RSX	2.172E-03	1.858E-04	0.	0.	0.	0.
961	RSY	2.249E-04	0.018	0.	0.	0.	0.
961	EQmxp	3.804E-03	1.388E-05	0.	0.	0.	0.
961	EQmxn	-3.804E-03	-1.388E-05	0.	0.	0.	0.
961	EQmyp	9.220E-04	-0.078	0.	0.	0.	0.
961	EQmyn	-9.220E-04	0.078	0.	0.	0.	0.
962	RSX	4.485E-03	1.141E-04	0.	0.	0.	0.
962	RSY	4.323E-04	0.011	0.	0.	0.	0.
962	EQmxp	7.274E-03	1.121E-05	0.	0.	0.	0.
962	EQmxn	-7.274E-03	-1.121E-05	0.	0.	0.	0.
962	EQmyp	1.740E-03	-0.046	0.	0.	0.	0.
962	EQmyn	-1.740E-03	0.046	0.	0.	0.	0.
963	RSX	6.504E-03	4.688E-05	0.	0.	0.	0.
963	RSY	6.130E-04	4.115E-03	0.	0.	0.	0.
963	EQmxp	0.01	8.581E-06	0.	0.	0.	0.
963	EQmxn	-0.01	-8.581E-06	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
963	EQmyp	2.452E-03	-0.017	0.	0.	0.	0.
963	EQmyn	-2.452E-03	0.017	0.	0.	0.	0.
964	RSX	8.332E-03	1.915E-05	0.	0.	0.	0.
964	RSY	7.761E-04	2.317E-03	0.	0.	0.	0.
964	EQmxp	0.013	5.943E-06	0.	0.	0.	0.
964	EQmxn	-0.013	-5.943E-06	0.	0.	0.	0.
964	EQmyp	3.093E-03	0.011	0.	0.	0.	0.
964	EQmyn	-3.093E-03	-0.011	0.	0.	0.	0.
965	RSX	0.01	8.732E-05	0.	0.	0.	0.
965	RSY	9.497E-04	9.101E-03	0.	0.	0.	0.
965	EQmxp	0.016	3.160E-06	0.	0.	0.	0.
965	EQmxn	-0.016	-3.160E-06	0.	0.	0.	0.
965	EQmyp	3.776E-03	0.041	0.	0.	0.	0.
965	EQmyn	-3.776E-03	-0.041	0.	0.	0.	0.
966	RSX	0.014	1.858E-04	0.	0.	0.	0.
966	RSY	1.244E-03	0.019	0.	0.	0.	0.
966	EQmxp	0.021	-4.069E-07	0.	0.	0.	0.
966	EQmxn	-0.021	4.069E-07	0.	0.	0.	0.
966	EQmyp	4.937E-03	0.084	0.	0.	0.	0.
966	EQmyn	-4.937E-03	-0.084	0.	0.	0.	0.
967	RSX	0.038	7.250E-04	0.	0.	0.	0.
967	RSY	3.455E-03	0.073	0.	0.	0.	0.
967	EQmxp	0.058	-1.444E-05	0.	0.	0.	0.
967	EQmxn	-0.058	1.444E-05	0.	0.	0.	0.
967	EQmyp	0.014	0.32	0.	0.	0.	0.
967	EQmyn	-0.014	-0.32	0.	0.	0.	0.
968	RSX	0.01	2.726E-04	0.	0.	0.	0.
968	RSY	9.446E-04	0.027	0.	0.	0.	0.
968	EQmxp	0.016	-8.680E-06	0.	0.	0.	0.
968	EQmxn	-0.016	8.680E-06	0.	0.	0.	0.
968	EQmyp	3.728E-03	0.119	0.	0.	0.	0.
968	EQmyn	-3.728E-03	-0.119	0.	0.	0.	0.
969	RSX	4.144E-03	1.529E-04	0.	0.	0.	0.
969	RSY	3.691E-04	0.015	0.	0.	0.	0.
969	EQmxp	6.158E-03	-6.339E-06	0.	0.	0.	0.
969	EQmxn	-6.158E-03	6.339E-06	0.	0.	0.	0.
969	EQmyp	1.450E-03	0.066	0.	0.	0.	0.
969	EQmyn	-1.450E-03	-0.066	0.	0.	0.	0.
970	RSX	1.773E-03	1.056E-04	0.	0.	0.	0.
970	RSY	1.532E-04	0.01	0.	0.	0.	0.
970	EQmxp	2.546E-03	-5.312E-06	0.	0.	0.	0.
970	EQmxn	-2.546E-03	5.312E-06	0.	0.	0.	0.
970	EQmyp	5.956E-04	0.045	0.	0.	0.	0.
970	EQmyn	-5.956E-04	-0.045	0.	0.	0.	0.
971	RSX	4.780E-04	7.728E-05	0.	0.	0.	0.
971	RSY	3.583E-05	7.522E-03	0.	0.	0.	0.
971	EQmxp	5.789E-04	-4.587E-06	0.	0.	0.	0.
971	EQmxn	-5.789E-04	4.587E-06	0.	0.	0.	0.
971	EQmyp	1.305E-04	0.033	0.	0.	0.	0.
971	EQmyn	-1.305E-04	-0.033	0.	0.	0.	0.
972	RSX	3.385E-04	5.586E-05	0.	0.	0.	0.
972	RSY	3.842E-05	5.393E-03	0.	0.	0.	0.
972	EQmxp	-6.532E-04	-3.900E-06	0.	0.	0.	0.
972	EQmxn	6.532E-04	3.900E-06	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
972	EQmyp	-1.605E-04	0.023	0.	0.	0.	0.
972	EQmyn	1.605E-04	-0.023	0.	0.	0.	0.
973	RSX	8.588E-04	3.847E-05	0.	0.	0.	0.
973	RSY	8.482E-05	3.673E-03	0.	0.	0.	0.
973	EQmxp	-1.430E-03	-3.220E-06	0.	0.	0.	0.
973	EQmxn	1.430E-03	3.220E-06	0.	0.	0.	0.
973	EQmyp	-3.437E-04	0.016	0.	0.	0.	0.
973	EQmyn	3.437E-04	-0.016	0.	0.	0.	0.
974	RSX	1.169E-03	2.404E-05	0.	0.	0.	0.
974	RSY	1.121E-04	2.253E-03	0.	0.	0.	0.
974	EQmxp	-1.885E-03	-2.551E-06	0.	0.	0.	0.
974	EQmxn	1.885E-03	2.551E-06	0.	0.	0.	0.
974	EQmyp	-4.504E-04	9.654E-03	0.	0.	0.	0.
974	EQmyn	4.504E-04	-9.654E-03	0.	0.	0.	0.
975	RSX	1.318E-03	1.206E-05	0.	0.	0.	0.
975	RSY	1.246E-04	1.081E-03	0.	0.	0.	0.
975	EQmxp	-2.092E-03	-1.903E-06	0.	0.	0.	0.
975	EQmxn	2.092E-03	1.903E-06	0.	0.	0.	0.
975	EQmyp	-4.986E-04	4.541E-03	0.	0.	0.	0.
975	EQmyn	4.986E-04	-4.541E-03	0.	0.	0.	0.
976	RSX	1.339E-03	2.470E-06	0.	0.	0.	0.
976	RSY	1.253E-04	1.406E-04	0.	0.	0.	0.
976	EQmxp	-2.102E-03	-1.291E-06	0.	0.	0.	0.
976	EQmxn	2.102E-03	1.291E-06	0.	0.	0.	0.
976	EQmyp	-5.001E-04	4.315E-04	0.	0.	0.	0.
976	EQmyn	5.001E-04	-4.315E-04	0.	0.	0.	0.
977	RSX	1.255E-03	5.311E-06	0.	0.	0.	0.
977	RSY	1.166E-04	5.905E-04	0.	0.	0.	0.
977	EQmxp	-1.954E-03	-7.327E-07	0.	0.	0.	0.
977	EQmxn	1.954E-03	7.327E-07	0.	0.	0.	0.
977	EQmyp	-4.642E-04	-2.709E-03	0.	0.	0.	0.
977	EQmyn	4.642E-04	2.709E-03	0.	0.	0.	0.
978	RSX	1.087E-03	1.059E-05	0.	0.	0.	0.
978	RSY	1.003E-04	1.095E-03	0.	0.	0.	0.
978	EQmxp	-1.680E-03	-2.458E-07	0.	0.	0.	0.
978	EQmxn	1.680E-03	2.458E-07	0.	0.	0.	0.
978	EQmyp	-3.985E-04	-4.883E-03	0.	0.	0.	0.
978	EQmyn	3.985E-04	4.883E-03	0.	0.	0.	0.
979	RSX	8.548E-04	1.363E-05	0.	0.	0.	0.
979	RSY	7.820E-05	1.376E-03	0.	0.	0.	0.
979	EQmxp	-1.309E-03	1.506E-07	0.	0.	0.	0.
979	EQmxn	1.309E-03	-1.506E-07	0.	0.	0.	0.
979	EQmyp	-3.099E-04	-6.079E-03	0.	0.	0.	0.
979	EQmyn	3.099E-04	6.079E-03	0.	0.	0.	0.
980	RSX	5.687E-04	1.459E-05	0.	0.	0.	0.
980	RSY	5.138E-05	1.451E-03	0.	0.	0.	0.
980	EQmxp	-8.585E-04	4.571E-07	0.	0.	0.	0.
980	EQmxn	8.585E-04	-4.571E-07	0.	0.	0.	0.
980	EQmyp	-2.028E-04	-6.371E-03	0.	0.	0.	0.
980	EQmyn	2.028E-04	6.371E-03	0.	0.	0.	0.
981	RSX	2.996E-05	3.428E-05	0.	0.	0.	0.
981	RSY	2.598E-06	3.325E-03	0.	0.	0.	0.
981	EQmxp	2.915E-05	2.190E-06	0.	0.	0.	0.
981	EQmxn	-2.915E-05	-2.190E-06	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
981	EQmyp	1.012E-05	-0.014	0.	0.	0.	0.
981	EQmyn	-1.012E-05	0.014	0.	0.	0.	0.
982	RSX	3.569E-04	2.549E-06	0.	0.	0.	0.
982	RSY	3.303E-05	2.693E-04	0.	0.	0.	0.
982	EQmxp	5.534E-04	1.407E-07	0.	0.	0.	0.
982	EQmxn	-5.534E-04	-1.407E-07	0.	0.	0.	0.
982	EQmyp	1.314E-04	1.212E-03	0.	0.	0.	0.
982	EQmyn	-1.314E-04	-1.212E-03	0.	0.	0.	0.
983	RSX	3.076E-04	4.215E-06	0.	0.	0.	0.
983	RSY	2.822E-05	4.281E-04	0.	0.	0.	0.
983	EQmxp	4.725E-04	-9.522E-09	0.	0.	0.	0.
983	EQmxn	-4.725E-04	9.522E-09	0.	0.	0.	0.
983	EQmyp	1.120E-04	1.897E-03	0.	0.	0.	0.
983	EQmyn	-1.120E-04	-1.897E-03	0.	0.	0.	0.
984	RSX	2.174E-04	3.698E-06	0.	0.	0.	0.
984	RSY	1.987E-05	3.724E-04	0.	0.	0.	0.
984	EQmxp	3.324E-04	-5.322E-08	0.	0.	0.	0.
984	EQmxn	-3.324E-04	5.322E-08	0.	0.	0.	0.
984	EQmyp	7.870E-05	1.644E-03	0.	0.	0.	0.
984	EQmyn	-7.870E-05	-1.644E-03	0.	0.	0.	0.
985	RSX	1.203E-04	2.471E-06	0.	0.	0.	0.
985	RSY	1.094E-05	2.473E-04	0.	0.	0.	0.
985	EQmxp	1.830E-04	-5.697E-08	0.	0.	0.	0.
985	EQmxn	-1.830E-04	5.697E-08	0.	0.	0.	0.
985	EQmyp	4.328E-05	1.089E-03	0.	0.	0.	0.
985	EQmyn	-4.328E-05	-1.089E-03	0.	0.	0.	0.
986	RSX	3.444E-05	1.085E-06	0.	0.	0.	0.
986	RSY	3.087E-06	1.074E-04	0.	0.	0.	0.
986	EQmxp	5.153E-05	-4.070E-08	0.	0.	0.	0.
986	EQmxn	-5.153E-05	4.070E-08	0.	0.	0.	0.
986	EQmyp	1.215E-05	4.706E-04	0.	0.	0.	0.
986	EQmyn	-1.215E-05	-4.706E-04	0.	0.	0.	0.
987	RSX	4.260E-05	3.590E-07	0.	0.	0.	0.
987	RSY	3.936E-06	3.745E-05	0.	0.	0.	0.
987	EQmxp	-6.594E-05	-1.325E-08	0.	0.	0.	0.
987	EQmxn	6.594E-05	1.325E-08	0.	0.	0.	0.
987	EQmyp	-1.565E-05	-1.677E-04	0.	0.	0.	0.
987	EQmyn	1.565E-05	1.677E-04	0.	0.	0.	0.
988	RSX	2.989E-05	5.891E-07	0.	0.	0.	0.
988	RSY	2.721E-06	5.899E-05	0.	0.	0.	0.
988	EQmxp	-4.551E-05	1.253E-08	0.	0.	0.	0.
988	EQmxn	4.551E-05	-1.253E-08	0.	0.	0.	0.
988	EQmyp	-1.077E-05	-2.599E-04	0.	0.	0.	0.
988	EQmyn	1.077E-05	2.599E-04	0.	0.	0.	0.
989	RSX	3.026E-06	1.163E-07	0.	0.	0.	0.
989	RSY	2.692E-07	1.144E-05	0.	0.	0.	0.
989	EQmxp	-4.483E-06	4.912E-09	0.	0.	0.	0.
989	EQmxn	4.483E-06	-4.912E-09	0.	0.	0.	0.
989	EQmyp	-1.055E-06	-5.006E-05	0.	0.	0.	0.
989	EQmyn	1.055E-06	5.006E-05	0.	0.	0.	0.
990	RSX	1.647E-06	2.395E-08	0.	0.	0.	0.
990	RSY	1.509E-07	2.435E-06	0.	0.	0.	0.
990	EQmxp	2.526E-06	-1.468E-10	0.	0.	0.	0.
990	EQmxn	-2.526E-06	1.468E-10	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
990	EQmyp	5.984E-07	1.078E-05	0.	0.	0.	0.
990	EQmyn	-5.984E-07	-1.078E-05	0.	0.	0.	0.
991	RSX	5.663E-07	1.178E-08	0.	0.	0.	0.
991	RSY	5.160E-08	1.176E-06	0.	0.	0.	0.
991	EQmxp	8.607E-07	-2.766E-10	0.	0.	0.	0.
991	EQmxn	-8.607E-07	2.766E-10	0.	0.	0.	0.
991	EQmyp	2.036E-07	5.179E-06	0.	0.	0.	0.
991	EQmyn	-2.036E-07	-5.179E-06	0.	0.	0.	0.
992	RSX	1.637E-08	1.582E-09	0.	0.	0.	0.
992	RSY	1.901E-08	1.114E-07	0.	0.	0.	0.
992	EQmxp	2.353E-08	-5.913E-11	0.	0.	0.	0.
992	EQmxn	-2.353E-08	5.913E-11	0.	0.	0.	0.
992	EQmyp	5.490E-09	4.845E-07	0.	0.	0.	0.
992	EQmyn	-5.490E-09	-4.845E-07	0.	0.	0.	0.
993	RSX	4.697E-08	4.612E-09	0.	0.	0.	0.
993	RSY	6.124E-08	1.058E-07	0.	0.	0.	0.
993	EQmxp	-7.741E-08	1.505E-11	0.	0.	0.	0.
993	EQmxn	7.741E-08	-1.505E-11	0.	0.	0.	0.
993	EQmyp	-1.832E-08	-4.005E-07	0.	0.	0.	0.
993	EQmyn	1.832E-08	4.005E-07	0.	0.	0.	0.
994	RSX	1.783E-11	1.095E-11	0.	0.	0.	0.
994	RSY	1.686E-10	1.504E-10	0.	0.	0.	0.
994	EQmxp	-3.698E-11	1.840E-14	0.	0.	0.	0.
994	EQmxn	3.698E-11	-1.840E-14	0.	0.	0.	0.
994	EQmyp	-8.738E-12	-2.659E-10	0.	0.	0.	0.
994	EQmyn	8.738E-12	2.659E-10	0.	0.	0.	0.
995	RSX	4.671E-11	5.705E-11	0.	0.	0.	0.
995	RSY	8.586E-10	7.042E-10	0.	0.	0.	0.
995	EQmxp	-9.508E-11	5.822E-14	0.	0.	0.	0.
995	EQmxn	9.508E-11	-5.822E-14	0.	0.	0.	0.
995	EQmyp	-2.245E-11	-7.561E-10	0.	0.	0.	0.
995	EQmyn	2.245E-11	7.561E-10	0.	0.	0.	0.
996	RSX	1.015E-10	1.403E-10	0.	0.	0.	0.
996	RSY	2.029E-09	1.646E-09	0.	0.	0.	0.
996	EQmxp	-1.422E-10	9.634E-14	0.	0.	0.	0.
996	EQmxn	1.422E-10	-9.634E-14	0.	0.	0.	0.
996	EQmyp	-3.357E-11	-1.193E-09	0.	0.	0.	0.
996	EQmyn	3.357E-11	1.193E-09	0.	0.	0.	0.
997	RSX	1.891E-10	2.489E-10	0.	0.	0.	0.
997	RSY	3.450E-09	2.835E-09	0.	0.	0.	0.
997	EQmxp	-1.665E-10	1.204E-13	0.	0.	0.	0.
997	EQmxn	1.665E-10	-1.204E-13	0.	0.	0.	0.
997	EQmyp	-3.927E-11	-1.447E-09	0.	0.	0.	0.
997	EQmyn	3.927E-11	1.447E-09	0.	0.	0.	0.
998	RSX	2.938E-10	3.644E-10	0.	0.	0.	0.
998	RSY	4.821E-09	4.054E-09	0.	0.	0.	0.
998	EQmxp	-1.654E-10	1.261E-13	0.	0.	0.	0.
998	EQmxn	1.654E-10	-1.261E-13	0.	0.	0.	0.
998	EQmyp	-3.902E-11	-1.481E-09	0.	0.	0.	0.
998	EQmyn	3.902E-11	1.481E-09	0.	0.	0.	0.
999	RSX	3.953E-10	4.695E-10	0.	0.	0.	0.
999	RSY	5.976E-09	5.080E-09	0.	0.	0.	0.
999	EQmxp	-1.437E-10	1.150E-13	0.	0.	0.	0.
999	EQmxn	1.437E-10	-1.150E-13	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
999	EQmyp	-3.389E-11	-1.323E-09	0.	0.	0.	0.
999	EQmyn	3.389E-11	1.323E-09	0.	0.	0.	0.
1000	RSX	4.790E-10	5.456E-10	0.	0.	0.	0.
1000	RSY	6.809E-09	5.861E-09	0.	0.	0.	0.
1000	EQmxp	-1.093E-10	9.235E-14	0.	0.	0.	0.
1000	EQmxn	1.093E-10	-9.235E-14	0.	0.	0.	0.
1000	EQmyp	-2.577E-11	-1.038E-09	0.	0.	0.	0.
1000	EQmyn	2.577E-11	1.038E-09	0.	0.	0.	0.
1001	RSX	5.375E-10	5.887E-10	0.	0.	0.	0.
1001	RSY	7.355E-09	6.367E-09	0.	0.	0.	0.
1001	EQmxp	-7.089E-11	6.445E-14	0.	0.	0.	0.
1001	EQmxn	7.089E-11	-6.445E-14	0.	0.	0.	0.
1001	EQmyp	-1.671E-11	-7.037E-10	0.	0.	0.	0.
1001	EQmyn	1.671E-11	7.037E-10	0.	0.	0.	0.
1002	RSX	5.693E-10	5.994E-10	0.	0.	0.	0.
1002	RSY	7.697E-09	6.571E-09	0.	0.	0.	0.
1002	EQmxp	-3.556E-11	3.708E-14	0.	0.	0.	0.
1002	EQmxn	3.556E-11	-3.708E-14	0.	0.	0.	0.
1002	EQmyp	-8.373E-12	-3.846E-10	0.	0.	0.	0.
1002	EQmyn	8.373E-12	3.846E-10	0.	0.	0.	0.
1003	RSX	5.863E-10	5.874E-10	0.	0.	0.	0.
1003	RSY	7.927E-09	6.431E-09	0.	0.	0.	0.
1003	EQmxp	-7.870E-12	1.430E-14	0.	0.	0.	0.
1003	EQmxn	7.870E-12	-1.430E-14	0.	0.	0.	0.
1003	EQmyp	-1.844E-12	-1.256E-10	0.	0.	0.	0.
1003	EQmyn	1.844E-12	1.256E-10	0.	0.	0.	0.
1004	RSX	5.956E-10	5.634E-10	0.	0.	0.	0.
1004	RSY	8.155E-09	6.177E-09	0.	0.	0.	0.
1004	EQmxp	1.037E-11	-1.860E-15	0.	0.	0.	0.
1004	EQmxn	-1.037E-11	1.860E-15	0.	0.	0.	0.
1004	EQmyp	2.456E-12	5.262E-11	0.	0.	0.	0.
1004	EQmyn	-2.456E-12	-5.262E-11	0.	0.	0.	0.
1005	RSX	6.031E-10	5.348E-10	0.	0.	0.	0.
1005	RSY	8.286E-09	6.021E-09	0.	0.	0.	0.
1005	EQmxp	1.963E-11	-1.119E-14	0.	0.	0.	0.
1005	EQmxn	-1.963E-11	1.119E-14	0.	0.	0.	0.
1005	EQmyp	4.636E-12	1.506E-10	0.	0.	0.	0.
1005	EQmyn	-4.636E-12	-1.506E-10	0.	0.	0.	0.
1006	RSX	6.140E-10	5.098E-10	0.	0.	0.	0.
1006	RSY	8.212E-09	6.060E-09	0.	0.	0.	0.
1006	EQmxp	2.178E-11	-1.475E-14	0.	0.	0.	0.
1006	EQmxn	-2.178E-11	1.475E-14	0.	0.	0.	0.
1006	EQmyp	5.140E-12	1.826E-10	0.	0.	0.	0.
1006	EQmyn	-5.140E-12	-1.826E-10	0.	0.	0.	0.
1007	RSX	6.250E-10	4.922E-10	0.	0.	0.	0.
1007	RSY	7.838E-09	6.347E-09	0.	0.	0.	0.
1007	EQmxp	1.930E-11	-1.425E-14	0.	0.	0.	0.
1007	EQmxn	-1.930E-11	1.425E-14	0.	0.	0.	0.
1007	EQmyp	4.552E-12	1.696E-10	0.	0.	0.	0.
1007	EQmyn	-4.552E-12	-1.696E-10	0.	0.	0.	0.
1008	RSX	6.270E-10	4.861E-10	0.	0.	0.	0.
1008	RSY	7.405E-09	6.640E-09	0.	0.	0.	0.
1008	EQmxp	1.454E-11	-1.146E-14	0.	0.	0.	0.
1008	EQmxn	-1.454E-11	1.146E-14	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1008	EQmyp	3.428E-12	1.326E-10	0.	0.	0.	0.
1008	EQmyn	-3.428E-12	-1.326E-10	0.	0.	0.	0.
1009	RSX	6.157E-10	4.869E-10	0.	0.	0.	0.
1009	RSY	6.814E-09	6.786E-09	0.	0.	0.	0.
1009	EQmxp	9.338E-12	-7.870E-15	0.	0.	0.	0.
1009	EQmxn	-9.338E-12	7.870E-15	0.	0.	0.	0.
1009	EQmyp	2.202E-12	8.857E-11	0.	0.	0.	0.
1009	EQmyn	-2.202E-12	-8.857E-11	0.	0.	0.	0.
1010	RSX	5.887E-10	4.903E-10	0.	0.	0.	0.
1010	RSY	6.153E-09	6.713E-09	0.	0.	0.	0.
1010	EQmxp	4.864E-12	-4.511E-15	0.	0.	0.	0.
1010	EQmxn	-4.864E-12	4.511E-15	0.	0.	0.	0.
1010	EQmyp	1.146E-12	4.887E-11	0.	0.	0.	0.
1010	EQmyn	-1.146E-12	-4.887E-11	0.	0.	0.	0.
1011	RSX	5.635E-10	5.025E-10	0.	0.	0.	0.
1011	RSY	5.777E-09	6.439E-09	0.	0.	0.	0.
1011	EQmxp	1.634E-12	-1.917E-15	0.	0.	0.	0.
1011	EQmxn	-1.634E-12	1.917E-15	0.	0.	0.	0.
1011	EQmyp	3.845E-13	1.909E-11	0.	0.	0.	0.
1011	EQmyn	-3.845E-13	-1.909E-11	0.	0.	0.	0.
1012	RSX	5.531E-10	5.158E-10	0.	0.	0.	0.
1012	RSY	5.824E-09	5.912E-09	0.	0.	0.	0.
1012	EQmxp	-3.037E-13	-2.375E-16	0.	0.	0.	0.
1012	EQmxn	3.037E-13	2.375E-16	0.	0.	0.	0.
1012	EQmyp	-7.234E-14	4.008E-13	0.	0.	0.	0.
1012	EQmyn	7.234E-14	-4.008E-13	0.	0.	0.	0.
1013	RSX	5.562E-10	5.365E-10	0.	0.	0.	0.
1013	RSY	6.225E-09	5.512E-09	0.	0.	0.	0.
1013	EQmxp	-1.184E-12	6.310E-16	0.	0.	0.	0.
1013	EQmxn	1.184E-12	-6.310E-16	0.	0.	0.	0.
1013	EQmyp	-2.798E-13	-8.792E-12	0.	0.	0.	0.
1013	EQmyn	2.798E-13	8.792E-12	0.	0.	0.	0.
1014	RSX	5.569E-10	5.631E-10	0.	0.	0.	0.
1014	RSY	6.529E-09	5.379E-09	0.	0.	0.	0.
1014	EQmxp	-1.350E-12	9.099E-16	0.	0.	0.	0.
1014	EQmxn	1.350E-12	-9.099E-16	0.	0.	0.	0.
1014	EQmyp	-3.185E-13	-1.129E-11	0.	0.	0.	0.
1014	EQmyn	3.185E-13	1.129E-11	0.	0.	0.	0.
1015	RSX	5.720E-10	5.872E-10	0.	0.	0.	0.
1015	RSY	6.684E-09	5.578E-09	0.	0.	0.	0.
1015	EQmxp	-1.127E-12	8.385E-16	0.	0.	0.	0.
1015	EQmxn	1.127E-12	-8.385E-16	0.	0.	0.	0.
1015	EQmyp	-2.658E-13	-9.949E-12	0.	0.	0.	0.
1015	EQmyn	2.658E-13	9.949E-12	0.	0.	0.	0.
1016	RSX	6.235E-10	5.814E-10	0.	0.	0.	0.
1016	RSY	6.758E-09	5.936E-09	0.	0.	0.	0.
1016	EQmxp	-7.668E-13	6.141E-16	0.	0.	0.	0.
1016	EQmxn	7.668E-13	-6.141E-16	0.	0.	0.	0.
1016	EQmyp	-1.808E-13	-7.059E-12	0.	0.	0.	0.
1016	EQmyn	1.808E-13	7.059E-12	0.	0.	0.	0.
1017	RSX	6.739E-10	5.618E-10	0.	0.	0.	0.
1017	RSY	6.585E-09	6.462E-09	0.	0.	0.	0.
1017	EQmxp	-4.238E-13	3.684E-16	0.	0.	0.	0.
1017	EQmxn	4.238E-13	-3.684E-16	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1017	EQmyp	-9.990E-14	-4.095E-12	0.	0.	0.	0.
1017	EQmyn	9.990E-14	4.095E-12	0.	0.	0.	0.
1018	RSX	7.058E-10	5.341E-10	0.	0.	0.	0.
1018	RSY	6.535E-09	6.855E-09	0.	0.	0.	0.
1018	EQmxp	-1.689E-13	1.703E-16	0.	0.	0.	0.
1018	EQmxn	1.689E-13	-1.703E-16	0.	0.	0.	0.
1018	EQmyp	-3.978E-14	-1.788E-12	0.	0.	0.	0.
1018	EQmyn	3.978E-14	1.788E-12	0.	0.	0.	0.
1019	RSX	7.182E-10	5.258E-10	0.	0.	0.	0.
1019	RSY	6.857E-09	7.281E-09	0.	0.	0.	0.
1019	EQmxp	-1.536E-14	4.136E-17	0.	0.	0.	0.
1019	EQmxn	1.536E-14	-4.136E-17	0.	0.	0.	0.
1019	EQmyp	-3.580E-15	-3.347E-13	0.	0.	0.	0.
1019	EQmyn	3.580E-15	3.347E-13	0.	0.	0.	0.
1020	RSX	7.163E-10	5.371E-10	0.	0.	0.	0.
1020	RSY	7.065E-09	7.404E-09	0.	0.	0.	0.
1020	EQmxp	5.499E-14	-2.486E-17	0.	0.	0.	0.
1020	EQmxn	-5.499E-14	2.486E-17	0.	0.	0.	0.
1020	EQmyp	1.300E-14	3.787E-13	0.	0.	0.	0.
1020	EQmyn	-1.300E-14	-3.787E-13	0.	0.	0.	0.
1021	RSX	6.932E-10	5.451E-10	0.	0.	0.	0.
1021	RSY	7.519E-09	7.236E-09	0.	0.	0.	0.
1021	EQmxp	7.090E-14	-4.673E-17	0.	0.	0.	0.
1021	EQmxn	-7.090E-14	4.673E-17	0.	0.	0.	0.
1021	EQmyp	1.673E-14	5.859E-13	0.	0.	0.	0.
1021	EQmyn	-1.673E-14	-5.859E-13	0.	0.	0.	0.
1022	RSX	6.493E-10	5.289E-10	0.	0.	0.	0.
1022	RSY	8.084E-09	7.161E-09	0.	0.	0.	0.
1022	EQmxp	5.903E-14	-4.370E-17	0.	0.	0.	0.
1022	EQmxn	-5.903E-14	4.370E-17	0.	0.	0.	0.
1022	EQmyp	1.392E-14	5.196E-13	0.	0.	0.	0.
1022	EQmyn	-1.392E-14	-5.196E-13	0.	0.	0.	0.
1023	RSX	5.994E-10	5.052E-10	0.	0.	0.	0.
1023	RSY	8.460E-09	7.486E-09	0.	0.	0.	0.
1023	EQmxp	3.833E-14	-3.077E-17	0.	0.	0.	0.
1023	EQmxn	-3.833E-14	3.077E-17	0.	0.	0.	0.
1023	EQmyp	9.040E-15	3.533E-13	0.	0.	0.	0.
1023	EQmyn	-9.040E-15	-3.533E-13	0.	0.	0.	0.
1024	RSX	5.736E-10	4.960E-10	0.	0.	0.	0.
1024	RSY	9.026E-09	7.661E-09	0.	0.	0.	0.
1024	EQmxp	1.943E-14	-1.710E-17	0.	0.	0.	0.
1024	EQmxn	-1.943E-14	1.710E-17	0.	0.	0.	0.
1024	EQmyp	4.580E-15	1.891E-13	0.	0.	0.	0.
1024	EQmyn	-4.580E-15	-1.891E-13	0.	0.	0.	0.
1025	RSX	5.629E-10	5.105E-10	0.	0.	0.	0.
1025	RSY	9.524E-09	7.326E-09	0.	0.	0.	0.
1025	EQmxp	6.412E-15	-6.839E-18	0.	0.	0.	0.
1025	EQmxn	-6.412E-15	6.839E-18	0.	0.	0.	0.
1025	EQmyp	1.510E-15	7.036E-14	0.	0.	0.	0.
1025	EQmyn	-1.510E-15	-7.036E-14	0.	0.	0.	0.
1026	RSX	5.293E-10	5.276E-10	0.	0.	0.	0.
1026	RSY	9.605E-09	7.155E-09	0.	0.	0.	0.
1026	EQmxp	-5.854E-16	-8.206E-19	0.	0.	0.	0.
1026	EQmxn	5.854E-16	8.206E-19	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1026	EQmyp	-1.399E-16	3.186E-15	0.	0.	0.	0.
1026	EQmyn	1.399E-16	-3.186E-15	0.	0.	0.	0.
1027	RSX	4.856E-10	5.318E-10	0.	0.	0.	0.
1027	RSY	9.148E-09	7.423E-09	0.	0.	0.	0.
1027	EQmxp	-3.169E-15	1.782E-18	0.	0.	0.	0.
1027	EQmxn	3.169E-15	-1.782E-18	0.	0.	0.	0.
1027	EQmyp	-7.484E-16	-2.415E-14	0.	0.	0.	0.
1027	EQmyn	7.484E-16	2.415E-14	0.	0.	0.	0.
1028	RSX	4.535E-10	5.175E-10	0.	0.	0.	0.
1028	RSY	8.642E-09	7.751E-09	0.	0.	0.	0.
1028	EQmxp	-3.246E-15	2.272E-18	0.	0.	0.	0.
1028	EQmxn	3.246E-15	-2.272E-18	0.	0.	0.	0.
1028	EQmyp	-7.660E-16	-2.770E-14	0.	0.	0.	0.
1028	EQmyn	7.660E-16	2.770E-14	0.	0.	0.	0.
1029	RSX	4.358E-10	5.152E-10	0.	0.	0.	0.
1029	RSY	7.854E-09	7.531E-09	0.	0.	0.	0.
1029	EQmxp	-2.312E-15	1.785E-18	0.	0.	0.	0.
1029	EQmxn	2.312E-15	-1.785E-18	0.	0.	0.	0.
1029	EQmyp	-5.452E-16	-2.084E-14	0.	0.	0.	0.
1029	EQmyn	5.452E-16	2.084E-14	0.	0.	0.	0.
1030	RSX	4.466E-10	5.103E-10	0.	0.	0.	0.
1030	RSY	7.389E-09	6.812E-09	0.	0.	0.	0.
1030	EQmxp	-1.260E-15	1.062E-18	0.	0.	0.	0.
1030	EQmxn	1.260E-15	-1.062E-18	0.	0.	0.	0.
1030	EQmyp	-2.970E-16	-1.195E-14	0.	0.	0.	0.
1030	EQmyn	2.970E-16	1.195E-14	0.	0.	0.	0.
1031	RSX	4.693E-10	5.305E-10	0.	0.	0.	0.
1031	RSY	7.383E-09	5.831E-09	0.	0.	0.	0.
1031	EQmxp	-4.800E-16	4.656E-19	0.	0.	0.	0.
1031	EQmxn	4.800E-16	-4.656E-19	0.	0.	0.	0.
1031	EQmyp	-1.131E-16	-4.959E-15	0.	0.	0.	0.
1031	EQmyn	1.131E-16	4.959E-15	0.	0.	0.	0.
1032	RSX	4.989E-10	5.715E-10	0.	0.	0.	0.
1032	RSY	7.629E-09	5.316E-09	0.	0.	0.	0.
1032	EQmxp	-4.210E-17	1.002E-19	0.	0.	0.	0.
1032	EQmxn	4.210E-17	-1.002E-19	0.	0.	0.	0.
1032	EQmyp	-9.830E-18	-8.297E-16	0.	0.	0.	0.
1032	EQmyn	9.830E-18	8.297E-16	0.	0.	0.	0.
1033	RSX	5.106E-10	5.966E-10	0.	0.	0.	0.
1033	RSY	8.021E-09	5.570E-09	0.	0.	0.	0.
1033	EQmxp	1.313E-16	-6.510E-20	0.	0.	0.	0.
1033	EQmxn	-1.313E-16	6.510E-20	0.	0.	0.	0.
1033	EQmyp	3.103E-17	9.425E-16	0.	0.	0.	0.
1033	EQmyn	-3.103E-17	-9.425E-16	0.	0.	0.	0.
1034	RSX	4.897E-10	5.762E-10	0.	0.	0.	0.
1034	RSY	8.549E-09	6.751E-09	0.	0.	0.	0.
1034	EQmxp	1.520E-16	-1.040E-19	0.	0.	0.	0.
1034	EQmxn	-1.520E-16	1.040E-19	0.	0.	0.	0.
1034	EQmyp	3.587E-17	1.282E-15	0.	0.	0.	0.
1034	EQmyn	-3.587E-17	-1.282E-15	0.	0.	0.	0.
1035	RSX	4.577E-10	5.520E-10	0.	0.	0.	0.
1035	RSY	8.700E-09	8.709E-09	0.	0.	0.	0.
1035	EQmxp	1.100E-16	-8.416E-20	0.	0.	0.	0.
1035	EQmxn	-1.100E-16	8.416E-20	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1035	EQmyp	2.596E-17	9.867E-16	0.	0.	0.	0.
1035	EQmyn	-2.596E-17	-9.867E-16	0.	0.	0.	0.
1036	RSX	4.450E-10	5.739E-10	0.	0.	0.	0.
1036	RSY	8.066E-09	1.075E-08	0.	0.	0.	0.
1036	EQmxp	5.900E-17	-4.945E-20	0.	0.	0.	0.
1036	EQmxn	-5.900E-17	4.945E-20	0.	0.	0.	0.
1036	EQmyp	1.391E-17	5.578E-16	0.	0.	0.	0.
1036	EQmyn	-1.391E-17	-5.578E-16	0.	0.	0.	0.
1037	RSX	4.691E-10	5.675E-10	0.	0.	0.	0.
1037	RSY	7.805E-09	1.176E-08	0.	0.	0.	0.
1037	EQmxp	2.153E-17	-2.087E-20	0.	0.	0.	0.
1037	EQmxn	-2.153E-17	2.087E-20	0.	0.	0.	0.
1037	EQmyp	5.073E-18	2.223E-16	0.	0.	0.	0.
1037	EQmyn	-5.073E-18	-2.223E-16	0.	0.	0.	0.
1038	RSX	5.179E-10	5.171E-10	0.	0.	0.	0.
1038	RSY	7.664E-09	1.129E-08	0.	0.	0.	0.
1038	EQmxp	1.472E-18	0.	0.	0.	0.	0.
1038	EQmxn	-1.472E-18	0.	0.	0.	0.	0.
1038	EQmyp	3.430E-19	3.268E-17	0.	0.	0.	0.
1038	EQmyn	-3.430E-19	-3.268E-17	0.	0.	0.	0.
1039	RSX	5.082E-10	4.560E-10	0.	0.	0.	0.
1039	RSY	7.536E-09	9.375E-09	0.	0.	0.	0.
1039	EQmxp	-5.555E-18	0.	0.	0.	0.	0.
1039	EQmxn	5.555E-18	0.	0.	0.	0.	0.
1039	EQmyp	-1.312E-18	-4.034E-17	0.	0.	0.	0.
1039	EQmyn	1.312E-18	4.034E-17	0.	0.	0.	0.
1040	RSX	5.415E-10	4.516E-10	0.	0.	0.	0.
1040	RSY	7.576E-09	7.487E-09	0.	0.	0.	0.
1040	EQmxp	-6.553E-18	0.	0.	0.	0.	0.
1040	EQmxn	6.553E-18	0.	0.	0.	0.	0.
1040	EQmyp	-1.546E-18	-5.535E-17	0.	0.	0.	0.
1040	EQmyn	1.546E-18	5.535E-17	0.	0.	0.	0.
1041	RSX	6.475E-10	5.469E-10	0.	0.	0.	0.
1041	RSY	8.394E-09	6.413E-09	0.	0.	0.	0.
1041	EQmxp	-5.478E-18	0.	0.	0.	0.	0.
1041	EQmxn	5.478E-18	0.	0.	0.	0.	0.
1041	EQmyp	-1.292E-18	-4.935E-17	0.	0.	0.	0.
1041	EQmyn	1.292E-18	4.935E-17	0.	0.	0.	0.
1042	RSX	5.776E-10	5.475E-10	0.	0.	0.	0.
1042	RSY	7.345E-09	5.685E-09	0.	0.	0.	0.
1042	EQmxp	-2.433E-18	0.	0.	0.	0.	0.
1042	EQmxn	2.433E-18	0.	0.	0.	0.	0.
1042	EQmyp	-5.734E-19	-2.364E-17	0.	0.	0.	0.
1042	EQmyn	5.734E-19	2.364E-17	0.	0.	0.	0.
1043	RSX	4.683E-10	5.107E-10	0.	0.	0.	0.
1043	RSY	7.389E-09	7.314E-09	0.	0.	0.	0.
1043	EQmxp	-1.725E-19	0.	0.	0.	0.	0.
1043	EQmxn	1.725E-19	0.	0.	0.	0.	0.
1043	EQmyp	-4.035E-20	-3.070E-18	0.	0.	0.	0.
1043	EQmyn	4.035E-20	3.070E-18	0.	0.	0.	0.
1044	RSX	4.902E-10	5.420E-10	0.	0.	0.	0.
1044	RSY	7.715E-09	8.485E-09	0.	0.	0.	0.
1044	EQmxp	5.973E-19	0.	0.	0.	0.	0.
1044	EQmxn	-5.973E-19	0.	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1044	EQmyp	1.410E-19	4.698E-18	0.	0.	0.	0.
1044	EQmyn	-1.410E-19	-4.698E-18	0.	0.	0.	0.
1045	RSX	5.388E-10	6.421E-10	0.	0.	0.	0.
1045	RSY	7.523E-09	8.609E-09	0.	0.	0.	0.
1045	EQmxp	4.870E-19	0.	0.	0.	0.	0.
1045	EQmxn	-4.870E-19	0.	0.	0.	0.	0.
1045	EQmyp	1.149E-19	4.289E-18	0.	0.	0.	0.
1045	EQmyn	-1.149E-19	-4.289E-18	0.	0.	0.	0.
1046	RSX	5.247E-10	6.736E-10	0.	0.	0.	0.
1046	RSY	8.425E-09	8.206E-09	0.	0.	0.	0.
1046	EQmxp	1.722E-19	0.	0.	0.	0.	0.
1046	EQmxn	-1.722E-19	0.	0.	0.	0.	0.
1046	EQmyp	4.060E-20	1.669E-18	0.	0.	0.	0.
1046	EQmyn	-4.060E-20	-1.669E-18	0.	0.	0.	0.
1047	RSX	2.078E-10	3.635E-10	0.	0.	0.	0.
1047	RSY	5.458E-09	4.545E-09	0.	0.	0.	0.
1047	EQmxp	-6.195E-20	0.	0.	0.	0.	0.
1047	EQmxn	6.195E-20	0.	0.	0.	0.	0.
1047	EQmyp	-1.463E-20	-4.682E-19	0.	0.	0.	0.
1047	EQmyn	1.463E-20	4.682E-19	0.	0.	0.	0.
1048	RSX	0.01	4.087E-04	0.	0.	0.	0.
1048	RSY	1.156E-03	0.014	0.	0.	0.	0.
1048	EQmxp	-0.016	-6.870E-04	0.	0.	0.	0.
1048	EQmxn	0.016	6.870E-04	0.	0.	0.	0.
1048	EQmyp	-4.918E-03	-0.06	0.	0.	0.	0.
1048	EQmyn	4.918E-03	0.06	0.	0.	0.	0.
1049	RSX	8.938E-03	4.839E-04	0.	0.	0.	0.
1049	RSY	1.081E-03	0.012	0.	0.	0.	0.
1049	EQmxp	-0.014	-8.020E-04	0.	0.	0.	0.
1049	EQmxn	0.014	8.020E-04	0.	0.	0.	0.
1049	EQmyp	-4.659E-03	-0.052	0.	0.	0.	0.
1049	EQmyn	4.659E-03	0.052	0.	0.	0.	0.
1050	RSX	0.019	2.730E-04	7.474E-19	0.	0.	0.
1050	RSY	1.262E-03	0.027	1.223E-18	0.	0.	0.
1050	EQmxp	-0.029	1.941E-05	-8.674E-19	0.	0.	0.
1050	EQmxn	0.029	-1.941E-05	8.674E-19	0.	0.	0.
1050	EQmyp	-3.626E-03	-0.117	0.	0.	0.	0.
1050	EQmyn	3.626E-03	0.117	0.	0.	0.	0.
1051	RSX	0.021	2.985E-04	7.575E-19	0.	0.	0.
1051	RSY	1.369E-03	0.029	2.005E-18	0.	0.	0.
1051	EQmxp	-0.031	2.761E-05	0.	0.	0.	0.
1051	EQmxn	0.031	-2.761E-05	0.	0.	0.	0.
1051	EQmyp	-3.936E-03	-0.127	-1.041E-17	0.	0.	0.
1051	EQmyn	3.936E-03	0.127	1.041E-17	0.	0.	0.
1052	RSX	0.021	3.116E-04	1.781E-20	0.	0.	0.
1052	RSY	1.417E-03	0.03	9.105E-19	0.	0.	0.
1052	EQmxp	-0.032	3.603E-05	1.735E-18	0.	0.	0.
1052	EQmxn	0.032	-3.603E-05	-1.735E-18	0.	0.	0.
1052	EQmyp	-4.073E-03	-0.131	-6.939E-18	0.	0.	0.
1052	EQmyn	4.073E-03	0.131	6.939E-18	0.	0.	0.
1053	RSX	0.021	3.141E-04	0.	0.	0.	0.
1053	RSY	1.414E-03	0.03	8.057E-19	0.	0.	0.
1053	EQmxp	-0.032	4.440E-05	-3.469E-18	0.	0.	0.
1053	EQmxn	0.032	-4.440E-05	3.469E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1053	EQmyp	-4.065E-03	-0.131	-6.939E-18	0.	0.	0.
1053	EQmyn	4.065E-03	0.131	6.939E-18	0.	0.	0.
1054	RSX	0.021	3.072E-04	1.485E-18	0.	0.	0.
1054	RSY	1.366E-03	0.029	1.221E-18	0.	0.	0.
1054	EQmxp	-0.031	5.252E-05	0.	0.	0.	0.
1054	EQmxn	0.031	-5.252E-05	0.	0.	0.	0.
1054	EQmyp	-3.928E-03	-0.126	0.	0.	0.	0.
1054	EQmyn	3.928E-03	0.126	0.	0.	0.	0.
1055	RSX	0.019	2.803E-04	7.291E-19	0.	0.	0.
1055	RSY	1.227E-03	0.026	1.217E-18	0.	0.	0.
1055	EQmxp	-0.028	5.789E-05	8.674E-19	0.	0.	0.
1055	EQmxn	0.028	-5.789E-05	-8.674E-19	0.	0.	0.
1055	EQmyp	-3.530E-03	-0.113	3.469E-18	0.	0.	0.
1055	EQmyn	3.530E-03	0.113	-3.469E-18	0.	0.	0.
1056	RSX	0.015	2.323E-04	7.426E-19	0.	0.	0.
1056	RSY	9.968E-04	0.021	9.206E-19	0.	0.	0.
1056	EQmxp	-0.023	5.841E-05	8.674E-19	0.	0.	0.
1056	EQmxn	0.023	-5.841E-05	-8.674E-19	0.	0.	0.
1056	EQmyp	-2.867E-03	-0.092	3.469E-18	0.	0.	0.
1056	EQmyn	2.867E-03	0.092	-3.469E-18	0.	0.	0.
1057	RSX	0.012	1.873E-04	7.429E-19	0.	0.	0.
1057	RSY	7.802E-04	0.016	9.174E-19	0.	0.	0.
1057	EQmxp	-0.018	5.841E-05	0.	0.	0.	0.
1057	EQmxn	0.018	-5.841E-05	0.	0.	0.	0.
1057	EQmyp	-2.245E-03	-0.072	0.	0.	0.	0.
1057	EQmyn	2.245E-03	0.072	0.	0.	0.	0.
1058	RSX	8.875E-03	1.446E-04	7.444E-19	0.	0.	0.
1058	RSY	5.740E-04	0.012	6.780E-19	0.	0.	0.
1058	EQmxp	-0.013	5.796E-05	1.301E-18	0.	0.	0.
1058	EQmxn	0.013	-5.796E-05	-1.301E-18	0.	0.	0.
1058	EQmyp	-1.652E-03	-0.052	1.735E-18	0.	0.	0.
1058	EQmyn	1.652E-03	0.052	-1.735E-18	0.	0.	0.
1059	RSX	5.722E-03	1.012E-04	7.392E-19	0.	0.	0.
1059	RSY	3.650E-04	7.710E-03	6.101E-19	0.	0.	0.
1059	EQmxp	-8.059E-03	5.557E-05	-1.518E-18	0.	0.	0.
1059	EQmxn	8.059E-03	-5.557E-05	1.518E-18	0.	0.	0.
1059	EQmyp	-1.051E-03	-0.033	0.	0.	0.	0.
1059	EQmyn	1.051E-03	0.033	0.	0.	0.	0.
1060	RSX	2.704E-03	6.061E-05	9.277E-19	0.	0.	0.
1060	RSY	1.657E-04	3.492E-03	9.808E-19	0.	0.	0.
1060	EQmxp	-3.506E-03	5.128E-05	-2.060E-18	0.	0.	0.
1060	EQmxn	3.506E-03	-5.128E-05	2.060E-18	0.	0.	0.
1060	EQmyp	-4.776E-04	-0.014	-3.036E-18	0.	0.	0.
1060	EQmyn	4.776E-04	0.014	3.036E-18	0.	0.	0.
1061	RSX	2.217E-05	3.144E-05	6.462E-19	0.	0.	0.
1061	RSY	1.401E-05	3.228E-04	6.062E-19	0.	0.	0.
1061	EQmxp	5.297E-04	4.667E-05	1.382E-18	0.	0.	0.
1061	EQmxn	-5.297E-04	-4.667E-05	-1.382E-18	0.	0.	0.
1061	EQmyp	3.121E-05	1.941E-03	-9.216E-19	0.	0.	0.
1061	EQmyn	-3.121E-05	-1.941E-03	9.216E-19	0.	0.	0.
1062	RSX	2.350E-03	3.360E-05	1.568E-18	0.	0.	0.
1062	RSY	1.680E-04	3.572E-03	1.316E-19	0.	0.	0.
1062	EQmxp	4.089E-03	4.185E-05	-9.758E-19	0.	0.	0.
1062	EQmxn	-4.089E-03	-4.185E-05	9.758E-19	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1062	EQmyp	4.806E-04	0.016	8.674E-19	0.	0.	0.
1062	EQmyn	-4.806E-04	-0.016	-8.674E-19	0.	0.	0.
1063	RSX	4.441E-03	5.702E-05	5.547E-19	0.	0.	0.
1063	RSY	3.056E-04	6.482E-03	6.181E-19	0.	0.	0.
1063	EQmxp	7.219E-03	3.688E-05	4.337E-19	0.	0.	0.
1063	EQmxn	-7.219E-03	-3.688E-05	-4.337E-19	0.	0.	0.
1063	EQmyp	8.763E-04	0.029	-1.735E-18	0.	0.	0.
1063	EQmyn	-8.763E-04	-0.029	1.735E-18	0.	0.	0.
1064	RSX	6.294E-03	8.204E-05	2.037E-18	0.	0.	0.
1064	RSY	4.272E-04	9.057E-03	8.014E-19	0.	0.	0.
1064	EQmxp	9.983E-03	3.185E-05	1.735E-18	0.	0.	0.
1064	EQmxn	-9.983E-03	-3.185E-05	-1.735E-18	0.	0.	0.
1064	EQmyp	1.226E-03	0.04	0.	0.	0.	0.
1064	EQmyn	-1.226E-03	-0.04	0.	0.	0.	0.
1065	RSX	6.338E-03	8.416E-05	9.291E-19	0.	0.	0.
1065	RSY	4.271E-04	9.051E-03	7.879E-19	0.	0.	0.
1065	EQmxp	9.920E-03	2.131E-05	-8.674E-19	0.	0.	0.
1065	EQmxn	-9.920E-03	-2.131E-05	8.674E-19	0.	0.	0.
1065	EQmyp	1.226E-03	0.04	-1.735E-18	0.	0.	0.
1065	EQmyn	-1.226E-03	-0.04	1.735E-18	0.	0.	0.
1066	RSX	7.278E-03	9.815E-05	1.808E-19	0.	0.	0.
1066	RSY	4.882E-04	0.01	4.549E-19	0.	0.	0.
1066	EQmxp	0.011	1.648E-05	0.	0.	0.	0.
1066	EQmxn	-0.011	-1.648E-05	0.	0.	0.	0.
1066	EQmyp	1.402E-03	0.046	-1.735E-18	0.	0.	0.
1066	EQmyn	-1.402E-03	-0.046	1.735E-18	0.	0.	0.
1067	RSX	8.065E-03	1.102E-04	7.339E-19	0.	0.	0.
1067	RSY	5.391E-04	0.011	4.581E-19	0.	0.	0.
1067	EQmxp	0.012	1.163E-05	-1.301E-18	0.	0.	0.
1067	EQmxn	-0.012	-1.163E-05	1.301E-18	0.	0.	0.
1067	EQmyp	1.548E-03	0.05	3.469E-18	0.	0.	0.
1067	EQmyn	-1.548E-03	-0.05	-3.469E-18	0.	0.	0.
1068	RSX	8.909E-03	1.233E-04	1.475E-18	0.	0.	0.
1068	RSY	5.937E-04	0.013	2.395E-18	0.	0.	0.
1068	EQmxp	0.014	6.512E-06	-9.975E-18	0.	0.	0.
1068	EQmxn	-0.014	-6.512E-06	9.975E-18	0.	0.	0.
1068	EQmyp	1.705E-03	0.055	-3.469E-18	0.	0.	0.
1068	EQmyn	-1.705E-03	-0.055	3.469E-18	0.	0.	0.
1069	RSX	0.011	1.488E-04	4.827E-18	0.	0.	0.
1069	RSY	7.049E-04	0.015	7.499E-18	0.	0.	0.
1069	EQmxp	0.016	-4.805E-09	-1.388E-17	0.	0.	0.
1069	EQmxn	-0.016	4.805E-09	1.388E-17	0.	0.	0.
1069	EQmyp	2.025E-03	0.066	-2.776E-17	0.	0.	0.
1069	EQmyn	-2.025E-03	-0.066	2.776E-17	0.	0.	0.
1070	RSX	0.026	3.767E-04	3.686E-18	0.	0.	0.
1070	RSY	1.743E-03	0.037	1.281E-17	0.	0.	0.
1070	EQmxp	0.04	-2.500E-05	-6.939E-18	0.	0.	0.
1070	EQmxn	-0.04	2.500E-05	6.939E-18	0.	0.	0.
1070	EQmyp	5.009E-03	0.162	-4.857E-17	0.	0.	0.
1070	EQmyn	-5.009E-03	-0.162	4.857E-17	0.	0.	0.
1071	RSX	6.099E-03	9.031E-05	8.890E-18	0.	0.	0.
1071	RSY	4.006E-04	8.477E-03	1.028E-17	0.	0.	0.
1071	EQmxp	9.099E-03	-1.572E-05	-2.472E-17	0.	0.	0.
1071	EQmxn	-9.099E-03	1.572E-05	2.472E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1071	EQmyp	1.151E-03	0.037	-5.725E-17	0.	0.	0.
1071	EQmyn	-1.151E-03	-0.037	5.725E-17	0.	0.	0.
1072	RSX	1.694E-03	2.786E-05	1.265E-17	0.	0.	0.
1072	RSY	1.092E-04	2.308E-03	3.367E-18	0.	0.	0.
1072	EQmxp	2.437E-03	-1.168E-05	2.168E-18	0.	0.	0.
1072	EQmxn	-2.437E-03	1.168E-05	-2.168E-18	0.	0.	0.
1072	EQmyp	3.140E-04	9.943E-03	1.995E-17	0.	0.	0.
1072	EQmyn	-3.140E-04	-9.943E-03	-1.995E-17	0.	0.	0.
1073	RSX	7.571E-05	7.127E-06	7.860E-18	0.	0.	0.
1073	RSY	2.768E-06	5.951E-05	9.661E-18	0.	0.	0.
1073	EQmxp	-7.424E-06	-9.880E-06	1.333E-17	0.	0.	0.
1073	EQmxn	7.424E-06	9.880E-06	-1.333E-17	0.	0.	0.
1073	EQmyp	6.506E-06	1.417E-05	2.745E-17	0.	0.	0.
1073	EQmyn	-6.506E-06	-1.417E-05	-2.745E-17	0.	0.	0.
1074	RSX	7.686E-04	9.972E-06	1.470E-17	0.	0.	0.
1074	RSY	5.356E-05	1.137E-03	7.668E-18	0.	0.	0.
1074	EQmxp	-1.278E-03	-8.592E-06	-1.881E-17	0.	0.	0.
1074	EQmxn	1.278E-03	8.592E-06	1.881E-17	0.	0.	0.
1074	EQmyp	-1.536E-04	-5.148E-03	-5.096E-17	0.	0.	0.
1074	EQmyn	1.536E-04	5.148E-03	5.096E-17	0.	0.	0.
1075	RSX	1.245E-03	1.612E-05	9.205E-18	0.	0.	0.
1075	RSY	8.482E-05	1.798E-03	5.517E-18	0.	0.	0.
1075	EQmxp	-1.988E-03	-7.346E-06	-1.865E-17	0.	0.	0.
1075	EQmxn	1.988E-03	7.346E-06	1.865E-17	0.	0.	0.
1075	EQmyp	-2.434E-04	-8.036E-03	-6.072E-17	0.	0.	0.
1075	EQmyn	2.434E-04	8.036E-03	6.072E-17	0.	0.	0.
1076	RSX	1.490E-03	1.962E-05	1.840E-18	0.	0.	0.
1076	RSY	1.008E-04	2.136E-03	6.126E-19	0.	0.	0.
1076	EQmxp	-2.346E-03	-6.096E-06	-4.012E-18	0.	0.	0.
1076	EQmxn	2.346E-03	6.096E-06	4.012E-18	0.	0.	0.
1076	EQmyp	-2.893E-04	-9.497E-03	-8.674E-18	0.	0.	0.
1076	EQmyn	2.893E-04	9.497E-03	8.674E-18	0.	0.	0.
1077	RSX	1.575E-03	2.100E-05	5.429E-18	0.	0.	0.
1077	RSY	1.060E-04	2.247E-03	3.407E-18	0.	0.	0.
1077	EQmxp	-2.460E-03	-4.852E-06	2.168E-18	0.	0.	0.
1077	EQmxn	2.460E-03	4.852E-06	-2.168E-18	0.	0.	0.
1077	EQmyp	-3.045E-04	-9.965E-03	5.204E-18	0.	0.	0.
1077	EQmyn	3.045E-04	9.965E-03	-5.204E-18	0.	0.	0.
1078	RSX	1.542E-03	2.076E-05	7.715E-18	0.	0.	0.
1078	RSY	1.035E-04	2.192E-03	2.884E-18	0.	0.	0.
1078	EQmxp	-2.394E-03	-3.631E-06	1.084E-17	0.	0.	0.
1078	EQmxn	2.394E-03	3.631E-06	-1.084E-17	0.	0.	0.
1078	EQmyp	-2.971E-04	-9.700E-03	3.643E-17	0.	0.	0.
1078	EQmyn	2.971E-04	9.700E-03	-3.643E-17	0.	0.	0.
1079	RSX	1.421E-03	1.933E-05	9.746E-18	0.	0.	0.
1079	RSY	9.510E-05	2.014E-03	3.868E-18	0.	0.	0.
1079	EQmxp	-2.195E-03	-2.461E-06	-1.084E-18	0.	0.	0.
1079	EQmxn	2.195E-03	2.461E-06	1.084E-18	0.	0.	0.
1079	EQmyp	-2.731E-04	-8.901E-03	-1.952E-17	0.	0.	0.
1079	EQmyn	2.731E-04	8.901E-03	1.952E-17	0.	0.	0.
1080	RSX	1.240E-03	1.705E-05	1.245E-17	0.	0.	0.
1080	RSY	8.275E-05	1.753E-03	6.958E-18	0.	0.	0.
1080	EQmxp	-1.906E-03	-1.363E-06	3.090E-18	0.	0.	0.
1080	EQmxn	1.906E-03	1.363E-06	-3.090E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1080	EQmyp	-2.376E-04	-7.729E-03	5.269E-17	0.	0.	0.
1080	EQmyn	2.376E-04	7.729E-03	-5.269E-17	0.	0.	0.
1081	RSX	7.060E-04	9.836E-06	8.898E-18	0.	0.	0.
1081	RSY	4.695E-05	9.941E-04	4.659E-18	0.	0.	0.
1081	EQmxp	-1.078E-03	-2.435E-07	1.653E-17	0.	0.	0.
1081	EQmxn	1.078E-03	2.435E-07	-1.653E-17	0.	0.	0.
1081	EQmyp	-1.348E-04	-4.375E-03	-1.366E-17	0.	0.	0.
1081	EQmyn	1.348E-04	4.375E-03	1.366E-17	0.	0.	0.
1082	RSX	4.841E-04	6.890E-06	4.388E-17	0.	0.	0.
1082	RSY	3.203E-05	6.781E-04	2.678E-17	0.	0.	0.
1082	EQmxp	-7.324E-04	3.632E-07	7.335E-17	0.	0.	0.
1082	EQmxn	7.324E-04	-3.632E-07	-7.335E-17	0.	0.	0.
1082	EQmyp	-9.200E-05	-2.975E-03	1.142E-16	0.	0.	0.
1082	EQmyn	9.200E-05	2.975E-03	-1.142E-16	0.	0.	0.
1083	RSX	2.676E-04	3.997E-06	2.095E-17	0.	0.	0.
1083	RSY	1.753E-05	3.710E-04	2.645E-17	0.	0.	0.
1083	EQmxp	-3.974E-04	7.929E-07	-2.534E-18	0.	0.	0.
1083	EQmxn	3.974E-04	-7.929E-07	2.534E-18	0.	0.	0.
1083	EQmyp	-5.037E-05	-1.617E-03	-2.374E-17	0.	0.	0.
1083	EQmyn	5.037E-05	1.617E-03	2.374E-17	0.	0.	0.
1084	RSX	6.092E-05	1.310E-06	1.541E-17	0.	0.	0.
1084	RSY	3.735E-06	7.877E-05	2.418E-17	0.	0.	0.
1084	EQmxp	-7.934E-05	1.054E-06	-9.530E-17	0.	0.	0.
1084	EQmxn	7.934E-05	-1.054E-06	9.530E-17	0.	0.	0.
1084	EQmyp	-1.073E-05	-3.268E-04	-6.214E-17	0.	0.	0.
1084	EQmyn	1.073E-05	3.268E-04	6.214E-17	0.	0.	0.
1085	RSX	7.080E-04	9.270E-06	8.164E-16	0.	0.	0.
1085	RSY	4.798E-05	1.017E-03	3.765E-16	0.	0.	0.
1085	EQmxp	1.119E-03	3.253E-06	9.053E-16	0.	0.	0.
1085	EQmxn	-1.119E-03	-3.253E-06	-9.053E-16	0.	0.	0.
1085	EQmyp	1.377E-04	4.529E-03	8.966E-16	0.	0.	0.
1085	EQmyn	-1.377E-04	-4.529E-03	-8.966E-16	0.	0.	0.
1086	RSX	1.786E-04	2.513E-06	1.847E-16	0.	0.	0.
1086	RSY	1.185E-05	2.508E-04	4.988E-17	0.	0.	0.
1086	EQmxp	2.715E-04	-3.065E-08	3.051E-17	0.	0.	0.
1086	EQmxn	-2.715E-04	3.065E-08	-3.051E-17	0.	0.	0.
1086	EQmyp	3.403E-05	1.102E-03	-3.502E-17	0.	0.	0.
1086	EQmyn	-3.403E-05	-1.102E-03	3.502E-17	0.	0.	0.
1087	RSX	1.110E-04	1.621E-06	2.282E-17	0.	0.	0.
1087	RSY	7.303E-06	1.546E-04	5.677E-17	0.	0.	0.
1087	EQmxp	1.662E-04	-2.194E-07	-7.943E-17	0.	0.	0.
1087	EQmxn	-1.662E-04	2.194E-07	7.943E-17	0.	0.	0.
1087	EQmyp	2.098E-05	6.756E-04	9.568E-18	0.	0.	0.
1087	EQmyn	-2.098E-05	-6.756E-04	-9.568E-18	0.	0.	0.
1088	RSX	6.319E-05	9.563E-07	1.071E-17	0.	0.	0.
1088	RSY	4.129E-06	8.735E-05	7.704E-18	0.	0.	0.
1088	EQmxp	9.336E-05	-2.237E-07	-1.460E-18	0.	0.	0.
1088	EQmxn	-9.336E-05	2.237E-07	1.460E-18	0.	0.	0.
1088	EQmyp	1.186E-05	3.800E-04	8.047E-16	0.	0.	0.
1088	EQmyn	-1.186E-05	-3.800E-04	-8.047E-16	0.	0.	0.
1089	RSX	2.592E-05	4.201E-07	3.036E-16	0.	0.	0.
1089	RSY	1.672E-06	3.536E-05	2.108E-16	0.	0.	0.
1089	EQmxp	3.738E-05	-1.644E-07	-5.329E-16	0.	0.	0.
1089	EQmxn	-3.738E-05	1.644E-07	5.329E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1089	EQmyp	4.805E-06	1.525E-04	-1.385E-15	0.	0.	0.
1089	EQmyn	-4.805E-06	-1.525E-04	1.385E-15	0.	0.	0.
1090	RSX	5.874E-07	5.265E-08	1.024E-16	0.	0.	0.
1090	RSY	6.535E-08	1.424E-06	2.146E-16	0.	0.	0.
1090	EQmxp	-1.953E-06	-8.306E-08	5.710E-16	0.	0.	0.
1090	EQmxn	1.953E-06	8.306E-08	-5.710E-16	0.	0.	0.
1090	EQmyp	-1.821E-07	-7.554E-06	3.964E-16	0.	0.	0.
1090	EQmyn	1.821E-07	7.554E-06	-3.964E-16	0.	0.	0.
1091	RSX	2.015E-05	2.853E-07	2.739E-16	0.	0.	0.
1091	RSY	1.336E-06	2.827E-05	3.475E-16	0.	0.	0.
1091	EQmxp	-3.057E-05	8.883E-09	2.556E-15	0.	0.	0.
1091	EQmxn	3.057E-05	-8.883E-09	-2.556E-15	0.	0.	0.
1091	EQmyp	-3.836E-06	-1.241E-04	6.842E-15	0.	0.	0.
1091	EQmyn	3.836E-06	1.241E-04	-6.842E-15	0.	0.	0.
1092	RSX	6.975E-06	1.111E-07	4.357E-17	0.	0.	0.
1092	RSY	4.517E-07	9.551E-06	2.722E-15	0.	0.	0.
1092	EQmxp	-1.013E-05	3.844E-08	3.120E-15	0.	0.	0.
1092	EQmxn	1.013E-05	-3.844E-08	-3.120E-15	0.	0.	0.
1092	EQmyp	-1.298E-06	-4.129E-05	1.978E-15	0.	0.	0.
1092	EQmyn	1.298E-06	4.129E-05	-1.978E-15	0.	0.	0.
1093	RSX	4.904E-07	7.672E-09	2.126E-15	0.	0.	0.
1093	RSY	3.554E-08	7.520E-07	1.059E-15	0.	0.	0.
1093	EQmxp	8.641E-07	9.269E-09	-5.752E-15	0.	0.	0.
1093	EQmxn	-8.641E-07	-9.269E-09	5.752E-15	0.	0.	0.
1093	EQmyp	1.012E-07	3.466E-06	6.917E-15	0.	0.	0.
1093	EQmyn	-1.012E-07	-3.466E-06	-6.917E-15	0.	0.	0.
1094	RSX	5.632E-07	8.013E-09	6.614E-15	0.	0.	0.
1094	RSY	3.696E-08	7.825E-07	5.689E-15	0.	0.	0.
1094	EQmxp	8.398E-07	-1.315E-09	6.645E-15	0.	0.	0.
1094	EQmxn	-8.398E-07	1.315E-09	-6.645E-15	0.	0.	0.
1094	EQmyp	1.062E-07	3.415E-06	2.653E-14	0.	0.	0.
1094	EQmyn	-1.062E-07	-3.415E-06	-2.653E-14	0.	0.	0.
1095	RSX	1.194E-07	1.828E-09	1.647E-15	0.	0.	0.
1095	RSY	1.326E-08	1.626E-07	4.244E-16	0.	0.	0.
1095	EQmxp	1.713E-07	-7.841E-10	-4.772E-16	0.	0.	0.
1095	EQmxn	-1.713E-07	7.841E-10	4.772E-16	0.	0.	0.
1095	EQmyp	2.205E-08	6.988E-07	-2.759E-15	0.	0.	0.
1095	EQmyn	-2.205E-08	-6.988E-07	2.759E-15	0.	0.	0.
1096	RSX	1.396E-08	2.061E-10	5.814E-15	0.	0.	0.
1096	RSY	5.993E-09	2.004E-08	3.968E-15	0.	0.	0.
1096	EQmxp	-2.183E-08	-9.428E-11	3.162E-15	0.	0.	0.
1096	EQmxn	2.183E-08	9.428E-11	-3.162E-15	0.	0.	0.
1096	EQmyp	-2.666E-09	-8.817E-08	1.472E-14	0.	0.	0.
1096	EQmyn	2.666E-09	8.817E-08	-1.472E-14	0.	0.	0.
1097	RSX	1.352E-08	9.142E-10	3.905E-15	0.	0.	0.
1097	RSY	6.836E-09	2.154E-08	1.891E-15	0.	0.	0.
1097	EQmxp	-1.842E-08	3.576E-11	9.803E-15	0.	0.	0.
1097	EQmxn	1.842E-08	-3.576E-11	-9.803E-15	0.	0.	0.
1097	EQmyp	-2.331E-09	-7.494E-08	1.306E-14	0.	0.	0.
1097	EQmyn	2.331E-09	7.494E-08	-1.306E-14	0.	0.	0.
1098	RSX	4.282E-09	4.621E-09	2.977E-15	0.	0.	0.
1098	RSY	5.759E-08	6.626E-08	1.883E-15	0.	0.	0.
1098	EQmxp	-1.477E-09	1.519E-11	2.953E-16	0.	0.	0.
1098	EQmxn	1.477E-09	-1.519E-11	-2.953E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1098	EQmyp	-1.984E-10	-6.063E-09	-1.003E-14	0.	0.	0.
1098	EQmyn	1.984E-10	6.063E-09	1.003E-14	0.	0.	0.
1099	RSX	1.529E-11	1.127E-11	2.035E-19	0.	0.	0.
1099	RSY	1.452E-10	1.549E-10	2.955E-19	0.	0.	0.
1099	EQmxp	3.173E-12	-2.522E-15	-9.342E-19	0.	0.	0.
1099	EQmxn	-3.173E-12	2.522E-15	9.342E-19	0.	0.	0.
1099	EQmyp	4.042E-13	1.287E-11	2.927E-18	0.	0.	0.
1099	EQmyn	-4.042E-13	-1.287E-11	-2.927E-18	0.	0.	0.
1100	RSX	7.455E-11	5.721E-11	2.740E-18	0.	0.	0.
1100	RSY	7.403E-10	7.514E-10	9.052E-19	0.	0.	0.
1100	EQmxp	1.193E-11	-1.753E-14	2.638E-18	0.	0.	0.
1100	EQmxn	-1.193E-11	1.753E-14	-2.638E-18	0.	0.	0.
1100	EQmyp	1.509E-12	4.845E-11	8.976E-18	0.	0.	0.
1100	EQmyn	-1.509E-12	-4.845E-11	-8.976E-18	0.	0.	0.
1101	RSX	1.724E-10	1.383E-10	2.713E-19	0.	0.	0.
1101	RSY	1.825E-09	1.745E-09	2.403E-18	0.	0.	0.
1101	EQmxp	2.106E-11	-3.940E-14	1.171E-18	0.	0.	0.
1101	EQmxn	-2.106E-11	3.940E-14	-1.171E-18	0.	0.	0.
1101	EQmyp	2.678E-12	8.549E-11	2.728E-18	0.	0.	0.
1101	EQmyn	-2.678E-12	-8.549E-11	-2.728E-18	0.	0.	0.
1102	RSX	2.887E-10	2.442E-10	4.691E-18	0.	0.	0.
1102	RSY	3.257E-09	2.927E-09	2.378E-18	0.	0.	0.
1102	EQmxp	2.730E-11	-5.758E-14	7.552E-18	0.	0.	0.
1102	EQmxn	-2.730E-11	5.758E-14	-7.552E-18	0.	0.	0.
1102	EQmyp	3.473E-12	1.109E-10	6.785E-19	0.	0.	0.
1102	EQmyn	-3.473E-12	-1.109E-10	-6.785E-19	0.	0.	0.
1103	RSX	3.998E-10	3.564E-10	1.186E-17	0.	0.	0.
1103	RSY	4.848E-09	4.089E-09	6.790E-18	0.	0.	0.
1103	EQmxp	2.937E-11	-6.741E-14	3.573E-18	0.	0.	0.
1103	EQmxn	-2.937E-11	6.741E-14	-3.573E-18	0.	0.	0.
1103	EQmyp	3.777E-12	1.192E-10	5.666E-17	0.	0.	0.
1103	EQmyn	-3.777E-12	-1.192E-10	-5.666E-17	0.	0.	0.
1104	RSX	4.849E-10	4.570E-10	1.669E-17	0.	0.	0.
1104	RSY	6.427E-09	5.084E-09	2.195E-18	0.	0.	0.
1104	EQmxp	2.744E-11	-6.987E-14	1.651E-17	0.	0.	0.
1104	EQmxn	-2.744E-11	6.987E-14	-1.651E-17	0.	0.	0.
1104	EQmyp	3.583E-12	1.112E-10	1.139E-17	0.	0.	0.
1104	EQmyn	-3.583E-12	-1.112E-10	-1.139E-17	0.	0.	0.
1105	RSX	5.371E-10	5.360E-10	1.247E-17	0.	0.	0.
1105	RSY	7.700E-09	5.782E-09	9.826E-18	0.	0.	0.
1105	EQmxp	2.256E-11	-6.407E-14	-4.793E-17	0.	0.	0.
1105	EQmxn	-2.256E-11	6.407E-14	4.793E-17	0.	0.	0.
1105	EQmyp	2.941E-12	9.144E-11	-3.824E-17	0.	0.	0.
1105	EQmyn	-2.941E-12	-9.144E-11	3.824E-17	0.	0.	0.
1106	RSX	5.575E-10	5.864E-10	1.491E-17	0.	0.	0.
1106	RSY	8.493E-09	6.256E-09	3.235E-18	0.	0.	0.
1106	EQmxp	1.624E-11	-5.900E-14	-3.258E-17	0.	0.	0.
1106	EQmxn	-1.624E-11	5.900E-14	3.258E-17	0.	0.	0.
1106	EQmyp	2.202E-12	6.568E-11	-5.369E-17	0.	0.	0.
1106	EQmyn	-2.202E-12	-6.568E-11	5.369E-17	0.	0.	0.
1107	RSX	5.539E-10	6.119E-10	6.536E-18	0.	0.	0.
1107	RSY	8.674E-09	6.561E-09	2.132E-18	0.	0.	0.
1107	EQmxp	9.809E-12	-4.608E-14	7.468E-18	0.	0.	0.
1107	EQmxn	-9.809E-12	4.608E-14	-7.468E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1107	EQmyp	1.333E-12	3.962E-11	-2.893E-17	0.	0.	0.
1107	EQmyn	-1.333E-12	-3.962E-11	2.893E-17	0.	0.	0.
1108	RSX	5.416E-10	6.161E-10	3.469E-18	0.	0.	0.
1108	RSY	8.359E-09	6.672E-09	6.470E-18	0.	0.	0.
1108	EQmxp	4.321E-12	-3.775E-14	-1.304E-17	0.	0.	0.
1108	EQmxn	-4.321E-12	3.775E-14	1.304E-17	0.	0.	0.
1108	EQmyp	6.705E-13	1.727E-11	-3.255E-17	0.	0.	0.
1108	EQmyn	-6.705E-13	-1.727E-11	3.255E-17	0.	0.	0.
1109	RSX	5.342E-10	6.075E-10	1.405E-17	0.	0.	0.
1109	RSY	7.950E-09	6.736E-09	4.725E-18	0.	0.	0.
1109	EQmxp	2.808E-13	-2.035E-14	-8.747E-18	0.	0.	0.
1109	EQmxn	-2.808E-13	2.035E-14	8.747E-18	0.	0.	0.
1109	EQmyp	8.938E-14	9.745E-13	-2.102E-18	0.	0.	0.
1109	EQmyn	-8.938E-14	-9.745E-13	2.102E-18	0.	0.	0.
1110	RSX	5.436E-10	6.018E-10	3.791E-17	0.	0.	0.
1110	RSY	7.734E-09	6.721E-09	1.763E-17	0.	0.	0.
1110	EQmxp	-2.129E-12	-1.185E-14	-5.951E-17	0.	0.	0.
1110	EQmxn	2.129E-12	1.185E-14	5.951E-17	0.	0.	0.
1110	EQmyp	-1.099E-13	-8.986E-12	-1.421E-16	0.	0.	0.
1110	EQmyn	1.099E-13	8.986E-12	1.421E-16	0.	0.	0.
1111	RSX	5.743E-10	5.986E-10	2.550E-17	0.	0.	0.
1111	RSY	7.898E-09	6.737E-09	4.706E-18	0.	0.	0.
1111	EQmxp	-3.209E-12	2.791E-15	2.566E-18	0.	0.	0.
1111	EQmxn	3.209E-12	-2.791E-15	-2.566E-18	0.	0.	0.
1111	EQmyp	-3.179E-13	-1.325E-11	-1.187E-16	0.	0.	0.
1111	EQmyn	3.179E-13	1.325E-11	1.187E-16	0.	0.	0.
1112	RSX	6.181E-10	5.928E-10	5.499E-17	0.	0.	0.
1112	RSY	8.473E-09	6.795E-09	2.944E-17	0.	0.	0.
1112	EQmxp	-3.250E-12	-2.961E-15	8.876E-17	0.	0.	0.
1112	EQmxn	3.250E-12	2.961E-15	-8.876E-17	0.	0.	0.
1112	EQmyp	-2.482E-13	-1.355E-11	1.890E-16	0.	0.	0.
1112	EQmyn	2.482E-13	1.355E-11	-1.890E-16	0.	0.	0.
1113	RSX	6.069E-10	5.347E-10	3.906E-17	0.	0.	0.
1113	RSY	8.739E-09	6.195E-09	2.751E-17	0.	0.	0.
1113	EQmxp	-2.517E-12	-1.439E-16	5.793E-17	0.	0.	0.
1113	EQmxn	2.517E-12	1.439E-16	-5.793E-17	0.	0.	0.
1113	EQmyp	-2.656E-13	-1.039E-11	1.338E-16	0.	0.	0.
1113	EQmyn	2.656E-13	1.039E-11	-1.338E-16	0.	0.	0.
1114	RSX	6.472E-10	5.275E-10	3.090E-17	0.	0.	0.
1114	RSY	9.771E-09	6.081E-09	3.294E-17	0.	0.	0.
1114	EQmxp	-1.783E-12	-2.158E-14	-3.427E-17	0.	0.	0.
1114	EQmxn	1.783E-12	2.158E-14	3.427E-17	0.	0.	0.
1114	EQmyp	-6.091E-14	-7.607E-12	-1.819E-16	0.	0.	0.
1114	EQmyn	6.091E-14	7.607E-12	1.819E-16	0.	0.	0.
1115	RSX	6.688E-10	5.167E-10	3.274E-17	0.	0.	0.
1115	RSY	1.053E-08	6.003E-09	6.522E-18	0.	0.	0.
1115	EQmxp	-1.125E-12	-4.724E-14	2.369E-17	0.	0.	0.
1115	EQmxn	1.125E-12	4.724E-14	-2.369E-17	0.	0.	0.
1115	EQmyp	-1.472E-13	-4.685E-12	-8.226E-17	0.	0.	0.
1115	EQmyn	1.472E-13	4.685E-12	8.226E-17	0.	0.	0.
1116	RSX	6.627E-10	5.104E-10	4.799E-17	0.	0.	0.
1116	RSY	1.082E-08	5.965E-09	1.330E-17	0.	0.	0.
1116	EQmxp	-5.605E-13	-1.031E-13	3.703E-17	0.	0.	0.
1116	EQmxn	5.605E-13	1.031E-13	-3.703E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1116	EQmyp	-7.986E-14	-2.447E-12	1.469E-16	0.	0.	0.
1116	EQmyn	7.986E-14	2.447E-12	-1.469E-16	0.	0.	0.
1117	RSX	6.386E-10	5.180E-10	7.200E-17	0.	0.	0.
1117	RSY	1.065E-08	5.966E-09	3.129E-17	0.	0.	0.
1117	EQmxp	-2.316E-13	-1.370E-13	6.656E-17	0.	0.	0.
1117	EQmxn	2.316E-13	1.370E-13	-6.656E-17	0.	0.	0.
1117	EQmyp	-2.598E-13	-7.948E-13	1.463E-16	0.	0.	0.
1117	EQmyn	2.598E-13	7.948E-13	-1.463E-16	0.	0.	0.
1118	RSX	6.043E-10	5.221E-10	2.300E-17	0.	0.	0.
1118	RSY	9.916E-09	5.890E-09	1.483E-17	0.	0.	0.
1118	EQmxp	2.927E-14	-1.491E-13	8.933E-18	0.	0.	0.
1118	EQmxn	-2.927E-14	1.491E-13	-8.933E-18	0.	0.	0.
1118	EQmyp	-9.945E-14	5.775E-14	7.262E-17	0.	0.	0.
1118	EQmyn	9.945E-14	-5.775E-14	-7.262E-17	0.	0.	0.
1119	RSX	5.804E-10	5.180E-10	1.676E-17	0.	0.	0.
1119	RSY	8.724E-09	5.684E-09	7.778E-18	0.	0.	0.
1119	EQmxp	1.778E-13	-1.216E-13	-5.534E-18	0.	0.	0.
1119	EQmxn	-1.778E-13	1.216E-13	5.534E-18	0.	0.	0.
1119	EQmyp	6.773E-14	4.456E-13	6.048E-17	0.	0.	0.
1119	EQmyn	-6.773E-14	-4.456E-13	-6.048E-17	0.	0.	0.
1120	RSX	5.614E-10	5.152E-10	2.112E-17	0.	0.	0.
1120	RSY	7.371E-09	5.477E-09	3.309E-17	0.	0.	0.
1120	EQmxp	2.269E-13	-1.040E-14	1.035E-16	0.	0.	0.
1120	EQmxn	-2.269E-13	1.040E-14	-1.035E-16	0.	0.	0.
1120	EQmyp	7.060E-14	7.796E-13	9.820E-17	0.	0.	0.
1120	EQmyn	-7.060E-14	-7.796E-13	-9.820E-17	0.	0.	0.
1121	RSX	5.541E-10	5.057E-10	5.226E-17	0.	0.	0.
1121	RSY	6.282E-09	5.532E-09	3.701E-17	0.	0.	0.
1121	EQmxp	4.488E-13	2.265E-13	-9.089E-17	0.	0.	0.
1121	EQmxn	-4.488E-13	-2.265E-13	9.089E-17	0.	0.	0.
1121	EQmyp	6.465E-13	1.034E-12	-2.160E-16	0.	0.	0.
1121	EQmyn	-6.465E-13	-1.034E-12	2.160E-16	0.	0.	0.
1122	RSX	5.463E-10	4.865E-10	8.080E-17	0.	0.	0.
1122	RSY	5.870E-09	5.953E-09	2.936E-17	0.	0.	0.
1122	EQmxp	8.257E-13	7.208E-13	7.493E-17	0.	0.	0.
1122	EQmxn	-8.257E-13	-7.208E-13	-7.493E-17	0.	0.	0.
1122	EQmyp	1.446E-12	1.868E-12	1.146E-16	0.	0.	0.
1122	EQmyn	-1.446E-12	-1.868E-12	-1.146E-16	0.	0.	0.
1123	RSX	5.409E-10	4.737E-10	9.236E-18	0.	0.	0.
1123	RSY	6.218E-09	6.374E-09	1.479E-17	0.	0.	0.
1123	EQmxp	1.550E-12	1.496E-12	7.209E-17	0.	0.	0.
1123	EQmxn	-1.550E-12	-1.496E-12	-7.209E-17	0.	0.	0.
1123	EQmyp	3.056E-12	3.156E-12	1.841E-16	0.	0.	0.
1123	EQmyn	-3.056E-12	-3.156E-12	-1.841E-16	0.	0.	0.
1124	RSX	5.290E-10	4.799E-10	2.017E-18	0.	0.	0.
1124	RSY	6.844E-09	6.692E-09	1.870E-17	0.	0.	0.
1124	EQmxp	2.438E-12	2.549E-12	1.063E-16	0.	0.	0.
1124	EQmxn	-2.438E-12	-2.549E-12	-1.063E-16	0.	0.	0.
1124	EQmyp	4.792E-12	5.220E-12	-2.711E-16	0.	0.	0.
1124	EQmyn	-4.792E-12	-5.220E-12	2.711E-16	0.	0.	0.
1125	RSX	5.159E-10	5.123E-10	2.555E-17	0.	0.	0.
1125	RSY	7.543E-09	6.894E-09	1.319E-17	0.	0.	0.
1125	EQmxp	3.382E-12	3.532E-12	1.940E-16	0.	0.	0.
1125	EQmxn	-3.382E-12	-3.532E-12	-1.940E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1125	EQmyp	6.802E-12	7.041E-12	1.423E-16	0.	0.	0.
1125	EQmyn	-6.802E-12	-7.041E-12	-1.423E-16	0.	0.	0.
1126	RSX	4.852E-10	5.541E-10	1.662E-18	0.	0.	0.
1126	RSY	7.832E-09	6.899E-09	2.298E-17	0.	0.	0.
1126	EQmxp	3.428E-12	3.627E-12	6.555E-17	0.	0.	0.
1126	EQmxn	-3.428E-12	-3.627E-12	-6.555E-17	0.	0.	0.
1126	EQmyp	6.847E-12	7.248E-12	6.781E-17	0.	0.	0.
1126	EQmyn	-6.847E-12	-7.248E-12	-6.781E-17	0.	0.	0.
1127	RSX	4.581E-10	5.750E-10	5.731E-17	0.	0.	0.
1127	RSY	7.856E-09	7.382E-09	9.108E-17	0.	0.	0.
1127	EQmxp	1.124E-12	1.111E-12	-1.668E-16	0.	0.	0.
1127	EQmxn	-1.124E-12	-1.111E-12	1.668E-16	0.	0.	0.
1127	EQmyp	2.338E-12	2.128E-12	-2.498E-16	0.	0.	0.
1127	EQmyn	-2.338E-12	-2.128E-12	2.498E-16	0.	0.	0.
1128	RSX	4.519E-10	5.878E-10	5.921E-17	0.	0.	0.
1128	RSY	7.686E-09	8.422E-09	4.585E-17	0.	0.	0.
1128	EQmxp	-6.245E-12	-6.671E-12	-1.619E-16	0.	0.	0.
1128	EQmxn	6.245E-12	6.671E-12	1.619E-16	0.	0.	0.
1128	EQmyp	-1.254E-11	-1.334E-11	-3.717E-16	0.	0.	0.
1128	EQmyn	1.254E-11	1.334E-11	3.717E-16	0.	0.	0.
1129	RSX	4.540E-10	5.481E-10	8.067E-17	0.	0.	0.
1129	RSY	6.591E-09	8.853E-09	4.616E-17	0.	0.	0.
1129	EQmxp	-2.058E-11	-2.202E-11	-6.774E-17	0.	0.	0.
1129	EQmxn	2.058E-11	2.202E-11	6.774E-17	0.	0.	0.
1129	EQmyp	-4.116E-11	-4.413E-11	-2.471E-16	0.	0.	0.
1129	EQmyn	4.116E-11	4.413E-11	2.471E-16	0.	0.	0.
1130	RSX	4.760E-10	5.070E-10	1.102E-17	0.	0.	0.
1130	RSY	5.586E-09	9.469E-09	2.709E-17	0.	0.	0.
1130	EQmxp	-4.516E-11	-4.820E-11	-1.034E-17	0.	0.	0.
1130	EQmxn	4.516E-11	4.820E-11	1.034E-17	0.	0.	0.
1130	EQmyp	-9.044E-11	-9.646E-11	2.415E-16	0.	0.	0.
1130	EQmyn	9.044E-11	9.646E-11	-2.415E-16	0.	0.	0.
1131	RSX	4.955E-10	4.721E-10	8.388E-18	0.	0.	0.
1131	RSY	5.056E-09	9.527E-09	3.582E-17	0.	0.	0.
1131	EQmxp	-7.741E-11	-8.265E-11	-1.065E-16	0.	0.	0.
1131	EQmxn	7.741E-11	8.265E-11	1.065E-16	0.	0.	0.
1131	EQmyp	-1.549E-10	-1.655E-10	-1.542E-16	0.	0.	0.
1131	EQmyn	1.549E-10	1.655E-10	1.542E-16	0.	0.	0.
1132	RSX	5.082E-10	4.614E-10	2.230E-17	0.	0.	0.
1132	RSY	5.195E-09	9.400E-09	2.186E-17	0.	0.	0.
1132	EQmxp	-1.046E-10	-1.116E-10	-3.813E-17	0.	0.	0.
1132	EQmxn	1.046E-10	1.116E-10	3.813E-17	0.	0.	0.
1132	EQmyp	-2.096E-10	-2.232E-10	-1.347E-16	0.	0.	0.
1132	EQmyn	2.096E-10	2.232E-10	1.347E-16	0.	0.	0.
1133	RSX	5.222E-10	4.685E-10	5.258E-17	0.	0.	0.
1133	RSY	5.760E-09	9.245E-09	3.110E-17	0.	0.	0.
1133	EQmxp	-9.306E-11	-9.933E-11	-5.357E-17	0.	0.	0.
1133	EQmxn	9.306E-11	9.933E-11	5.357E-17	0.	0.	0.
1133	EQmyp	-1.863E-10	-1.989E-10	-2.164E-16	0.	0.	0.
1133	EQmyn	1.863E-10	1.989E-10	2.164E-16	0.	0.	0.
1134	RSX	5.885E-10	5.187E-10	2.469E-17	0.	0.	0.
1134	RSY	6.870E-09	8.632E-09	2.446E-17	0.	0.	0.
1134	EQmxp	2.135E-11	2.260E-11	-9.339E-18	0.	0.	0.
1134	EQmxn	-2.135E-11	-2.260E-11	9.339E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1134	EQmyp	4.285E-11	4.514E-11	6.021E-17	0.	0.	0.
1134	EQmyn	-4.285E-11	-4.514E-11	-6.021E-17	0.	0.	0.
1135	RSX	7.253E-10	7.203E-10	1.039E-16	0.	0.	0.
1135	RSY	8.261E-09	7.439E-09	6.741E-17	0.	0.	0.
1135	EQmxp	3.355E-10	3.576E-10	-1.508E-16	0.	0.	0.
1135	EQmxn	-3.355E-10	-3.576E-10	1.508E-16	0.	0.	0.
1135	EQmyp	6.715E-10	7.161E-10	-3.940E-16	0.	0.	0.
1135	EQmyn	-6.715E-10	-7.161E-10	3.940E-16	0.	0.	0.
1136	RSX	1.043E-09	1.159E-09	3.010E-18	0.	0.	0.
1136	RSY	9.161E-09	6.542E-09	1.018E-17	0.	0.	0.
1136	EQmxp	9.530E-10	1.016E-09	2.176E-17	0.	0.	0.
1136	EQmxn	-9.530E-10	-1.016E-09	-2.176E-17	0.	0.	0.
1136	EQmyp	1.908E-09	2.034E-09	9.495E-17	0.	0.	0.
1136	EQmyn	-1.908E-09	-2.034E-09	-9.495E-17	0.	0.	0.
1137	RSX	1.604E-09	1.807E-09	1.395E-16	0.	0.	0.
1137	RSY	9.278E-09	6.282E-09	1.016E-16	0.	0.	0.
1137	EQmxp	1.894E-09	2.019E-09	-1.583E-16	0.	0.	0.
1137	EQmxn	-1.894E-09	-2.019E-09	1.583E-16	0.	0.	0.
1137	EQmyp	3.792E-09	4.043E-09	-1.444E-16	0.	0.	0.
1137	EQmyn	-3.792E-09	-4.043E-09	1.444E-16	0.	0.	0.
1138	RSX	2.244E-09	2.522E-09	1.405E-16	0.	0.	0.
1138	RSY	8.763E-09	6.996E-09	6.825E-17	0.	0.	0.
1138	EQmxp	2.900E-09	3.091E-09	-1.593E-16	0.	0.	0.
1138	EQmxn	-2.900E-09	-3.091E-09	1.593E-16	0.	0.	0.
1138	EQmyp	5.805E-09	6.189E-09	-1.611E-16	0.	0.	0.
1138	EQmyn	-5.805E-09	-6.189E-09	1.611E-16	0.	0.	0.
1139	RSX	2.404E-09	2.663E-09	5.764E-17	0.	0.	0.
1139	RSY	7.817E-09	8.191E-09	4.474E-17	0.	0.	0.
1139	EQmxp	3.101E-09	3.306E-09	9.388E-17	0.	0.	0.
1139	EQmxn	-3.101E-09	-3.306E-09	-9.388E-17	0.	0.	0.
1139	EQmyp	6.207E-09	6.618E-09	3.353E-16	0.	0.	0.
1139	EQmyn	-6.207E-09	-6.618E-09	-3.353E-16	0.	0.	0.
1140	RSX	8.772E-10	9.408E-10	1.369E-17	0.	0.	0.
1140	RSY	7.449E-09	9.319E-09	1.631E-17	0.	0.	0.
1140	EQmxp	6.088E-10	6.490E-10	1.209E-16	0.	0.	0.
1140	EQmxn	-6.088E-10	-6.490E-10	-1.209E-16	0.	0.	0.
1140	EQmyp	1.219E-09	1.299E-09	4.780E-17	0.	0.	0.
1140	EQmyn	-1.219E-09	-1.299E-09	-4.780E-17	0.	0.	0.
1141	RSX	4.619E-09	5.032E-09	9.462E-17	0.	0.	0.
1141	RSY	8.815E-09	1.056E-08	1.701E-17	0.	0.	0.
1141	EQmxp	-7.688E-09	-8.197E-09	1.221E-16	0.	0.	0.
1141	EQmxn	7.688E-09	8.197E-09	-1.221E-16	0.	0.	0.
1141	EQmyp	-1.539E-08	-1.641E-08	-8.863E-18	0.	0.	0.
1141	EQmyn	1.539E-08	1.641E-08	8.863E-18	0.	0.	0.
1142	RSX	1.620E-08	1.743E-08	5.655E-18	0.	0.	0.
1142	RSY	1.443E-08	1.563E-08	2.332E-17	0.	0.	0.
1142	EQmxp	-2.543E-08	-2.712E-08	5.998E-17	0.	0.	0.
1142	EQmxn	2.543E-08	2.712E-08	-5.998E-17	0.	0.	0.
1142	EQmyp	-5.092E-08	-5.429E-08	-7.434E-17	0.	0.	0.
1142	EQmyn	5.092E-08	5.429E-08	7.434E-17	0.	0.	0.
1143	RSX	3.483E-08	3.724E-08	9.044E-17	0.	0.	0.
1143	RSY	2.570E-08	2.736E-08	4.408E-17	0.	0.	0.
1143	EQmxp	-5.392E-08	-5.748E-08	-1.260E-16	0.	0.	0.
1143	EQmxn	5.392E-08	5.748E-08	1.260E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1143	EQmyp	-1.079E-07	-1.151E-07	-2.825E-16	0.	0.	0.
1143	EQmyn	1.079E-07	1.151E-07	2.825E-16	0.	0.	0.
1144	RSX	5.534E-08	5.902E-08	1.536E-16	0.	0.	0.
1144	RSY	3.886E-08	4.145E-08	4.871E-17	0.	0.	0.
1144	EQmxp	-8.525E-08	-9.089E-08	1.904E-16	0.	0.	0.
1144	EQmxn	8.525E-08	9.089E-08	-1.904E-16	0.	0.	0.
1144	EQmyp	-1.707E-07	-1.820E-07	1.366E-16	0.	0.	0.
1144	EQmyn	1.707E-07	1.820E-07	-1.366E-16	0.	0.	0.
1145	RSX	5.676E-08	6.048E-08	1.668E-17	0.	0.	0.
1145	RSY	3.953E-08	4.232E-08	4.471E-17	0.	0.	0.
1145	EQmxp	-8.741E-08	-9.319E-08	-6.340E-17	0.	0.	0.
1145	EQmxn	8.741E-08	9.319E-08	6.340E-17	0.	0.	0.
1145	EQmyp	-1.750E-07	-1.866E-07	2.138E-17	0.	0.	0.
1145	EQmyn	1.750E-07	1.866E-07	-2.138E-17	0.	0.	0.
1146	RSX	2.383E-09	2.568E-09	9.303E-17	0.	0.	0.
1146	RSY	7.484E-09	9.240E-09	6.874E-17	0.	0.	0.
1146	EQmxp	-4.285E-09	-4.569E-09	1.410E-16	0.	0.	0.
1146	EQmxn	4.285E-09	4.569E-09	-1.410E-16	0.	0.	0.
1146	EQmyp	-8.579E-09	-9.147E-09	2.671E-16	0.	0.	0.
1146	EQmyn	8.579E-09	9.147E-09	-2.671E-16	0.	0.	0.
1147	RSX	1.769E-07	1.885E-07	2.639E-18	0.	0.	0.
1147	RSY	1.201E-07	1.281E-07	2.660E-17	0.	0.	0.
1147	EQmxp	2.699E-07	2.877E-07	2.963E-16	0.	0.	0.
1147	EQmxn	-2.699E-07	-2.877E-07	-2.963E-16	0.	0.	0.
1147	EQmyp	5.403E-07	5.760E-07	4.364E-16	0.	0.	0.
1147	EQmyn	-5.403E-07	-5.760E-07	-4.364E-16	0.	0.	0.
1148	RSX	6.605E-07	7.041E-07	2.533E-17	0.	0.	0.
1148	RSY	4.484E-07	4.780E-07	6.419E-17	0.	0.	0.
1148	EQmxp	1.010E-06	1.076E-06	1.888E-16	0.	0.	0.
1148	EQmxn	-1.010E-06	-1.076E-06	-1.888E-16	0.	0.	0.
1148	EQmyp	2.021E-06	2.155E-06	-2.348E-16	0.	0.	0.
1148	EQmyn	-2.021E-06	-2.155E-06	2.348E-16	0.	0.	0.
1149	RSX	2.113E-06	2.252E-06	4.927E-17	0.	0.	0.
1149	RSY	1.434E-06	1.529E-06	4.791E-17	0.	0.	0.
1149	EQmxp	3.231E-06	3.444E-06	-9.502E-17	0.	0.	0.
1149	EQmxn	-3.231E-06	-3.444E-06	9.502E-17	0.	0.	0.
1149	EQmyp	6.468E-06	6.896E-06	3.588E-17	0.	0.	0.
1149	EQmyn	-6.468E-06	-6.896E-06	-3.588E-17	0.	0.	0.
1150	RSX	3.816E-06	4.069E-06	9.039E-17	0.	0.	0.
1150	RSY	2.591E-06	2.762E-06	4.708E-17	0.	0.	0.
1150	EQmxp	5.838E-06	6.224E-06	-5.469E-16	0.	0.	0.
1150	EQmxn	-5.838E-06	-6.224E-06	5.469E-16	0.	0.	0.
1150	EQmyp	1.169E-05	1.246E-05	1.196E-16	0.	0.	0.
1150	EQmyn	-1.169E-05	-1.246E-05	-1.196E-16	0.	0.	0.
1151	RSX	5.514E-07	5.878E-07	2.529E-16	0.	0.	0.
1151	RSY	3.744E-07	3.991E-07	9.116E-17	0.	0.	0.
1151	EQmxp	8.428E-07	8.985E-07	-2.286E-16	0.	0.	0.
1151	EQmxn	-8.428E-07	-8.985E-07	2.286E-16	0.	0.	0.
1151	EQmyp	1.687E-06	1.799E-06	-1.757E-16	0.	0.	0.
1151	EQmyn	-1.687E-06	-1.799E-06	1.757E-16	0.	0.	0.
1152	RSX	2.392E-05	2.550E-05	3.224E-16	0.	0.	0.
1152	RSY	1.624E-05	1.731E-05	1.250E-16	0.	0.	0.
1152	EQmxp	-3.659E-05	-3.901E-05	4.217E-16	0.	0.	0.
1152	EQmxn	3.659E-05	3.901E-05	-4.217E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1152	EQmyp	-7.326E-05	-7.811E-05	5.960E-16	0.	0.	0.
1152	EQmyn	7.326E-05	7.811E-05	-5.960E-16	0.	0.	0.
1153	RSX	1.068E-04	1.138E-04	9.201E-16	0.	0.	0.
1153	RSY	7.249E-05	7.728E-05	5.078E-16	0.	0.	0.
1153	EQmxp	-1.633E-04	-1.741E-04	1.099E-15	0.	0.	0.
1153	EQmxn	1.633E-04	1.741E-04	-1.099E-15	0.	0.	0.
1153	EQmyp	-3.270E-04	-3.486E-04	2.118E-15	0.	0.	0.
1153	EQmyn	3.270E-04	3.486E-04	-2.118E-15	0.	0.	0.
1154	RSX	9.461E-03	1.341E-04	3.755E-19	0.	0.	0.
1154	RSY	1.148E-03	0.013	1.052E-18	0.	0.	0.
1154	EQmxp	-0.014	6.141E-06	-4.337E-19	0.	0.	0.
1154	EQmxn	0.014	-6.141E-06	4.337E-19	0.	0.	0.
1154	EQmyp	4.947E-03	-0.058	-5.204E-18	0.	0.	0.
1154	EQmyn	-4.947E-03	0.058	5.204E-18	0.	0.	0.
1155	RSX	8.154E-03	1.155E-04	0.	0.	0.	0.
1155	RSY	9.880E-04	0.011	4.659E-19	0.	0.	0.
1155	EQmxp	-0.012	5.283E-06	4.337E-19	0.	0.	0.
1155	EQmxn	0.012	-5.283E-06	-4.337E-19	0.	0.	0.
1155	EQmyp	4.256E-03	-0.05	-3.469E-18	0.	0.	0.
1155	EQmyn	-4.256E-03	0.05	3.469E-18	0.	0.	0.
1156	RSX	0.019	2.699E-04	0.	0.	0.	0.
1156	RSY	2.305E-03	0.027	4.515E-19	0.	0.	0.
1156	EQmxp	-0.029	1.232E-05	-8.674E-19	0.	0.	0.
1156	EQmxn	0.029	-1.232E-05	8.674E-19	0.	0.	0.
1156	EQmyp	9.925E-03	-0.117	3.469E-18	0.	0.	0.
1156	EQmyn	-9.925E-03	0.117	-3.469E-18	0.	0.	0.
1157	RSX	0.021	2.932E-04	7.324E-19	0.	0.	0.
1157	RSY	2.499E-03	0.029	9.275E-19	0.	0.	0.
1157	EQmxp	-0.031	1.336E-05	-8.674E-19	0.	0.	0.
1157	EQmxn	0.031	-1.336E-05	8.674E-19	0.	0.	0.
1157	EQmyp	0.011	-0.127	3.469E-18	0.	0.	0.
1157	EQmyn	-0.011	0.127	-3.469E-18	0.	0.	0.
1158	RSX	0.021	3.038E-04	7.436E-19	0.	0.	0.
1158	RSY	2.585E-03	0.03	1.667E-18	0.	0.	0.
1158	EQmxp	-0.032	1.381E-05	-2.602E-18	0.	0.	0.
1158	EQmxn	0.032	-1.381E-05	2.602E-18	0.	0.	0.
1158	EQmyp	0.011	-0.131	6.939E-18	0.	0.	0.
1158	EQmyn	-0.011	0.131	-6.939E-18	0.	0.	0.
1159	RSX	0.021	3.036E-04	1.474E-18	0.	0.	0.
1159	RSY	2.577E-03	0.03	1.598E-18	0.	0.	0.
1159	EQmxp	-0.032	1.376E-05	-8.674E-19	0.	0.	0.
1159	EQmxn	0.032	-1.376E-05	8.674E-19	0.	0.	0.
1159	EQmyp	0.011	-0.131	0.	0.	0.	0.
1159	EQmyn	-0.011	0.131	0.	0.	0.	0.
1160	RSX	0.021	2.938E-04	2.966E-18	0.	0.	0.
1160	RSY	2.488E-03	0.029	1.585E-18	0.	0.	0.
1160	EQmxp	-0.031	1.328E-05	-2.602E-18	0.	0.	0.
1160	EQmxn	0.031	-1.328E-05	2.602E-18	0.	0.	0.
1160	EQmyp	0.011	-0.126	-1.041E-17	0.	0.	0.
1160	EQmyn	-0.011	0.126	1.041E-17	0.	0.	0.
1161	RSX	0.019	2.646E-04	7.446E-19	0.	0.	0.
1161	RSY	2.233E-03	0.026	4.998E-19	0.	0.	0.
1161	EQmxp	-0.028	1.191E-05	0.	0.	0.	0.
1161	EQmxn	0.028	-1.191E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1161	EQmyp	9.593E-03	-0.113	-6.939E-18	0.	0.	0.
1161	EQmyn	-9.593E-03	0.113	6.939E-18	0.	0.	0.
1162	RSX	0.015	2.155E-04	1.481E-18	0.	0.	0.
1162	RSY	1.811E-03	0.021	9.245E-19	0.	0.	0.
1162	EQmxp	-0.023	9.649E-06	1.735E-18	0.	0.	0.
1162	EQmxn	0.023	-9.649E-06	-1.735E-18	0.	0.	0.
1162	EQmyp	7.773E-03	-0.092	0.	0.	0.	0.
1162	EQmyn	-7.773E-03	0.092	0.	0.	0.	0.
1163	RSX	0.012	1.694E-04	3.691E-19	0.	0.	0.
1163	RSY	1.414E-03	0.016	4.029E-19	0.	0.	0.
1163	EQmxp	-0.018	7.526E-06	0.	0.	0.	0.
1163	EQmxn	0.018	-7.526E-06	0.	0.	0.	0.
1163	EQmyp	6.063E-03	-0.072	1.735E-18	0.	0.	0.
1163	EQmyn	-6.063E-03	0.072	-1.735E-18	0.	0.	0.
1164	RSX	8.902E-03	1.254E-04	7.398E-19	0.	0.	0.
1164	RSY	1.037E-03	0.012	4.563E-19	0.	0.	0.
1164	EQmxp	-0.013	5.506E-06	8.674E-19	0.	0.	0.
1164	EQmxn	0.013	-5.506E-06	-8.674E-19	0.	0.	0.
1164	EQmyp	4.436E-03	-0.052	3.469E-18	0.	0.	0.
1164	EQmyn	-4.436E-03	0.052	-3.469E-18	0.	0.	0.
1165	RSX	5.750E-03	8.080E-05	7.384E-19	0.	0.	0.
1165	RSY	6.545E-04	7.699E-03	4.015E-19	0.	0.	0.
1165	EQmxp	-8.107E-03	3.463E-06	-1.084E-18	0.	0.	0.
1165	EQmxn	8.107E-03	-3.463E-06	1.084E-18	0.	0.	0.
1165	EQmyp	2.790E-03	-0.033	-3.469E-18	0.	0.	0.
1165	EQmyn	-2.790E-03	0.033	3.469E-18	0.	0.	0.
1166	RSX	2.733E-03	3.808E-05	3.687E-19	0.	0.	0.
1166	RSY	2.905E-04	3.482E-03	3.024E-19	0.	0.	0.
1166	EQmxp	-3.552E-03	1.517E-06	-1.084E-19	0.	0.	0.
1166	EQmxn	3.552E-03	-1.517E-06	1.084E-19	0.	0.	0.
1166	EQmyp	1.222E-03	-0.014	-1.735E-18	0.	0.	0.
1166	EQmyn	-1.222E-03	0.014	1.735E-18	0.	0.	0.
1167	RSX	5.103E-05	1.204E-06	6.715E-19	0.	0.	0.
1167	RSY	3.358E-05	3.281E-04	3.214E-19	0.	0.	0.
1167	EQmxp	4.857E-04	-2.075E-07	1.626E-18	0.	0.	0.
1167	EQmxn	-4.857E-04	2.075E-07	-1.626E-18	0.	0.	0.
1167	EQmyp	-1.671E-04	1.972E-03	1.247E-18	0.	0.	0.
1167	EQmyn	1.671E-04	-1.972E-03	-1.247E-18	0.	0.	0.
1168	RSX	2.321E-03	3.348E-05	1.111E-18	0.	0.	0.
1168	RSY	3.176E-04	3.579E-03	8.946E-19	0.	0.	0.
1168	EQmxp	4.048E-03	-1.729E-06	2.819E-18	0.	0.	0.
1168	EQmxn	-4.048E-03	1.729E-06	-2.819E-18	0.	0.	0.
1168	EQmyp	-1.393E-03	0.016	2.168E-18	0.	0.	0.
1168	EQmyn	1.393E-03	-0.016	-2.168E-18	0.	0.	0.
1169	RSX	4.414E-03	6.308E-05	5.511E-19	0.	0.	0.
1169	RSY	5.683E-04	6.488E-03	3.122E-19	0.	0.	0.
1169	EQmxp	7.181E-03	-3.067E-06	0.	0.	0.	0.
1169	EQmxn	-7.181E-03	3.067E-06	0.	0.	0.	0.
1169	EQmyp	-2.471E-03	0.029	-1.735E-18	0.	0.	0.
1169	EQmyn	2.471E-03	-0.029	1.735E-18	0.	0.	0.
1170	RSX	6.268E-03	8.929E-05	3.704E-18	0.	0.	0.
1170	RSY	7.898E-04	9.061E-03	1.582E-18	0.	0.	0.
1170	EQmxp	9.948E-03	-4.250E-06	-4.337E-18	0.	0.	0.
1170	EQmxn	-9.948E-03	4.250E-06	4.337E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1170	EQmyp	-3.423E-03	0.04	-5.204E-18	0.	0.	0.
1170	EQmyn	3.423E-03	-0.04	5.204E-18	0.	0.	0.
1171	RSX	6.318E-03	8.985E-05	1.672E-18	0.	0.	0.
1171	RSY	7.870E-04	9.054E-03	1.516E-18	0.	0.	0.
1171	EQmxp	9.896E-03	-4.227E-06	-4.770E-18	0.	0.	0.
1171	EQmxn	-9.896E-03	4.227E-06	4.770E-18	0.	0.	0.
1171	EQmyp	-3.405E-03	0.04	-5.204E-18	0.	0.	0.
1171	EQmyn	3.405E-03	-0.04	5.204E-18	0.	0.	0.
1172	RSX	7.260E-03	1.031E-04	9.226E-19	0.	0.	0.
1172	RSY	8.977E-04	0.01	4.049E-19	0.	0.	0.
1172	EQmxp	0.011	-4.816E-06	8.674E-19	0.	0.	0.
1172	EQmxn	-0.011	4.816E-06	-8.674E-19	0.	0.	0.
1172	EQmyp	-3.879E-03	0.046	-5.204E-18	0.	0.	0.
1172	EQmyn	3.879E-03	-0.046	5.204E-18	0.	0.	0.
1173	RSX	8.049E-03	1.143E-04	3.712E-19	0.	0.	0.
1173	RSY	9.896E-04	0.011	4.998E-19	0.	0.	0.
1173	EQmxp	0.012	-5.304E-06	0.	0.	0.	0.
1173	EQmxn	-0.012	5.304E-06	0.	0.	0.	0.
1173	EQmyp	-4.273E-03	0.05	1.735E-18	0.	0.	0.
1173	EQmyn	4.273E-03	-0.05	-1.735E-18	0.	0.	0.
1174	RSX	8.895E-03	1.262E-04	4.451E-18	0.	0.	0.
1174	RSY	1.088E-03	0.013	3.023E-18	0.	0.	0.
1174	EQmxp	0.014	-5.828E-06	-4.770E-18	0.	0.	0.
1174	EQmxn	-0.014	5.828E-06	4.770E-18	0.	0.	0.
1174	EQmyp	-4.695E-03	0.055	-8.674E-18	0.	0.	0.
1174	EQmyn	4.695E-03	-0.055	8.674E-18	0.	0.	0.
1175	RSX	0.011	1.503E-04	2.949E-18	0.	0.	0.
1175	RSY	1.290E-03	0.015	2.465E-18	0.	0.	0.
1175	EQmxp	0.016	-6.905E-06	4.337E-18	0.	0.	0.
1175	EQmxn	-0.016	6.905E-06	-4.337E-18	0.	0.	0.
1175	EQmyp	-5.562E-03	0.066	1.735E-18	0.	0.	0.
1175	EQmyn	5.562E-03	-0.066	-1.735E-18	0.	0.	0.
1176	RSX	0.026	3.731E-04	1.781E-17	0.	0.	0.
1176	RSY	3.185E-03	0.037	1.736E-17	0.	0.	0.
1176	EQmxp	0.04	-1.702E-05	-3.643E-17	0.	0.	0.
1176	EQmxn	-0.04	1.702E-05	3.643E-17	0.	0.	0.
1176	EQmyp	-0.014	0.162	-5.551E-17	0.	0.	0.
1176	EQmyn	0.014	-0.162	5.551E-17	0.	0.	0.
1177	RSX	6.103E-03	8.630E-05	6.169E-18	0.	0.	0.
1177	RSY	7.294E-04	8.474E-03	9.472E-18	0.	0.	0.
1177	EQmxp	9.109E-03	-3.891E-06	2.429E-17	0.	0.	0.
1177	EQmxn	-9.109E-03	3.891E-06	-2.429E-17	0.	0.	0.
1177	EQmyp	-3.135E-03	0.037	6.765E-17	0.	0.	0.
1177	EQmyn	3.135E-03	-0.037	-6.765E-17	0.	0.	0.
1178	RSX	1.700E-03	2.394E-05	4.861E-18	0.	0.	0.
1178	RSY	1.969E-04	2.306E-03	1.866E-18	0.	0.	0.
1178	EQmxp	2.447E-03	-1.045E-06	-5.096E-18	0.	0.	0.
1178	EQmxn	-2.447E-03	1.045E-06	5.096E-18	0.	0.	0.
1178	EQmyp	-8.419E-04	9.935E-03	-1.561E-17	0.	0.	0.
1178	EQmyn	8.419E-04	-9.935E-03	1.561E-17	0.	0.	0.
1179	RSX	8.174E-05	1.056E-06	3.119E-18	0.	0.	0.
1179	RSY	2.369E-06	5.790E-05	5.474E-19	0.	0.	0.
1179	EQmxp	1.842E-06	-7.869E-10	-8.718E-18	0.	0.	0.
1179	EQmxn	-1.842E-06	7.869E-10	8.718E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1179	EQmyp	-6.339E-07	7.480E-06	-4.736E-18	0.	0.	0.
1179	EQmyn	6.339E-07	-7.480E-06	4.736E-18	0.	0.	0.
1180	RSX	7.624E-04	1.093E-05	1.368E-18	0.	0.	0.
1180	RSY	1.001E-04	1.138E-03	3.881E-18	0.	0.	0.
1180	EQmxp	-1.269E-03	5.421E-07	-6.072E-18	0.	0.	0.
1180	EQmxn	1.269E-03	-5.421E-07	6.072E-18	0.	0.	0.
1180	EQmyp	4.367E-04	-5.154E-03	-9.758E-18	0.	0.	0.
1180	EQmyn	-4.367E-04	5.154E-03	9.758E-18	0.	0.	0.
1181	RSX	1.239E-03	1.767E-05	1.669E-17	0.	0.	0.
1181	RSY	1.571E-04	1.800E-03	7.393E-18	0.	0.	0.
1181	EQmxp	-1.980E-03	8.458E-07	1.512E-17	0.	0.	0.
1181	EQmxn	1.980E-03	-8.458E-07	-1.512E-17	0.	0.	0.
1181	EQmyp	6.813E-04	-8.040E-03	1.496E-17	0.	0.	0.
1181	EQmyn	-6.813E-04	8.040E-03	-1.496E-17	0.	0.	0.
1182	RSX	1.485E-03	2.114E-05	1.501E-17	0.	0.	0.
1182	RSY	1.859E-04	2.136E-03	2.901E-18	0.	0.	0.
1182	EQmxp	-2.340E-03	9.994E-07	-4.337E-19	0.	0.	0.
1182	EQmxn	2.340E-03	-9.994E-07	4.337E-19	0.	0.	0.
1182	EQmyp	8.050E-04	-9.500E-03	-2.429E-17	0.	0.	0.
1182	EQmyn	-8.050E-04	9.500E-03	2.429E-17	0.	0.	0.
1183	RSX	1.571E-03	2.233E-05	2.358E-18	0.	0.	0.
1183	RSY	1.953E-04	2.248E-03	5.466E-18	0.	0.	0.
1183	EQmxp	-2.455E-03	1.049E-06	3.253E-19	0.	0.	0.
1183	EQmxn	2.455E-03	-1.049E-06	-3.253E-19	0.	0.	0.
1183	EQmyp	8.446E-04	-9.967E-03	9.541E-18	0.	0.	0.
1183	EQmyn	-8.446E-04	9.967E-03	-9.541E-18	0.	0.	0.
1184	RSX	1.538E-03	2.185E-05	1.315E-17	0.	0.	0.
1184	RSY	1.902E-04	2.192E-03	8.505E-18	0.	0.	0.
1184	EQmxp	-2.389E-03	1.021E-06	3.003E-17	0.	0.	0.
1184	EQmxn	2.389E-03	-1.021E-06	-3.003E-17	0.	0.	0.
1184	EQmyp	8.221E-04	-9.702E-03	2.819E-17	0.	0.	0.
1184	EQmyn	-8.221E-04	9.702E-03	-2.819E-17	0.	0.	0.
1185	RSX	1.418E-03	2.014E-05	1.646E-17	0.	0.	0.
1185	RSY	1.747E-04	2.015E-03	4.705E-18	0.	0.	0.
1185	EQmxp	-2.192E-03	9.364E-07	2.326E-17	0.	0.	0.
1185	EQmxn	2.192E-03	-9.364E-07	-2.326E-17	0.	0.	0.
1185	EQmyp	7.543E-04	-8.901E-03	1.908E-17	0.	0.	0.
1185	EQmyn	-7.543E-04	8.901E-03	-1.908E-17	0.	0.	0.
1186	RSX	1.238E-03	1.757E-05	1.375E-17	0.	0.	0.
1186	RSY	1.518E-04	1.753E-03	2.435E-17	0.	0.	0.
1186	EQmxp	-1.904E-03	8.131E-07	-1.637E-17	0.	0.	0.
1186	EQmxn	1.904E-03	-8.131E-07	1.637E-17	0.	0.	0.
1186	EQmyp	6.550E-04	-7.730E-03	-1.626E-17	0.	0.	0.
1186	EQmyn	-6.550E-04	7.730E-03	1.626E-17	0.	0.	0.
1187	RSX	7.051E-04	9.998E-06	1.578E-17	0.	0.	0.
1187	RSY	8.598E-05	9.941E-04	6.840E-18	0.	0.	0.
1187	EQmxp	-1.077E-03	4.602E-07	-3.800E-17	0.	0.	0.
1187	EQmxn	1.077E-03	-4.602E-07	3.800E-17	0.	0.	0.
1187	EQmyp	3.707E-04	-4.375E-03	-3.296E-17	0.	0.	0.
1187	EQmyn	-3.707E-04	4.375E-03	3.296E-17	0.	0.	0.
1188	RSX	4.838E-04	6.852E-06	5.796E-17	0.	0.	0.
1188	RSY	5.853E-05	6.779E-04	3.941E-17	0.	0.	0.
1188	EQmxp	-7.324E-04	3.129E-07	-1.050E-16	0.	0.	0.
1188	EQmxn	7.324E-04	-3.129E-07	1.050E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1188	EQmyp	2.520E-04	-2.974E-03	-9.758E-17	0.	0.	0.
1188	EQmyn	-2.520E-04	2.974E-03	9.758E-17	0.	0.	0.
1189	RSX	2.678E-04	3.786E-06	4.173E-17	0.	0.	0.
1189	RSY	3.189E-05	3.708E-04	3.847E-17	0.	0.	0.
1189	EQmxp	-3.980E-04	1.700E-07	-7.575E-17	0.	0.	0.
1189	EQmxn	3.980E-04	-1.700E-07	7.575E-17	0.	0.	0.
1189	EQmyp	1.369E-04	-1.616E-03	-1.505E-16	0.	0.	0.
1189	EQmyn	-1.369E-04	1.616E-03	1.505E-16	0.	0.	0.
1190	RSX	6.150E-05	8.576E-07	3.437E-17	0.	0.	0.
1190	RSY	6.562E-06	7.857E-05	5.843E-17	0.	0.	0.
1190	EQmxp	-8.029E-05	3.430E-08	-2.243E-16	0.	0.	0.
1190	EQmxn	8.029E-05	-3.430E-08	2.243E-16	0.	0.	0.
1190	EQmyp	2.763E-05	-3.260E-04	-3.095E-16	0.	0.	0.
1190	EQmyn	-2.763E-05	3.260E-04	3.095E-16	0.	0.	0.
1191	RSX	7.052E-04	1.004E-05	9.915E-16	0.	0.	0.
1191	RSY	8.863E-05	1.017E-03	7.130E-16	0.	0.	0.
1191	EQmxp	1.116E-03	-4.767E-07	-1.929E-15	0.	0.	0.
1191	EQmxn	-1.116E-03	4.767E-07	1.929E-15	0.	0.	0.
1191	EQmyp	-3.840E-04	4.531E-03	-3.498E-15	0.	0.	0.
1191	EQmyn	3.840E-04	-4.531E-03	3.498E-15	0.	0.	0.
1192	RSX	1.784E-04	2.528E-06	1.678E-16	0.	0.	0.
1192	RSY	2.167E-05	2.508E-04	3.612E-17	0.	0.	0.
1192	EQmxp	2.714E-04	-1.159E-07	-2.767E-17	0.	0.	0.
1192	EQmxn	-2.714E-04	1.159E-07	2.767E-17	0.	0.	0.
1192	EQmyp	-9.339E-05	1.102E-03	-1.623E-16	0.	0.	0.
1192	EQmyn	9.339E-05	-1.102E-03	1.623E-16	0.	0.	0.
1193	RSX	1.110E-04	1.570E-06	2.661E-16	0.	0.	0.
1193	RSY	1.331E-05	1.545E-04	2.296E-16	0.	0.	0.
1193	EQmxp	1.663E-04	-7.105E-08	-4.542E-16	0.	0.	0.
1193	EQmxn	-1.663E-04	7.105E-08	4.542E-16	0.	0.	0.
1193	EQmyp	-5.723E-05	6.753E-04	-7.390E-16	0.	0.	0.
1193	EQmyn	5.723E-05	-6.753E-04	7.390E-16	0.	0.	0.
1194	RSX	6.326E-05	8.934E-07	2.219E-16	0.	0.	0.
1194	RSY	7.499E-06	8.730E-05	4.692E-17	0.	0.	0.
1194	EQmxp	9.353E-05	-3.995E-08	3.420E-16	0.	0.	0.
1194	EQmxn	-9.353E-05	3.995E-08	-3.420E-16	0.	0.	0.
1194	EQmyp	-3.218E-05	3.798E-04	6.861E-16	0.	0.	0.
1194	EQmyn	3.218E-05	-3.798E-04	-6.861E-16	0.	0.	0.
1195	RSX	2.600E-05	3.661E-07	4.412E-16	0.	0.	0.
1195	RSY	3.018E-06	3.532E-05	2.553E-16	0.	0.	0.
1195	EQmxp	3.751E-05	-1.602E-08	-4.279E-16	0.	0.	0.
1195	EQmxn	-3.751E-05	1.602E-08	4.279E-16	0.	0.	0.
1195	EQmyp	-1.291E-05	1.523E-04	-1.042E-15	0.	0.	0.
1195	EQmyn	1.291E-05	-1.523E-04	1.042E-15	0.	0.	0.
1196	RSX	5.350E-07	9.186E-09	1.391E-15	0.	0.	0.
1196	RSY	1.396E-07	1.437E-06	4.824E-16	0.	0.	0.
1196	EQmxp	-1.874E-06	8.006E-10	6.246E-16	0.	0.	0.
1196	EQmxn	1.874E-06	-8.006E-10	-6.246E-16	0.	0.	0.
1196	EQmyp	6.449E-07	-7.610E-06	1.636E-15	0.	0.	0.
1196	EQmyn	-6.449E-07	7.610E-06	-1.636E-15	0.	0.	0.
1197	RSX	2.014E-05	2.856E-07	2.027E-15	0.	0.	0.
1197	RSY	2.442E-06	2.827E-05	1.760E-15	0.	0.	0.
1197	EQmxp	-3.057E-05	1.306E-08	3.498E-15	0.	0.	0.
1197	EQmxn	3.057E-05	-1.306E-08	-3.498E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1197	EQmyp	1.052E-05	-1.241E-04	5.375E-15	0.	0.	0.
1197	EQmyn	-1.052E-05	1.241E-04	-5.375E-15	0.	0.	0.
1198	RSX	6.990E-06	9.874E-08	3.758E-15	0.	0.	0.
1198	RSY	8.168E-07	9.543E-06	1.323E-15	0.	0.	0.
1198	EQmxp	-1.016E-05	4.341E-09	2.567E-15	0.	0.	0.
1198	EQmxn	1.016E-05	-4.341E-09	-2.567E-15	0.	0.	0.
1198	EQmyp	3.497E-06	-4.126E-05	1.696E-15	0.	0.	0.
1198	EQmyn	-3.497E-06	4.126E-05	-1.696E-15	0.	0.	0.
1199	RSX	4.843E-07	6.853E-09	8.753E-15	0.	0.	0.
1199	RSY	6.749E-08	7.532E-07	5.439E-15	0.	0.	0.
1199	EQmxp	8.550E-07	-3.657E-10	-9.392E-15	0.	0.	0.
1199	EQmxn	-8.550E-07	3.657E-10	9.392E-15	0.	0.	0.
1199	EQmyp	-2.942E-07	3.472E-06	-2.248E-14	0.	0.	0.
1199	EQmyn	2.942E-07	-3.472E-06	2.248E-14	0.	0.	0.
1200	RSX	5.633E-07	7.754E-09	2.571E-15	0.	0.	0.
1200	RSY	6.801E-08	7.821E-07	3.180E-15	0.	0.	0.
1200	EQmxp	8.406E-07	-3.590E-10	-5.550E-15	0.	0.	0.
1200	EQmxn	-8.406E-07	3.590E-10	5.550E-15	0.	0.	0.
1200	EQmyp	-2.893E-07	3.413E-06	-1.582E-14	0.	0.	0.
1200	EQmyn	2.893E-07	-3.413E-06	1.582E-14	0.	0.	0.
1201	RSX	1.199E-07	1.562E-09	6.368E-15	0.	0.	0.
1201	RSY	1.502E-08	1.625E-07	3.798E-15	0.	0.	0.
1201	EQmxp	1.719E-07	-7.364E-11	-4.665E-15	0.	0.	0.
1201	EQmxn	-1.719E-07	7.364E-11	4.665E-15	0.	0.	0.
1201	EQmyp	-5.917E-08	6.982E-07	-5.855E-15	0.	0.	0.
1201	EQmyn	5.917E-08	-6.982E-07	5.855E-15	0.	0.	0.
1202	RSX	1.358E-08	4.368E-10	4.678E-15	0.	0.	0.
1202	RSY	2.676E-09	2.015E-08	3.458E-15	0.	0.	0.
1202	EQmxp	-2.173E-08	9.559E-12	6.589E-15	0.	0.	0.
1202	EQmxn	2.173E-08	-9.559E-12	-6.589E-15	0.	0.	0.
1202	EQmyp	7.477E-09	-8.823E-08	1.117E-14	0.	0.	0.
1202	EQmyn	-7.477E-09	8.823E-08	-1.117E-14	0.	0.	0.
1203	RSX	1.315E-08	9.932E-10	5.280E-15	0.	0.	0.
1203	RSY	1.195E-08	2.086E-08	3.225E-15	0.	0.	0.
1203	EQmxp	-1.845E-08	7.562E-12	8.831E-15	0.	0.	0.
1203	EQmxn	1.845E-08	-7.562E-12	-8.831E-15	0.	0.	0.
1203	EQmyp	6.347E-09	-7.491E-08	1.180E-14	0.	0.	0.
1203	EQmyn	-6.347E-09	7.491E-08	-1.180E-14	0.	0.	0.
1204	RSX	4.039E-09	4.319E-09	3.021E-15	0.	0.	0.
1204	RSY	5.882E-08	7.043E-08	2.047E-15	0.	0.	0.
1204	EQmxp	-1.490E-09	6.009E-13	7.756E-15	0.	0.	0.
1204	EQmxn	1.490E-09	-6.009E-13	-7.756E-15	0.	0.	0.
1204	EQmyp	5.137E-10	-6.053E-09	6.911E-15	0.	0.	0.
1204	EQmyn	-5.137E-10	6.053E-09	-6.911E-15	0.	0.	0.
1205	RSX	1.386E-11	1.199E-11	9.115E-19	0.	0.	0.
1205	RSY	1.685E-10	1.643E-10	2.918E-19	0.	0.	0.
1205	EQmxp	3.173E-12	-1.987E-15	1.351E-18	0.	0.	0.
1205	EQmxn	-3.173E-12	1.987E-15	-1.351E-18	0.	0.	0.
1205	EQmyp	-1.090E-12	1.288E-11	1.637E-18	0.	0.	0.
1205	EQmyn	1.090E-12	-1.288E-11	-1.637E-18	0.	0.	0.
1206	RSX	6.748E-11	6.318E-11	3.535E-18	0.	0.	0.
1206	RSY	9.086E-10	8.170E-10	1.650E-18	0.	0.	0.
1206	EQmxp	1.194E-11	-6.575E-15	-7.145E-18	0.	0.	0.
1206	EQmxn	-1.194E-11	6.575E-15	7.145E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1206	EQmyp	-4.099E-12	4.846E-11	-6.610E-18	0.	0.	0.
1206	EQmyn	4.099E-12	-4.846E-11	6.610E-18	0.	0.	0.
1207	RSX	1.560E-10	1.541E-10	7.276E-18	0.	0.	0.
1207	RSY	2.277E-09	1.955E-09	3.826E-18	0.	0.	0.
1207	EQmxp	2.107E-11	-1.282E-14	1.121E-17	0.	0.	0.
1207	EQmxn	-2.107E-11	1.282E-14	-1.121E-17	0.	0.	0.
1207	EQmyp	-7.228E-12	8.551E-11	1.209E-17	0.	0.	0.
1207	EQmyn	7.228E-12	-8.551E-11	-1.209E-17	0.	0.	0.
1208	RSX	2.621E-10	2.684E-10	1.608E-18	0.	0.	0.
1208	RSY	4.065E-09	3.338E-09	2.179E-18	0.	0.	0.
1208	EQmxp	2.733E-11	-1.319E-14	1.227E-19	0.	0.	0.
1208	EQmxn	-2.733E-11	1.319E-14	-1.227E-19	0.	0.	0.
1208	EQmyp	-9.356E-12	1.109E-10	1.138E-18	0.	0.	0.
1208	EQmyn	9.356E-12	-1.109E-10	-1.138E-18	0.	0.	0.
1209	RSX	3.691E-10	3.823E-10	1.780E-18	0.	0.	0.
1209	RSY	5.949E-09	4.647E-09	1.107E-18	0.	0.	0.
1209	EQmxp	2.941E-11	-5.914E-15	3.053E-18	0.	0.	0.
1209	EQmxn	-2.941E-11	5.914E-15	-3.053E-18	0.	0.	0.
1209	EQmyp	-1.003E-11	1.192E-10	-2.662E-17	0.	0.	0.
1209	EQmyn	1.003E-11	-1.192E-10	2.662E-17	0.	0.	0.
1210	RSX	4.665E-10	4.737E-10	1.297E-17	0.	0.	0.
1210	RSY	7.646E-09	5.671E-09	7.558E-18	0.	0.	0.
1210	EQmxp	2.748E-11	7.452E-15	-1.357E-17	0.	0.	0.
1210	EQmxn	-2.748E-11	-7.452E-15	1.357E-17	0.	0.	0.
1210	EQmyp	-9.332E-12	1.113E-10	-1.049E-17	0.	0.	0.
1210	EQmyn	9.332E-12	-1.113E-10	1.049E-17	0.	0.	0.
1211	RSX	5.501E-10	5.342E-10	1.678E-17	0.	0.	0.
1211	RSY	8.993E-09	6.221E-09	6.424E-18	0.	0.	0.
1211	EQmxp	2.261E-11	2.631E-14	-1.573E-17	0.	0.	0.
1211	EQmxn	-2.261E-11	-2.631E-14	1.573E-17	0.	0.	0.
1211	EQmyp	-7.628E-12	9.152E-11	-1.546E-17	0.	0.	0.
1211	EQmyn	7.628E-12	-9.152E-11	1.546E-17	0.	0.	0.
1212	RSX	6.172E-10	5.659E-10	1.987E-17	0.	0.	0.
1212	RSY	9.802E-09	6.339E-09	2.589E-18	0.	0.	0.
1212	EQmxp	1.629E-11	3.373E-14	-6.753E-19	0.	0.	0.
1212	EQmxn	-1.629E-11	-3.373E-14	6.753E-19	0.	0.	0.
1212	EQmyp	-5.442E-12	6.582E-11	-1.801E-17	0.	0.	0.
1212	EQmyn	5.442E-12	-6.582E-11	1.801E-17	0.	0.	0.
1213	RSX	6.712E-10	5.748E-10	1.854E-18	0.	0.	0.
1213	RSY	1.007E-08	6.134E-09	7.854E-18	0.	0.	0.
1213	EQmxp	9.850E-12	4.098E-14	-1.581E-17	0.	0.	0.
1213	EQmxn	-9.850E-12	-4.098E-14	1.581E-17	0.	0.	0.
1213	EQmyp	-3.226E-12	3.972E-11	2.533E-17	0.	0.	0.
1213	EQmyn	3.226E-12	-3.972E-11	-2.533E-17	0.	0.	0.
1214	RSX	7.182E-10	5.684E-10	4.286E-17	0.	0.	0.
1214	RSY	9.957E-09	5.794E-09	1.443E-17	0.	0.	0.
1214	EQmxp	4.355E-12	3.467E-14	2.410E-17	0.	0.	0.
1214	EQmxn	-4.355E-12	-3.467E-14	-2.410E-17	0.	0.	0.
1214	EQmyp	-1.352E-12	1.740E-11	6.132E-17	0.	0.	0.
1214	EQmyn	1.352E-12	-1.740E-11	-6.132E-17	0.	0.	0.
1215	RSX	7.500E-10	5.483E-10	3.350E-17	0.	0.	0.
1215	RSY	9.640E-09	5.507E-09	8.261E-18	0.	0.	0.
1215	EQmxp	2.947E-13	3.430E-14	-3.739E-17	0.	0.	0.
1215	EQmxn	-2.947E-13	-3.430E-14	3.739E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1215	EQmyp	1.770E-14	1.012E-12	-1.074E-16	0.	0.	0.
1215	EQmyn	-1.770E-14	-1.012E-12	1.074E-16	0.	0.	0.
1216	RSX	7.601E-10	5.265E-10	3.645E-17	0.	0.	0.
1216	RSY	9.316E-09	5.431E-09	1.277E-17	0.	0.	0.
1216	EQmxp	-2.140E-12	1.517E-14	-3.207E-17	0.	0.	0.
1216	EQmxn	2.140E-12	-1.517E-14	3.207E-17	0.	0.	0.
1216	EQmyp	8.243E-13	-8.893E-12	-7.323E-17	0.	0.	0.
1216	EQmyn	-8.243E-13	8.893E-12	7.323E-17	0.	0.	0.
1217	RSX	7.420E-10	5.149E-10	3.341E-17	0.	0.	0.
1217	RSY	9.052E-09	5.672E-09	1.780E-17	0.	0.	0.
1217	EQmxp	-3.245E-12	7.654E-16	3.972E-17	0.	0.	0.
1217	EQmxn	3.245E-12	-7.654E-16	-3.972E-17	0.	0.	0.
1217	EQmyp	1.173E-12	-1.328E-11	4.001E-17	0.	0.	0.
1217	EQmyn	-1.173E-12	1.328E-11	-4.001E-17	0.	0.	0.
1218	RSX	7.001E-10	5.165E-10	1.487E-17	0.	0.	0.
1218	RSY	9.037E-09	6.269E-09	7.064E-18	0.	0.	0.
1218	EQmxp	-3.312E-12	-2.814E-14	1.425E-17	0.	0.	0.
1218	EQmxn	3.312E-12	2.814E-14	-1.425E-17	0.	0.	0.
1218	EQmyp	1.151E-12	-1.354E-11	1.899E-17	0.	0.	0.
1218	EQmyn	-1.151E-12	1.354E-11	-1.899E-17	0.	0.	0.
1219	RSX	5.984E-10	4.962E-10	1.951E-17	0.	0.	0.
1219	RSY	8.406E-09	6.523E-09	1.069E-17	0.	0.	0.
1219	EQmxp	-2.596E-12	-3.918E-14	4.897E-17	0.	0.	0.
1219	EQmxn	2.596E-12	3.918E-14	-4.897E-17	0.	0.	0.
1219	EQmyp	8.623E-13	-1.049E-11	5.828E-17	0.	0.	0.
1219	EQmyn	-8.623E-13	1.049E-11	-5.828E-17	0.	0.	0.
1220	RSX	5.665E-10	5.312E-10	9.959E-18	0.	0.	0.
1220	RSY	8.795E-09	7.181E-09	1.490E-17	0.	0.	0.
1220	EQmxp	-1.882E-12	-5.952E-14	-4.762E-18	0.	0.	0.
1220	EQmxn	1.882E-12	5.952E-14	4.762E-18	0.	0.	0.
1220	EQmyp	5.606E-13	-7.591E-12	-1.285E-17	0.	0.	0.
1220	EQmyn	-5.606E-13	7.591E-12	1.285E-17	0.	0.	0.
1221	RSX	5.459E-10	5.665E-10	2.073E-17	0.	0.	0.
1221	RSY	9.293E-09	7.634E-09	8.482E-18	0.	0.	0.
1221	EQmxp	-1.221E-12	-7.620E-14	5.346E-18	0.	0.	0.
1221	EQmxn	1.221E-12	7.620E-14	-5.346E-18	0.	0.	0.
1221	EQmyp	2.877E-13	-4.757E-12	-1.160E-17	0.	0.	0.
1221	EQmyn	-2.877E-13	4.757E-12	1.160E-17	0.	0.	0.
1222	RSX	5.257E-10	5.890E-10	6.938E-17	0.	0.	0.
1222	RSY	9.447E-09	7.874E-09	3.417E-17	0.	0.	0.
1222	EQmxp	-6.386E-13	-1.118E-13	-8.987E-17	0.	0.	0.
1222	EQmxn	6.386E-13	1.118E-13	8.987E-17	0.	0.	0.
1222	EQmyp	3.495E-14	-2.380E-12	-1.139E-16	0.	0.	0.
1222	EQmyn	-3.495E-14	2.380E-12	1.139E-16	0.	0.	0.
1223	RSX	5.096E-10	5.809E-10	1.682E-18	0.	0.	0.
1223	RSY	9.088E-09	7.738E-09	4.352E-18	0.	0.	0.
1223	EQmxp	-2.858E-13	-1.228E-13	-2.987E-17	0.	0.	0.
1223	EQmxn	2.858E-13	1.228E-13	2.987E-17	0.	0.	0.
1223	EQmyp	-1.086E-13	-8.135E-13	-2.342E-17	0.	0.	0.
1223	EQmyn	1.086E-13	8.135E-13	2.342E-17	0.	0.	0.
1224	RSX	5.013E-10	5.425E-10	5.334E-17	0.	0.	0.
1224	RSY	8.325E-09	7.520E-09	8.519E-18	0.	0.	0.
1224	EQmxp	-3.993E-15	-1.247E-13	-1.717E-17	0.	0.	0.
1224	EQmxn	3.993E-15	1.247E-13	1.717E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1224	EQmyp	-1.823E-13	1.926E-13	1.307E-17	0.	0.	0.
1224	EQmyn	1.823E-13	-1.926E-13	-1.307E-17	0.	0.	0.
1225	RSX	5.034E-10	4.849E-10	1.192E-18	0.	0.	0.
1225	RSY	7.581E-09	7.141E-09	1.633E-17	0.	0.	0.
1225	EQmxp	1.520E-13	-9.047E-14	-1.234E-17	0.	0.	0.
1225	EQmxn	-1.520E-13	9.047E-14	1.234E-17	0.	0.	0.
1225	EQmyp	-1.659E-13	6.544E-13	8.516E-17	0.	0.	0.
1225	EQmyn	1.659E-13	-6.544E-13	-8.516E-17	0.	0.	0.
1226	RSX	4.975E-10	4.406E-10	3.525E-17	0.	0.	0.
1226	RSY	7.136E-09	6.318E-09	1.723E-17	0.	0.	0.
1226	EQmxp	2.121E-13	1.043E-14	2.703E-17	0.	0.	0.
1226	EQmxn	-2.121E-13	-1.043E-14	-2.703E-17	0.	0.	0.
1226	EQmyp	1.585E-15	7.460E-13	7.420E-17	0.	0.	0.
1226	EQmyn	-1.585E-15	-7.460E-13	-7.420E-17	0.	0.	0.
1227	RSX	4.739E-10	4.110E-10	3.995E-17	0.	0.	0.
1227	RSY	6.942E-09	5.370E-09	4.011E-18	0.	0.	0.
1227	EQmxp	4.499E-13	2.421E-13	3.392E-17	0.	0.	0.
1227	EQmxn	-4.499E-13	-2.421E-13	-3.392E-17	0.	0.	0.
1227	EQmyp	3.766E-13	9.948E-13	5.366E-18	0.	0.	0.
1227	EQmyn	-3.766E-13	-9.948E-13	-5.366E-18	0.	0.	0.
1228	RSX	4.572E-10	3.939E-10	5.789E-17	0.	0.	0.
1228	RSY	6.878E-09	4.752E-09	2.064E-17	0.	0.	0.
1228	EQmxp	8.496E-13	7.366E-13	5.885E-17	0.	0.	0.
1228	EQmxn	-8.496E-13	-7.366E-13	-5.885E-17	0.	0.	0.
1228	EQmyp	1.131E-12	1.484E-12	1.317E-16	0.	0.	0.
1228	EQmyn	-1.131E-12	-1.484E-12	-1.317E-16	0.	0.	0.
1229	RSX	4.442E-10	3.985E-10	4.622E-17	0.	0.	0.
1229	RSY	6.561E-09	4.555E-09	2.252E-17	0.	0.	0.
1229	EQmxp	1.603E-12	1.527E-12	-9.107E-17	0.	0.	0.
1229	EQmxn	-1.603E-12	-1.527E-12	9.107E-17	0.	0.	0.
1229	EQmyp	2.284E-12	2.566E-12	-9.660E-17	0.	0.	0.
1229	EQmyn	-2.284E-12	-2.566E-12	9.660E-17	0.	0.	0.
1230	RSX	4.176E-10	4.457E-10	7.131E-17	0.	0.	0.
1230	RSY	5.789E-09	4.798E-09	1.825E-17	0.	0.	0.
1230	EQmxp	2.510E-12	2.609E-12	-1.102E-16	0.	0.	0.
1230	EQmxn	-2.510E-12	-2.609E-12	1.102E-16	0.	0.	0.
1230	EQmyp	3.817E-12	3.952E-12	-3.052E-17	0.	0.	0.
1230	EQmyn	-3.817E-12	-3.952E-12	3.052E-17	0.	0.	0.
1231	RSX	3.890E-10	5.308E-10	2.650E-17	0.	0.	0.
1231	RSY	5.251E-09	5.388E-09	7.028E-18	0.	0.	0.
1231	EQmxp	3.478E-12	3.605E-12	-5.559E-17	0.	0.	0.
1231	EQmxn	-3.478E-12	-3.605E-12	5.559E-17	0.	0.	0.
1231	EQmyp	5.231E-12	5.467E-12	7.869E-17	0.	0.	0.
1231	EQmyn	-5.231E-12	-5.467E-12	-7.869E-17	0.	0.	0.
1232	RSX	3.748E-10	6.012E-10	3.412E-17	0.	0.	0.
1232	RSY	5.139E-09	5.725E-09	1.474E-17	0.	0.	0.
1232	EQmxp	3.525E-12	3.708E-12	-3.252E-17	0.	0.	0.
1232	EQmxn	-3.525E-12	-3.708E-12	3.252E-17	0.	0.	0.
1232	EQmyp	5.379E-12	5.542E-12	-1.661E-17	0.	0.	0.
1232	EQmyn	-5.379E-12	-5.542E-12	1.661E-17	0.	0.	0.
1233	RSX	3.856E-10	6.352E-10	4.055E-17	0.	0.	0.
1233	RSY	5.506E-09	5.951E-09	7.780E-18	0.	0.	0.
1233	EQmxp	1.187E-12	1.166E-12	-7.505E-18	0.	0.	0.
1233	EQmxn	-1.187E-12	-1.166E-12	7.505E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1233	EQmyp	1.745E-12	1.793E-12	2.747E-17	0.	0.	0.
1233	EQmyn	-1.745E-12	-1.793E-12	-2.747E-17	0.	0.	0.
1234	RSX	4.020E-10	6.243E-10	1.020E-16	0.	0.	0.
1234	RSY	5.921E-09	6.485E-09	6.278E-17	0.	0.	0.
1234	EQmxp	-6.301E-12	-6.705E-12	-1.518E-16	0.	0.	0.
1234	EQmxn	6.301E-12	6.705E-12	1.518E-16	0.	0.	0.
1234	EQmyp	-9.452E-12	-1.023E-11	-7.607E-17	0.	0.	0.
1234	EQmyn	9.452E-12	1.023E-11	7.607E-17	0.	0.	0.
1235	RSX	3.981E-10	5.519E-10	5.686E-17	0.	0.	0.
1235	RSY	6.263E-09	7.144E-09	3.755E-17	0.	0.	0.
1235	EQmxp	-2.084E-11	-2.227E-11	-1.462E-16	0.	0.	0.
1235	EQmxn	2.084E-11	2.227E-11	1.462E-16	0.	0.	0.
1235	EQmyp	-3.152E-11	-3.365E-11	-2.101E-16	0.	0.	0.
1235	EQmyn	3.152E-11	3.365E-11	2.101E-16	0.	0.	0.
1236	RSX	4.208E-10	5.149E-10	5.530E-17	0.	0.	0.
1236	RSY	7.347E-09	8.259E-09	2.454E-17	0.	0.	0.
1236	EQmxp	-4.575E-11	-4.880E-11	8.877E-17	0.	0.	0.
1236	EQmxn	4.575E-11	4.880E-11	-8.877E-17	0.	0.	0.
1236	EQmyp	-6.910E-11	-7.379E-11	1.603E-16	0.	0.	0.
1236	EQmyn	6.910E-11	7.379E-11	-1.603E-16	0.	0.	0.
1237	RSX	4.696E-10	5.005E-10	4.994E-17	0.	0.	0.
1237	RSY	8.294E-09	8.909E-09	1.710E-17	0.	0.	0.
1237	EQmxp	-7.843E-11	-8.371E-11	-6.220E-17	0.	0.	0.
1237	EQmxn	7.843E-11	8.371E-11	6.220E-17	0.	0.	0.
1237	EQmyp	-1.186E-10	-1.265E-10	-8.855E-17	0.	0.	0.
1237	EQmyn	1.186E-10	1.265E-10	8.855E-17	0.	0.	0.
1238	RSX	5.274E-10	5.019E-10	2.149E-18	0.	0.	0.
1238	RSY	8.725E-09	9.019E-09	2.379E-17	0.	0.	0.
1238	EQmxp	-1.060E-10	-1.130E-10	3.272E-17	0.	0.	0.
1238	EQmxn	1.060E-10	1.130E-10	-3.272E-17	0.	0.	0.
1238	EQmyp	-1.601E-10	-1.709E-10	-2.404E-17	0.	0.	0.
1238	EQmyn	1.601E-10	1.709E-10	2.404E-17	0.	0.	0.
1239	RSX	5.694E-10	5.384E-10	9.834E-17	0.	0.	0.
1239	RSY	8.755E-09	9.140E-09	6.091E-17	0.	0.	0.
1239	EQmxp	-9.433E-11	-1.006E-10	5.120E-17	0.	0.	0.
1239	EQmxn	9.433E-11	1.006E-10	-5.120E-17	0.	0.	0.
1239	EQmyp	-1.426E-10	-1.520E-10	2.255E-16	0.	0.	0.
1239	EQmyn	1.426E-10	1.520E-10	-2.255E-16	0.	0.	0.
1240	RSX	5.994E-10	6.146E-10	6.695E-17	0.	0.	0.
1240	RSY	8.242E-09	9.536E-09	4.920E-17	0.	0.	0.
1240	EQmxp	2.159E-11	2.293E-11	2.622E-16	0.	0.	0.
1240	EQmxn	-2.159E-11	-2.293E-11	-2.622E-16	0.	0.	0.
1240	EQmyp	3.250E-11	3.476E-11	2.019E-16	0.	0.	0.
1240	EQmyn	-3.250E-11	-3.476E-11	-2.019E-16	0.	0.	0.
1241	RSX	6.974E-10	8.184E-10	7.845E-17	0.	0.	0.
1241	RSY	7.506E-09	9.683E-09	1.672E-17	0.	0.	0.
1241	EQmxp	3.399E-10	3.624E-10	4.550E-18	0.	0.	0.
1241	EQmxn	-3.399E-10	-3.624E-10	-4.550E-18	0.	0.	0.
1241	EQmyp	5.137E-10	5.476E-10	-9.602E-17	0.	0.	0.
1241	EQmyn	-5.137E-10	-5.476E-10	9.602E-17	0.	0.	0.
1242	RSX	1.024E-09	1.234E-09	7.907E-17	0.	0.	0.
1242	RSY	6.401E-09	9.364E-09	1.182E-17	0.	0.	0.
1242	EQmxp	9.655E-10	1.029E-09	7.188E-17	0.	0.	0.
1242	EQmxn	-9.655E-10	-1.029E-09	-7.188E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1242	EQmyp	1.459E-09	1.556E-09	-3.901E-17	0.	0.	0.
1242	EQmyn	-1.459E-09	-1.556E-09	3.901E-17	0.	0.	0.
1243	RSX	1.660E-09	1.856E-09	1.053E-16	0.	0.	0.
1243	RSY	5.654E-09	9.145E-09	4.243E-17	0.	0.	0.
1243	EQmxp	1.919E-09	2.046E-09	-1.722E-16	0.	0.	0.
1243	EQmxn	-1.919E-09	-2.046E-09	1.722E-16	0.	0.	0.
1243	EQmyp	2.900E-09	3.092E-09	-3.108E-16	0.	0.	0.
1243	EQmyn	-2.900E-09	-3.092E-09	3.108E-16	0.	0.	0.
1244	RSX	2.394E-09	2.544E-09	3.015E-18	0.	0.	0.
1244	RSY	5.225E-09	8.969E-09	9.226E-18	0.	0.	0.
1244	EQmxp	2.938E-09	3.132E-09	9.161E-18	0.	0.	0.
1244	EQmxn	-2.938E-09	-3.132E-09	-9.161E-18	0.	0.	0.
1244	EQmyp	4.440E-09	4.733E-09	1.442E-16	0.	0.	0.
1244	EQmyn	-4.440E-09	-4.733E-09	-1.442E-16	0.	0.	0.
1245	RSX	2.619E-09	2.642E-09	2.906E-17	0.	0.	0.
1245	RSY	5.305E-09	8.863E-09	4.369E-17	0.	0.	0.
1245	EQmxp	3.141E-09	3.349E-09	-1.360E-16	0.	0.	0.
1245	EQmxn	-3.141E-09	-3.349E-09	1.360E-16	0.	0.	0.
1245	EQmyp	4.747E-09	5.061E-09	-1.451E-16	0.	0.	0.
1245	EQmyn	-4.747E-09	-5.061E-09	1.451E-16	0.	0.	0.
1246	RSX	1.058E-09	8.845E-10	4.356E-17	0.	0.	0.
1246	RSY	5.208E-09	8.426E-09	5.353E-17	0.	0.	0.
1246	EQmxp	6.169E-10	6.575E-10	2.839E-17	0.	0.	0.
1246	EQmxn	-6.169E-10	-6.575E-10	-2.839E-17	0.	0.	0.
1246	EQmyp	9.322E-10	9.938E-10	2.775E-16	0.	0.	0.
1246	EQmyn	-9.322E-10	-9.938E-10	-2.775E-16	0.	0.	0.
1247	RSX	4.578E-09	5.127E-09	1.662E-17	0.	0.	0.
1247	RSY	5.739E-09	8.205E-09	7.507E-18	0.	0.	0.
1247	EQmxp	-7.789E-09	-8.304E-09	-4.428E-17	0.	0.	0.
1247	EQmxn	7.789E-09	8.304E-09	4.428E-17	0.	0.	0.
1247	EQmyp	-1.177E-08	-1.255E-08	-7.033E-17	0.	0.	0.
1247	EQmyn	1.177E-08	1.255E-08	7.033E-17	0.	0.	0.
1248	RSX	1.637E-08	1.763E-08	5.945E-17	0.	0.	0.
1248	RSY	1.023E-08	1.231E-08	2.265E-17	0.	0.	0.
1248	EQmxp	-2.577E-08	-2.747E-08	-2.277E-17	0.	0.	0.
1248	EQmxn	2.577E-08	2.747E-08	2.277E-17	0.	0.	0.
1248	EQmyp	-3.894E-08	-4.152E-08	6.382E-17	0.	0.	0.
1248	EQmyn	3.894E-08	4.152E-08	-6.382E-17	0.	0.	0.
1249	RSX	3.522E-08	3.768E-08	5.858E-17	0.	0.	0.
1249	RSY	1.968E-08	2.193E-08	1.529E-17	0.	0.	0.
1249	EQmxp	-5.462E-08	-5.824E-08	-3.063E-17	0.	0.	0.
1249	EQmxn	5.462E-08	5.824E-08	3.063E-17	0.	0.	0.
1249	EQmyp	-8.255E-08	-8.801E-08	4.474E-17	0.	0.	0.
1249	EQmyn	8.255E-08	8.801E-08	-4.474E-17	0.	0.	0.
1250	RSX	5.588E-08	5.978E-08	5.042E-17	0.	0.	0.
1250	RSY	3.060E-08	3.334E-08	2.018E-17	0.	0.	0.
1250	EQmxp	-8.637E-08	-9.208E-08	7.275E-18	0.	0.	0.
1250	EQmxn	8.637E-08	9.208E-08	-7.275E-18	0.	0.	0.
1250	EQmyp	-1.305E-07	-1.392E-07	2.492E-16	0.	0.	0.
1250	EQmyn	1.305E-07	1.392E-07	-2.492E-16	0.	0.	0.
1251	RSX	5.726E-08	6.130E-08	1.034E-17	0.	0.	0.
1251	RSY	3.130E-08	3.401E-08	1.545E-17	0.	0.	0.
1251	EQmxp	-8.855E-08	-9.441E-08	1.945E-16	0.	0.	0.
1251	EQmxn	8.855E-08	9.441E-08	-1.945E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1251	EQmyp	-1.338E-07	-1.427E-07	1.900E-16	0.	0.	0.
1251	EQmyn	1.338E-07	1.427E-07	-1.900E-16	0.	0.	0.
1252	RSX	2.314E-09	2.667E-09	1.108E-16	0.	0.	0.
1252	RSY	6.233E-09	7.934E-09	4.734E-17	0.	0.	0.
1252	EQmxp	-4.341E-09	-4.629E-09	-1.713E-16	0.	0.	0.
1252	EQmxn	4.341E-09	4.629E-09	1.713E-16	0.	0.	0.
1252	EQmyp	-6.561E-09	-6.995E-09	-8.904E-17	0.	0.	0.
1252	EQmyn	6.561E-09	6.995E-09	8.904E-17	0.	0.	0.
1253	RSX	1.790E-07	1.907E-07	8.032E-17	0.	0.	0.
1253	RSY	9.628E-08	1.026E-07	5.998E-17	0.	0.	0.
1253	EQmxp	2.734E-07	2.915E-07	2.939E-17	0.	0.	0.
1253	EQmxn	-2.734E-07	-2.915E-07	-2.939E-17	0.	0.	0.
1253	EQmyp	4.132E-07	4.405E-07	1.930E-16	0.	0.	0.
1253	EQmyn	-4.132E-07	-4.405E-07	-1.930E-16	0.	0.	0.
1254	RSX	6.683E-07	7.126E-07	7.740E-17	0.	0.	0.
1254	RSY	3.587E-07	3.825E-07	4.074E-17	0.	0.	0.
1254	EQmxp	1.023E-06	1.091E-06	1.159E-16	0.	0.	0.
1254	EQmxn	-1.023E-06	-1.091E-06	-1.159E-16	0.	0.	0.
1254	EQmyp	1.546E-06	1.648E-06	1.619E-16	0.	0.	0.
1254	EQmyn	-1.546E-06	-1.648E-06	-1.619E-16	0.	0.	0.
1255	RSX	2.138E-06	2.280E-06	1.240E-16	0.	0.	0.
1255	RSY	1.147E-06	1.223E-06	5.753E-17	0.	0.	0.
1255	EQmxp	3.273E-06	3.490E-06	-8.225E-17	0.	0.	0.
1255	EQmxn	-3.273E-06	-3.490E-06	8.225E-17	0.	0.	0.
1255	EQmyp	4.947E-06	5.274E-06	1.119E-16	0.	0.	0.
1255	EQmyn	-4.947E-06	-5.274E-06	-1.119E-16	0.	0.	0.
1256	RSX	3.862E-06	4.118E-06	1.291E-17	0.	0.	0.
1256	RSY	2.073E-06	2.210E-06	1.072E-16	0.	0.	0.
1256	EQmxp	5.914E-06	6.305E-06	-2.051E-16	0.	0.	0.
1256	EQmxn	-5.914E-06	-6.305E-06	2.051E-16	0.	0.	0.
1256	EQmyp	8.938E-06	9.529E-06	-2.050E-16	0.	0.	0.
1256	EQmyn	-8.938E-06	-9.529E-06	2.050E-16	0.	0.	0.
1257	RSX	5.578E-07	5.949E-07	9.125E-17	0.	0.	0.
1257	RSY	2.995E-07	3.193E-07	5.908E-17	0.	0.	0.
1257	EQmxp	8.538E-07	9.103E-07	2.163E-16	0.	0.	0.
1257	EQmxn	-8.538E-07	-9.103E-07	-2.163E-16	0.	0.	0.
1257	EQmyp	1.290E-06	1.376E-06	3.369E-16	0.	0.	0.
1257	EQmyn	-1.290E-06	-1.376E-06	-3.369E-16	0.	0.	0.
1258	RSX	2.421E-05	2.581E-05	4.790E-16	0.	0.	0.
1258	RSY	1.299E-05	1.385E-05	2.734E-16	0.	0.	0.
1258	EQmxp	-3.707E-05	-3.953E-05	-7.737E-16	0.	0.	0.
1258	EQmxn	3.707E-05	3.953E-05	7.737E-16	0.	0.	0.
1258	EQmyp	-5.603E-05	-5.973E-05	-3.032E-16	0.	0.	0.
1258	EQmyn	5.603E-05	5.973E-05	3.032E-16	0.	0.	0.
1259	RSX	1.081E-04	1.152E-04	4.167E-16	0.	0.	0.
1259	RSY	5.799E-05	6.182E-05	2.665E-16	0.	0.	0.
1259	EQmxp	-1.655E-04	-1.764E-04	1.311E-15	0.	0.	0.
1259	EQmxn	1.655E-04	1.764E-04	-1.311E-15	0.	0.	0.
1259	EQmyp	-2.501E-04	-2.666E-04	3.419E-17	0.	0.	0.
1259	EQmyn	2.501E-04	2.666E-04	-3.419E-17	0.	0.	0.
1260	RSX	9.464E-03	1.311E-04	0.	0.	0.	0.
1260	RSY	1.162E-03	0.013	6.043E-19	0.	0.	0.
1260	EQmxp	-0.014	-6.454E-06	0.	0.	0.	0.
1260	EQmxn	0.014	6.454E-06	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1260	EQmyp	-5.020E-03	-0.058	-1.735E-18	0.	0.	0.
1260	EQmyn	5.020E-03	0.058	1.735E-18	0.	0.	0.
1261	RSX	8.157E-03	1.130E-04	0.	0.	0.	0.
1261	RSY	1.000E-03	0.011	4.634E-19	0.	0.	0.
1261	EQmxp	-0.012	-5.553E-06	0.	0.	0.	0.
1261	EQmxn	0.012	5.553E-06	0.	0.	0.	0.
1261	EQmyp	-4.319E-03	-0.05	-1.735E-18	0.	0.	0.
1261	EQmyn	4.319E-03	0.05	1.735E-18	0.	0.	0.
1262	RSX	0.019	2.639E-04	7.312E-19	0.	0.	0.
1262	RSY	2.333E-03	0.027	9.386E-19	0.	0.	0.
1262	EQmxp	-0.029	-1.295E-05	0.	0.	0.	0.
1262	EQmxn	0.029	1.295E-05	0.	0.	0.	0.
1262	EQmyp	-0.01	-0.117	-6.939E-18	0.	0.	0.
1262	EQmyn	0.01	0.117	6.939E-18	0.	0.	0.
1263	RSX	0.021	2.867E-04	7.467E-19	0.	0.	0.
1263	RSY	2.530E-03	0.029	1.220E-18	0.	0.	0.
1263	EQmxp	-0.031	-1.404E-05	1.735E-18	0.	0.	0.
1263	EQmxn	0.031	1.404E-05	-1.735E-18	0.	0.	0.
1263	EQmyp	-0.011	-0.127	-3.469E-18	0.	0.	0.
1263	EQmyn	0.011	0.127	3.469E-18	0.	0.	0.
1264	RSX	0.021	2.971E-04	7.464E-19	0.	0.	0.
1264	RSY	2.617E-03	0.03	1.210E-18	0.	0.	0.
1264	EQmxp	-0.032	-1.451E-05	0.	0.	0.	0.
1264	EQmxn	0.032	1.451E-05	0.	0.	0.	0.
1264	EQmyp	-0.011	-0.131	0.	0.	0.	0.
1264	EQmyn	0.011	0.131	0.	0.	0.	0.
1265	RSX	0.021	2.969E-04	1.715E-20	0.	0.	0.
1265	RSY	2.609E-03	0.03	1.211E-18	0.	0.	0.
1265	EQmxp	-0.032	-1.446E-05	8.674E-19	0.	0.	0.
1265	EQmxn	0.032	1.446E-05	-8.674E-19	0.	0.	0.
1265	EQmyp	-0.011	-0.131	0.	0.	0.	0.
1265	EQmyn	0.011	0.131	0.	0.	0.	0.
1266	RSX	0.021	2.873E-04	0.	0.	0.	0.
1266	RSY	2.518E-03	0.029	1.662E-18	0.	0.	0.
1266	EQmxp	-0.031	-1.395E-05	-8.674E-19	0.	0.	0.
1266	EQmxn	0.031	1.395E-05	8.674E-19	0.	0.	0.
1266	EQmyp	-0.011	-0.126	6.939E-18	0.	0.	0.
1266	EQmyn	0.011	0.126	-6.939E-18	0.	0.	0.
1267	RSX	0.019	2.588E-04	0.	0.	0.	0.
1267	RSY	2.260E-03	0.026	9.196E-19	0.	0.	0.
1267	EQmxp	-0.028	-1.252E-05	0.	0.	0.	0.
1267	EQmxn	0.028	1.252E-05	0.	0.	0.	0.
1267	EQmyp	-9.736E-03	-0.113	0.	0.	0.	0.
1267	EQmyn	9.736E-03	0.113	0.	0.	0.	0.
1268	RSX	0.015	2.108E-04	7.361E-19	0.	0.	0.
1268	RSY	1.833E-03	0.021	1.598E-18	0.	0.	0.
1268	EQmxp	-0.023	-1.014E-05	-1.735E-18	0.	0.	0.
1268	EQmxn	0.023	1.014E-05	1.735E-18	0.	0.	0.
1268	EQmyp	-7.888E-03	-0.092	6.939E-18	0.	0.	0.
1268	EQmyn	7.888E-03	0.092	-6.939E-18	0.	0.	0.
1269	RSX	0.012	1.656E-04	7.326E-19	0.	0.	0.
1269	RSY	1.432E-03	0.016	4.676E-19	0.	0.	0.
1269	EQmxp	-0.018	-7.910E-06	1.735E-18	0.	0.	0.
1269	EQmxn	0.018	7.910E-06	-1.735E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1269	EQmyp	-6.153E-03	-0.072	0.	0.	0.	0.
1269	EQmyn	6.153E-03	0.072	0.	0.	0.	0.
1270	RSX	8.905E-03	1.226E-04	2.197E-18	0.	0.	0.
1270	RSY	1.050E-03	0.012	2.018E-18	0.	0.	0.
1270	EQmxp	-0.013	-5.787E-06	-3.903E-18	0.	0.	0.
1270	EQmxn	0.013	5.787E-06	3.903E-18	0.	0.	0.
1270	EQmyp	-4.501E-03	-0.052	6.939E-18	0.	0.	0.
1270	EQmyn	4.501E-03	0.052	-6.939E-18	0.	0.	0.
1271	RSX	5.752E-03	7.898E-05	7.386E-19	0.	0.	0.
1271	RSY	6.628E-04	7.699E-03	4.143E-19	0.	0.	0.
1271	EQmxp	-8.107E-03	-3.640E-06	0.	0.	0.	0.
1271	EQmxn	8.107E-03	3.640E-06	0.	0.	0.	0.
1271	EQmyp	-2.831E-03	-0.033	-1.735E-18	0.	0.	0.
1271	EQmyn	2.831E-03	0.033	1.735E-18	0.	0.	0.
1272	RSX	2.734E-03	3.722E-05	9.171E-19	0.	0.	0.
1272	RSY	2.943E-04	3.482E-03	8.350E-19	0.	0.	0.
1272	EQmxp	-3.552E-03	-1.595E-06	-9.758E-19	0.	0.	0.
1272	EQmxn	3.552E-03	1.595E-06	9.758E-19	0.	0.	0.
1272	EQmyp	-1.240E-03	-0.014	2.168E-18	0.	0.	0.
1272	EQmyn	1.240E-03	0.014	-2.168E-18	0.	0.	0.
1273	RSX	5.102E-05	1.447E-06	3.584E-19	0.	0.	0.
1273	RSY	3.385E-05	3.281E-04	1.670E-19	0.	0.	0.
1273	EQmxp	4.857E-04	2.181E-07	9.080E-19	0.	0.	0.
1273	EQmxn	-4.857E-04	-2.181E-07	-9.080E-19	0.	0.	0.
1273	EQmyp	1.696E-04	1.972E-03	1.030E-18	0.	0.	0.
1273	EQmyn	-1.696E-04	-1.972E-03	-1.030E-18	0.	0.	0.
1274	RSX	2.322E-03	3.279E-05	1.852E-19	0.	0.	0.
1274	RSY	3.212E-04	3.579E-03	2.101E-19	0.	0.	0.
1274	EQmxp	4.048E-03	1.817E-06	6.505E-19	0.	0.	0.
1274	EQmxn	-4.048E-03	-1.817E-06	-6.505E-19	0.	0.	0.
1274	EQmyp	1.413E-03	0.016	0.	0.	0.	0.
1274	EQmyn	-1.413E-03	-0.016	0.	0.	0.	0.
1275	RSX	4.415E-03	6.172E-05	1.104E-18	0.	0.	0.
1275	RSY	5.750E-04	6.488E-03	3.106E-19	0.	0.	0.
1275	EQmxp	7.181E-03	3.224E-06	0.	0.	0.	0.
1275	EQmxn	-7.181E-03	-3.224E-06	0.	0.	0.	0.
1275	EQmyp	2.508E-03	0.029	3.469E-18	0.	0.	0.
1275	EQmyn	-2.508E-03	-0.029	-3.469E-18	0.	0.	0.
1276	RSX	6.270E-03	8.735E-05	3.598E-19	0.	0.	0.
1276	RSY	7.993E-04	9.062E-03	1.011E-18	0.	0.	0.
1276	EQmxp	9.948E-03	4.466E-06	1.301E-18	0.	0.	0.
1276	EQmxn	-9.948E-03	-4.466E-06	-1.301E-18	0.	0.	0.
1276	EQmyp	3.474E-03	0.04	-1.735E-18	0.	0.	0.
1276	EQmyn	-3.474E-03	-0.04	1.735E-18	0.	0.	0.
1277	RSX	6.320E-03	8.790E-05	9.159E-19	0.	0.	0.
1277	RSY	7.965E-04	9.054E-03	7.949E-19	0.	0.	0.
1277	EQmxp	9.896E-03	4.443E-06	-8.674E-19	0.	0.	0.
1277	EQmxn	-9.896E-03	-4.443E-06	8.674E-19	0.	0.	0.
1277	EQmyp	3.456E-03	0.04	0.	0.	0.	0.
1277	EQmyn	-3.456E-03	-0.04	0.	0.	0.	0.
1278	RSX	7.263E-03	1.009E-04	1.104E-18	0.	0.	0.
1278	RSY	9.086E-04	0.01	8.413E-19	0.	0.	0.
1278	EQmxp	0.011	5.061E-06	-2.168E-18	0.	0.	0.
1278	EQmxn	-0.011	-5.061E-06	2.168E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1278	EQmyp	3.937E-03	0.046	3.469E-18	0.	0.	0.
1278	EQmyn	-3.937E-03	-0.046	-3.469E-18	0.	0.	0.
1279	RSX	8.052E-03	1.118E-04	1.845E-18	0.	0.	0.
1279	RSY	1.002E-03	0.011	4.089E-19	0.	0.	0.
1279	EQmxp	0.012	5.575E-06	8.674E-19	0.	0.	0.
1279	EQmxn	-0.012	-5.575E-06	-8.674E-19	0.	0.	0.
1279	EQmyp	4.336E-03	0.05	-1.735E-18	0.	0.	0.
1279	EQmyn	-4.336E-03	-0.05	1.735E-18	0.	0.	0.
1280	RSX	8.898E-03	1.234E-04	3.322E-18	0.	0.	0.
1280	RSY	1.101E-03	0.013	8.306E-19	0.	0.	0.
1280	EQmxp	0.014	6.126E-06	-1.735E-18	0.	0.	0.
1280	EQmxn	-0.014	-6.126E-06	1.735E-18	0.	0.	0.
1280	EQmyp	4.765E-03	0.055	-6.939E-18	0.	0.	0.
1280	EQmyn	-4.765E-03	-0.055	6.939E-18	0.	0.	0.
1281	RSX	0.011	1.470E-04	4.042E-18	0.	0.	0.
1281	RSY	1.306E-03	0.015	2.895E-18	0.	0.	0.
1281	EQmxp	0.016	7.257E-06	2.168E-18	0.	0.	0.
1281	EQmxn	-0.016	-7.257E-06	-2.168E-18	0.	0.	0.
1281	EQmyp	5.644E-03	0.066	-6.939E-18	0.	0.	0.
1281	EQmyn	-5.644E-03	-0.066	6.939E-18	0.	0.	0.
1282	RSX	0.026	3.649E-04	8.313E-17	0.	0.	0.
1282	RSY	3.224E-03	0.037	4.264E-17	0.	0.	0.
1282	EQmxp	0.04	1.789E-05	-5.378E-17	0.	0.	0.
1282	EQmxn	-0.04	-1.789E-05	5.378E-17	0.	0.	0.
1282	EQmyp	0.014	0.162	1.735E-16	0.	0.	0.
1282	EQmyn	-0.014	-0.162	-1.735E-16	0.	0.	0.
1283	RSX	6.105E-03	8.439E-05	5.309E-18	0.	0.	0.
1283	RSY	7.383E-04	8.474E-03	4.591E-18	0.	0.	0.
1283	EQmxp	9.110E-03	4.090E-06	-3.036E-18	0.	0.	0.
1283	EQmxn	-9.110E-03	-4.090E-06	3.036E-18	0.	0.	0.
1283	EQmyp	3.181E-03	0.037	3.469E-17	0.	0.	0.
1283	EQmyn	-3.181E-03	-0.037	-3.469E-17	0.	0.	0.
1284	RSX	1.700E-03	2.340E-05	1.422E-17	0.	0.	0.
1284	RSY	1.994E-04	2.306E-03	3.748E-18	0.	0.	0.
1284	EQmxp	2.447E-03	1.098E-06	-1.084E-18	0.	0.	0.
1284	EQmxn	-2.447E-03	-1.098E-06	1.084E-18	0.	0.	0.
1284	EQmyp	8.544E-04	9.935E-03	2.732E-17	0.	0.	0.
1284	EQmyn	-8.544E-04	-9.935E-03	-2.732E-17	0.	0.	0.
1285	RSX	8.177E-05	1.041E-06	6.941E-18	0.	0.	0.
1285	RSY	2.491E-06	5.790E-05	4.244E-18	0.	0.	0.
1285	EQmxp	1.842E-06	8.271E-10	-1.986E-17	0.	0.	0.
1285	EQmxn	-1.842E-06	-8.271E-10	1.986E-17	0.	0.	0.
1285	EQmyp	6.433E-07	7.481E-06	7.906E-18	0.	0.	0.
1285	EQmyn	-6.433E-07	-7.481E-06	-7.906E-18	0.	0.	0.
1286	RSX	7.627E-04	1.070E-05	3.482E-18	0.	0.	0.
1286	RSY	1.013E-04	1.138E-03	6.661E-19	0.	0.	0.
1286	EQmxp	-1.269E-03	-5.698E-07	-2.927E-18	0.	0.	0.
1286	EQmxn	1.269E-03	5.698E-07	2.927E-18	0.	0.	0.
1286	EQmyp	-4.432E-04	-5.154E-03	-3.469E-18	0.	0.	0.
1286	EQmyn	4.432E-04	5.154E-03	3.469E-18	0.	0.	0.
1287	RSX	1.239E-03	1.728E-05	4.325E-18	0.	0.	0.
1287	RSY	1.589E-04	1.800E-03	1.224E-18	0.	0.	0.
1287	EQmxp	-1.980E-03	-8.890E-07	-1.203E-17	0.	0.	0.
1287	EQmxn	1.980E-03	8.890E-07	1.203E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1287	EQmyp	-6.914E-04	-8.040E-03	4.987E-18	0.	0.	0.
1287	EQmyn	6.914E-04	8.040E-03	-4.987E-18	0.	0.	0.
1288	RSX	1.486E-03	2.068E-05	1.434E-17	0.	0.	0.
1288	RSY	1.882E-04	2.136E-03	1.937E-18	0.	0.	0.
1288	EQmxp	-2.340E-03	-1.050E-06	1.681E-17	0.	0.	0.
1288	EQmxn	2.340E-03	1.050E-06	-1.681E-17	0.	0.	0.
1288	EQmyp	-8.170E-04	-9.500E-03	-8.674E-18	0.	0.	0.
1288	EQmyn	8.170E-04	9.500E-03	8.674E-18	0.	0.	0.
1289	RSX	1.571E-03	2.185E-05	4.303E-18	0.	0.	0.
1289	RSY	1.976E-04	2.248E-03	7.898E-18	0.	0.	0.
1289	EQmxp	-2.455E-03	-1.102E-06	-2.461E-17	0.	0.	0.
1289	EQmxn	2.455E-03	1.102E-06	2.461E-17	0.	0.	0.
1289	EQmyp	-8.572E-04	-9.967E-03	1.908E-17	0.	0.	0.
1289	EQmyn	8.572E-04	9.967E-03	-1.908E-17	0.	0.	0.
1290	RSX	1.538E-03	2.137E-05	7.184E-18	0.	0.	0.
1290	RSY	1.925E-04	2.192E-03	1.433E-18	0.	0.	0.
1290	EQmxp	-2.389E-03	-1.073E-06	7.915E-18	0.	0.	0.
1290	EQmxn	2.389E-03	1.073E-06	-7.915E-18	0.	0.	0.
1290	EQmyp	-8.343E-04	-9.702E-03	-1.778E-17	0.	0.	0.
1290	EQmyn	8.343E-04	9.702E-03	1.778E-17	0.	0.	0.
1291	RSX	1.419E-03	1.970E-05	1.127E-17	0.	0.	0.
1291	RSY	1.768E-04	2.015E-03	3.163E-18	0.	0.	0.
1291	EQmxp	-2.192E-03	-9.842E-07	-5.258E-18	0.	0.	0.
1291	EQmxn	2.192E-03	9.842E-07	5.258E-18	0.	0.	0.
1291	EQmyp	-7.655E-04	-8.902E-03	-4.987E-18	0.	0.	0.
1291	EQmyn	7.655E-04	8.902E-03	4.987E-18	0.	0.	0.
1292	RSX	1.238E-03	1.718E-05	3.123E-17	0.	0.	0.
1292	RSY	1.536E-04	1.753E-03	1.603E-17	0.	0.	0.
1292	EQmxp	-1.904E-03	-8.546E-07	-5.275E-17	0.	0.	0.
1292	EQmxn	1.904E-03	8.546E-07	5.275E-17	0.	0.	0.
1292	EQmyp	-6.647E-04	-7.730E-03	7.286E-17	0.	0.	0.
1292	EQmyn	6.647E-04	7.730E-03	-7.286E-17	0.	0.	0.
1293	RSX	7.054E-04	9.779E-06	4.302E-17	0.	0.	0.
1293	RSY	8.703E-05	9.941E-04	2.458E-17	0.	0.	0.
1293	EQmxp	-1.077E-03	-4.837E-07	-3.112E-17	0.	0.	0.
1293	EQmxn	1.077E-03	4.837E-07	3.112E-17	0.	0.	0.
1293	EQmyp	-3.762E-04	-4.375E-03	6.516E-17	0.	0.	0.
1293	EQmyn	3.762E-04	4.375E-03	-6.516E-17	0.	0.	0.
1294	RSX	4.839E-04	6.702E-06	8.339E-19	0.	0.	0.
1294	RSY	5.924E-05	6.780E-04	3.380E-18	0.	0.	0.
1294	EQmxp	-7.325E-04	-3.288E-07	-1.258E-17	0.	0.	0.
1294	EQmxn	7.325E-04	3.288E-07	1.258E-17	0.	0.	0.
1294	EQmyp	-2.558E-04	-2.974E-03	3.643E-17	0.	0.	0.
1294	EQmyn	2.558E-04	2.974E-03	-3.643E-17	0.	0.	0.
1295	RSX	2.679E-04	3.702E-06	8.306E-17	0.	0.	0.
1295	RSY	3.228E-05	3.708E-04	3.893E-17	0.	0.	0.
1295	EQmxp	-3.980E-04	-1.787E-07	-1.517E-16	0.	0.	0.
1295	EQmxn	3.980E-04	1.787E-07	1.517E-16	0.	0.	0.
1295	EQmyp	-1.390E-04	-1.616E-03	2.159E-16	0.	0.	0.
1295	EQmyn	1.390E-04	1.616E-03	-2.159E-16	0.	0.	0.
1296	RSX	6.152E-05	8.382E-07	6.295E-17	0.	0.	0.
1296	RSY	6.648E-06	7.857E-05	1.456E-17	0.	0.	0.
1296	EQmxp	-8.030E-05	-3.605E-08	1.027E-17	0.	0.	0.
1296	EQmxn	8.030E-05	3.605E-08	-1.027E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1296	EQmyp	-2.804E-05	-3.260E-04	1.637E-16	0.	0.	0.
1296	EQmyn	2.804E-05	3.260E-04	-1.637E-16	0.	0.	0.
1297	RSX	7.055E-04	9.824E-06	5.954E-16	0.	0.	0.
1297	RSY	8.969E-05	1.017E-03	6.505E-16	0.	0.	0.
1297	EQmxp	1.116E-03	5.010E-07	1.933E-16	0.	0.	0.
1297	EQmxn	-1.116E-03	-5.010E-07	-1.933E-16	0.	0.	0.
1297	EQmyp	3.897E-04	4.531E-03	1.863E-16	0.	0.	0.
1297	EQmyn	-3.897E-04	-4.531E-03	-1.863E-16	0.	0.	0.
1298	RSX	1.785E-04	2.473E-06	3.830E-16	0.	0.	0.
1298	RSY	2.194E-05	2.508E-04	1.530E-16	0.	0.	0.
1298	EQmxp	2.714E-04	1.219E-07	6.024E-16	0.	0.	0.
1298	EQmxn	-2.714E-04	-1.219E-07	-6.024E-16	0.	0.	0.
1298	EQmyp	9.478E-05	1.102E-03	-5.935E-16	0.	0.	0.
1298	EQmyn	-9.478E-05	-1.102E-03	5.935E-16	0.	0.	0.
1299	RSX	1.110E-04	1.536E-06	1.763E-16	0.	0.	0.
1299	RSY	1.347E-05	1.545E-04	1.492E-16	0.	0.	0.
1299	EQmxp	1.663E-04	7.467E-08	-2.804E-16	0.	0.	0.
1299	EQmxn	-1.663E-04	-7.467E-08	2.804E-16	0.	0.	0.
1299	EQmyp	5.808E-05	6.753E-04	8.364E-16	0.	0.	0.
1299	EQmyn	-5.808E-05	-6.753E-04	-8.364E-16	0.	0.	0.
1300	RSX	6.328E-05	8.737E-07	1.044E-16	0.	0.	0.
1300	RSY	7.592E-06	8.730E-05	2.828E-17	0.	0.	0.
1300	EQmxp	9.353E-05	4.199E-08	-8.713E-17	0.	0.	0.
1300	EQmxn	-9.353E-05	-4.199E-08	8.713E-17	0.	0.	0.
1300	EQmyp	3.266E-05	3.798E-04	-1.522E-16	0.	0.	0.
1300	EQmyn	-3.266E-05	-3.798E-04	1.522E-16	0.	0.	0.
1301	RSX	2.601E-05	3.579E-07	3.399E-16	0.	0.	0.
1301	RSY	3.056E-06	3.532E-05	2.693E-16	0.	0.	0.
1301	EQmxp	3.752E-05	1.684E-08	6.549E-16	0.	0.	0.
1301	EQmxn	-3.752E-05	-1.684E-08	-6.549E-16	0.	0.	0.
1301	EQmyp	1.310E-05	1.523E-04	-8.548E-16	0.	0.	0.
1301	EQmyn	-1.310E-05	-1.523E-04	8.548E-16	0.	0.	0.
1302	RSX	5.355E-07	9.169E-09	7.256E-17	0.	0.	0.
1302	RSY	1.399E-07	1.437E-06	1.173E-16	0.	0.	0.
1302	EQmxp	-1.874E-06	-8.415E-10	-1.029E-15	0.	0.	0.
1302	EQmxn	1.874E-06	8.415E-10	1.029E-15	0.	0.	0.
1302	EQmyp	-6.544E-07	-7.610E-06	1.275E-15	0.	0.	0.
1302	EQmyn	6.544E-07	7.610E-06	-1.275E-15	0.	0.	0.
1303	RSX	2.014E-05	2.793E-07	1.425E-15	0.	0.	0.
1303	RSY	2.472E-06	2.827E-05	3.115E-16	0.	0.	0.
1303	EQmxp	-3.057E-05	-1.372E-08	1.457E-16	0.	0.	0.
1303	EQmxn	3.057E-05	1.372E-08	-1.457E-16	0.	0.	0.
1303	EQmyp	-1.067E-05	-1.241E-04	1.780E-15	0.	0.	0.
1303	EQmyn	1.067E-05	1.241E-04	-1.780E-15	0.	0.	0.
1304	RSX	6.993E-06	9.646E-08	2.095E-15	0.	0.	0.
1304	RSY	8.270E-07	9.543E-06	9.839E-16	0.	0.	0.
1304	EQmxp	-1.016E-05	-4.563E-09	-4.921E-15	0.	0.	0.
1304	EQmxn	1.016E-05	4.563E-09	4.921E-15	0.	0.	0.
1304	EQmyp	-3.549E-06	-4.126E-05	2.291E-15	0.	0.	0.
1304	EQmyn	3.549E-06	4.126E-05	-2.291E-15	0.	0.	0.
1305	RSX	4.841E-07	6.788E-09	4.203E-15	0.	0.	0.
1305	RSY	6.835E-08	7.532E-07	2.113E-15	0.	0.	0.
1305	EQmxp	8.550E-07	3.843E-10	4.277E-15	0.	0.	0.
1305	EQmxn	-8.550E-07	-3.843E-10	-4.277E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1305	EQmyp	2.986E-07	3.472E-06	-3.430E-15	0.	0.	0.
1305	EQmyn	-2.986E-07	-3.472E-06	3.430E-15	0.	0.	0.
1306	RSX	5.632E-07	7.647E-09	6.137E-16	0.	0.	0.
1306	RSY	6.831E-08	7.820E-07	6.480E-16	0.	0.	0.
1306	EQmxp	8.407E-07	3.772E-10	8.687E-16	0.	0.	0.
1306	EQmxn	-8.407E-07	-3.772E-10	-8.687E-16	0.	0.	0.
1306	EQmyp	2.936E-07	3.414E-06	-5.102E-15	0.	0.	0.
1306	EQmyn	-2.936E-07	-3.414E-06	5.102E-15	0.	0.	0.
1307	RSX	1.197E-07	1.611E-09	4.710E-15	0.	0.	0.
1307	RSY	1.480E-08	1.624E-07	2.300E-15	0.	0.	0.
1307	EQmxp	1.720E-07	7.739E-11	5.527E-15	0.	0.	0.
1307	EQmxn	-1.720E-07	-7.739E-11	-5.527E-15	0.	0.	0.
1307	EQmyp	6.004E-08	6.982E-07	-5.767E-15	0.	0.	0.
1307	EQmyn	-6.004E-08	-6.982E-07	5.767E-15	0.	0.	0.
1308	RSX	1.370E-08	2.005E-10	4.808E-15	0.	0.	0.
1308	RSY	4.277E-09	1.969E-08	1.906E-15	0.	0.	0.
1308	EQmxp	-2.173E-08	-1.006E-11	-2.898E-15	0.	0.	0.
1308	EQmxn	2.173E-08	1.006E-11	2.898E-15	0.	0.	0.
1308	EQmyp	-7.588E-09	-8.823E-08	1.509E-14	0.	0.	0.
1308	EQmyn	7.588E-09	8.823E-08	-1.509E-14	0.	0.	0.
1309	RSX	1.321E-08	9.454E-10	4.441E-15	0.	0.	0.
1309	RSY	6.259E-09	2.209E-08	2.596E-15	0.	0.	0.
1309	EQmxp	-1.845E-08	-7.972E-12	-5.900E-15	0.	0.	0.
1309	EQmxn	1.845E-08	7.972E-12	5.900E-15	0.	0.	0.
1309	EQmyp	-6.442E-09	-7.491E-08	1.201E-14	0.	0.	0.
1309	EQmyn	6.442E-09	7.491E-08	-1.201E-14	0.	0.	0.
1310	RSX	4.241E-09	3.752E-09	4.871E-16	0.	0.	0.
1310	RSY	5.063E-08	5.771E-08	1.261E-15	0.	0.	0.
1310	EQmxp	-1.492E-09	-5.763E-13	-1.431E-16	0.	0.	0.
1310	EQmxn	1.492E-09	5.763E-13	1.431E-16	0.	0.	0.
1310	EQmyp	-5.197E-10	-6.053E-09	-6.125E-15	0.	0.	0.
1310	EQmyn	5.197E-10	6.053E-09	6.125E-15	0.	0.	0.
1311	RSX	1.422E-11	1.044E-11	1.232E-18	0.	0.	0.
1311	RSY	1.184E-10	1.514E-10	1.665E-19	0.	0.	0.
1311	EQmxp	3.171E-12	2.170E-15	-8.485E-19	0.	0.	0.
1311	EQmxn	-3.171E-12	-2.170E-15	8.485E-19	0.	0.	0.
1311	EQmyp	1.110E-12	1.288E-11	4.227E-18	0.	0.	0.
1311	EQmyn	-1.110E-12	-1.288E-11	-4.227E-18	0.	0.	0.
1312	RSX	6.945E-11	5.470E-11	2.805E-18	0.	0.	0.
1312	RSY	6.034E-10	7.661E-10	1.399E-18	0.	0.	0.
1312	EQmxp	1.193E-11	7.511E-15	1.881E-18	0.	0.	0.
1312	EQmxn	-1.193E-11	-7.511E-15	-1.881E-18	0.	0.	0.
1312	EQmyp	4.180E-12	4.846E-11	-5.229E-18	0.	0.	0.
1312	EQmyn	-4.180E-12	-4.846E-11	5.229E-18	0.	0.	0.
1313	RSX	1.610E-10	1.333E-10	4.409E-19	0.	0.	0.
1313	RSY	1.502E-09	1.836E-09	1.013E-19	0.	0.	0.
1313	EQmxp	2.105E-11	1.514E-14	1.229E-18	0.	0.	0.
1313	EQmxn	-2.105E-11	-1.514E-14	-1.229E-18	0.	0.	0.
1313	EQmyp	7.381E-12	8.551E-11	1.376E-17	0.	0.	0.
1313	EQmyn	-7.381E-12	-8.551E-11	-1.376E-17	0.	0.	0.
1314	RSX	2.720E-10	2.333E-10	2.951E-18	0.	0.	0.
1314	RSY	2.759E-09	3.155E-09	1.861E-18	0.	0.	0.
1314	EQmxp	2.729E-11	1.742E-14	-1.357E-18	0.	0.	0.
1314	EQmxn	-2.729E-11	-1.742E-14	1.357E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1314	EQmyp	9.570E-12	1.109E-10	-5.101E-18	0.	0.	0.
1314	EQmyn	-9.570E-12	-1.109E-10	5.101E-18	0.	0.	0.
1315	RSX	3.824E-10	3.405E-10	1.455E-17	0.	0.	0.
1315	RSY	4.224E-09	4.530E-09	4.378E-18	0.	0.	0.
1315	EQmxp	2.935E-11	1.245E-14	-1.455E-17	0.	0.	0.
1315	EQmxn	-2.935E-11	-1.245E-14	1.455E-17	0.	0.	0.
1315	EQmyp	1.029E-11	1.192E-10	4.313E-17	0.	0.	0.
1315	EQmyn	-1.029E-11	-1.192E-10	-4.313E-17	0.	0.	0.
1316	RSX	4.730E-10	4.387E-10	2.378E-18	0.	0.	0.
1316	RSY	5.662E-09	5.887E-09	7.147E-18	0.	0.	0.
1316	EQmxp	2.740E-11	2.421E-15	-1.204E-17	0.	0.	0.
1316	EQmxn	-2.740E-11	-2.421E-15	1.204E-17	0.	0.	0.
1316	EQmyp	9.595E-12	1.113E-10	1.499E-17	0.	0.	0.
1316	EQmyn	-9.595E-12	-1.113E-10	-1.499E-17	0.	0.	0.
1317	RSX	5.282E-10	5.176E-10	1.295E-17	0.	0.	0.
1317	RSY	6.844E-09	7.115E-09	6.171E-18	0.	0.	0.
1317	EQmxp	2.252E-11	-1.256E-14	8.455E-18	0.	0.	0.
1317	EQmxn	-2.252E-11	1.256E-14	-8.455E-18	0.	0.	0.
1317	EQmyp	7.879E-12	9.151E-11	-1.751E-17	0.	0.	0.
1317	EQmyn	-7.879E-12	-9.151E-11	1.751E-17	0.	0.	0.
1318	RSX	5.444E-10	5.755E-10	8.361E-18	0.	0.	0.
1318	RSY	7.641E-09	8.129E-09	2.877E-18	0.	0.	0.
1318	EQmxp	1.620E-11	-1.669E-14	-2.154E-17	0.	0.	0.
1318	EQmxn	-1.620E-11	1.669E-14	2.154E-17	0.	0.	0.
1318	EQmyp	5.665E-12	6.580E-11	9.071E-20	0.	0.	0.
1318	EQmyn	-5.665E-12	-6.580E-11	-9.071E-20	0.	0.	0.
1319	RSX	5.299E-10	6.138E-10	6.537E-18	0.	0.	0.
1319	RSY	8.049E-09	8.852E-09	5.664E-18	0.	0.	0.
1319	EQmxp	9.761E-12	-2.180E-14	-2.289E-18	0.	0.	0.
1319	EQmxn	-9.761E-12	2.180E-14	2.289E-18	0.	0.	0.
1319	EQmyp	3.413E-12	3.969E-11	-5.285E-17	0.	0.	0.
1319	EQmyn	-3.413E-12	-3.969E-11	5.285E-17	0.	0.	0.
1320	RSX	5.024E-10	6.376E-10	9.732E-18	0.	0.	0.
1320	RSY	8.037E-09	9.239E-09	5.944E-18	0.	0.	0.
1320	EQmxp	4.271E-12	-1.537E-14	-1.973E-18	0.	0.	0.
1320	EQmxn	-4.271E-12	1.537E-14	1.973E-18	0.	0.	0.
1320	EQmyp	1.503E-12	1.738E-11	-3.840E-17	0.	0.	0.
1320	EQmyn	-1.503E-12	-1.738E-11	3.840E-17	0.	0.	0.
1321	RSX	4.782E-10	6.598E-10	3.026E-17	0.	0.	0.
1321	RSY	7.705E-09	9.266E-09	2.341E-17	0.	0.	0.
1321	EQmxp	2.195E-13	-1.706E-14	-4.473E-17	0.	0.	0.
1321	EQmxn	-2.195E-13	1.706E-14	4.473E-17	0.	0.	0.
1321	EQmyp	9.830E-14	9.879E-13	1.174E-16	0.	0.	0.
1321	EQmyn	-9.830E-14	-9.879E-13	-1.174E-16	0.	0.	0.
1322	RSX	4.675E-10	6.864E-10	2.856E-18	0.	0.	0.
1322	RSY	7.415E-09	9.043E-09	1.768E-17	0.	0.	0.
1322	EQmxp	-2.206E-12	-2.601E-15	4.361E-17	0.	0.	0.
1322	EQmxn	2.206E-12	2.601E-15	-4.361E-17	0.	0.	0.
1322	EQmyp	-7.344E-13	-8.910E-12	-9.755E-17	0.	0.	0.
1322	EQmyn	7.344E-13	8.910E-12	9.755E-17	0.	0.	0.
1323	RSX	4.796E-10	7.040E-10	1.463E-17	0.	0.	0.
1323	RSY	7.403E-09	8.674E-09	8.788E-18	0.	0.	0.
1323	EQmxp	-3.303E-12	5.395E-15	4.039E-17	0.	0.	0.
1323	EQmxn	3.303E-12	-5.395E-15	-4.039E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1323	EQmyp	-1.103E-12	-1.329E-11	-7.824E-17	0.	0.	0.
1323	EQmyn	1.103E-12	1.329E-11	7.824E-17	0.	0.	0.
1324	RSX	5.239E-10	7.094E-10	3.912E-17	0.	0.	0.
1324	RSY	7.799E-09	8.217E-09	2.040E-17	0.	0.	0.
1324	EQmxp	-3.361E-12	2.757E-14	-4.098E-17	0.	0.	0.
1324	EQmxn	3.361E-12	-2.757E-14	4.098E-17	0.	0.	0.
1324	EQmyp	-1.094E-12	-1.354E-11	9.978E-17	0.	0.	0.
1324	EQmyn	1.094E-12	1.354E-11	-9.978E-17	0.	0.	0.
1325	RSX	5.473E-10	6.360E-10	2.367E-17	0.	0.	0.
1325	RSY	7.691E-09	7.087E-09	2.730E-17	0.	0.	0.
1325	EQmxp	-2.634E-12	3.351E-14	-8.634E-17	0.	0.	0.
1325	EQmxn	2.634E-12	-3.351E-14	8.634E-17	0.	0.	0.
1325	EQmyp	-8.188E-13	-1.048E-11	1.029E-16	0.	0.	0.
1325	EQmyn	8.188E-13	1.048E-11	-1.029E-16	0.	0.	0.
1326	RSX	6.146E-10	6.096E-10	4.269E-17	0.	0.	0.
1326	RSY	8.330E-09	6.845E-09	1.441E-17	0.	0.	0.
1326	EQmxp	-1.916E-12	5.057E-14	-1.069E-17	0.	0.	0.
1326	EQmxn	1.916E-12	-5.057E-14	1.069E-17	0.	0.	0.
1326	EQmyp	-5.186E-13	-7.577E-12	-5.993E-17	0.	0.	0.
1326	EQmyn	5.186E-13	7.577E-12	5.993E-17	0.	0.	0.
1327	RSX	6.550E-10	5.906E-10	1.124E-17	0.	0.	0.
1327	RSY	8.629E-09	6.655E-09	6.729E-18	0.	0.	0.
1327	EQmxp	-1.253E-12	6.720E-14	-2.266E-17	0.	0.	0.
1327	EQmxn	1.253E-12	-6.720E-14	2.266E-17	0.	0.	0.
1327	EQmyp	-2.461E-13	-4.742E-12	8.500E-18	0.	0.	0.
1327	EQmyn	2.461E-13	4.742E-12	-8.500E-18	0.	0.	0.
1328	RSX	6.584E-10	5.873E-10	2.276E-17	0.	0.	0.
1328	RSY	8.485E-09	6.650E-09	2.610E-18	0.	0.	0.
1328	EQmxp	-6.705E-13	1.051E-13	4.383E-17	0.	0.	0.
1328	EQmxn	6.705E-13	-1.051E-13	-4.383E-17	0.	0.	0.
1328	EQmyp	9.311E-15	-2.369E-12	5.195E-17	0.	0.	0.
1328	EQmyn	-9.311E-15	2.369E-12	-5.195E-17	0.	0.	0.
1329	RSX	6.384E-10	5.917E-10	4.707E-18	0.	0.	0.
1329	RSY	8.200E-09	6.850E-09	3.105E-18	0.	0.	0.
1329	EQmxp	-3.221E-13	1.193E-13	3.462E-17	0.	0.	0.
1329	EQmxn	3.221E-13	-1.193E-13	-3.462E-17	0.	0.	0.
1329	EQmyp	1.624E-13	-8.072E-13	-4.079E-19	0.	0.	0.
1329	EQmyn	-1.624E-13	8.072E-13	4.079E-19	0.	0.	0.
1330	RSX	6.065E-10	6.072E-10	4.488E-17	0.	0.	0.
1330	RSY	7.839E-09	6.993E-09	3.478E-17	0.	0.	0.
1330	EQmxp	-5.354E-14	1.252E-13	-1.079E-16	0.	0.	0.
1330	EQmxn	5.354E-14	-1.252E-13	1.079E-16	0.	0.	0.
1330	EQmyp	2.579E-13	1.936E-13	6.440E-17	0.	0.	0.
1330	EQmyn	-2.579E-13	-1.936E-13	-6.440E-17	0.	0.	0.
1331	RSX	5.836E-10	6.128E-10	3.358E-17	0.	0.	0.
1331	RSY	7.269E-09	6.943E-09	2.873E-18	0.	0.	0.
1331	EQmxp	8.346E-14	9.454E-14	5.236E-17	0.	0.	0.
1331	EQmxn	-8.346E-14	-9.454E-14	-5.236E-17	0.	0.	0.
1331	EQmyp	2.712E-13	6.497E-13	-1.050E-16	0.	0.	0.
1331	EQmyn	-2.712E-13	-6.497E-13	1.050E-16	0.	0.	0.
1332	RSX	5.661E-10	5.984E-10	2.426E-17	0.	0.	0.
1332	RSY	6.759E-09	6.637E-09	2.763E-17	0.	0.	0.
1332	EQmxp	1.195E-13	-4.099E-15	-3.540E-17	0.	0.	0.
1332	EQmxn	-1.195E-13	4.099E-15	3.540E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1332	EQmyp	1.399E-13	7.383E-13	3.409E-18	0.	0.	0.
1332	EQmyn	-1.399E-13	-7.383E-13	-3.409E-18	0.	0.	0.
1333	RSX	5.541E-10	5.720E-10	4.327E-18	0.	0.	0.
1333	RSY	6.502E-09	5.988E-09	1.090E-17	0.	0.	0.
1333	EQmxp	3.311E-13	-2.352E-13	-4.800E-19	0.	0.	0.
1333	EQmxn	-3.311E-13	2.352E-13	4.800E-19	0.	0.	0.
1333	EQmyp	-1.947E-13	9.851E-13	-3.180E-17	0.	0.	0.
1333	EQmyn	1.947E-13	-9.851E-13	3.180E-17	0.	0.	0.
1334	RSX	5.482E-10	5.413E-10	2.792E-17	0.	0.	0.
1334	RSY	6.634E-09	5.349E-09	3.246E-17	0.	0.	0.
1334	EQmxp	7.147E-13	-7.291E-13	1.139E-16	0.	0.	0.
1334	EQmxn	-7.147E-13	7.291E-13	-1.139E-16	0.	0.	0.
1334	EQmyp	-9.221E-13	1.471E-12	-2.205E-16	0.	0.	0.
1334	EQmyn	9.221E-13	-1.471E-12	2.205E-16	0.	0.	0.
1335	RSX	5.464E-10	5.338E-10	1.554E-17	0.	0.	0.
1335	RSY	7.175E-09	5.050E-09	1.719E-17	0.	0.	0.
1335	EQmxp	1.458E-12	-1.521E-12	2.018E-17	0.	0.	0.
1335	EQmxn	-1.458E-12	1.521E-12	-2.018E-17	0.	0.	0.
1335	EQmyp	-2.054E-12	2.548E-12	-1.519E-16	0.	0.	0.
1335	EQmyn	2.054E-12	-2.548E-12	1.519E-16	0.	0.	0.
1336	RSX	5.616E-10	5.510E-10	2.519E-17	0.	0.	0.
1336	RSY	7.901E-09	5.204E-09	1.761E-17	0.	0.	0.
1336	EQmxp	2.361E-12	-2.604E-12	3.843E-17	0.	0.	0.
1336	EQmxn	-2.361E-12	2.604E-12	-3.843E-17	0.	0.	0.
1336	EQmyp	-3.576E-12	3.931E-12	8.654E-18	0.	0.	0.
1336	EQmyn	3.576E-12	-3.931E-12	-8.654E-18	0.	0.	0.
1337	RSX	5.885E-10	5.909E-10	1.459E-17	0.	0.	0.
1337	RSY	8.418E-09	5.973E-09	4.945E-18	0.	0.	0.
1337	EQmxp	3.330E-12	-3.601E-12	7.821E-17	0.	0.	0.
1337	EQmxn	-3.330E-12	3.601E-12	-7.821E-17	0.	0.	0.
1337	EQmyp	-4.986E-12	5.440E-12	-4.889E-17	0.	0.	0.
1337	EQmyn	4.986E-12	-5.440E-12	4.889E-17	0.	0.	0.
1338	RSX	6.085E-10	6.333E-10	1.205E-17	0.	0.	0.
1338	RSY	8.420E-09	6.928E-09	3.803E-18	0.	0.	0.
1338	EQmxp	3.392E-12	-3.704E-12	-1.589E-17	0.	0.	0.
1338	EQmxn	-3.392E-12	3.704E-12	1.589E-17	0.	0.	0.
1338	EQmyp	-5.155E-12	5.513E-12	1.749E-17	0.	0.	0.
1338	EQmyn	5.155E-12	-5.513E-12	-1.749E-17	0.	0.	0.
1339	RSX	6.136E-10	6.531E-10	2.251E-17	0.	0.	0.
1339	RSY	8.297E-09	7.923E-09	3.573E-18	0.	0.	0.
1339	EQmxp	1.076E-12	-1.166E-12	-4.409E-17	0.	0.	0.
1339	EQmxn	-1.076E-12	1.166E-12	4.409E-17	0.	0.	0.
1339	EQmyp	-1.569E-12	1.788E-12	7.425E-17	0.	0.	0.
1339	EQmyn	1.569E-12	-1.788E-12	-7.425E-17	0.	0.	0.
1340	RSX	5.887E-10	6.439E-10	2.626E-17	0.	0.	0.
1340	RSY	7.955E-09	8.099E-09	1.723E-17	0.	0.	0.
1340	EQmxp	-6.392E-12	6.693E-12	-3.933E-17	0.	0.	0.
1340	EQmxn	6.392E-12	-6.693E-12	3.933E-17	0.	0.	0.
1340	EQmyp	9.547E-12	-1.017E-11	-8.468E-17	0.	0.	0.
1340	EQmyn	-9.547E-12	1.017E-11	8.468E-17	0.	0.	0.
1341	RSX	5.109E-10	5.910E-10	1.716E-17	0.	0.	0.
1341	RSY	7.082E-09	7.154E-09	3.131E-17	0.	0.	0.
1341	EQmxp	-2.092E-11	2.225E-11	-1.301E-17	0.	0.	0.
1341	EQmxn	2.092E-11	-2.225E-11	1.301E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1341	EQmyp	3.150E-11	-3.346E-11	-1.059E-16	0.	0.	0.
1341	EQmyn	-3.150E-11	3.346E-11	1.059E-16	0.	0.	0.
1342	RSX	4.809E-10	5.641E-10	4.829E-17	0.	0.	0.
1342	RSY	6.923E-09	6.631E-09	2.382E-17	0.	0.	0.
1342	EQmxp	-4.583E-11	4.876E-11	-6.384E-17	0.	0.	0.
1342	EQmxn	4.583E-11	-4.876E-11	6.384E-17	0.	0.	0.
1342	EQmyp	6.891E-11	-7.342E-11	4.449E-17	0.	0.	0.
1342	EQmyn	-6.891E-11	7.342E-11	-4.449E-17	0.	0.	0.
1343	RSX	4.669E-10	5.642E-10	6.861E-17	0.	0.	0.
1343	RSY	6.806E-09	6.606E-09	2.326E-17	0.	0.	0.
1343	EQmxp	-7.852E-11	8.368E-11	8.178E-17	0.	0.	0.
1343	EQmxn	7.852E-11	-8.368E-11	-8.178E-17	0.	0.	0.
1343	EQmyp	1.182E-10	-1.259E-10	-2.841E-17	0.	0.	0.
1343	EQmyn	-1.182E-10	1.259E-10	2.841E-17	0.	0.	0.
1344	RSX	4.513E-10	6.031E-10	3.976E-17	0.	0.	0.
1344	RSY	6.913E-09	7.011E-09	3.969E-17	0.	0.	0.
1344	EQmxp	-1.061E-10	1.130E-10	1.274E-16	0.	0.	0.
1344	EQmxn	1.061E-10	-1.130E-10	-1.274E-16	0.	0.	0.
1344	EQmyp	1.595E-10	-1.701E-10	-2.624E-16	0.	0.	0.
1344	EQmyn	-1.595E-10	1.701E-10	2.624E-16	0.	0.	0.
1345	RSX	4.341E-10	6.641E-10	1.134E-16	0.	0.	0.
1345	RSY	6.745E-09	7.329E-09	6.993E-17	0.	0.	0.
1345	EQmxp	-9.440E-11	1.006E-10	1.212E-16	0.	0.	0.
1345	EQmxn	9.440E-11	-1.006E-10	-1.212E-16	0.	0.	0.
1345	EQmyp	1.421E-10	-1.513E-10	-2.842E-16	0.	0.	0.
1345	EQmyn	-1.421E-10	1.513E-10	2.842E-16	0.	0.	0.
1346	RSX	4.515E-10	6.572E-10	8.790E-17	0.	0.	0.
1346	RSY	6.705E-09	7.665E-09	4.083E-17	0.	0.	0.
1346	EQmxp	2.155E-11	-2.297E-11	-9.906E-17	0.	0.	0.
1346	EQmxn	-2.155E-11	2.297E-11	9.906E-17	0.	0.	0.
1346	EQmyp	-3.231E-11	3.467E-11	8.661E-17	0.	0.	0.
1346	EQmyn	3.231E-11	-3.467E-11	-8.661E-17	0.	0.	0.
1347	RSX	6.353E-10	4.847E-10	3.453E-17	0.	0.	0.
1347	RSY	6.838E-09	7.849E-09	3.366E-17	0.	0.	0.
1347	EQmxp	3.399E-10	-3.625E-10	-5.607E-17	0.	0.	0.
1347	EQmxn	-3.399E-10	3.625E-10	5.607E-17	0.	0.	0.
1347	EQmyp	-5.115E-10	5.454E-10	1.855E-16	0.	0.	0.
1347	EQmyn	5.115E-10	-5.454E-10	-1.855E-16	0.	0.	0.
1348	RSX	1.066E-09	2.699E-10	1.797E-17	0.	0.	0.
1348	RSY	7.031E-09	7.771E-09	1.965E-17	0.	0.	0.
1348	EQmxp	9.658E-10	-1.030E-09	1.392E-17	0.	0.	0.
1348	EQmxn	-9.658E-10	1.030E-09	-1.392E-17	0.	0.	0.
1348	EQmyp	-1.453E-09	1.549E-09	1.495E-16	0.	0.	0.
1348	EQmyn	1.453E-09	-1.549E-09	-1.495E-16	0.	0.	0.
1349	RSX	1.712E-09	8.259E-10	3.167E-17	0.	0.	0.
1349	RSY	7.070E-09	7.211E-09	6.495E-17	0.	0.	0.
1349	EQmxp	1.919E-09	-2.046E-09	-5.057E-17	0.	0.	0.
1349	EQmxn	-1.919E-09	2.046E-09	5.057E-17	0.	0.	0.
1349	EQmyp	-2.888E-09	3.079E-09	-2.637E-18	0.	0.	0.
1349	EQmyn	2.888E-09	-3.079E-09	2.637E-18	0.	0.	0.
1350	RSX	2.420E-09	1.530E-09	7.584E-17	0.	0.	0.
1350	RSY	7.299E-09	6.765E-09	6.251E-17	0.	0.	0.
1350	EQmxp	2.939E-09	-3.133E-09	1.438E-16	0.	0.	0.
1350	EQmxn	-2.939E-09	3.133E-09	-1.438E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1350	EQmyp	-4.422E-09	4.714E-09	-3.773E-16	0.	0.	0.
1350	EQmyn	4.422E-09	-4.714E-09	3.773E-16	0.	0.	0.
1351	RSX	2.601E-09	1.647E-09	4.051E-17	0.	0.	0.
1351	RSY	7.302E-09	6.855E-09	6.004E-17	0.	0.	0.
1351	EQmxp	3.142E-09	-3.350E-09	-2.375E-16	0.	0.	0.
1351	EQmxn	-3.142E-09	3.350E-09	2.375E-16	0.	0.	0.
1351	EQmyp	-4.728E-09	5.041E-09	5.680E-17	0.	0.	0.
1351	EQmyn	4.728E-09	-5.041E-09	-5.680E-17	0.	0.	0.
1352	RSX	1.043E-09	2.918E-10	1.078E-16	0.	0.	0.
1352	RSY	7.787E-09	6.832E-09	4.276E-17	0.	0.	0.
1352	EQmxp	6.170E-10	-6.578E-10	-5.252E-17	0.	0.	0.
1352	EQmxn	-6.170E-10	6.578E-10	5.252E-17	0.	0.	0.
1352	EQmyp	-9.282E-10	9.898E-10	2.702E-16	0.	0.	0.
1352	EQmyn	9.282E-10	-9.898E-10	-2.702E-16	0.	0.	0.
1353	RSX	4.539E-09	5.980E-09	1.029E-16	0.	0.	0.
1353	RSY	9.442E-09	7.435E-09	3.184E-17	0.	0.	0.
1353	EQmxp	-7.792E-09	8.307E-09	-3.397E-17	0.	0.	0.
1353	EQmxn	7.792E-09	-8.307E-09	3.397E-17	0.	0.	0.
1353	EQmyp	1.172E-08	-1.250E-08	4.461E-17	0.	0.	0.
1353	EQmyn	-1.172E-08	1.250E-08	-4.461E-17	0.	0.	0.
1354	RSX	1.639E-08	1.847E-08	2.575E-17	0.	0.	0.
1354	RSY	1.317E-08	1.167E-08	4.445E-17	0.	0.	0.
1354	EQmxp	-2.578E-08	2.748E-08	-4.556E-19	0.	0.	0.
1354	EQmxn	2.578E-08	-2.748E-08	4.556E-19	0.	0.	0.
1354	EQmyp	3.878E-08	-4.135E-08	1.445E-16	0.	0.	0.
1354	EQmyn	-3.878E-08	4.135E-08	-1.445E-16	0.	0.	0.
1355	RSX	3.541E-08	3.863E-08	9.882E-17	0.	0.	0.
1355	RSY	2.115E-08	2.101E-08	2.785E-17	0.	0.	0.
1355	EQmxp	-5.464E-08	5.826E-08	1.234E-16	0.	0.	0.
1355	EQmxn	5.464E-08	-5.826E-08	-1.234E-16	0.	0.	0.
1355	EQmyp	8.222E-08	-8.766E-08	-1.621E-16	0.	0.	0.
1355	EQmyn	-8.222E-08	8.766E-08	1.621E-16	0.	0.	0.
1356	RSX	5.632E-08	6.084E-08	2.971E-17	0.	0.	0.
1356	RSY	3.140E-08	3.217E-08	5.716E-17	0.	0.	0.
1356	EQmxp	-8.640E-08	9.211E-08	-2.163E-17	0.	0.	0.
1356	EQmxn	8.640E-08	-9.211E-08	2.163E-17	0.	0.	0.
1356	EQmyp	1.300E-07	-1.386E-07	1.659E-16	0.	0.	0.
1356	EQmyn	-1.300E-07	1.386E-07	-1.659E-16	0.	0.	0.
1357	RSX	5.781E-08	6.235E-08	1.194E-16	0.	0.	0.
1357	RSY	3.217E-08	3.284E-08	5.254E-17	0.	0.	0.
1357	EQmxp	-8.858E-08	9.444E-08	-5.632E-17	0.	0.	0.
1357	EQmxn	8.858E-08	-9.444E-08	5.632E-17	0.	0.	0.
1357	EQmyp	1.333E-07	-1.421E-07	2.533E-16	0.	0.	0.
1357	EQmyn	-1.333E-07	1.421E-07	-2.533E-16	0.	0.	0.
1358	RSX	2.536E-09	3.437E-09	1.212E-16	0.	0.	0.
1358	RSY	9.330E-09	4.293E-09	1.284E-17	0.	0.	0.
1358	EQmxp	-4.343E-09	4.630E-09	-4.758E-17	0.	0.	0.
1358	EQmxn	4.343E-09	-4.630E-09	4.758E-17	0.	0.	0.
1358	EQmyp	6.535E-09	-6.967E-09	8.237E-17	0.	0.	0.
1358	EQmyn	-6.535E-09	6.967E-09	-8.237E-17	0.	0.	0.
1359	RSX	1.799E-07	1.910E-07	1.486E-16	0.	0.	0.
1359	RSY	9.514E-08	1.016E-07	9.864E-17	0.	0.	0.
1359	EQmxp	2.735E-07	-2.916E-07	-2.125E-16	0.	0.	0.
1359	EQmxn	-2.735E-07	2.916E-07	2.125E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1359	EQmyp	-4.115E-07	4.387E-07	2.222E-16	0.	0.	0.
1359	EQmyn	4.115E-07	-4.387E-07	-2.222E-16	0.	0.	0.
1360	RSX	6.722E-07	7.156E-07	4.098E-17	0.	0.	0.
1360	RSY	3.550E-07	3.791E-07	1.716E-17	0.	0.	0.
1360	EQmxp	1.023E-06	-1.091E-06	1.007E-16	0.	0.	0.
1360	EQmxn	-1.023E-06	1.091E-06	-1.007E-16	0.	0.	0.
1360	EQmyp	-1.540E-06	1.641E-06	-6.215E-17	0.	0.	0.
1360	EQmyn	1.540E-06	-1.641E-06	6.215E-17	0.	0.	0.
1361	RSX	2.150E-06	2.291E-06	7.128E-17	0.	0.	0.
1361	RSY	1.136E-06	1.212E-06	5.789E-17	0.	0.	0.
1361	EQmxp	3.274E-06	-3.491E-06	-5.843E-17	0.	0.	0.
1361	EQmxn	-3.274E-06	3.491E-06	5.843E-17	0.	0.	0.
1361	EQmyp	-4.927E-06	5.252E-06	-3.604E-17	0.	0.	0.
1361	EQmyn	4.927E-06	-5.252E-06	3.604E-17	0.	0.	0.
1362	RSX	3.884E-06	4.140E-06	1.517E-16	0.	0.	0.
1362	RSY	2.053E-06	2.190E-06	8.579E-17	0.	0.	0.
1362	EQmxp	5.916E-06	-6.307E-06	3.058E-16	0.	0.	0.
1362	EQmxn	-5.916E-06	6.307E-06	-3.058E-16	0.	0.	0.
1362	EQmyp	-8.902E-06	9.490E-06	3.137E-18	0.	0.	0.
1362	EQmyn	8.902E-06	-9.490E-06	-3.137E-18	0.	0.	0.
1363	RSX	5.610E-07	5.970E-07	1.721E-16	0.	0.	0.
1363	RSY	2.964E-07	3.166E-07	1.192E-16	0.	0.	0.
1363	EQmxp	8.541E-07	-9.106E-07	4.213E-17	0.	0.	0.
1363	EQmxn	-8.541E-07	9.106E-07	-4.213E-17	0.	0.	0.
1363	EQmyp	-1.285E-06	1.370E-06	4.693E-16	0.	0.	0.
1363	EQmyn	1.285E-06	-1.370E-06	-4.693E-16	0.	0.	0.
1364	RSX	2.434E-05	2.595E-05	1.130E-16	0.	0.	0.
1364	RSY	1.287E-05	1.372E-05	9.806E-17	0.	0.	0.
1364	EQmxp	-3.709E-05	3.954E-05	-2.280E-17	0.	0.	0.
1364	EQmxn	3.709E-05	-3.954E-05	2.280E-17	0.	0.	0.
1364	EQmyp	5.580E-05	-5.949E-05	2.170E-16	0.	0.	0.
1364	EQmyn	-5.580E-05	5.949E-05	-2.170E-16	0.	0.	0.
1365	RSX	1.087E-04	1.158E-04	3.382E-16	0.	0.	0.
1365	RSY	5.746E-05	6.126E-05	8.699E-17	0.	0.	0.
1365	EQmxp	-1.655E-04	1.765E-04	1.282E-16	0.	0.	0.
1365	EQmxn	1.655E-04	-1.765E-04	-1.282E-16	0.	0.	0.
1365	EQmyp	2.491E-04	-2.655E-04	-9.582E-18	0.	0.	0.
1365	EQmyn	-2.491E-04	2.655E-04	9.582E-18	0.	0.	0.
1374	RSX	9.716E-03	1.381E-04	0.	0.	0.	0.
1374	RSY	9.992E-04	0.013	0.	0.	0.	0.
1374	EQmxp	-0.015	-7.625E-05	0.	0.	0.	0.
1374	EQmxn	0.015	7.625E-05	0.	0.	0.	0.
1374	EQmyp	-3.482E-03	-0.061	0.	0.	0.	0.
1374	EQmyn	3.482E-03	0.061	0.	0.	0.	0.
1375	RSX	0.023	3.248E-04	0.	0.	0.	0.
1375	RSY	2.347E-03	0.03	0.	0.	0.	0.
1375	EQmxp	-0.035	-1.790E-04	0.	0.	0.	0.
1375	EQmxn	0.035	1.790E-04	0.	0.	0.	0.
1375	EQmyp	-8.174E-03	-0.144	0.	0.	0.	0.
1375	EQmyn	8.174E-03	0.144	0.	0.	0.	0.
1376	RSX	0.025	3.552E-04	0.	0.	0.	0.
1376	RSY	2.564E-03	0.033	0.	0.	0.	0.
1376	EQmxp	-0.038	-1.955E-04	0.	0.	0.	0.
1376	EQmxn	0.038	1.955E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1376	EQmyp	-8.926E-03	-0.157	0.	0.	0.	0.
1376	EQmyn	8.926E-03	0.157	0.	0.	0.	0.
1377	RSX	0.026	3.709E-04	0.	0.	0.	0.
1377	RSY	2.673E-03	0.034	0.	0.	0.	0.
1377	EQmxp	-0.039	-2.037E-04	0.	0.	0.	0.
1377	EQmxn	0.039	2.037E-04	0.	0.	0.	0.
1377	EQmyp	-9.302E-03	-0.164	0.	0.	0.	0.
1377	EQmyn	9.302E-03	0.164	0.	0.	0.	0.
1378	RSX	0.026	3.738E-04	0.	0.	0.	0.
1378	RSY	2.690E-03	0.034	0.	0.	0.	0.
1378	EQmxp	-0.04	-2.049E-04	0.	0.	0.	0.
1378	EQmxn	0.04	2.049E-04	0.	0.	0.	0.
1378	EQmyp	-9.355E-03	-0.165	0.	0.	0.	0.
1378	EQmyn	9.355E-03	0.165	0.	0.	0.	0.
1379	RSX	0.026	3.656E-04	0.	0.	0.	0.
1379	RSY	2.625E-03	0.034	0.	0.	0.	0.
1379	EQmxp	-0.039	-1.998E-04	0.	0.	0.	0.
1379	EQmxn	0.039	1.998E-04	0.	0.	0.	0.
1379	EQmyp	-9.125E-03	-0.161	0.	0.	0.	0.
1379	EQmyn	9.125E-03	0.161	0.	0.	0.	0.
1380	RSX	0.023	3.335E-04	0.	0.	0.	0.
1380	RSY	2.390E-03	0.031	0.	0.	0.	0.
1380	EQmxp	-0.035	-1.817E-04	0.	0.	0.	0.
1380	EQmxn	0.035	1.817E-04	0.	0.	0.	0.
1380	EQmyp	-8.298E-03	-0.146	0.	0.	0.	0.
1380	EQmyn	8.298E-03	0.146	0.	0.	0.	0.
1381	RSX	0.019	2.763E-04	0.	0.	0.	0.
1381	RSY	1.974E-03	0.025	0.	0.	0.	0.
1381	EQmxp	-0.029	-1.500E-04	0.	0.	0.	0.
1381	EQmxn	0.029	1.500E-04	0.	0.	0.	0.
1381	EQmyp	-6.849E-03	-0.121	0.	0.	0.	0.
1381	EQmyn	6.849E-03	0.121	0.	0.	0.	0.
1382	RSX	0.016	2.226E-04	0.	0.	0.	0.
1382	RSY	1.584E-03	0.02	0.	0.	0.	0.
1382	EQmxp	-0.023	-1.202E-04	0.	0.	0.	0.
1382	EQmxn	0.023	1.202E-04	0.	0.	0.	0.
1382	EQmyp	-5.487E-03	-0.097	0.	0.	0.	0.
1382	EQmyn	5.487E-03	0.097	0.	0.	0.	0.
1383	RSX	0.012	1.715E-04	0.	0.	0.	0.
1383	RSY	1.213E-03	0.016	0.	0.	0.	0.
1383	EQmxp	-0.018	-9.183E-05	0.	0.	0.	0.
1383	EQmxn	0.018	9.183E-05	0.	0.	0.	0.
1383	EQmyp	-4.193E-03	-0.074	0.	0.	0.	0.
1383	EQmyn	4.193E-03	0.074	0.	0.	0.	0.
1384	RSX	8.410E-03	1.191E-04	0.	0.	0.	0.
1384	RSY	8.339E-04	0.011	0.	0.	0.	0.
1384	EQmxp	-0.012	-6.287E-05	0.	0.	0.	0.
1384	EQmxn	0.012	6.287E-05	0.	0.	0.	0.
1384	EQmyp	-2.871E-03	-0.051	0.	0.	0.	0.
1384	EQmyn	2.871E-03	0.051	0.	0.	0.	0.
1385	RSX	4.849E-03	6.849E-05	0.	0.	0.	0.
1385	RSY	4.688E-04	6.004E-03	0.	0.	0.	0.
1385	EQmxp	-6.782E-03	-3.503E-05	0.	0.	0.	0.
1385	EQmxn	6.782E-03	3.503E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1385	EQmyp	-1.600E-03	-0.028	0.	0.	0.	0.
1385	EQmyn	1.600E-03	0.028	0.	0.	0.	0.
1386	RSX	1.699E-03	2.376E-05	0.	0.	0.	0.
1386	RSY	1.466E-04	1.885E-03	0.	0.	0.	0.
1386	EQmxp	-2.026E-03	-1.046E-05	0.	0.	0.	0.
1386	EQmxn	2.026E-03	1.046E-05	0.	0.	0.	0.
1386	EQmyp	-4.777E-04	-8.426E-03	0.	0.	0.	0.
1386	EQmyn	4.777E-04	8.426E-03	0.	0.	0.	0.
1387	RSX	1.059E-03	1.555E-05	0.	0.	0.	0.
1387	RSY	1.360E-04	1.731E-03	0.	0.	0.	0.
1387	EQmxp	2.128E-03	1.099E-05	0.	0.	0.	0.
1387	EQmxn	-2.128E-03	-1.099E-05	0.	0.	0.	0.
1387	EQmyp	5.020E-04	8.854E-03	0.	0.	0.	0.
1387	EQmyn	-5.020E-04	-8.854E-03	0.	0.	0.	0.
1388	RSX	3.447E-03	4.942E-05	0.	0.	0.	0.
1388	RSY	3.791E-04	4.839E-03	0.	0.	0.	0.
1388	EQmxp	5.714E-03	2.951E-05	0.	0.	0.	0.
1388	EQmxn	-5.714E-03	-2.951E-05	0.	0.	0.	0.
1388	EQmyp	1.348E-03	0.024	0.	0.	0.	0.
1388	EQmyn	-1.348E-03	-0.024	0.	0.	0.	0.
1389	RSX	5.494E-03	7.847E-05	0.	0.	0.	0.
1389	RSY	5.871E-04	7.499E-03	0.	0.	0.	0.
1389	EQmxp	8.776E-03	4.533E-05	0.	0.	0.	0.
1389	EQmxn	-8.776E-03	-4.533E-05	0.	0.	0.	0.
1389	EQmyp	2.070E-03	0.037	0.	0.	0.	0.
1389	EQmyn	-2.070E-03	-0.037	0.	0.	0.	0.
1390	RSX	7.253E-03	1.034E-04	0.	0.	0.	0.
1390	RSY	7.652E-04	9.778E-03	0.	0.	0.	0.
1390	EQmxp	0.011	5.886E-05	0.	0.	0.	0.
1390	EQmxn	-0.011	-5.886E-05	0.	0.	0.	0.
1390	EQmyp	2.688E-03	0.047	0.	0.	0.	0.
1390	EQmyn	-2.688E-03	-0.047	0.	0.	0.	0.
1391	RSX	8.821E-03	1.257E-04	0.	0.	0.	0.
1391	RSY	9.236E-04	0.012	0.	0.	0.	0.
1391	EQmxp	0.014	7.088E-05	0.	0.	0.	0.
1391	EQmxn	-0.014	-7.088E-05	0.	0.	0.	0.
1391	EQmyp	3.237E-03	0.057	0.	0.	0.	0.
1391	EQmyn	-3.237E-03	-0.057	0.	0.	0.	0.
1392	RSX	0.01	1.494E-04	0.	0.	0.	0.
1392	RSY	1.092E-03	0.014	0.	0.	0.	0.
1392	EQmxp	0.016	8.369E-05	0.	0.	0.	0.
1392	EQmxn	-0.016	-8.369E-05	0.	0.	0.	0.
1392	EQmyp	3.822E-03	0.067	0.	0.	0.	0.
1392	EQmyn	-3.822E-03	-0.067	0.	0.	0.	0.
1393	RSX	0.013	1.909E-04	0.	0.	0.	0.
1393	RSY	1.390E-03	0.018	0.	0.	0.	0.
1393	EQmxp	0.021	1.063E-04	0.	0.	0.	0.
1393	EQmxn	-0.021	-1.063E-04	0.	0.	0.	0.
1393	EQmyp	4.854E-03	0.086	0.	0.	0.	0.
1393	EQmyn	-4.854E-03	-0.086	0.	0.	0.	0.
1394	RSX	0.036	5.158E-04	0.	0.	0.	0.
1394	RSY	3.736E-03	0.048	0.	0.	0.	0.
1394	EQmxp	0.055	2.852E-04	0.	0.	0.	0.
1394	EQmxn	-0.055	-2.852E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1394	EQmyp	0.013	0.23	0.	0.	0.	0.
1394	EQmyn	-0.013	-0.23	0.	0.	0.	0.
1395	RSX	9.568E-03	1.359E-04	0.	0.	0.	0.
1395	RSY	9.779E-04	0.013	0.	0.	0.	0.
1395	EQmxp	0.014	7.447E-05	0.	0.	0.	0.
1395	EQmxn	-0.014	-7.447E-05	0.	0.	0.	0.
1395	EQmyp	3.401E-03	0.06	0.	0.	0.	0.
1395	EQmyn	-3.401E-03	-0.06	0.	0.	0.	0.
1396	RSX	3.522E-03	4.997E-05	0.	0.	0.	0.
1396	RSY	3.550E-04	4.541E-03	0.	0.	0.	0.
1396	EQmxp	5.210E-03	2.691E-05	0.	0.	0.	0.
1396	EQmxn	-5.210E-03	-2.691E-05	0.	0.	0.	0.
1396	EQmyp	1.229E-03	0.022	0.	0.	0.	0.
1396	EQmyn	-1.229E-03	-0.022	0.	0.	0.	0.
1397	RSX	1.265E-03	1.787E-05	0.	0.	0.	0.
1397	RSY	1.227E-04	1.571E-03	0.	0.	0.	0.
1397	EQmxp	1.777E-03	9.178E-06	0.	0.	0.	0.
1397	EQmxn	-1.777E-03	-9.178E-06	0.	0.	0.	0.
1397	EQmyp	4.191E-04	7.392E-03	0.	0.	0.	0.
1397	EQmyn	-4.191E-04	-7.392E-03	0.	0.	0.	0.
1398	RSX	4.710E-05	6.947E-07	0.	0.	0.	0.
1398	RSY	3.757E-06	4.853E-05	0.	0.	0.	0.
1398	EQmxp	-6.983E-05	-3.607E-07	0.	0.	0.	0.
1398	EQmxn	6.983E-05	3.607E-07	0.	0.	0.	0.
1398	EQmyp	-1.647E-05	-2.905E-04	0.	0.	0.	0.
1398	EQmyn	1.647E-05	2.905E-04	0.	0.	0.	0.
1399	RSX	6.991E-04	1.005E-05	0.	0.	0.	0.
1399	RSY	7.869E-05	1.004E-03	0.	0.	0.	0.
1399	EQmxp	-1.194E-03	-6.166E-06	0.	0.	0.	0.
1399	EQmxn	1.194E-03	6.166E-06	0.	0.	0.	0.
1399	EQmyp	-2.816E-04	-4.966E-03	0.	0.	0.	0.
1399	EQmyn	2.816E-04	4.966E-03	0.	0.	0.	0.
1400	RSX	1.152E-03	1.648E-05	0.	0.	0.	0.
1400	RSY	1.245E-04	1.590E-03	0.	0.	0.	0.
1400	EQmxp	-1.868E-03	-9.648E-06	0.	0.	0.	0.
1400	EQmxn	1.868E-03	9.648E-06	0.	0.	0.	0.
1400	EQmyp	-4.406E-04	-7.771E-03	0.	0.	0.	0.
1400	EQmyn	4.406E-04	7.771E-03	0.	0.	0.	0.
1401	RSX	1.398E-03	1.996E-05	0.	0.	0.	0.
1401	RSY	1.489E-04	1.903E-03	0.	0.	0.	0.
1401	EQmxp	-2.225E-03	-1.149E-05	0.	0.	0.	0.
1401	EQmxn	2.225E-03	1.149E-05	0.	0.	0.	0.
1401	EQmyp	-5.247E-04	-9.254E-03	0.	0.	0.	0.
1401	EQmyn	5.247E-04	9.254E-03	0.	0.	0.	0.
1402	RSX	1.486E-03	2.119E-05	0.	0.	0.	0.
1402	RSY	1.570E-04	2.006E-03	0.	0.	0.	0.
1402	EQmxp	-2.339E-03	-1.208E-05	0.	0.	0.	0.
1402	EQmxn	2.339E-03	1.208E-05	0.	0.	0.	0.
1402	EQmyp	-5.516E-04	-9.730E-03	0.	0.	0.	0.
1402	EQmyn	5.516E-04	9.730E-03	0.	0.	0.	0.
1403	RSX	1.449E-03	2.065E-05	0.	0.	0.	0.
1403	RSY	1.522E-04	1.945E-03	0.	0.	0.	0.
1403	EQmxp	-2.263E-03	-1.169E-05	0.	0.	0.	0.
1403	EQmxn	2.263E-03	1.169E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1403	EQmyp	-5.338E-04	-9.416E-03	0.	0.	0.	0.
1403	EQmyn	5.338E-04	9.416E-03	0.	0.	0.	0.
1404	RSX	1.314E-03	1.871E-05	0.	0.	0.	0.
1404	RSY	1.373E-04	1.754E-03	0.	0.	0.	0.
1404	EQmxp	-2.038E-03	-1.053E-05	0.	0.	0.	0.
1404	EQmxn	2.038E-03	1.053E-05	0.	0.	0.	0.
1404	EQmyp	-4.807E-04	-8.479E-03	0.	0.	0.	0.
1404	EQmyn	4.807E-04	8.479E-03	0.	0.	0.	0.
1405	RSX	1.102E-03	1.569E-05	0.	0.	0.	0.
1405	RSY	1.146E-04	1.464E-03	0.	0.	0.	0.
1405	EQmxp	-1.698E-03	-8.772E-06	0.	0.	0.	0.
1405	EQmxn	1.698E-03	8.772E-06	0.	0.	0.	0.
1405	EQmyp	-4.005E-04	-7.065E-03	0.	0.	0.	0.
1405	EQmyn	4.005E-04	7.065E-03	0.	0.	0.	0.
1406	RSX	8.342E-04	1.187E-05	0.	0.	0.	0.
1406	RSY	8.618E-05	1.102E-03	0.	0.	0.	0.
1406	EQmxp	-1.275E-03	-6.586E-06	0.	0.	0.	0.
1406	EQmxn	1.275E-03	6.586E-06	0.	0.	0.	0.
1406	EQmyp	-3.007E-04	-5.305E-03	0.	0.	0.	0.
1406	EQmyn	3.007E-04	5.305E-03	0.	0.	0.	0.
1407	RSX	5.219E-04	7.415E-06	0.	0.	0.	0.
1407	RSY	5.333E-05	6.819E-04	0.	0.	0.	0.
1407	EQmxp	-7.863E-04	-4.061E-06	0.	0.	0.	0.
1407	EQmxn	7.863E-04	4.061E-06	0.	0.	0.	0.
1407	EQmyp	-1.854E-04	-3.271E-03	0.	0.	0.	0.
1407	EQmyn	1.854E-04	3.271E-03	0.	0.	0.	0.
1408	RSX	1.742E-04	2.543E-06	0.	0.	0.	0.
1408	RSY	2.162E-05	2.754E-04	0.	0.	0.	0.
1408	EQmxp	3.360E-04	1.736E-06	0.	0.	0.	0.
1408	EQmxn	-3.360E-04	-1.736E-06	0.	0.	0.	0.
1408	EQmyp	7.925E-05	1.398E-03	0.	0.	0.	0.
1408	EQmyn	-7.925E-05	-1.398E-03	0.	0.	0.	0.
1409	RSX	3.673E-04	5.230E-06	0.	0.	0.	0.
1409	RSY	3.828E-05	4.892E-04	0.	0.	0.	0.
1409	EQmxp	5.679E-04	2.933E-06	0.	0.	0.	0.
1409	EQmxn	-5.679E-04	-2.933E-06	0.	0.	0.	0.
1409	EQmyp	1.339E-04	2.362E-03	0.	0.	0.	0.
1409	EQmyn	-1.339E-04	-2.362E-03	0.	0.	0.	0.
1410	RSX	3.044E-04	4.331E-06	0.	0.	0.	0.
1410	RSY	3.152E-05	4.029E-04	0.	0.	0.	0.
1410	EQmxp	4.667E-04	2.410E-06	0.	0.	0.	0.
1410	EQmxn	-4.667E-04	-2.410E-06	0.	0.	0.	0.
1410	EQmyp	1.101E-04	1.941E-03	0.	0.	0.	0.
1410	EQmyn	-1.101E-04	-1.941E-03	0.	0.	0.	0.
1411	RSX	2.108E-04	2.999E-06	0.	0.	0.	0.
1411	RSY	2.176E-05	2.781E-04	0.	0.	0.	0.
1411	EQmxp	3.218E-04	1.662E-06	0.	0.	0.	0.
1411	EQmxn	-3.218E-04	-1.662E-06	0.	0.	0.	0.
1411	EQmyp	7.589E-05	1.339E-03	0.	0.	0.	0.
1411	EQmyn	-7.589E-05	-1.339E-03	0.	0.	0.	0.
1412	RSX	1.141E-04	1.622E-06	0.	0.	0.	0.
1412	RSY	1.173E-05	1.499E-04	0.	0.	0.	0.
1412	EQmxp	1.732E-04	8.947E-07	0.	0.	0.	0.
1412	EQmxn	-1.732E-04	-8.947E-07	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1412	EQmyp	4.085E-05	7.206E-04	0.	0.	0.	0.
1412	EQmyn	-4.085E-05	-7.206E-04	0.	0.	0.	0.
1413	RSX	3.039E-05	4.311E-07	0.	0.	0.	0.
1413	RSY	3.082E-06	3.942E-05	0.	0.	0.	0.
1413	EQmxp	4.533E-05	2.342E-07	0.	0.	0.	0.
1413	EQmxn	-4.533E-05	-2.342E-07	0.	0.	0.	0.
1413	EQmyp	1.069E-05	1.886E-04	0.	0.	0.	0.
1413	EQmyn	-1.069E-05	-1.886E-04	0.	0.	0.	0.
1414	RSX	4.351E-05	6.199E-07	0.	0.	0.	0.
1414	RSY	4.529E-06	5.789E-05	0.	0.	0.	0.
1414	EQmxp	-6.717E-05	-3.469E-07	0.	0.	0.	0.
1414	EQmxn	6.717E-05	3.469E-07	0.	0.	0.	0.
1414	EQmyp	-1.584E-05	-2.794E-04	0.	0.	0.	0.
1414	EQmyn	1.584E-05	2.794E-04	0.	0.	0.	0.
1415	RSX	2.849E-05	4.054E-07	0.	0.	0.	0.
1415	RSY	2.932E-06	3.748E-05	0.	0.	0.	0.
1415	EQmxp	-4.332E-05	-2.237E-07	0.	0.	0.	0.
1415	EQmxn	4.332E-05	2.237E-07	0.	0.	0.	0.
1415	EQmyp	-1.022E-05	-1.802E-04	0.	0.	0.	0.
1415	EQmyn	1.022E-05	1.802E-04	0.	0.	0.	0.
1416	RSX	2.546E-06	3.653E-08	0.	0.	0.	0.
1416	RSY	2.560E-07	3.273E-06	0.	0.	0.	0.
1416	EQmxp	-3.752E-06	-1.938E-08	0.	0.	0.	0.
1416	EQmxn	3.752E-06	1.938E-08	0.	0.	0.	0.
1416	EQmyp	-8.848E-07	-1.561E-05	0.	0.	0.	0.
1416	EQmyn	8.848E-07	1.561E-05	0.	0.	0.	0.
1417	RSX	1.621E-06	2.271E-08	0.	0.	0.	0.
1417	RSY	1.676E-07	2.143E-06	0.	0.	0.	0.
1417	EQmxp	2.481E-06	1.281E-08	0.	0.	0.	0.
1417	EQmxn	-2.481E-06	-1.281E-08	0.	0.	0.	0.
1417	EQmyp	5.851E-07	1.032E-05	0.	0.	0.	0.
1417	EQmyn	-5.851E-07	-1.032E-05	0.	0.	0.	0.
1418	RSX	5.362E-07	7.614E-09	0.	0.	0.	0.
1418	RSY	5.509E-08	7.044E-07	0.	0.	0.	0.
1418	EQmxp	8.137E-07	4.203E-09	0.	0.	0.	0.
1418	EQmxn	-8.137E-07	-4.203E-09	0.	0.	0.	0.
1418	EQmyp	1.919E-07	3.385E-06	0.	0.	0.	0.
1418	EQmyn	-1.919E-07	-3.385E-06	0.	0.	0.	0.
1419	RSX	1.036E-08	9.130E-10	0.	0.	0.	0.
1419	RSY	1.535E-08	1.699E-08	0.	0.	0.	0.
1419	EQmxp	1.502E-08	7.756E-11	0.	0.	0.	0.
1419	EQmxn	-1.502E-08	-7.756E-11	0.	0.	0.	0.
1419	EQmyp	3.542E-09	6.247E-08	0.	0.	0.	0.
1419	EQmyn	-3.542E-09	-6.247E-08	0.	0.	0.	0.
1420	RSX	4.629E-08	4.758E-09	0.	0.	0.	0.
1420	RSY	5.167E-08	8.773E-08	0.	0.	0.	0.
1420	EQmxp	-7.456E-08	-3.851E-10	0.	0.	0.	0.
1420	EQmxn	7.456E-08	3.851E-10	0.	0.	0.	0.
1420	EQmyp	-1.759E-08	-3.102E-07	0.	0.	0.	0.
1420	EQmyn	1.759E-08	3.102E-07	0.	0.	0.	0.
1421	RSX	1.653E-11	1.151E-11	0.	0.	0.	0.
1421	RSY	1.408E-10	1.480E-10	0.	0.	0.	0.
1421	EQmxp	-3.405E-11	-1.759E-13	0.	0.	0.	0.
1421	EQmxn	3.405E-11	1.759E-13	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1421	EQmyp	-8.031E-12	-1.417E-10	0.	0.	0.	0.
1421	EQmyn	8.031E-12	1.417E-10	0.	0.	0.	0.
1422	RSX	3.908E-11	5.806E-11	0.	0.	0.	0.
1422	RSY	7.088E-10	7.343E-10	0.	0.	0.	0.
1422	EQmxp	-8.602E-11	-4.443E-13	0.	0.	0.	0.
1422	EQmxn	8.602E-11	4.443E-13	0.	0.	0.	0.
1422	EQmyp	-2.029E-11	-3.578E-10	0.	0.	0.	0.
1422	EQmyn	2.029E-11	3.578E-10	0.	0.	0.	0.
1423	RSX	8.445E-11	1.385E-10	0.	0.	0.	0.
1423	RSY	1.667E-09	1.691E-09	0.	0.	0.	0.
1423	EQmxp	-1.274E-10	-6.579E-13	0.	0.	0.	0.
1423	EQmxn	1.274E-10	6.579E-13	0.	0.	0.	0.
1423	EQmyp	-3.004E-11	-5.299E-10	0.	0.	0.	0.
1423	EQmyn	3.004E-11	5.299E-10	0.	0.	0.	0.
1424	RSX	1.631E-10	2.405E-10	0.	0.	0.	0.
1424	RSY	2.884E-09	2.783E-09	0.	0.	0.	0.
1424	EQmxp	-1.480E-10	-7.644E-13	0.	0.	0.	0.
1424	EQmxn	1.480E-10	7.644E-13	0.	0.	0.	0.
1424	EQmyp	-3.490E-11	-6.157E-10	0.	0.	0.	0.
1424	EQmyn	3.490E-11	6.157E-10	0.	0.	0.	0.
1425	RSX	2.567E-10	3.424E-10	0.	0.	0.	0.
1425	RSY	4.129E-09	3.780E-09	0.	0.	0.	0.
1425	EQmxp	-1.462E-10	-7.550E-13	0.	0.	0.	0.
1425	EQmxn	1.462E-10	7.550E-13	0.	0.	0.	0.
1425	EQmyp	-3.448E-11	-6.081E-10	0.	0.	0.	0.
1425	EQmyn	3.448E-11	6.081E-10	0.	0.	0.	0.
1426	RSX	3.474E-10	4.273E-10	0.	0.	0.	0.
1426	RSY	5.152E-09	4.636E-09	0.	0.	0.	0.
1426	EQmxp	-1.262E-10	-6.519E-13	0.	0.	0.	0.
1426	EQmxn	1.262E-10	6.519E-13	0.	0.	0.	0.
1426	EQmyp	-2.977E-11	-5.251E-10	0.	0.	0.	0.
1426	EQmyn	2.977E-11	5.251E-10	0.	0.	0.	0.
1427	RSX	4.228E-10	4.903E-10	0.	0.	0.	0.
1427	RSY	5.759E-09	5.392E-09	0.	0.	0.	0.
1427	EQmxp	-9.533E-11	-4.924E-13	0.	0.	0.	0.
1427	EQmxn	9.533E-11	4.924E-13	0.	0.	0.	0.
1427	EQmyp	-2.248E-11	-3.966E-10	0.	0.	0.	0.
1427	EQmyn	2.248E-11	3.966E-10	0.	0.	0.	0.
1428	RSX	4.816E-10	5.271E-10	0.	0.	0.	0.
1428	RSY	5.968E-09	6.122E-09	0.	0.	0.	0.
1428	EQmxp	-6.118E-11	-3.160E-13	0.	0.	0.	0.
1428	EQmxn	6.118E-11	3.160E-13	0.	0.	0.	0.
1428	EQmyp	-1.443E-11	-2.545E-10	0.	0.	0.	0.
1428	EQmyn	1.443E-11	2.545E-10	0.	0.	0.	0.
1429	RSX	5.278E-10	5.464E-10	0.	0.	0.	0.
1429	RSY	5.882E-09	6.836E-09	0.	0.	0.	0.
1429	EQmxp	-3.002E-11	-1.551E-13	0.	0.	0.	0.
1429	EQmxn	3.002E-11	1.551E-13	0.	0.	0.	0.
1429	EQmyp	-7.081E-12	-1.249E-10	0.	0.	0.	0.
1429	EQmyn	7.081E-12	1.249E-10	0.	0.	0.	0.
1430	RSX	5.651E-10	5.577E-10	0.	0.	0.	0.
1430	RSY	5.734E-09	7.387E-09	0.	0.	0.	0.
1430	EQmxp	-5.790E-12	-2.991E-14	0.	0.	0.	0.
1430	EQmxn	5.790E-12	2.991E-14	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1430	EQmyp	-1.366E-12	-2.409E-11	0.	0.	0.	0.
1430	EQmyn	1.366E-12	2.409E-11	0.	0.	0.	0.
1431	RSX	5.850E-10	5.698E-10	0.	0.	0.	0.
1431	RSY	5.675E-09	7.745E-09	0.	0.	0.	0.
1431	EQmxp	1.002E-11	5.173E-14	0.	0.	0.	0.
1431	EQmxn	-1.002E-11	-5.173E-14	0.	0.	0.	0.
1431	EQmyp	2.362E-12	4.166E-11	0.	0.	0.	0.
1431	EQmyn	-2.362E-12	-4.166E-11	0.	0.	0.	0.
1432	RSX	5.823E-10	5.754E-10	0.	0.	0.	0.
1432	RSY	5.827E-09	7.932E-09	0.	0.	0.	0.
1432	EQmxp	1.787E-11	9.232E-14	0.	0.	0.	0.
1432	EQmxn	-1.787E-11	-9.232E-14	0.	0.	0.	0.
1432	EQmyp	4.216E-12	7.436E-11	0.	0.	0.	0.
1432	EQmyn	-4.216E-12	-7.436E-11	0.	0.	0.	0.
1433	RSX	5.726E-10	5.788E-10	0.	0.	0.	0.
1433	RSY	6.194E-09	7.950E-09	0.	0.	0.	0.
1433	EQmxp	1.951E-11	1.007E-13	0.	0.	0.	0.
1433	EQmxn	-1.951E-11	-1.007E-13	0.	0.	0.	0.
1433	EQmyp	4.600E-12	8.114E-11	0.	0.	0.	0.
1433	EQmyn	-4.600E-12	-8.114E-11	0.	0.	0.	0.
1434	RSX	5.649E-10	5.863E-10	0.	0.	0.	0.
1434	RSY	6.770E-09	7.871E-09	0.	0.	0.	0.
1434	EQmxp	1.711E-11	8.839E-14	0.	0.	0.	0.
1434	EQmxn	-1.711E-11	-8.839E-14	0.	0.	0.	0.
1434	EQmyp	4.036E-12	7.119E-11	0.	0.	0.	0.
1434	EQmyn	-4.036E-12	-7.119E-11	0.	0.	0.	0.
1435	RSX	5.660E-10	5.927E-10	0.	0.	0.	0.
1435	RSY	7.601E-09	7.566E-09	0.	0.	0.	0.
1435	EQmxp	1.279E-11	6.606E-14	0.	0.	0.	0.
1435	EQmxn	-1.279E-11	-6.606E-14	0.	0.	0.	0.
1435	EQmyp	3.017E-12	5.321E-11	0.	0.	0.	0.
1435	EQmyn	-3.017E-12	-5.321E-11	0.	0.	0.	0.
1436	RSX	5.725E-10	6.032E-10	0.	0.	0.	0.
1436	RSY	8.424E-09	7.129E-09	0.	0.	0.	0.
1436	EQmxp	8.146E-12	4.207E-14	0.	0.	0.	0.
1436	EQmxn	-8.146E-12	-4.207E-14	0.	0.	0.	0.
1436	EQmyp	1.921E-12	3.389E-11	0.	0.	0.	0.
1436	EQmyn	-1.921E-12	-3.389E-11	0.	0.	0.	0.
1437	RSX	5.771E-10	5.963E-10	0.	0.	0.	0.
1437	RSY	9.002E-09	6.581E-09	0.	0.	0.	0.
1437	EQmxp	4.185E-12	2.162E-14	0.	0.	0.	0.
1437	EQmxn	-4.185E-12	-2.162E-14	0.	0.	0.	0.
1437	EQmyp	9.871E-13	1.741E-11	0.	0.	0.	0.
1437	EQmyn	-9.871E-13	-1.741E-11	0.	0.	0.	0.
1438	RSX	5.917E-10	5.731E-10	0.	0.	0.	0.
1438	RSY	9.253E-09	6.124E-09	0.	0.	0.	0.
1438	EQmxp	1.350E-12	6.973E-15	0.	0.	0.	0.
1438	EQmxn	-1.350E-12	-6.973E-15	0.	0.	0.	0.
1438	EQmyp	3.184E-13	5.616E-12	0.	0.	0.	0.
1438	EQmyn	-3.184E-13	-5.616E-12	0.	0.	0.	0.
1439	RSX	6.151E-10	5.399E-10	0.	0.	0.	0.
1439	RSY	9.253E-09	5.784E-09	0.	0.	0.	0.
1439	EQmxp	-3.342E-13	-1.726E-15	0.	0.	0.	0.
1439	EQmxn	3.342E-13	1.726E-15	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1439	EQmyp	-7.881E-14	-1.390E-12	0.	0.	0.	0.
1439	EQmyn	7.881E-14	1.390E-12	0.	0.	0.	0.
1440	RSX	6.260E-10	5.309E-10	0.	0.	0.	0.
1440	RSY	8.931E-09	5.647E-09	0.	0.	0.	0.
1440	EQmxp	-1.085E-12	-5.603E-15	0.	0.	0.	0.
1440	EQmxn	1.085E-12	5.603E-15	0.	0.	0.	0.
1440	EQmyp	-2.558E-13	-4.512E-12	0.	0.	0.	0.
1440	EQmyn	2.558E-13	4.512E-12	0.	0.	0.	0.
1441	RSX	6.229E-10	5.553E-10	0.	0.	0.	0.
1441	RSY	8.430E-09	5.734E-09	0.	0.	0.	0.
1441	EQmxp	-1.209E-12	-6.245E-15	0.	0.	0.	0.
1441	EQmxn	1.209E-12	6.245E-15	0.	0.	0.	0.
1441	EQmyp	-2.852E-13	-5.030E-12	0.	0.	0.	0.
1441	EQmyn	2.852E-13	5.030E-12	0.	0.	0.	0.
1442	RSX	6.047E-10	5.974E-10	0.	0.	0.	0.
1442	RSY	8.205E-09	6.032E-09	0.	0.	0.	0.
1442	EQmxp	-9.986E-13	-5.158E-15	0.	0.	0.	0.
1442	EQmxn	9.986E-13	5.158E-15	0.	0.	0.	0.
1442	EQmyp	-2.355E-13	-4.154E-12	0.	0.	0.	0.
1442	EQmyn	2.355E-13	4.154E-12	0.	0.	0.	0.
1443	RSX	5.894E-10	6.198E-10	0.	0.	0.	0.
1443	RSY	8.109E-09	6.587E-09	0.	0.	0.	0.
1443	EQmxp	-6.734E-13	-3.478E-15	0.	0.	0.	0.
1443	EQmxn	6.734E-13	3.478E-15	0.	0.	0.	0.
1443	EQmyp	-1.588E-13	-2.801E-12	0.	0.	0.	0.
1443	EQmyn	1.588E-13	2.801E-12	0.	0.	0.	0.
1444	RSX	5.791E-10	6.059E-10	0.	0.	0.	0.
1444	RSY	8.313E-09	6.898E-09	0.	0.	0.	0.
1444	EQmxp	-3.681E-13	-1.901E-15	0.	0.	0.	0.
1444	EQmxn	3.681E-13	1.901E-15	0.	0.	0.	0.
1444	EQmyp	-8.682E-14	-1.531E-12	0.	0.	0.	0.
1444	EQmyn	8.682E-14	1.531E-12	0.	0.	0.	0.
1445	RSX	5.738E-10	5.794E-10	0.	0.	0.	0.
1445	RSY	8.710E-09	7.046E-09	0.	0.	0.	0.
1445	EQmxp	-1.434E-13	-7.408E-16	0.	0.	0.	0.
1445	EQmxn	1.434E-13	7.408E-16	0.	0.	0.	0.
1445	EQmyp	-3.383E-14	-5.967E-13	0.	0.	0.	0.
1445	EQmyn	3.383E-14	5.967E-13	0.	0.	0.	0.
1446	RSX	5.540E-10	5.674E-10	0.	0.	0.	0.
1446	RSY	8.736E-09	6.835E-09	0.	0.	0.	0.
1446	EQmxp	-9.417E-15	-4.864E-17	0.	0.	0.	0.
1446	EQmxn	9.417E-15	4.864E-17	0.	0.	0.	0.
1446	EQmyp	-2.221E-15	-3.917E-14	0.	0.	0.	0.
1446	EQmyn	2.221E-15	3.917E-14	0.	0.	0.	0.
1447	RSX	5.294E-10	5.741E-10	0.	0.	0.	0.
1447	RSY	8.464E-09	6.279E-09	0.	0.	0.	0.
1447	EQmxp	5.098E-14	2.633E-16	0.	0.	0.	0.
1447	EQmxn	-5.098E-14	-2.633E-16	0.	0.	0.	0.
1447	EQmyp	1.202E-14	2.121E-13	0.	0.	0.	0.
1447	EQmyn	-1.202E-14	-2.121E-13	0.	0.	0.	0.
1448	RSX	4.995E-10	5.805E-10	0.	0.	0.	0.
1448	RSY	8.282E-09	5.974E-09	0.	0.	0.	0.
1448	EQmxp	6.367E-14	3.289E-16	0.	0.	0.	0.
1448	EQmxn	-6.367E-14	-3.289E-16	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1448	EQmyp	1.502E-14	2.649E-13	0.	0.	0.	0.
1448	EQmyn	-1.502E-14	-2.649E-13	0.	0.	0.	0.
1449	RSX	4.712E-10	5.780E-10	0.	0.	0.	0.
1449	RSY	8.028E-09	6.024E-09	0.	0.	0.	0.
1449	EQmxp	5.234E-14	2.703E-16	0.	0.	0.	0.
1449	EQmxn	-5.234E-14	-2.703E-16	0.	0.	0.	0.
1449	EQmyp	1.234E-14	2.177E-13	0.	0.	0.	0.
1449	EQmyn	-1.234E-14	-2.177E-13	0.	0.	0.	0.
1450	RSX	4.672E-10	5.640E-10	0.	0.	0.	0.
1450	RSY	7.608E-09	6.214E-09	0.	0.	0.	0.
1450	EQmxp	3.366E-14	1.738E-16	0.	0.	0.	0.
1450	EQmxn	-3.366E-14	-1.738E-16	0.	0.	0.	0.
1450	EQmyp	7.937E-15	1.400E-13	0.	0.	0.	0.
1450	EQmyn	-7.937E-15	-1.400E-13	0.	0.	0.	0.
1451	RSX	4.650E-10	5.526E-10	0.	0.	0.	0.
1451	RSY	7.580E-09	6.607E-09	0.	0.	0.	0.
1451	EQmxp	1.685E-14	8.702E-17	0.	0.	0.	0.
1451	EQmxn	-1.685E-14	-8.702E-17	0.	0.	0.	0.
1451	EQmyp	3.974E-15	7.009E-14	0.	0.	0.	0.
1451	EQmyn	-3.974E-15	-7.009E-14	0.	0.	0.	0.
1452	RSX	4.816E-10	5.461E-10	0.	0.	0.	0.
1452	RSY	7.974E-09	6.741E-09	0.	0.	0.	0.
1452	EQmxp	5.392E-15	2.785E-17	0.	0.	0.	0.
1452	EQmxn	-5.392E-15	-2.785E-17	0.	0.	0.	0.
1452	EQmyp	1.272E-15	2.243E-14	0.	0.	0.	0.
1452	EQmyn	-1.272E-15	-2.243E-14	0.	0.	0.	0.
1453	RSX	5.120E-10	5.232E-10	0.	0.	0.	0.
1453	RSY	7.804E-09	7.182E-09	0.	0.	0.	0.
1453	EQmxp	-6.949E-16	-3.589E-18	0.	0.	0.	0.
1453	EQmxn	6.949E-16	3.589E-18	0.	0.	0.	0.
1453	EQmyp	-1.639E-16	-2.891E-15	0.	0.	0.	0.
1453	EQmyn	1.639E-16	2.891E-15	0.	0.	0.	0.
1454	RSX	5.608E-10	5.066E-10	0.	0.	0.	0.
1454	RSY	6.912E-09	7.867E-09	0.	0.	0.	0.
1454	EQmxp	-2.889E-15	-1.492E-17	0.	0.	0.	0.
1454	EQmxn	2.889E-15	1.492E-17	0.	0.	0.	0.
1454	EQmyp	-6.813E-16	-1.202E-14	0.	0.	0.	0.
1454	EQmyn	6.813E-16	1.202E-14	0.	0.	0.	0.
1455	RSX	5.950E-10	5.112E-10	0.	0.	0.	0.
1455	RSY	5.979E-09	8.354E-09	0.	0.	0.	0.
1455	EQmxp	-2.897E-15	-1.496E-17	0.	0.	0.	0.
1455	EQmxn	2.897E-15	1.496E-17	0.	0.	0.	0.
1455	EQmyp	-6.832E-16	-1.205E-14	0.	0.	0.	0.
1455	EQmyn	6.832E-16	1.205E-14	0.	0.	0.	0.
1456	RSX	5.779E-10	5.379E-10	0.	0.	0.	0.
1456	RSY	5.284E-09	8.183E-09	0.	0.	0.	0.
1456	EQmxp	-2.039E-15	-1.053E-17	0.	0.	0.	0.
1456	EQmxn	2.039E-15	1.053E-17	0.	0.	0.	0.
1456	EQmyp	-4.810E-16	-8.483E-15	0.	0.	0.	0.
1456	EQmyn	4.810E-16	8.483E-15	0.	0.	0.	0.
1457	RSX	5.276E-10	5.817E-10	0.	0.	0.	0.
1457	RSY	5.671E-09	7.213E-09	0.	0.	0.	0.
1457	EQmxp	-1.099E-15	-5.676E-18	0.	0.	0.	0.
1457	EQmxn	1.099E-15	5.676E-18	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1457	EQmyp	-2.592E-16	-4.572E-15	0.	0.	0.	0.
1457	EQmyn	2.592E-16	4.572E-15	0.	0.	0.	0.
1458	RSX	4.905E-10	6.416E-10	0.	0.	0.	0.
1458	RSY	7.020E-09	6.538E-09	0.	0.	0.	0.
1458	EQmxp	-4.101E-16	-2.118E-18	0.	0.	0.	0.
1458	EQmxn	4.101E-16	2.118E-18	0.	0.	0.	0.
1458	EQmyp	-9.673E-17	-1.706E-15	0.	0.	0.	0.
1458	EQmyn	9.673E-17	1.706E-15	0.	0.	0.	0.
1459	RSX	4.869E-10	6.979E-10	0.	0.	0.	0.
1459	RSY	8.755E-09	6.245E-09	0.	0.	0.	0.
1459	EQmxp	-2.765E-17	-1.428E-19	0.	0.	0.	0.
1459	EQmxn	2.765E-17	1.428E-19	0.	0.	0.	0.
1459	EQmyp	-6.520E-18	-1.150E-16	0.	0.	0.	0.
1459	EQmyn	6.520E-18	1.150E-16	0.	0.	0.	0.
1460	RSX	5.204E-10	7.327E-10	0.	0.	0.	0.
1460	RSY	9.870E-09	6.463E-09	0.	0.	0.	0.
1460	EQmxp	1.210E-16	6.248E-19	0.	0.	0.	0.
1460	EQmxn	-1.210E-16	-6.248E-19	0.	0.	0.	0.
1460	EQmyp	2.853E-17	5.032E-16	0.	0.	0.	0.
1460	EQmyn	-2.853E-17	-5.032E-16	0.	0.	0.	0.
1461	RSX	5.528E-10	6.985E-10	0.	0.	0.	0.
1461	RSY	9.770E-09	7.098E-09	0.	0.	0.	0.
1461	EQmxp	1.360E-16	7.023E-19	0.	0.	0.	0.
1461	EQmxn	-1.360E-16	-7.023E-19	0.	0.	0.	0.
1461	EQmyp	3.207E-17	5.657E-16	0.	0.	0.	0.
1461	EQmyn	-3.207E-17	-5.657E-16	0.	0.	0.	0.
1462	RSX	5.893E-10	6.090E-10	0.	0.	0.	0.
1462	RSY	8.592E-09	7.943E-09	0.	0.	0.	0.
1462	EQmxp	9.719E-17	5.020E-19	0.	0.	0.	0.
1462	EQmxn	-9.719E-17	-5.020E-19	0.	0.	0.	0.
1462	EQmyp	2.292E-17	4.043E-16	0.	0.	0.	0.
1462	EQmyn	-2.292E-17	-4.043E-16	0.	0.	0.	0.
1463	RSX	6.177E-10	5.395E-10	0.	0.	0.	0.
1463	RSY	6.834E-09	9.400E-09	0.	0.	0.	0.
1463	EQmxp	5.150E-17	2.660E-19	0.	0.	0.	0.
1463	EQmxn	-5.150E-17	-2.660E-19	0.	0.	0.	0.
1463	EQmyp	1.215E-17	2.142E-16	0.	0.	0.	0.
1463	EQmyn	-1.215E-17	-2.142E-16	0.	0.	0.	0.
1464	RSX	6.010E-10	5.180E-10	0.	0.	0.	0.
1464	RSY	5.707E-09	1.043E-08	0.	0.	0.	0.
1464	EQmxp	1.840E-17	9.506E-20	0.	0.	0.	0.
1464	EQmxn	-1.840E-17	-9.506E-20	0.	0.	0.	0.
1464	EQmyp	4.341E-18	7.656E-17	0.	0.	0.	0.
1464	EQmyn	-4.341E-18	-7.656E-17	0.	0.	0.	0.
1465	RSX	5.861E-10	5.310E-10	0.	0.	0.	0.
1465	RSY	5.310E-09	1.018E-08	0.	0.	0.	0.
1465	EQmxp	8.895E-19	0.	0.	0.	0.	0.
1465	EQmxn	-8.895E-19	0.	0.	0.	0.	0.
1465	EQmyp	2.098E-19	3.700E-18	0.	0.	0.	0.
1465	EQmyn	-2.098E-19	-3.700E-18	0.	0.	0.	0.
1466	RSX	5.592E-10	5.667E-10	0.	0.	0.	0.
1466	RSY	4.816E-09	8.669E-09	0.	0.	0.	0.
1466	EQmxp	-5.107E-18	-2.638E-20	0.	0.	0.	0.
1466	EQmxn	5.107E-18	2.638E-20	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1466	EQmyp	-1.204E-18	-2.124E-17	0.	0.	0.	0.
1466	EQmyn	1.204E-18	2.124E-17	0.	0.	0.	0.
1467	RSX	6.224E-10	6.373E-10	0.	0.	0.	0.
1467	RSY	5.135E-09	7.247E-09	0.	0.	0.	0.
1467	EQmxp	-5.860E-18	-3.027E-20	0.	0.	0.	0.
1467	EQmxn	5.860E-18	3.027E-20	0.	0.	0.	0.
1467	EQmyp	-1.382E-18	-2.438E-17	0.	0.	0.	0.
1467	EQmyn	1.382E-18	2.438E-17	0.	0.	0.	0.
1468	RSX	8.107E-10	7.346E-10	0.	0.	0.	0.
1468	RSY	7.805E-09	6.523E-09	0.	0.	0.	0.
1468	EQmxp	-4.833E-18	-2.496E-20	0.	0.	0.	0.
1468	EQmxn	4.833E-18	2.496E-20	0.	0.	0.	0.
1468	EQmyp	-1.140E-18	-2.011E-17	0.	0.	0.	0.
1468	EQmyn	1.140E-18	2.011E-17	0.	0.	0.	0.
1469	RSX	8.582E-10	6.310E-10	0.	0.	0.	0.
1469	RSY	9.805E-09	5.599E-09	0.	0.	0.	0.
1469	EQmxp	-2.110E-18	-1.090E-20	0.	0.	0.	0.
1469	EQmxn	2.110E-18	1.090E-20	0.	0.	0.	0.
1469	EQmyp	-4.976E-19	-8.777E-18	0.	0.	0.	0.
1469	EQmyn	4.976E-19	8.777E-18	0.	0.	0.	0.
1470	RSX	7.556E-10	5.219E-10	0.	0.	0.	0.
1470	RSY	1.058E-08	6.252E-09	0.	0.	0.	0.
1470	EQmxp	-1.202E-19	0.	0.	0.	0.	0.
1470	EQmxn	1.202E-19	0.	0.	0.	0.	0.
1470	EQmyp	-2.835E-20	-5.001E-19	0.	0.	0.	0.
1470	EQmyn	2.835E-20	5.001E-19	0.	0.	0.	0.
1471	RSX	5.385E-10	5.101E-10	0.	0.	0.	0.
1471	RSY	1.077E-08	6.282E-09	0.	0.	0.	0.
1471	EQmxp	5.414E-19	0.	0.	0.	0.	0.
1471	EQmxn	-5.414E-19	0.	0.	0.	0.	0.
1471	EQmyp	1.277E-19	2.252E-18	0.	0.	0.	0.
1471	EQmyn	-1.277E-19	-2.252E-18	0.	0.	0.	0.
1472	RSX	4.299E-10	4.866E-10	0.	0.	0.	0.
1472	RSY	9.987E-09	6.072E-09	0.	0.	0.	0.
1472	EQmxp	4.318E-19	0.	0.	0.	0.	0.
1472	EQmxn	-4.318E-19	0.	0.	0.	0.	0.
1472	EQmyp	1.018E-19	1.796E-18	0.	0.	0.	0.
1472	EQmyn	-1.018E-19	-1.796E-18	0.	0.	0.	0.
1473	RSX	4.093E-10	3.340E-10	0.	0.	0.	0.
1473	RSY	7.990E-09	7.472E-09	0.	0.	0.	0.
1473	EQmxp	1.495E-19	0.	0.	0.	0.	0.
1473	EQmxn	-1.495E-19	0.	0.	0.	0.	0.
1473	EQmyp	3.526E-20	6.219E-19	0.	0.	0.	0.
1473	EQmyn	-3.526E-20	-6.219E-19	0.	0.	0.	0.
1474	RSX	2.638E-10	1.385E-10	0.	0.	0.	0.
1474	RSY	3.769E-09	3.539E-09	0.	0.	0.	0.
1474	EQmxp	-5.655E-20	0.	0.	0.	0.	0.
1474	EQmxn	5.655E-20	0.	0.	0.	0.	0.
1474	EQmyp	-1.334E-20	-2.353E-19	0.	0.	0.	0.
1474	EQmyn	1.334E-20	2.353E-19	0.	0.	0.	0.
1477	RSX	9.359E-03	1.251E-04	0.	0.	0.	0.
1477	RSY	1.222E-03	0.013	8.440E-19	0.	0.	0.
1477	EQmxp	-0.014	-1.033E-04	0.	0.	0.	0.
1477	EQmxn	0.014	1.033E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1477	EQmyp	-5.034E-03	-0.061	-3.469E-18	0.	0.	0.
1477	EQmyn	5.034E-03	0.061	3.469E-18	0.	0.	0.
1478	RSX	8.067E-03	1.078E-04	3.643E-19	0.	0.	0.
1478	RSY	1.052E-03	0.011	6.334E-19	0.	0.	0.
1478	EQmxp	-0.012	-8.884E-05	-4.337E-19	0.	0.	0.
1478	EQmxn	0.012	8.884E-05	4.337E-19	0.	0.	0.
1478	EQmyp	-4.331E-03	-0.053	-1.735E-18	0.	0.	0.
1478	EQmyn	4.331E-03	0.053	1.735E-18	0.	0.	0.
1479	RSX	0.019	2.518E-04	0.	0.	0.	0.
1479	RSY	2.453E-03	0.026	4.595E-19	0.	0.	0.
1479	EQmxp	-0.029	-2.072E-04	-8.674E-19	0.	0.	0.
1479	EQmxn	0.029	2.072E-04	8.674E-19	0.	0.	0.
1479	EQmyp	-0.01	-0.123	-3.469E-18	0.	0.	0.
1479	EQmyn	0.01	0.123	3.469E-18	0.	0.	0.
1480	RSX	0.02	2.736E-04	7.473E-19	0.	0.	0.
1480	RSY	2.661E-03	0.028	2.592E-18	0.	0.	0.
1480	EQmxp	-0.031	-2.246E-04	0.	0.	0.	0.
1480	EQmxn	0.031	2.246E-04	0.	0.	0.	0.
1480	EQmyp	-0.011	-0.133	-6.939E-18	0.	0.	0.
1480	EQmyn	0.011	0.133	6.939E-18	0.	0.	0.
1481	RSX	0.021	2.835E-04	7.425E-19	0.	0.	0.
1481	RSY	2.752E-03	0.029	4.829E-19	0.	0.	0.
1481	EQmxp	-0.032	-2.322E-04	-8.674E-19	0.	0.	0.
1481	EQmxn	0.032	2.322E-04	8.674E-19	0.	0.	0.
1481	EQmyp	-0.011	-0.138	-1.041E-17	0.	0.	0.
1481	EQmyn	0.011	0.138	1.041E-17	0.	0.	0.
1482	RSX	0.021	2.833E-04	0.	0.	0.	0.
1482	RSY	2.744E-03	0.029	1.675E-18	0.	0.	0.
1482	EQmxp	-0.032	-2.314E-04	1.735E-18	0.	0.	0.
1482	EQmxn	0.032	2.314E-04	-1.735E-18	0.	0.	0.
1482	EQmyp	-0.011	-0.137	-6.939E-18	0.	0.	0.
1482	EQmyn	0.011	0.137	6.939E-18	0.	0.	0.
1483	RSX	0.021	2.742E-04	1.481E-18	0.	0.	0.
1483	RSY	2.649E-03	0.028	9.467E-19	0.	0.	0.
1483	EQmxp	-0.031	-2.232E-04	-1.735E-18	0.	0.	0.
1483	EQmxn	0.031	2.232E-04	1.735E-18	0.	0.	0.
1483	EQmyp	-0.011	-0.133	0.	0.	0.	0.
1483	EQmyn	0.011	0.133	0.	0.	0.	0.
1484	RSX	0.019	2.470E-04	0.	0.	0.	0.
1484	RSY	2.378E-03	0.025	9.414E-19	0.	0.	0.
1484	EQmxp	-0.028	-2.002E-04	8.674E-19	0.	0.	0.
1484	EQmxn	0.028	2.002E-04	-8.674E-19	0.	0.	0.
1484	EQmyp	-9.763E-03	-0.119	0.	0.	0.	0.
1484	EQmyn	9.763E-03	0.119	0.	0.	0.	0.
1485	RSX	0.015	2.012E-04	1.465E-18	0.	0.	0.
1485	RSY	1.928E-03	0.02	1.407E-18	0.	0.	0.
1485	EQmxp	-0.022	-1.622E-04	-1.735E-18	0.	0.	0.
1485	EQmxn	0.022	1.622E-04	1.735E-18	0.	0.	0.
1485	EQmyp	-7.910E-03	-0.096	3.469E-18	0.	0.	0.
1485	EQmyn	7.910E-03	0.096	-3.469E-18	0.	0.	0.
1486	RSX	0.012	1.581E-04	7.308E-19	0.	0.	0.
1486	RSY	1.506E-03	0.016	8.243E-19	0.	0.	0.
1486	EQmxp	-0.017	-1.265E-04	-3.036E-18	0.	0.	0.
1486	EQmxn	0.017	1.265E-04	3.036E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1486	EQmyp	-6.170E-03	-0.075	6.939E-18	0.	0.	0.
1486	EQmyn	6.170E-03	0.075	-6.939E-18	0.	0.	0.
1487	RSX	8.806E-03	1.171E-04	7.331E-19	0.	0.	0.
1487	RSY	1.105E-03	0.012	6.222E-19	0.	0.	0.
1487	EQmxp	-0.013	-9.259E-05	-2.168E-18	0.	0.	0.
1487	EQmxn	0.013	9.259E-05	2.168E-18	0.	0.	0.
1487	EQmyp	-4.514E-03	-0.055	5.204E-18	0.	0.	0.
1487	EQmyn	4.514E-03	0.055	-5.204E-18	0.	0.	0.
1488	RSX	5.688E-03	7.548E-05	9.219E-19	0.	0.	0.
1488	RSY	6.979E-04	7.349E-03	4.142E-19	0.	0.	0.
1488	EQmxp	-8.014E-03	-5.823E-05	1.084E-18	0.	0.	0.
1488	EQmxn	8.014E-03	5.823E-05	-1.084E-18	0.	0.	0.
1488	EQmyp	-2.839E-03	-0.035	-1.735E-18	0.	0.	0.
1488	EQmyn	2.839E-03	0.035	1.735E-18	0.	0.	0.
1489	RSX	2.703E-03	3.566E-05	1.380E-18	0.	0.	0.
1489	RSY	3.104E-04	3.299E-03	1.060E-18	0.	0.	0.
1489	EQmxp	-3.511E-03	-2.551E-05	1.843E-18	0.	0.	0.
1489	EQmxn	3.511E-03	2.551E-05	-1.843E-18	0.	0.	0.
1489	EQmyp	-1.244E-03	-0.015	-5.638E-18	0.	0.	0.
1489	EQmyn	1.244E-03	0.015	5.638E-18	0.	0.	0.
1490	RSX	5.052E-05	2.310E-06	3.943E-19	0.	0.	0.
1490	RSY	3.488E-05	3.417E-04	1.671E-19	0.	0.	0.
1490	EQmxp	4.801E-04	3.489E-06	-3.524E-19	0.	0.	0.
1490	EQmxn	-4.801E-04	-3.489E-06	3.524E-19	0.	0.	0.
1490	EQmyp	1.701E-04	2.073E-03	8.674E-19	0.	0.	0.
1490	EQmyn	-1.701E-04	-2.073E-03	-8.674E-19	0.	0.	0.
1491	RSX	2.296E-03	3.124E-05	6.438E-19	0.	0.	0.
1491	RSY	3.370E-04	3.478E-03	2.566E-19	0.	0.	0.
1491	EQmxp	4.001E-03	2.907E-05	-1.518E-18	0.	0.	0.
1491	EQmxn	-4.001E-03	-2.907E-05	1.518E-18	0.	0.	0.
1491	EQmyp	1.417E-03	0.017	2.168E-18	0.	0.	0.
1491	EQmyn	-1.417E-03	-0.017	-2.168E-18	0.	0.	0.
1492	RSX	4.366E-03	5.883E-05	9.211E-19	0.	0.	0.
1492	RSY	6.039E-04	6.270E-03	4.168E-19	0.	0.	0.
1492	EQmxp	7.099E-03	5.158E-05	6.505E-19	0.	0.	0.
1492	EQmxn	-7.099E-03	-5.158E-05	-6.505E-19	0.	0.	0.
1492	EQmyp	2.515E-03	0.031	0.	0.	0.	0.
1492	EQmyn	-2.515E-03	-0.031	0.	0.	0.	0.
1493	RSX	6.200E-03	8.328E-05	2.762E-18	0.	0.	0.
1493	RSY	8.398E-04	8.739E-03	6.552E-19	0.	0.	0.
1493	EQmxp	9.834E-03	7.145E-05	3.036E-18	0.	0.	0.
1493	EQmxn	-9.834E-03	-7.145E-05	-3.036E-18	0.	0.	0.
1493	EQmyp	3.484E-03	0.042	-8.674E-18	0.	0.	0.
1493	EQmyn	-3.484E-03	-0.042	8.674E-18	0.	0.	0.
1494	RSX	6.250E-03	8.381E-05	2.207E-18	0.	0.	0.
1494	RSY	8.371E-04	8.722E-03	1.570E-18	0.	0.	0.
1494	EQmxp	9.782E-03	7.108E-05	2.602E-18	0.	0.	0.
1494	EQmxn	-9.782E-03	-7.108E-05	-2.602E-18	0.	0.	0.
1494	EQmyp	3.465E-03	0.042	-1.214E-17	0.	0.	0.
1494	EQmyn	-3.465E-03	-0.042	1.214E-17	0.	0.	0.
1495	RSX	7.182E-03	9.621E-05	1.343E-20	0.	0.	0.
1495	RSY	9.550E-04	9.958E-03	1.337E-18	0.	0.	0.
1495	EQmxp	0.011	8.098E-05	8.674E-19	0.	0.	0.
1495	EQmxn	-0.011	-8.098E-05	-8.674E-19	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1495	EQmyp	3.948E-03	0.048	1.735E-18	0.	0.	0.
1495	EQmyn	-3.948E-03	-0.048	-1.735E-18	0.	0.	0.
1496	RSX	7.962E-03	1.066E-04	0.	0.	0.	0.
1496	RSY	1.053E-03	0.011	2.364E-19	0.	0.	0.
1496	EQmxp	0.012	8.919E-05	-4.337E-18	0.	0.	0.
1496	EQmxn	-0.012	-8.919E-05	4.337E-18	0.	0.	0.
1496	EQmyp	4.348E-03	0.053	0.	0.	0.	0.
1496	EQmyn	-4.348E-03	-0.053	0.	0.	0.	0.
1497	RSX	8.799E-03	1.177E-04	7.732E-18	0.	0.	0.
1497	RSY	1.158E-03	0.012	4.278E-18	0.	0.	0.
1497	EQmxp	0.013	9.800E-05	-1.128E-17	0.	0.	0.
1497	EQmxn	-0.013	-9.800E-05	1.128E-17	0.	0.	0.
1497	EQmyp	4.778E-03	0.058	1.388E-17	0.	0.	0.
1497	EQmyn	-4.778E-03	-0.058	-1.388E-17	0.	0.	0.
1498	RSX	0.01	1.402E-04	5.163E-18	0.	0.	0.
1498	RSY	1.373E-03	0.014	4.977E-19	0.	0.	0.
1498	EQmxp	0.016	1.161E-04	-9.107E-18	0.	0.	0.
1498	EQmxn	-0.016	-1.161E-04	9.107E-18	0.	0.	0.
1498	EQmyp	5.660E-03	0.069	0.	0.	0.	0.
1498	EQmyn	-5.660E-03	-0.069	0.	0.	0.	0.
1499	RSX	0.026	3.481E-04	1.400E-17	0.	0.	0.
1499	RSY	3.390E-03	0.035	2.857E-18	0.	0.	0.
1499	EQmxp	0.039	2.863E-04	-5.898E-17	0.	0.	0.
1499	EQmxn	-0.039	-2.863E-04	5.898E-17	0.	0.	0.
1499	EQmyp	0.014	0.17	6.939E-18	0.	0.	0.
1499	EQmyn	-0.014	-0.17	-6.939E-18	0.	0.	0.
1500	RSX	6.037E-03	8.053E-05	2.949E-17	0.	0.	0.
1500	RSY	7.766E-04	8.130E-03	1.666E-17	0.	0.	0.
1500	EQmxp	9.005E-03	6.543E-05	-4.424E-17	0.	0.	0.
1500	EQmxn	-9.005E-03	-6.543E-05	4.424E-17	0.	0.	0.
1500	EQmyp	3.190E-03	0.039	5.898E-17	0.	0.	0.
1500	EQmyn	-3.190E-03	-0.039	-5.898E-17	0.	0.	0.
1501	RSX	1.682E-03	2.235E-05	3.966E-18	0.	0.	0.
1501	RSY	2.099E-04	2.205E-03	3.883E-18	0.	0.	0.
1501	EQmxp	2.419E-03	1.757E-05	-5.638E-18	0.	0.	0.
1501	EQmxn	-2.419E-03	-1.757E-05	5.638E-18	0.	0.	0.
1501	EQmyp	8.568E-04	0.01	-1.735E-18	0.	0.	0.
1501	EQmyn	-8.568E-04	-0.01	1.735E-18	0.	0.	0.
1502	RSX	8.087E-05	1.089E-06	6.166E-18	0.	0.	0.
1502	RSY	2.809E-06	4.628E-05	2.620E-18	0.	0.	0.
1502	EQmxp	1.821E-06	1.323E-08	1.173E-17	0.	0.	0.
1502	EQmxn	-1.821E-06	-1.323E-08	-1.173E-17	0.	0.	0.
1502	EQmyp	6.451E-07	7.861E-06	-1.363E-17	0.	0.	0.
1502	EQmyn	-6.451E-07	-7.861E-06	1.363E-17	0.	0.	0.
1503	RSX	7.542E-04	1.019E-05	1.434E-18	0.	0.	0.
1503	RSY	1.064E-04	1.102E-03	2.720E-18	0.	0.	0.
1503	EQmxp	-1.255E-03	-9.116E-06	-7.373E-18	0.	0.	0.
1503	EQmxn	1.255E-03	9.116E-06	7.373E-18	0.	0.	0.
1503	EQmyp	-4.444E-04	-5.416E-03	-1.236E-17	0.	0.	0.
1503	EQmyn	4.444E-04	5.416E-03	1.236E-17	0.	0.	0.
1504	RSX	1.226E-03	1.648E-05	5.303E-19	0.	0.	0.
1504	RSY	1.670E-04	1.736E-03	2.507E-18	0.	0.	0.
1504	EQmxp	-1.957E-03	-1.422E-05	1.876E-17	0.	0.	0.
1504	EQmxn	1.957E-03	1.422E-05	-1.876E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1504	EQmyp	-6.934E-04	-8.449E-03	-7.806E-18	0.	0.	0.
1504	EQmyn	6.934E-04	8.449E-03	7.806E-18	0.	0.	0.
1505	RSX	1.469E-03	1.971E-05	1.364E-17	0.	0.	0.
1505	RSY	1.977E-04	2.059E-03	3.760E-18	0.	0.	0.
1505	EQmxp	-2.313E-03	-1.680E-05	6.072E-18	0.	0.	0.
1505	EQmxn	2.313E-03	1.680E-05	-6.072E-18	0.	0.	0.
1505	EQmyp	-8.193E-04	-9.983E-03	-1.518E-17	0.	0.	0.
1505	EQmyn	8.193E-04	9.983E-03	1.518E-17	0.	0.	0.
1506	RSX	1.554E-03	2.083E-05	1.292E-17	0.	0.	0.
1506	RSY	2.077E-04	2.165E-03	8.786E-18	0.	0.	0.
1506	EQmxp	-2.426E-03	-1.763E-05	-2.342E-17	0.	0.	0.
1506	EQmxn	2.426E-03	1.763E-05	2.342E-17	0.	0.	0.
1506	EQmyp	-8.596E-04	-0.01	5.204E-18	0.	0.	0.
1506	EQmyn	8.596E-04	0.01	-5.204E-18	0.	0.	0.
1507	RSX	1.521E-03	2.038E-05	5.318E-18	0.	0.	0.
1507	RSY	2.024E-04	2.110E-03	3.835E-18	0.	0.	0.
1507	EQmxp	-2.362E-03	-1.716E-05	3.394E-17	0.	0.	0.
1507	EQmxn	2.362E-03	1.716E-05	-3.394E-17	0.	0.	0.
1507	EQmyp	-8.367E-04	-0.01	-3.036E-17	0.	0.	0.
1507	EQmyn	8.367E-04	0.01	3.036E-17	0.	0.	0.
1508	RSX	1.403E-03	1.879E-05	1.364E-17	0.	0.	0.
1508	RSY	1.858E-04	1.939E-03	3.257E-18	0.	0.	0.
1508	EQmxp	-2.167E-03	-1.575E-05	-3.529E-17	0.	0.	0.
1508	EQmxn	2.167E-03	1.575E-05	3.529E-17	0.	0.	0.
1508	EQmyp	-7.677E-04	-9.354E-03	8.674E-19	0.	0.	0.
1508	EQmyn	7.677E-04	9.354E-03	-8.674E-19	0.	0.	0.
1509	RSX	1.225E-03	1.639E-05	1.345E-17	0.	0.	0.
1509	RSY	1.615E-04	1.686E-03	4.980E-18	0.	0.	0.
1509	EQmxp	-1.882E-03	-1.367E-05	1.025E-17	0.	0.	0.
1509	EQmxn	1.882E-03	1.367E-05	-1.025E-17	0.	0.	0.
1509	EQmyp	-6.666E-04	-8.123E-03	2.385E-17	0.	0.	0.
1509	EQmyn	6.666E-04	8.123E-03	-2.385E-17	0.	0.	0.
1510	RSX	6.975E-04	9.328E-06	4.186E-18	0.	0.	0.
1510	RSY	9.150E-05	9.556E-04	7.882E-18	0.	0.	0.
1510	EQmxp	-1.065E-03	-7.738E-06	-2.477E-17	0.	0.	0.
1510	EQmxn	1.065E-03	7.738E-06	2.477E-17	0.	0.	0.
1510	EQmyp	-3.773E-04	-4.597E-03	-4.315E-17	0.	0.	0.
1510	EQmyn	3.773E-04	4.597E-03	4.315E-17	0.	0.	0.
1511	RSX	4.786E-04	6.394E-06	4.438E-18	0.	0.	0.
1511	RSY	6.230E-05	6.512E-04	4.864E-18	0.	0.	0.
1511	EQmxp	-7.240E-04	-5.261E-06	9.137E-17	0.	0.	0.
1511	EQmxn	7.240E-04	5.261E-06	-9.137E-17	0.	0.	0.
1511	EQmyp	-2.565E-04	-3.125E-03	-3.329E-17	0.	0.	0.
1511	EQmyn	2.565E-04	3.125E-03	3.329E-17	0.	0.	0.
1512	RSX	2.650E-04	3.533E-06	2.361E-17	0.	0.	0.
1512	RSY	3.396E-05	3.556E-04	1.480E-17	0.	0.	0.
1512	EQmxp	-3.934E-04	-2.859E-06	6.952E-18	0.	0.	0.
1512	EQmxn	3.934E-04	2.859E-06	-6.952E-18	0.	0.	0.
1512	EQmyp	-1.394E-04	-1.698E-03	-5.258E-17	0.	0.	0.
1512	EQmyn	1.394E-04	1.698E-03	5.258E-17	0.	0.	0.
1513	RSX	6.084E-05	8.029E-07	1.536E-16	0.	0.	0.
1513	RSY	7.011E-06	7.447E-05	5.665E-17	0.	0.	0.
1513	EQmxp	-7.937E-05	-5.767E-07	-1.601E-16	0.	0.	0.
1513	EQmxn	7.937E-05	5.767E-07	1.601E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1513	EQmyp	-2.812E-05	-3.426E-04	4.958E-17	0.	0.	0.
1513	EQmyn	2.812E-05	3.426E-04	-4.958E-17	0.	0.	0.
1514	RSX	6.976E-04	9.366E-06	2.082E-15	0.	0.	0.
1514	RSY	9.424E-05	9.810E-04	6.094E-16	0.	0.	0.
1514	EQmxp	1.103E-03	8.015E-06	1.776E-15	0.	0.	0.
1514	EQmxn	-1.103E-03	-8.015E-06	-1.776E-15	0.	0.	0.
1514	EQmyp	3.908E-04	4.761E-03	-2.833E-15	0.	0.	0.
1514	EQmyn	-3.908E-04	-4.761E-03	2.833E-15	0.	0.	0.
1515	RSX	1.765E-04	2.359E-06	2.777E-16	0.	0.	0.
1515	RSY	2.307E-05	2.410E-04	9.296E-17	0.	0.	0.
1515	EQmxp	2.683E-04	1.949E-06	5.250E-17	0.	0.	0.
1515	EQmxn	-2.683E-04	-1.949E-06	-5.250E-17	0.	0.	0.
1515	EQmyp	9.505E-05	1.158E-03	-2.922E-17	0.	0.	0.
1515	EQmyn	-9.505E-05	-1.158E-03	2.922E-17	0.	0.	0.
1516	RSX	1.098E-04	1.465E-06	3.339E-16	0.	0.	0.
1516	RSY	1.417E-05	1.483E-04	1.240E-16	0.	0.	0.
1516	EQmxp	1.644E-04	1.195E-06	6.323E-16	0.	0.	0.
1516	EQmxn	-1.644E-04	-1.195E-06	-6.323E-16	0.	0.	0.
1516	EQmyp	5.824E-05	7.097E-04	-7.650E-16	0.	0.	0.
1516	EQmyn	-5.824E-05	-7.097E-04	7.650E-16	0.	0.	0.
1517	RSX	6.258E-05	8.340E-07	5.360E-17	0.	0.	0.
1517	RSY	7.986E-06	8.368E-05	7.025E-17	0.	0.	0.
1517	EQmxp	9.246E-05	6.718E-07	-5.776E-17	0.	0.	0.
1517	EQmxn	-9.246E-05	-6.718E-07	5.776E-17	0.	0.	0.
1517	EQmyp	3.275E-05	3.991E-04	-2.307E-16	0.	0.	0.
1517	EQmyn	-3.275E-05	-3.991E-04	2.307E-16	0.	0.	0.
1518	RSX	2.572E-05	3.419E-07	8.078E-16	0.	0.	0.
1518	RSY	3.217E-06	3.379E-05	3.210E-16	0.	0.	0.
1518	EQmxp	3.708E-05	2.694E-07	9.036E-16	0.	0.	0.
1518	EQmxn	-3.708E-05	-2.694E-07	-9.036E-16	0.	0.	0.
1518	EQmyp	1.314E-05	1.601E-04	-6.617E-16	0.	0.	0.
1518	EQmyn	-1.314E-05	-1.601E-04	6.617E-16	0.	0.	0.
1519	RSX	5.295E-07	9.251E-09	1.492E-15	0.	0.	0.
1519	RSY	1.460E-07	1.450E-06	6.440E-16	0.	0.	0.
1519	EQmxp	-1.853E-06	-1.346E-08	-7.520E-16	0.	0.	0.
1519	EQmxn	1.853E-06	1.346E-08	7.520E-16	0.	0.	0.
1519	EQmyp	-6.563E-07	-7.997E-06	3.205E-15	0.	0.	0.
1519	EQmyn	6.563E-07	7.997E-06	-3.205E-15	0.	0.	0.
1520	RSX	1.992E-05	2.665E-07	9.616E-16	0.	0.	0.
1520	RSY	2.599E-06	2.716E-05	1.183E-15	0.	0.	0.
1520	EQmxp	-3.022E-05	-2.196E-07	-3.825E-15	0.	0.	0.
1520	EQmxn	3.022E-05	2.196E-07	3.825E-15	0.	0.	0.
1520	EQmyp	-1.070E-05	-1.304E-04	3.509E-15	0.	0.	0.
1520	EQmyn	1.070E-05	1.304E-04	-3.509E-15	0.	0.	0.
1521	RSX	6.915E-06	9.229E-08	4.381E-15	0.	0.	0.
1521	RSY	8.704E-07	9.134E-06	2.740E-15	0.	0.	0.
1521	EQmxp	-1.005E-05	-7.298E-08	5.073E-15	0.	0.	0.
1521	EQmxn	1.005E-05	7.298E-08	-5.073E-15	0.	0.	0.
1521	EQmyp	-3.559E-06	-4.336E-05	-1.291E-14	0.	0.	0.
1521	EQmyn	3.559E-06	4.336E-05	1.291E-14	0.	0.	0.
1522	RSX	4.789E-07	6.396E-09	9.227E-15	0.	0.	0.
1522	RSY	7.196E-08	7.326E-07	4.588E-15	0.	0.	0.
1522	EQmxp	8.452E-07	6.135E-09	-7.562E-15	0.	0.	0.
1522	EQmxn	-8.452E-07	-6.135E-09	7.562E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1522	EQmyp	2.994E-07	3.648E-06	1.600E-14	0.	0.	0.
1522	EQmyn	-2.994E-07	-3.648E-06	-1.600E-14	0.	0.	0.
1523	RSX	5.571E-07	7.316E-09	8.438E-16	0.	0.	0.
1523	RSY	7.174E-08	7.500E-07	1.199E-15	0.	0.	0.
1523	EQmxp	8.310E-07	6.039E-09	-9.403E-15	0.	0.	0.
1523	EQmxn	-8.310E-07	-6.039E-09	9.403E-15	0.	0.	0.
1523	EQmyp	2.944E-07	3.587E-06	7.764E-15	0.	0.	0.
1523	EQmyn	-2.944E-07	-3.587E-06	-7.764E-15	0.	0.	0.
1524	RSX	1.187E-07	1.492E-09	9.125E-16	0.	0.	0.
1524	RSY	1.583E-08	1.551E-07	1.498E-15	0.	0.	0.
1524	EQmxp	1.700E-07	1.234E-09	5.867E-15	0.	0.	0.
1524	EQmxn	-1.700E-07	-1.234E-09	-5.867E-15	0.	0.	0.
1524	EQmyp	6.021E-08	7.337E-07	-2.976E-15	0.	0.	0.
1524	EQmyn	-6.021E-08	-7.337E-07	2.976E-15	0.	0.	0.
1525	RSX	1.332E-08	2.542E-10	3.739E-15	0.	0.	0.
1525	RSY	2.238E-09	1.945E-08	1.190E-15	0.	0.	0.
1525	EQmxp	-2.147E-08	-1.509E-10	1.322E-15	0.	0.	0.
1525	EQmxn	2.147E-08	1.509E-10	-1.322E-15	0.	0.	0.
1525	EQmyp	-7.619E-09	-9.271E-08	4.337E-15	0.	0.	0.
1525	EQmyn	7.619E-09	9.271E-08	-4.337E-15	0.	0.	0.
1526	RSX	1.316E-08	1.182E-09	1.037E-15	0.	0.	0.
1526	RSY	1.633E-08	2.530E-08	1.274E-15	0.	0.	0.
1526	EQmxp	-1.824E-08	-1.379E-10	1.076E-15	0.	0.	0.
1526	EQmxn	1.824E-08	1.379E-10	-1.076E-15	0.	0.	0.
1526	EQmyp	-6.449E-09	-7.873E-08	-1.126E-15	0.	0.	0.
1526	EQmyn	6.449E-09	7.873E-08	1.126E-15	0.	0.	0.
1527	RSX	3.135E-09	4.611E-09	3.295E-16	0.	0.	0.
1527	RSY	6.730E-08	6.611E-08	3.778E-16	0.	0.	0.
1527	EQmxp	-1.472E-09	-8.912E-12	-1.534E-15	0.	0.	0.
1527	EQmxn	1.472E-09	8.912E-12	1.534E-15	0.	0.	0.
1527	EQmyp	-5.245E-10	-6.356E-09	7.154E-15	0.	0.	0.
1527	EQmyn	5.245E-10	6.356E-09	-7.154E-15	0.	0.	0.
1528	RSX	1.206E-11	1.270E-11	1.024E-18	0.	0.	0.
1528	RSY	1.686E-10	1.790E-10	7.593E-20	0.	0.	0.
1528	EQmxp	3.142E-12	2.508E-14	7.175E-19	0.	0.	0.
1528	EQmxn	-3.142E-12	-2.508E-14	-7.175E-19	0.	0.	0.
1528	EQmyp	1.102E-12	1.354E-11	-1.717E-18	0.	0.	0.
1528	EQmyn	-1.102E-12	-1.354E-11	1.717E-18	0.	0.	0.
1529	RSX	5.942E-11	6.664E-11	1.289E-18	0.	0.	0.
1529	RSY	8.371E-10	9.037E-10	5.786E-19	0.	0.	0.
1529	EQmxp	1.181E-11	9.669E-14	-2.456E-18	0.	0.	0.
1529	EQmxn	-1.181E-11	-9.669E-14	2.456E-18	0.	0.	0.
1529	EQmyp	4.155E-12	5.095E-11	1.363E-18	0.	0.	0.
1529	EQmyn	-4.155E-12	-5.095E-11	-1.363E-18	0.	0.	0.
1530	RSX	1.385E-10	1.627E-10	6.161E-18	0.	0.	0.
1530	RSY	1.971E-09	2.163E-09	3.527E-18	0.	0.	0.
1530	EQmxp	2.080E-11	1.358E-13	-7.366E-18	0.	0.	0.
1530	EQmxn	-2.080E-11	-1.358E-13	7.366E-18	0.	0.	0.
1530	EQmyp	7.407E-12	8.982E-11	3.552E-18	0.	0.	0.
1530	EQmyn	-7.407E-12	-8.982E-11	-3.552E-18	0.	0.	0.
1531	RSX	2.349E-10	2.837E-10	5.034E-18	0.	0.	0.
1531	RSY	3.318E-09	3.727E-09	2.834E-18	0.	0.	0.
1531	EQmxp	2.699E-11	1.857E-13	2.406E-18	0.	0.	0.
1531	EQmxn	-2.699E-11	-1.857E-13	-2.406E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1531	EQmyp	9.574E-12	1.165E-10	1.160E-17	0.	0.	0.
1531	EQmyn	-9.574E-12	-1.165E-10	-1.160E-17	0.	0.	0.
1532	RSX	3.364E-10	4.041E-10	2.355E-18	0.	0.	0.
1532	RSY	4.573E-09	5.310E-09	1.555E-18	0.	0.	0.
1532	EQmxp	2.909E-11	2.008E-13	-9.426E-18	0.	0.	0.
1532	EQmxn	-2.909E-11	-2.008E-13	9.426E-18	0.	0.	0.
1532	EQmyp	1.018E-11	1.253E-10	1.096E-18	0.	0.	0.
1532	EQmyn	-1.018E-11	-1.253E-10	-1.096E-18	0.	0.	0.
1533	RSX	4.317E-10	5.028E-10	5.891E-18	0.	0.	0.
1533	RSY	5.546E-09	6.718E-09	2.849E-18	0.	0.	0.
1533	EQmxp	2.727E-11	1.936E-13	-2.787E-18	0.	0.	0.
1533	EQmxn	-2.727E-11	-1.936E-13	2.787E-18	0.	0.	0.
1533	EQmyp	9.342E-12	1.170E-10	-1.201E-18	0.	0.	0.
1533	EQmyn	-9.342E-12	-1.170E-10	1.201E-18	0.	0.	0.
1534	RSX	5.152E-10	5.640E-10	4.166E-18	0.	0.	0.
1534	RSY	6.193E-09	7.712E-09	7.631E-19	0.	0.	0.
1534	EQmxp	2.248E-11	1.818E-13	-5.612E-18	0.	0.	0.
1534	EQmxn	-2.248E-11	-1.818E-13	5.612E-18	0.	0.	0.
1534	EQmyp	7.547E-12	9.630E-11	1.751E-17	0.	0.	0.
1534	EQmyn	-7.547E-12	-9.630E-11	-1.751E-17	0.	0.	0.
1535	RSX	5.848E-10	5.898E-10	2.441E-17	0.	0.	0.
1535	RSY	6.546E-09	8.204E-09	9.518E-18	0.	0.	0.
1535	EQmxp	1.609E-11	4.742E-14	-2.346E-17	0.	0.	0.
1535	EQmxn	-1.609E-11	-4.742E-14	2.346E-17	0.	0.	0.
1535	EQmyp	5.556E-12	6.908E-11	5.142E-17	0.	0.	0.
1535	EQmyn	-5.556E-12	-6.908E-11	-5.142E-17	0.	0.	0.
1536	RSX	6.432E-10	5.898E-10	1.500E-18	0.	0.	0.
1536	RSY	6.639E-09	8.345E-09	2.509E-18	0.	0.	0.
1536	EQmxp	9.652E-12	3.226E-14	1.688E-17	0.	0.	0.
1536	EQmxn	-9.652E-12	-3.226E-14	-1.688E-17	0.	0.	0.
1536	EQmyp	3.415E-12	4.175E-11	-3.541E-17	0.	0.	0.
1536	EQmyn	-3.415E-12	-4.175E-11	3.541E-17	0.	0.	0.
1537	RSX	6.904E-10	5.751E-10	1.410E-17	0.	0.	0.
1537	RSY	6.634E-09	8.209E-09	7.839E-18	0.	0.	0.
1537	EQmxp	4.120E-12	2.805E-14	-3.117E-17	0.	0.	0.
1537	EQmxn	-4.120E-12	-2.805E-14	3.117E-17	0.	0.	0.
1537	EQmyp	1.666E-12	1.839E-11	4.248E-17	0.	0.	0.
1537	EQmyn	-1.666E-12	-1.839E-11	-4.248E-17	0.	0.	0.
1538	RSX	7.249E-10	5.485E-10	5.697E-18	0.	0.	0.
1538	RSY	6.642E-09	7.723E-09	7.311E-18	0.	0.	0.
1538	EQmxp	-1.172E-13	-1.129E-13	5.526E-18	0.	0.	0.
1538	EQmxn	1.172E-13	1.129E-13	-5.526E-18	0.	0.	0.
1538	EQmyp	6.193E-13	8.858E-13	-4.085E-17	0.	0.	0.
1538	EQmyn	-6.193E-13	-8.858E-13	4.085E-17	0.	0.	0.
1539	RSX	7.422E-10	5.192E-10	1.827E-17	0.	0.	0.
1539	RSY	6.731E-09	7.051E-09	1.278E-17	0.	0.	0.
1539	EQmxp	-2.508E-12	-9.663E-14	1.886E-17	0.	0.	0.
1539	EQmxn	2.508E-12	9.663E-14	-1.886E-17	0.	0.	0.
1539	EQmyp	-2.227E-13	-9.441E-12	2.802E-17	0.	0.	0.
1539	EQmyn	2.227E-13	9.441E-12	-2.802E-17	0.	0.	0.
1540	RSX	7.354E-10	4.941E-10	2.390E-17	0.	0.	0.
1540	RSY	7.021E-09	6.413E-09	1.037E-17	0.	0.	0.
1540	EQmxp	-3.365E-12	-4.216E-14	-4.936E-17	0.	0.	0.
1540	EQmxn	3.365E-12	4.216E-14	4.936E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1540	EQmyp	-9.502E-13	-1.391E-11	1.059E-16	0.	0.	0.
1540	EQmyn	9.502E-13	1.391E-11	-1.059E-16	0.	0.	0.
1541	RSX	7.079E-10	4.750E-10	4.681E-18	0.	0.	0.
1541	RSY	7.330E-09	5.909E-09	5.687E-18	0.	0.	0.
1541	EQmxp	-3.171E-12	7.997E-15	-3.433E-17	0.	0.	0.
1541	EQmxn	3.171E-12	-7.997E-15	3.433E-17	0.	0.	0.
1541	EQmyp	-1.332E-12	-1.407E-11	2.599E-17	0.	0.	0.
1541	EQmyn	1.332E-12	1.407E-11	-2.599E-17	0.	0.	0.
1542	RSX	6.086E-10	4.306E-10	1.229E-17	0.	0.	0.
1542	RSY	6.874E-09	5.004E-09	6.342E-18	0.	0.	0.
1542	EQmxp	-2.354E-12	8.557E-14	-2.433E-17	0.	0.	0.
1542	EQmxn	2.354E-12	-8.557E-14	2.433E-17	0.	0.	0.
1542	EQmyp	-1.214E-12	-1.072E-11	-3.150E-18	0.	0.	0.
1542	EQmyn	1.214E-12	1.072E-11	3.150E-18	0.	0.	0.
1543	RSX	5.755E-10	4.411E-10	1.882E-17	0.	0.	0.
1543	RSY	7.060E-09	4.651E-09	3.419E-18	0.	0.	0.
1543	EQmxp	-1.878E-12	-8.589E-14	1.895E-17	0.	0.	0.
1543	EQmxn	1.878E-12	8.589E-14	-1.895E-17	0.	0.	0.
1543	EQmyp	-5.396E-13	-8.154E-12	-6.581E-17	0.	0.	0.
1543	EQmyn	5.396E-13	8.154E-12	6.581E-17	0.	0.	0.
1544	RSX	5.535E-10	4.559E-10	2.322E-17	0.	0.	0.
1544	RSY	7.307E-09	4.416E-09	4.925E-18	0.	0.	0.
1544	EQmxp	-1.183E-12	9.501E-15	6.957E-20	0.	0.	0.
1544	EQmxn	1.183E-12	-9.501E-15	-6.957E-20	0.	0.	0.
1544	EQmyp	-3.319E-13	-5.013E-12	1.069E-16	0.	0.	0.
1544	EQmyn	3.319E-13	5.013E-12	-1.069E-16	0.	0.	0.
1545	RSX	5.352E-10	4.728E-10	4.471E-17	0.	0.	0.
1545	RSY	7.536E-09	4.411E-09	3.149E-17	0.	0.	0.
1545	EQmxp	-4.545E-13	1.105E-13	9.237E-17	0.	0.	0.
1545	EQmxn	4.545E-13	-1.105E-13	-9.237E-17	0.	0.	0.
1545	EQmyp	-3.115E-13	-2.364E-12	-1.156E-16	0.	0.	0.
1545	EQmyn	3.115E-13	2.364E-12	1.156E-16	0.	0.	0.
1546	RSX	5.065E-10	5.103E-10	6.670E-17	0.	0.	0.
1546	RSY	7.313E-09	4.705E-09	2.428E-17	0.	0.	0.
1546	EQmxp	-7.339E-14	2.324E-13	5.348E-17	0.	0.	0.
1546	EQmxn	7.339E-14	-2.324E-13	-5.348E-17	0.	0.	0.
1546	EQmyp	-2.211E-13	-4.899E-13	-1.854E-16	0.	0.	0.
1546	EQmyn	2.211E-13	4.899E-13	1.854E-16	0.	0.	0.
1547	RSX	4.578E-10	5.692E-10	2.890E-17	0.	0.	0.
1547	RSY	6.571E-09	5.105E-09	2.704E-17	0.	0.	0.
1547	EQmxp	-2.099E-13	-3.521E-14	1.035E-16	0.	0.	0.
1547	EQmxn	2.099E-13	3.521E-14	-1.035E-16	0.	0.	0.
1547	EQmyp	5.092E-13	-9.932E-14	-1.145E-16	0.	0.	0.
1547	EQmyn	-5.092E-13	9.932E-14	1.145E-16	0.	0.	0.
1548	RSX	4.125E-10	6.255E-10	7.055E-17	0.	0.	0.
1548	RSY	5.902E-09	5.578E-09	3.338E-17	0.	0.	0.
1548	EQmxp	-4.953E-14	2.643E-15	-7.133E-17	0.	0.	0.
1548	EQmxn	4.953E-14	-2.643E-15	7.133E-17	0.	0.	0.
1548	EQmyp	4.858E-13	5.994E-13	7.307E-17	0.	0.	0.
1548	EQmyn	-4.858E-13	-5.994E-13	-7.307E-17	0.	0.	0.
1549	RSX	3.955E-10	6.606E-10	1.743E-17	0.	0.	0.
1549	RSY	5.457E-09	6.164E-09	1.051E-17	0.	0.	0.
1549	EQmxp	2.688E-13	5.320E-15	-1.801E-17	0.	0.	0.
1549	EQmxn	-2.688E-13	-5.320E-15	1.801E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1549	EQmyp	-9.750E-14	9.742E-13	-6.889E-17	0.	0.	0.
1549	EQmyn	9.750E-14	-9.742E-13	6.889E-17	0.	0.	0.
1550	RSX	4.254E-10	6.687E-10	7.133E-17	0.	0.	0.
1550	RSY	5.307E-09	6.801E-09	2.280E-17	0.	0.	0.
1550	EQmxp	5.766E-13	-1.433E-13	-3.196E-17	0.	0.	0.
1550	EQmxn	-5.766E-13	1.433E-13	3.196E-17	0.	0.	0.
1550	EQmyp	-5.909E-13	1.501E-12	1.160E-16	0.	0.	0.
1550	EQmyn	5.909E-13	-1.501E-12	-1.160E-16	0.	0.	0.
1551	RSX	5.001E-10	6.470E-10	7.619E-17	0.	0.	0.
1551	RSY	5.137E-09	7.074E-09	1.480E-18	0.	0.	0.
1551	EQmxp	5.550E-13	-9.475E-13	4.517E-17	0.	0.	0.
1551	EQmxn	-5.550E-13	9.475E-13	-4.517E-17	0.	0.	0.
1551	EQmyp	-7.151E-13	1.243E-12	-5.433E-17	0.	0.	0.
1551	EQmyn	7.151E-13	-1.243E-12	5.433E-17	0.	0.	0.
1552	RSX	5.930E-10	6.289E-10	7.592E-17	0.	0.	0.
1552	RSY	5.064E-09	7.125E-09	3.112E-17	0.	0.	0.
1552	EQmxp	1.354E-12	-1.671E-12	8.906E-17	0.	0.	0.
1552	EQmxn	-1.354E-12	1.671E-12	-8.906E-17	0.	0.	0.
1552	EQmyp	-1.974E-12	2.585E-12	-1.081E-16	0.	0.	0.
1552	EQmyn	1.974E-12	-2.585E-12	1.081E-16	0.	0.	0.
1553	RSX	6.579E-10	6.434E-10	2.585E-17	0.	0.	0.
1553	RSY	4.882E-09	7.568E-09	4.383E-18	0.	0.	0.
1553	EQmxp	2.632E-12	-2.598E-12	-3.898E-17	0.	0.	0.
1553	EQmxn	-2.632E-12	2.598E-12	3.898E-17	0.	0.	0.
1553	EQmyp	-4.149E-12	4.402E-12	-5.155E-18	0.	0.	0.
1553	EQmyn	4.149E-12	-4.402E-12	5.155E-18	0.	0.	0.
1554	RSX	6.811E-10	6.604E-10	8.381E-18	0.	0.	0.
1554	RSY	4.716E-09	8.678E-09	1.148E-17	0.	0.	0.
1554	EQmxp	3.697E-12	-3.505E-12	8.298E-17	0.	0.	0.
1554	EQmxn	-3.697E-12	3.505E-12	-8.298E-17	0.	0.	0.
1554	EQmyp	-5.761E-12	6.260E-12	1.428E-17	0.	0.	0.
1554	EQmyn	5.761E-12	-6.260E-12	-1.428E-17	0.	0.	0.
1555	RSX	6.653E-10	6.447E-10	3.551E-17	0.	0.	0.
1555	RSY	4.669E-09	9.997E-09	1.126E-17	0.	0.	0.
1555	EQmxp	3.237E-12	-3.977E-12	-1.478E-16	0.	0.	0.
1555	EQmxn	-3.237E-12	3.977E-12	1.478E-16	0.	0.	0.
1555	EQmyp	-5.122E-12	5.357E-12	1.172E-16	0.	0.	0.
1555	EQmyn	5.122E-12	-5.357E-12	-1.172E-16	0.	0.	0.
1556	RSX	6.376E-10	5.978E-10	4.640E-18	0.	0.	0.
1556	RSY	4.647E-09	1.106E-08	5.474E-18	0.	0.	0.
1556	EQmxp	9.549E-13	-1.286E-12	7.802E-17	0.	0.	0.
1556	EQmxn	-9.549E-13	1.286E-12	-7.802E-17	0.	0.	0.
1556	EQmyp	-1.440E-12	1.710E-12	-6.251E-17	0.	0.	0.
1556	EQmyn	1.440E-12	-1.710E-12	6.251E-17	0.	0.	0.
1557	RSX	6.165E-10	5.503E-10	4.980E-17	0.	0.	0.
1557	RSY	4.842E-09	1.157E-08	7.776E-18	0.	0.	0.
1557	EQmxp	-6.190E-12	6.860E-12	4.612E-17	0.	0.	0.
1557	EQmxn	6.190E-12	-6.860E-12	-4.612E-17	0.	0.	0.
1557	EQmyp	9.616E-12	-1.050E-11	-1.695E-16	0.	0.	0.
1557	EQmyn	-9.616E-12	1.050E-11	1.695E-16	0.	0.	0.
1558	RSX	5.849E-10	5.087E-10	5.958E-17	0.	0.	0.
1558	RSY	5.174E-09	1.086E-08	2.512E-17	0.	0.	0.
1558	EQmxp	-2.081E-11	2.273E-11	3.263E-17	0.	0.	0.
1558	EQmxn	2.081E-11	-2.273E-11	-3.263E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1558	EQmyp	3.261E-11	-3.469E-11	-2.219E-16	0.	0.	0.
1558	EQmyn	-3.261E-11	3.469E-11	2.219E-16	0.	0.	0.
1559	RSX	5.518E-10	5.164E-10	4.756E-17	0.	0.	0.
1559	RSY	6.231E-09	1.019E-08	2.988E-17	0.	0.	0.
1559	EQmxp	-4.663E-11	4.913E-11	7.264E-17	0.	0.	0.
1559	EQmxn	4.663E-11	-4.913E-11	-7.264E-17	0.	0.	0.
1559	EQmyp	7.297E-11	-7.789E-11	-4.484E-17	0.	0.	0.
1559	EQmyn	-7.297E-11	7.789E-11	4.484E-17	0.	0.	0.
1560	RSX	4.971E-10	5.422E-10	1.205E-17	0.	0.	0.
1560	RSY	7.554E-09	9.328E-09	1.411E-17	0.	0.	0.
1560	EQmxp	-7.964E-11	8.458E-11	2.596E-17	0.	0.	0.
1560	EQmxn	7.964E-11	-8.458E-11	-2.596E-17	0.	0.	0.
1560	EQmyp	1.248E-10	-1.328E-10	-6.807E-17	0.	0.	0.
1560	EQmyn	-1.248E-10	1.328E-10	6.807E-17	0.	0.	0.
1561	RSX	4.650E-10	5.502E-10	1.132E-16	0.	0.	0.
1561	RSY	8.374E-09	8.685E-09	3.122E-17	0.	0.	0.
1561	EQmxp	-1.070E-10	1.144E-10	9.872E-17	0.	0.	0.
1561	EQmxn	1.070E-10	-1.144E-10	-9.872E-17	0.	0.	0.
1561	EQmyp	1.675E-10	-1.789E-10	-2.720E-16	0.	0.	0.
1561	EQmyn	-1.675E-10	1.789E-10	2.720E-16	0.	0.	0.
1562	RSX	4.556E-10	5.144E-10	4.145E-17	0.	0.	0.
1562	RSY	8.178E-09	7.692E-09	3.059E-17	0.	0.	0.
1562	EQmxp	-9.510E-11	1.020E-10	-5.341E-17	0.	0.	0.
1562	EQmxn	9.510E-11	-1.020E-10	5.341E-17	0.	0.	0.
1562	EQmyp	1.490E-10	-1.587E-10	2.703E-16	0.	0.	0.
1562	EQmyn	-1.490E-10	1.587E-10	-2.703E-16	0.	0.	0.
1563	RSX	4.647E-10	4.666E-10	6.200E-17	0.	0.	0.
1563	RSY	7.531E-09	6.761E-09	3.206E-17	0.	0.	0.
1563	EQmxp	2.140E-11	-2.350E-11	-1.169E-16	0.	0.	0.
1563	EQmxn	-2.140E-11	2.350E-11	1.169E-16	0.	0.	0.
1563	EQmyp	-3.337E-11	3.569E-11	2.094E-16	0.	0.	0.
1563	EQmyn	3.337E-11	-3.569E-11	-2.094E-16	0.	0.	0.
1564	RSX	5.640E-10	4.138E-10	1.004E-16	0.	0.	0.
1564	RSY	7.043E-09	6.436E-09	5.091E-17	0.	0.	0.
1564	EQmxp	3.435E-10	-3.667E-10	8.508E-17	0.	0.	0.
1564	EQmxn	-3.435E-10	3.667E-10	-8.508E-17	0.	0.	0.
1564	EQmyp	-5.380E-10	5.738E-10	-5.009E-17	0.	0.	0.
1564	EQmyn	5.380E-10	-5.738E-10	5.009E-17	0.	0.	0.
1565	RSX	8.820E-10	4.991E-10	4.911E-17	0.	0.	0.
1565	RSY	6.778E-09	6.651E-09	2.498E-17	0.	0.	0.
1565	EQmxp	9.769E-10	-1.041E-09	9.822E-17	0.	0.	0.
1565	EQmxn	-9.769E-10	1.041E-09	-9.822E-17	0.	0.	0.
1565	EQmyp	-1.530E-09	1.631E-09	1.227E-16	0.	0.	0.
1565	EQmyn	1.530E-09	-1.631E-09	-1.227E-16	0.	0.	0.
1566	RSX	1.494E-09	9.592E-10	4.460E-17	0.	0.	0.
1566	RSY	6.867E-09	6.893E-09	1.168E-17	0.	0.	0.
1566	EQmxp	1.942E-09	-2.069E-09	-3.637E-17	0.	0.	0.
1566	EQmxn	-1.942E-09	2.069E-09	3.637E-17	0.	0.	0.
1566	EQmyp	-3.040E-09	3.242E-09	2.375E-16	0.	0.	0.
1566	EQmyn	3.040E-09	-3.242E-09	-2.375E-16	0.	0.	0.
1567	RSX	2.209E-09	1.598E-09	3.524E-17	0.	0.	0.
1567	RSY	7.451E-09	7.576E-09	2.237E-17	0.	0.	0.
1567	EQmxp	2.971E-09	-3.169E-09	9.851E-17	0.	0.	0.
1567	EQmxn	-2.971E-09	3.169E-09	-9.851E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1567	EQmyp	-4.653E-09	4.961E-09	-7.536E-17	0.	0.	0.
1567	EQmyn	4.653E-09	-4.961E-09	7.536E-17	0.	0.	0.
1568	RSX	2.413E-09	1.738E-09	2.420E-17	0.	0.	0.
1568	RSY	7.657E-09	7.778E-09	2.507E-17	0.	0.	0.
1568	EQmxp	3.177E-09	-3.388E-09	-8.655E-17	0.	0.	0.
1568	EQmxn	-3.177E-09	3.388E-09	8.655E-17	0.	0.	0.
1568	EQmyp	-4.976E-09	5.305E-09	3.494E-17	0.	0.	0.
1568	EQmyn	4.976E-09	-5.305E-09	-3.494E-17	0.	0.	0.
1569	RSX	8.205E-10	3.727E-10	3.121E-17	0.	0.	0.
1569	RSY	7.666E-09	7.248E-09	1.154E-17	0.	0.	0.
1569	EQmxp	6.243E-10	-6.651E-10	4.809E-17	0.	0.	0.
1569	EQmxn	-6.243E-10	6.651E-10	-4.809E-17	0.	0.	0.
1569	EQmyp	-9.775E-10	1.042E-09	-5.185E-17	0.	0.	0.
1569	EQmyn	9.775E-10	-1.042E-09	5.185E-17	0.	0.	0.
1570	RSX	4.852E-09	6.003E-09	3.157E-17	0.	0.	0.
1570	RSY	8.301E-09	7.492E-09	2.171E-17	0.	0.	0.
1570	EQmxp	-7.879E-09	8.401E-09	6.735E-17	0.	0.	0.
1570	EQmxn	7.879E-09	-8.401E-09	-6.735E-17	0.	0.	0.
1570	EQmyp	1.234E-08	-1.315E-08	1.719E-16	0.	0.	0.
1570	EQmyn	-1.234E-08	1.315E-08	-1.719E-16	0.	0.	0.
1571	RSX	1.686E-08	1.876E-08	3.737E-17	0.	0.	0.
1571	RSY	1.189E-08	1.152E-08	4.756E-17	0.	0.	0.
1571	EQmxp	-2.607E-08	2.779E-08	2.054E-17	0.	0.	0.
1571	EQmxn	2.607E-08	-2.779E-08	-2.054E-17	0.	0.	0.
1571	EQmyp	4.082E-08	-4.352E-08	-1.206E-16	0.	0.	0.
1571	EQmyn	-4.082E-08	4.352E-08	1.206E-16	0.	0.	0.
1572	RSX	3.617E-08	3.933E-08	9.531E-17	0.	0.	0.
1572	RSY	2.007E-08	2.067E-08	4.154E-17	0.	0.	0.
1572	EQmxp	-5.526E-08	5.891E-08	-1.689E-16	0.	0.	0.
1572	EQmxn	5.526E-08	-5.891E-08	1.689E-16	0.	0.	0.
1572	EQmyp	8.653E-08	-9.226E-08	-7.204E-17	0.	0.	0.
1572	EQmyn	-8.653E-08	9.226E-08	7.204E-17	0.	0.	0.
1573	RSX	5.739E-08	6.201E-08	8.127E-17	0.	0.	0.
1573	RSY	3.005E-08	3.149E-08	3.821E-17	0.	0.	0.
1573	EQmxp	-8.737E-08	9.315E-08	-8.269E-17	0.	0.	0.
1573	EQmxn	8.737E-08	-9.315E-08	8.269E-17	0.	0.	0.
1573	EQmyp	1.368E-07	-1.459E-07	2.152E-16	0.	0.	0.
1573	EQmyn	-1.368E-07	1.459E-07	-2.152E-16	0.	0.	0.
1574	RSX	5.885E-08	6.364E-08	3.735E-17	0.	0.	0.
1574	RSY	3.072E-08	3.230E-08	6.936E-17	0.	0.	0.
1574	EQmxp	-8.958E-08	9.551E-08	-6.035E-17	0.	0.	0.
1574	EQmxn	8.958E-08	-9.551E-08	6.035E-17	0.	0.	0.
1574	EQmyp	1.403E-07	-1.496E-07	1.854E-16	0.	0.	0.
1574	EQmyn	-1.403E-07	1.496E-07	-1.854E-16	0.	0.	0.
1575	RSX	2.510E-09	3.586E-09	1.430E-16	0.	0.	0.
1575	RSY	8.172E-09	8.650E-09	2.129E-17	0.	0.	0.
1575	EQmxp	-4.393E-09	4.682E-09	1.803E-16	0.	0.	0.
1575	EQmxn	4.393E-09	-4.682E-09	-1.803E-16	0.	0.	0.
1575	EQmyp	6.879E-09	-7.334E-09	-2.214E-16	0.	0.	0.
1575	EQmyn	-6.879E-09	7.334E-09	2.214E-16	0.	0.	0.
1576	RSX	1.834E-07	1.946E-07	5.623E-17	0.	0.	0.
1576	RSY	9.095E-08	9.726E-08	3.338E-17	0.	0.	0.
1576	EQmxp	2.766E-07	-2.949E-07	-1.753E-18	0.	0.	0.
1576	EQmxn	-2.766E-07	2.949E-07	1.753E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1576	EQmyp	-4.331E-07	4.618E-07	2.016E-16	0.	0.	0.
1576	EQmyn	4.331E-07	-4.618E-07	-2.016E-16	0.	0.	0.
1577	RSX	6.853E-07	7.296E-07	1.940E-16	0.	0.	0.
1577	RSY	3.396E-07	3.623E-07	4.972E-17	0.	0.	0.
1577	EQmxp	1.035E-06	-1.103E-06	-8.187E-17	0.	0.	0.
1577	EQmxn	-1.035E-06	1.103E-06	8.187E-17	0.	0.	0.
1577	EQmyp	-1.620E-06	1.728E-06	1.865E-16	0.	0.	0.
1577	EQmyn	1.620E-06	-1.728E-06	-1.865E-16	0.	0.	0.
1578	RSX	2.192E-06	2.336E-06	5.504E-17	0.	0.	0.
1578	RSY	1.087E-06	1.159E-06	6.476E-17	0.	0.	0.
1578	EQmxp	3.311E-06	-3.530E-06	6.922E-17	0.	0.	0.
1578	EQmxn	-3.311E-06	3.530E-06	-6.922E-17	0.	0.	0.
1578	EQmyp	-5.185E-06	5.528E-06	1.051E-17	0.	0.	0.
1578	EQmyn	5.185E-06	-5.528E-06	-1.051E-17	0.	0.	0.
1579	RSX	3.960E-06	4.221E-06	1.164E-16	0.	0.	0.
1579	RSY	1.963E-06	2.094E-06	1.269E-16	0.	0.	0.
1579	EQmxp	5.983E-06	-6.378E-06	3.105E-16	0.	0.	0.
1579	EQmxn	-5.983E-06	6.378E-06	-3.105E-16	0.	0.	0.
1579	EQmyp	-9.369E-06	9.989E-06	1.296E-16	0.	0.	0.
1579	EQmyn	9.369E-06	-9.989E-06	-1.296E-16	0.	0.	0.
1580	RSX	5.717E-07	6.091E-07	2.388E-16	0.	0.	0.
1580	RSY	2.836E-07	3.024E-07	1.008E-16	0.	0.	0.
1580	EQmxp	8.638E-07	-9.209E-07	9.620E-17	0.	0.	0.
1580	EQmxn	-8.638E-07	9.209E-07	-9.620E-17	0.	0.	0.
1580	EQmyp	-1.353E-06	1.442E-06	-3.016E-16	0.	0.	0.
1580	EQmyn	1.353E-06	-1.442E-06	3.016E-16	0.	0.	0.
1581	RSX	2.482E-05	2.646E-05	4.225E-16	0.	0.	0.
1581	RSY	1.231E-05	1.312E-05	7.085E-17	0.	0.	0.
1581	EQmxp	-3.750E-05	3.999E-05	3.799E-16	0.	0.	0.
1581	EQmxn	3.750E-05	-3.999E-05	-3.799E-16	0.	0.	0.
1581	EQmyp	5.873E-05	-6.262E-05	-5.794E-16	0.	0.	0.
1581	EQmyn	-5.873E-05	6.262E-05	5.794E-16	0.	0.	0.
1582	RSX	1.108E-04	1.181E-04	8.515E-16	0.	0.	0.
1582	RSY	5.494E-05	5.857E-05	5.106E-16	0.	0.	0.
1582	EQmxp	-1.674E-04	1.785E-04	-8.892E-16	0.	0.	0.
1582	EQmxn	1.674E-04	-1.785E-04	8.892E-16	0.	0.	0.
1582	EQmyp	2.621E-04	-2.795E-04	3.502E-15	0.	0.	0.
1582	EQmyn	-2.621E-04	2.795E-04	-3.502E-15	0.	0.	0.
1583	RSX	9.715E-03	1.374E-04	0.	0.	0.	0.
1583	RSY	9.965E-04	0.013	0.	0.	0.	0.
1583	EQmxp	-0.015	-7.767E-05	0.	0.	0.	0.
1583	EQmxn	0.015	7.767E-05	0.	0.	0.	0.
1583	EQmyp	3.225E-03	-0.061	0.	0.	0.	0.
1583	EQmyn	-3.225E-03	0.061	0.	0.	0.	0.
1584	RSX	0.023	3.231E-04	0.	0.	0.	0.
1584	RSY	2.341E-03	0.03	0.	0.	0.	0.
1584	EQmxp	-0.035	-1.824E-04	0.	0.	0.	0.
1584	EQmxn	0.035	1.824E-04	0.	0.	0.	0.
1584	EQmyp	7.571E-03	-0.144	0.	0.	0.	0.
1584	EQmyn	-7.571E-03	0.144	0.	0.	0.	0.
1585	RSX	0.025	3.534E-04	0.	0.	0.	0.
1585	RSY	2.557E-03	0.033	0.	0.	0.	0.
1585	EQmxp	-0.038	-1.991E-04	0.	0.	0.	0.
1585	EQmxn	0.038	1.991E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1585	EQmyp	8.267E-03	-0.157	0.	0.	0.	0.
1585	EQmyn	-8.267E-03	0.157	0.	0.	0.	0.
1586	RSX	0.026	3.690E-04	0.	0.	0.	0.
1586	RSY	2.666E-03	0.034	0.	0.	0.	0.
1586	EQmxp	-0.039	-2.075E-04	0.	0.	0.	0.
1586	EQmxn	0.039	2.075E-04	0.	0.	0.	0.
1586	EQmyp	8.615E-03	-0.164	0.	0.	0.	0.
1586	EQmyn	-8.615E-03	0.164	0.	0.	0.	0.
1587	RSX	0.026	3.719E-04	0.	0.	0.	0.
1587	RSY	2.684E-03	0.034	0.	0.	0.	0.
1587	EQmxp	-0.04	-2.087E-04	0.	0.	0.	0.
1587	EQmxn	0.04	2.087E-04	0.	0.	0.	0.
1587	EQmyp	8.664E-03	-0.165	0.	0.	0.	0.
1587	EQmyn	-8.664E-03	0.165	0.	0.	0.	0.
1588	RSX	0.026	3.637E-04	0.	0.	0.	0.
1588	RSY	2.620E-03	0.034	0.	0.	0.	0.
1588	EQmxp	-0.039	-2.036E-04	0.	0.	0.	0.
1588	EQmxn	0.039	2.036E-04	0.	0.	0.	0.
1588	EQmyp	8.451E-03	-0.161	0.	0.	0.	0.
1588	EQmyn	-8.451E-03	0.161	0.	0.	0.	0.
1589	RSX	0.023	3.318E-04	0.	0.	0.	0.
1589	RSY	2.385E-03	0.031	0.	0.	0.	0.
1589	EQmxp	-0.035	-1.851E-04	0.	0.	0.	0.
1589	EQmxn	0.035	1.851E-04	0.	0.	0.	0.
1589	EQmyp	7.686E-03	-0.146	0.	0.	0.	0.
1589	EQmyn	-7.686E-03	0.146	0.	0.	0.	0.
1590	RSX	0.019	2.749E-04	0.	0.	0.	0.
1590	RSY	1.971E-03	0.025	0.	0.	0.	0.
1590	EQmxp	-0.029	-1.528E-04	0.	0.	0.	0.
1590	EQmxn	0.029	1.528E-04	0.	0.	0.	0.
1590	EQmyp	6.343E-03	-0.121	0.	0.	0.	0.
1590	EQmyn	-6.343E-03	0.121	0.	0.	0.	0.
1591	RSX	0.016	2.214E-04	0.	0.	0.	0.
1591	RSY	1.582E-03	0.02	0.	0.	0.	0.
1591	EQmxp	-0.023	-1.224E-04	0.	0.	0.	0.
1591	EQmxn	0.023	1.224E-04	0.	0.	0.	0.
1591	EQmyp	5.082E-03	-0.097	0.	0.	0.	0.
1591	EQmyn	-5.082E-03	0.097	0.	0.	0.	0.
1592	RSX	0.012	1.706E-04	0.	0.	0.	0.
1592	RSY	1.212E-03	0.016	0.	0.	0.	0.
1592	EQmxp	-0.018	-9.354E-05	0.	0.	0.	0.
1592	EQmxn	0.018	9.354E-05	0.	0.	0.	0.
1592	EQmyp	3.883E-03	-0.074	0.	0.	0.	0.
1592	EQmyn	-3.883E-03	0.074	0.	0.	0.	0.
1593	RSX	8.410E-03	1.185E-04	0.	0.	0.	0.
1593	RSY	8.336E-04	0.011	0.	0.	0.	0.
1593	EQmxp	-0.012	-6.404E-05	0.	0.	0.	0.
1593	EQmxn	0.012	6.404E-05	0.	0.	0.	0.
1593	EQmyp	2.659E-03	-0.051	0.	0.	0.	0.
1593	EQmyn	-2.659E-03	0.051	0.	0.	0.	0.
1594	RSX	4.849E-03	6.813E-05	0.	0.	0.	0.
1594	RSY	4.694E-04	6.003E-03	0.	0.	0.	0.
1594	EQmxp	-6.785E-03	-3.568E-05	0.	0.	0.	0.
1594	EQmxn	6.785E-03	3.568E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1594	EQmyp	1.481E-03	-0.028	0.	0.	0.	0.
1594	EQmyn	-1.481E-03	0.028	0.	0.	0.	0.
1595	RSX	1.699E-03	2.364E-05	0.	0.	0.	0.
1595	RSY	1.481E-04	1.885E-03	0.	0.	0.	0.
1595	EQmxp	-2.026E-03	-1.066E-05	0.	0.	0.	0.
1595	EQmxn	2.026E-03	1.066E-05	0.	0.	0.	0.
1595	EQmyp	4.424E-04	-8.426E-03	0.	0.	0.	0.
1595	EQmyn	-4.424E-04	8.426E-03	0.	0.	0.	0.
1596	RSX	1.059E-03	1.548E-05	0.	0.	0.	0.
1596	RSY	1.340E-04	1.731E-03	0.	0.	0.	0.
1596	EQmxp	2.129E-03	1.120E-05	0.	0.	0.	0.
1596	EQmxn	-2.129E-03	-1.120E-05	0.	0.	0.	0.
1596	EQmyp	-4.649E-04	8.854E-03	0.	0.	0.	0.
1596	EQmyn	4.649E-04	-8.854E-03	0.	0.	0.	0.
1597	RSX	3.447E-03	4.917E-05	0.	0.	0.	0.
1597	RSY	3.766E-04	4.839E-03	0.	0.	0.	0.
1597	EQmxp	5.716E-03	3.006E-05	0.	0.	0.	0.
1597	EQmxn	-5.716E-03	-3.006E-05	0.	0.	0.	0.
1597	EQmyp	-1.248E-03	0.024	0.	0.	0.	0.
1597	EQmyn	1.248E-03	-0.024	0.	0.	0.	0.
1598	RSX	5.494E-03	7.807E-05	0.	0.	0.	0.
1598	RSY	5.841E-04	7.499E-03	0.	0.	0.	0.
1598	EQmxp	8.780E-03	4.617E-05	0.	0.	0.	0.
1598	EQmxn	-8.780E-03	-4.617E-05	0.	0.	0.	0.
1598	EQmyp	-1.917E-03	0.037	0.	0.	0.	0.
1598	EQmyn	1.917E-03	-0.037	0.	0.	0.	0.
1599	RSX	7.253E-03	1.029E-04	0.	0.	0.	0.
1599	RSY	7.620E-04	9.778E-03	0.	0.	0.	0.
1599	EQmxp	0.011	5.996E-05	0.	0.	0.	0.
1599	EQmxn	-0.011	-5.996E-05	0.	0.	0.	0.
1599	EQmyp	-2.489E-03	0.047	0.	0.	0.	0.
1599	EQmyn	2.489E-03	-0.047	0.	0.	0.	0.
1600	RSX	8.821E-03	1.250E-04	0.	0.	0.	0.
1600	RSY	9.202E-04	0.012	0.	0.	0.	0.
1600	EQmxp	0.014	7.220E-05	0.	0.	0.	0.
1600	EQmxn	-0.014	-7.220E-05	0.	0.	0.	0.
1600	EQmyp	-2.998E-03	0.057	0.	0.	0.	0.
1600	EQmyn	2.998E-03	-0.057	0.	0.	0.	0.
1601	RSX	0.01	1.486E-04	0.	0.	0.	0.
1601	RSY	1.089E-03	0.014	0.	0.	0.	0.
1601	EQmxp	0.016	8.525E-05	0.	0.	0.	0.
1601	EQmxn	-0.016	-8.525E-05	0.	0.	0.	0.
1601	EQmyp	-3.539E-03	0.067	0.	0.	0.	0.
1601	EQmyn	3.539E-03	-0.067	0.	0.	0.	0.
1602	RSX	0.013	1.899E-04	0.	0.	0.	0.
1602	RSY	1.385E-03	0.018	0.	0.	0.	0.
1602	EQmxp	0.021	1.083E-04	0.	0.	0.	0.
1602	EQmxn	-0.021	-1.083E-04	0.	0.	0.	0.
1602	EQmyp	-4.495E-03	0.086	0.	0.	0.	0.
1602	EQmyn	4.495E-03	-0.086	0.	0.	0.	0.
1603	RSX	0.036	5.131E-04	0.	0.	0.	0.
1603	RSY	3.726E-03	0.048	0.	0.	0.	0.
1603	EQmxp	0.055	2.906E-04	0.	0.	0.	0.
1603	EQmxn	-0.055	-2.906E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1603	EQmyp	-0.012	0.23	0.	0.	0.	0.
1603	EQmyn	0.012	-0.23	0.	0.	0.	0.
1604	RSX	9.568E-03	1.352E-04	0.	0.	0.	0.
1604	RSY	9.756E-04	0.013	0.	0.	0.	0.
1604	EQmxp	0.014	7.586E-05	0.	0.	0.	0.
1604	EQmxn	-0.014	-7.586E-05	0.	0.	0.	0.
1604	EQmyp	-3.149E-03	0.06	0.	0.	0.	0.
1604	EQmyn	3.149E-03	-0.06	0.	0.	0.	0.
1605	RSX	3.522E-03	4.971E-05	0.	0.	0.	0.
1605	RSY	3.545E-04	4.541E-03	0.	0.	0.	0.
1605	EQmxp	5.212E-03	2.741E-05	0.	0.	0.	0.
1605	EQmxn	-5.212E-03	-2.741E-05	0.	0.	0.	0.
1605	EQmyp	-1.138E-03	0.022	0.	0.	0.	0.
1605	EQmyn	1.138E-03	-0.022	0.	0.	0.	0.
1606	RSX	1.265E-03	1.778E-05	0.	0.	0.	0.
1606	RSY	1.228E-04	1.571E-03	0.	0.	0.	0.
1606	EQmxp	1.778E-03	9.349E-06	0.	0.	0.	0.
1606	EQmxn	-1.778E-03	-9.349E-06	0.	0.	0.	0.
1606	EQmyp	-3.881E-04	7.392E-03	0.	0.	0.	0.
1606	EQmyn	3.881E-04	-7.392E-03	0.	0.	0.	0.
1607	RSX	4.708E-05	6.919E-07	0.	0.	0.	0.
1607	RSY	3.706E-06	4.853E-05	0.	0.	0.	0.
1607	EQmxp	-6.986E-05	-3.674E-07	0.	0.	0.	0.
1607	EQmxn	6.986E-05	3.674E-07	0.	0.	0.	0.
1607	EQmyp	1.525E-05	-2.905E-04	0.	0.	0.	0.
1607	EQmyn	-1.525E-05	2.905E-04	0.	0.	0.	0.
1608	RSX	6.991E-04	1.000E-05	0.	0.	0.	0.
1608	RSY	7.807E-05	1.004E-03	0.	0.	0.	0.
1608	EQmxp	-1.194E-03	-6.281E-06	0.	0.	0.	0.
1608	EQmxn	1.194E-03	6.281E-06	0.	0.	0.	0.
1608	EQmyp	2.608E-04	-4.966E-03	0.	0.	0.	0.
1608	EQmyn	-2.608E-04	4.966E-03	0.	0.	0.	0.
1609	RSX	1.152E-03	1.640E-05	0.	0.	0.	0.
1609	RSY	1.238E-04	1.590E-03	0.	0.	0.	0.
1609	EQmxp	-1.869E-03	-9.828E-06	0.	0.	0.	0.
1609	EQmxn	1.869E-03	9.828E-06	0.	0.	0.	0.
1609	EQmyp	4.080E-04	-7.771E-03	0.	0.	0.	0.
1609	EQmyn	-4.080E-04	7.771E-03	0.	0.	0.	0.
1610	RSX	1.398E-03	1.986E-05	0.	0.	0.	0.
1610	RSY	1.482E-04	1.903E-03	0.	0.	0.	0.
1610	EQmxp	-2.226E-03	-1.170E-05	0.	0.	0.	0.
1610	EQmxn	2.226E-03	1.170E-05	0.	0.	0.	0.
1610	EQmyp	4.859E-04	-9.254E-03	0.	0.	0.	0.
1610	EQmyn	-4.859E-04	9.254E-03	0.	0.	0.	0.
1611	RSX	1.486E-03	2.108E-05	0.	0.	0.	0.
1611	RSY	1.563E-04	2.006E-03	0.	0.	0.	0.
1611	EQmxp	-2.340E-03	-1.231E-05	0.	0.	0.	0.
1611	EQmxn	2.340E-03	1.231E-05	0.	0.	0.	0.
1611	EQmyp	5.109E-04	-9.730E-03	0.	0.	0.	0.
1611	EQmyn	-5.109E-04	9.730E-03	0.	0.	0.	0.
1612	RSX	1.449E-03	2.055E-05	0.	0.	0.	0.
1612	RSY	1.516E-04	1.945E-03	0.	0.	0.	0.
1612	EQmxp	-2.264E-03	-1.191E-05	0.	0.	0.	0.
1612	EQmxn	2.264E-03	1.191E-05	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1612	EQmyp	4.944E-04	-9.415E-03	0.	0.	0.	0.
1612	EQmyn	-4.944E-04	9.415E-03	0.	0.	0.	0.
1613	RSX	1.313E-03	1.862E-05	0.	0.	0.	0.
1613	RSY	1.368E-04	1.754E-03	0.	0.	0.	0.
1613	EQmxp	-2.039E-03	-1.072E-05	0.	0.	0.	0.
1613	EQmxn	2.039E-03	1.072E-05	0.	0.	0.	0.
1613	EQmyp	4.452E-04	-8.478E-03	0.	0.	0.	0.
1613	EQmyn	-4.452E-04	8.478E-03	0.	0.	0.	0.
1614	RSX	1.102E-03	1.561E-05	0.	0.	0.	0.
1614	RSY	1.142E-04	1.464E-03	0.	0.	0.	0.
1614	EQmxp	-1.699E-03	-8.935E-06	0.	0.	0.	0.
1614	EQmxn	1.699E-03	8.935E-06	0.	0.	0.	0.
1614	EQmyp	3.710E-04	-7.065E-03	0.	0.	0.	0.
1614	EQmyn	-3.710E-04	7.065E-03	0.	0.	0.	0.
1615	RSX	8.342E-04	1.181E-05	0.	0.	0.	0.
1615	RSY	8.593E-05	1.102E-03	0.	0.	0.	0.
1615	EQmxp	-1.276E-03	-6.709E-06	0.	0.	0.	0.
1615	EQmxn	1.276E-03	6.709E-06	0.	0.	0.	0.
1615	EQmyp	2.785E-04	-5.305E-03	0.	0.	0.	0.
1615	EQmyn	-2.785E-04	5.305E-03	0.	0.	0.	0.
1616	RSX	5.218E-04	7.377E-06	0.	0.	0.	0.
1616	RSY	5.321E-05	6.819E-04	0.	0.	0.	0.
1616	EQmxp	-7.866E-04	-4.137E-06	0.	0.	0.	0.
1616	EQmxn	7.866E-04	4.137E-06	0.	0.	0.	0.
1616	EQmyp	1.718E-04	-3.271E-03	0.	0.	0.	0.
1616	EQmyn	-1.718E-04	3.271E-03	0.	0.	0.	0.
1617	RSX	1.742E-04	2.531E-06	0.	0.	0.	0.
1617	RSY	2.135E-05	2.754E-04	0.	0.	0.	0.
1617	EQmxp	3.362E-04	1.768E-06	0.	0.	0.	0.
1617	EQmxn	-3.362E-04	-1.768E-06	0.	0.	0.	0.
1617	EQmyp	-7.340E-05	1.398E-03	0.	0.	0.	0.
1617	EQmyn	7.340E-05	-1.398E-03	0.	0.	0.	0.
1618	RSX	3.673E-04	5.203E-06	0.	0.	0.	0.
1618	RSY	3.814E-05	4.892E-04	0.	0.	0.	0.
1618	EQmxp	5.681E-04	2.988E-06	0.	0.	0.	0.
1618	EQmxn	-5.681E-04	-2.988E-06	0.	0.	0.	0.
1618	EQmyp	-1.240E-04	2.362E-03	0.	0.	0.	0.
1618	EQmyn	1.240E-04	-2.362E-03	0.	0.	0.	0.
1619	RSX	3.044E-04	4.309E-06	0.	0.	0.	0.
1619	RSY	3.142E-05	4.029E-04	0.	0.	0.	0.
1619	EQmxp	4.668E-04	2.455E-06	0.	0.	0.	0.
1619	EQmxn	-4.668E-04	-2.455E-06	0.	0.	0.	0.
1619	EQmyp	-1.019E-04	1.941E-03	0.	0.	0.	0.
1619	EQmyn	1.019E-04	-1.941E-03	0.	0.	0.	0.
1620	RSX	2.108E-04	2.983E-06	0.	0.	0.	0.
1620	RSY	2.169E-05	2.781E-04	0.	0.	0.	0.
1620	EQmxp	3.219E-04	1.693E-06	0.	0.	0.	0.
1620	EQmxn	-3.219E-04	-1.693E-06	0.	0.	0.	0.
1620	EQmyp	-7.029E-05	1.339E-03	0.	0.	0.	0.
1620	EQmyn	7.029E-05	-1.339E-03	0.	0.	0.	0.
1621	RSX	1.141E-04	1.613E-06	0.	0.	0.	0.
1621	RSY	1.170E-05	1.499E-04	0.	0.	0.	0.
1621	EQmxp	1.733E-04	9.114E-07	0.	0.	0.	0.
1621	EQmxn	-1.733E-04	-9.114E-07	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1621	EQmyp	-3.784E-05	7.206E-04	0.	0.	0.	0.
1621	EQmyn	3.784E-05	-7.206E-04	0.	0.	0.	0.
1622	RSX	3.038E-05	4.289E-07	0.	0.	0.	0.
1622	RSY	3.077E-06	3.942E-05	0.	0.	0.	0.
1622	EQmxp	4.535E-05	2.385E-07	0.	0.	0.	0.
1622	EQmxn	-4.535E-05	-2.385E-07	0.	0.	0.	0.
1622	EQmyp	-9.903E-06	1.886E-04	0.	0.	0.	0.
1622	EQmyn	9.903E-06	-1.886E-04	0.	0.	0.	0.
1623	RSX	4.351E-05	6.169E-07	0.	0.	0.	0.
1623	RSY	4.513E-06	5.789E-05	0.	0.	0.	0.
1623	EQmxp	-6.720E-05	-3.534E-07	0.	0.	0.	0.
1623	EQmxn	6.720E-05	3.534E-07	0.	0.	0.	0.
1623	EQmyp	1.467E-05	-2.794E-04	0.	0.	0.	0.
1623	EQmyn	-1.467E-05	2.794E-04	0.	0.	0.	0.
1624	RSX	2.849E-05	4.036E-07	0.	0.	0.	0.
1624	RSY	2.924E-06	3.748E-05	0.	0.	0.	0.
1624	EQmxp	-4.334E-05	-2.279E-07	0.	0.	0.	0.
1624	EQmxn	4.334E-05	2.279E-07	0.	0.	0.	0.
1624	EQmyp	9.463E-06	-1.802E-04	0.	0.	0.	0.
1624	EQmyn	-9.463E-06	1.802E-04	0.	0.	0.	0.
1625	RSX	2.545E-06	3.644E-08	0.	0.	0.	0.
1625	RSY	2.556E-07	3.273E-06	0.	0.	0.	0.
1625	EQmxp	-3.753E-06	-1.974E-08	0.	0.	0.	0.
1625	EQmxn	3.753E-06	1.974E-08	0.	0.	0.	0.
1625	EQmyp	8.195E-07	-1.561E-05	0.	0.	0.	0.
1625	EQmyn	-8.195E-07	1.561E-05	0.	0.	0.	0.
1626	RSX	1.621E-06	2.265E-08	0.	0.	0.	0.
1626	RSY	1.673E-07	2.143E-06	0.	0.	0.	0.
1626	EQmxp	2.482E-06	1.305E-08	0.	0.	0.	0.
1626	EQmxn	-2.482E-06	-1.305E-08	0.	0.	0.	0.
1626	EQmyp	-5.419E-07	1.032E-05	0.	0.	0.	0.
1626	EQmyn	5.419E-07	-1.032E-05	0.	0.	0.	0.
1627	RSX	5.361E-07	7.495E-09	0.	0.	0.	0.
1627	RSY	5.498E-08	7.046E-07	0.	0.	0.	0.
1627	EQmxp	8.140E-07	4.281E-09	0.	0.	0.	0.
1627	EQmxn	-8.140E-07	-4.281E-09	0.	0.	0.	0.
1627	EQmyp	-1.777E-07	3.385E-06	0.	0.	0.	0.
1627	EQmyn	1.777E-07	-3.385E-06	0.	0.	0.	0.
1628	RSX	1.062E-08	9.597E-10	0.	0.	0.	0.
1628	RSY	1.274E-08	2.372E-08	0.	0.	0.	0.
1628	EQmxp	1.502E-08	7.901E-11	0.	0.	0.	0.
1628	EQmxn	-1.502E-08	-7.901E-11	0.	0.	0.	0.
1628	EQmyp	-3.280E-09	6.247E-08	0.	0.	0.	0.
1628	EQmyn	3.280E-09	-6.247E-08	0.	0.	0.	0.
1629	RSX	4.543E-08	4.942E-09	0.	0.	0.	0.
1629	RSY	5.474E-08	9.701E-08	0.	0.	0.	0.
1629	EQmxp	-7.459E-08	-3.923E-10	0.	0.	0.	0.
1629	EQmxn	7.459E-08	3.923E-10	0.	0.	0.	0.
1629	EQmyp	1.629E-08	-3.102E-07	0.	0.	0.	0.
1629	EQmyn	-1.629E-08	3.102E-07	0.	0.	0.	0.
1630	RSX	1.589E-11	1.138E-11	0.	0.	0.	0.
1630	RSY	1.368E-10	1.908E-10	0.	0.	0.	0.
1630	EQmxp	-3.407E-11	-1.792E-13	0.	0.	0.	0.
1630	EQmxn	3.407E-11	1.792E-13	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1630	EQmyp	7.438E-12	-1.417E-10	0.	0.	0.	0.
1630	EQmyn	-7.438E-12	1.417E-10	0.	0.	0.	0.
1631	RSX	3.827E-11	5.611E-11	0.	0.	0.	0.
1631	RSY	7.135E-10	9.479E-10	0.	0.	0.	0.
1631	EQmxp	-8.605E-11	-4.525E-13	0.	0.	0.	0.
1631	EQmxn	8.605E-11	4.525E-13	0.	0.	0.	0.
1631	EQmyp	1.879E-11	-3.578E-10	0.	0.	0.	0.
1631	EQmyn	-1.879E-11	3.578E-10	0.	0.	0.	0.
1632	RSX	8.373E-11	1.319E-10	0.	0.	0.	0.
1632	RSY	1.776E-09	2.242E-09	0.	0.	0.	0.
1632	EQmxp	-1.274E-10	-6.701E-13	0.	0.	0.	0.
1632	EQmxn	1.274E-10	6.701E-13	0.	0.	0.	0.
1632	EQmyp	2.782E-11	-5.299E-10	0.	0.	0.	0.
1632	EQmyn	-2.782E-11	5.299E-10	0.	0.	0.	0.
1633	RSX	1.579E-10	2.271E-10	0.	0.	0.	0.
1633	RSY	3.190E-09	3.859E-09	0.	0.	0.	0.
1633	EQmxp	-1.481E-10	-7.786E-13	0.	0.	0.	0.
1633	EQmxn	1.481E-10	7.786E-13	0.	0.	0.	0.
1633	EQmyp	3.233E-11	-6.156E-10	0.	0.	0.	0.
1633	EQmyn	-3.233E-11	6.156E-10	0.	0.	0.	0.
1634	RSX	2.507E-10	3.262E-10	0.	0.	0.	0.
1634	RSY	4.681E-09	5.497E-09	0.	0.	0.	0.
1634	EQmxp	-1.462E-10	-7.691E-13	0.	0.	0.	0.
1634	EQmxn	1.462E-10	7.691E-13	0.	0.	0.	0.
1634	EQmyp	3.193E-11	-6.081E-10	0.	0.	0.	0.
1634	EQmyn	-3.193E-11	6.081E-10	0.	0.	0.	0.
1635	RSX	3.522E-10	4.119E-10	0.	0.	0.	0.
1635	RSY	6.061E-09	6.829E-09	0.	0.	0.	0.
1635	EQmxp	-1.263E-10	-6.641E-13	0.	0.	0.	0.
1635	EQmxn	1.263E-10	6.641E-13	0.	0.	0.	0.
1635	EQmyp	2.757E-11	-5.251E-10	0.	0.	0.	0.
1635	EQmyn	-2.757E-11	5.251E-10	0.	0.	0.	0.
1636	RSX	4.527E-10	4.764E-10	0.	0.	0.	0.
1636	RSY	7.164E-09	7.648E-09	0.	0.	0.	0.
1636	EQmxp	-9.537E-11	-5.016E-13	0.	0.	0.	0.
1636	EQmxn	9.537E-11	5.016E-13	0.	0.	0.	0.
1636	EQmyp	2.082E-11	-3.966E-10	0.	0.	0.	0.
1636	EQmyn	-2.082E-11	3.966E-10	0.	0.	0.	0.
1637	RSX	5.414E-10	5.184E-10	0.	0.	0.	0.
1637	RSY	7.922E-09	7.897E-09	0.	0.	0.	0.
1637	EQmxp	-6.121E-11	-3.219E-13	0.	0.	0.	0.
1637	EQmxn	6.121E-11	3.219E-13	0.	0.	0.	0.
1637	EQmyp	1.336E-11	-2.545E-10	0.	0.	0.	0.
1637	EQmyn	-1.336E-11	2.545E-10	0.	0.	0.	0.
1638	RSX	6.054E-10	5.437E-10	0.	0.	0.	0.
1638	RSY	8.192E-09	7.671E-09	0.	0.	0.	0.
1638	EQmxp	-3.003E-11	-1.579E-13	0.	0.	0.	0.
1638	EQmxn	3.003E-11	1.579E-13	0.	0.	0.	0.
1638	EQmyp	6.558E-12	-1.249E-10	0.	0.	0.	0.
1638	EQmyn	-6.558E-12	1.249E-10	0.	0.	0.	0.
1639	RSX	6.413E-10	5.628E-10	0.	0.	0.	0.
1639	RSY	8.005E-09	7.274E-09	0.	0.	0.	0.
1639	EQmxp	-5.793E-12	-3.046E-14	0.	0.	0.	0.
1639	EQmxn	5.793E-12	3.046E-14	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1639	EQmyp	1.265E-12	-2.409E-11	0.	0.	0.	0.
1639	EQmyn	-1.265E-12	2.409E-11	0.	0.	0.	0.
1640	RSX	6.426E-10	5.842E-10	0.	0.	0.	0.
1640	RSY	7.528E-09	6.948E-09	0.	0.	0.	0.
1640	EQmxp	1.002E-11	5.269E-14	0.	0.	0.	0.
1640	EQmxn	-1.002E-11	-5.269E-14	0.	0.	0.	0.
1640	EQmyp	-2.188E-12	4.166E-11	0.	0.	0.	0.
1640	EQmyn	2.188E-12	-4.166E-11	0.	0.	0.	0.
1641	RSX	6.162E-10	6.024E-10	0.	0.	0.	0.
1641	RSY	7.099E-09	6.682E-09	0.	0.	0.	0.
1641	EQmxp	1.788E-11	9.404E-14	0.	0.	0.	0.
1641	EQmxn	-1.788E-11	-9.404E-14	0.	0.	0.	0.
1641	EQmyp	-3.904E-12	7.435E-11	0.	0.	0.	0.
1641	EQmyn	3.904E-12	-7.435E-11	0.	0.	0.	0.
1642	RSX	5.708E-10	6.145E-10	0.	0.	0.	0.
1642	RSY	7.013E-09	6.601E-09	0.	0.	0.	0.
1642	EQmxp	1.951E-11	1.026E-13	0.	0.	0.	0.
1642	EQmxn	-1.951E-11	-1.026E-13	0.	0.	0.	0.
1642	EQmyp	-4.261E-12	8.114E-11	0.	0.	0.	0.
1642	EQmyn	4.261E-12	-8.114E-11	0.	0.	0.	0.
1643	RSX	5.221E-10	6.142E-10	0.	0.	0.	0.
1643	RSY	7.298E-09	6.880E-09	0.	0.	0.	0.
1643	EQmxp	1.712E-11	9.004E-14	0.	0.	0.	0.
1643	EQmxn	-1.712E-11	-9.004E-14	0.	0.	0.	0.
1643	EQmyp	-3.738E-12	7.119E-11	0.	0.	0.	0.
1643	EQmyn	3.738E-12	-7.119E-11	0.	0.	0.	0.
1644	RSX	4.816E-10	6.048E-10	0.	0.	0.	0.
1644	RSY	7.771E-09	7.606E-09	0.	0.	0.	0.
1644	EQmxp	1.280E-11	6.730E-14	0.	0.	0.	0.
1644	EQmxn	-1.280E-11	-6.730E-14	0.	0.	0.	0.
1644	EQmyp	-2.794E-12	5.321E-11	0.	0.	0.	0.
1644	EQmyn	2.794E-12	-5.321E-11	0.	0.	0.	0.
1645	RSX	4.632E-10	6.013E-10	0.	0.	0.	0.
1645	RSY	8.366E-09	8.693E-09	0.	0.	0.	0.
1645	EQmxp	8.149E-12	4.286E-14	0.	0.	0.	0.
1645	EQmxn	-8.149E-12	-4.286E-14	0.	0.	0.	0.
1645	EQmyp	-1.779E-12	3.389E-11	0.	0.	0.	0.
1645	EQmyn	1.779E-12	-3.389E-11	0.	0.	0.	0.
1646	RSX	4.622E-10	5.961E-10	0.	0.	0.	0.
1646	RSY	9.015E-09	9.707E-09	0.	0.	0.	0.
1646	EQmxp	4.187E-12	2.202E-14	0.	0.	0.	0.
1646	EQmxn	-4.187E-12	-2.202E-14	0.	0.	0.	0.
1646	EQmyp	-9.142E-13	1.741E-11	0.	0.	0.	0.
1646	EQmyn	9.142E-13	-1.741E-11	0.	0.	0.	0.
1647	RSX	4.835E-10	5.978E-10	0.	0.	0.	0.
1647	RSY	9.251E-09	1.039E-08	0.	0.	0.	0.
1647	EQmxp	1.351E-12	7.103E-15	0.	0.	0.	0.
1647	EQmxn	-1.351E-12	-7.103E-15	0.	0.	0.	0.
1647	EQmyp	-2.949E-13	5.616E-12	0.	0.	0.	0.
1647	EQmyn	2.949E-13	-5.616E-12	0.	0.	0.	0.
1648	RSX	5.261E-10	6.135E-10	0.	0.	0.	0.
1648	RSY	8.890E-09	1.061E-08	0.	0.	0.	0.
1648	EQmxp	-3.343E-13	-1.758E-15	0.	0.	0.	0.
1648	EQmxn	3.343E-13	1.758E-15	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1648	EQmyp	7.299E-14	-1.390E-12	0.	0.	0.	0.
1648	EQmyn	-7.299E-14	1.390E-12	0.	0.	0.	0.
1649	RSX	5.724E-10	6.214E-10	0.	0.	0.	0.
1649	RSY	8.131E-09	1.044E-08	0.	0.	0.	0.
1649	EQmxp	-1.085E-12	-5.707E-15	0.	0.	0.	0.
1649	EQmxn	1.085E-12	5.707E-15	0.	0.	0.	0.
1649	EQmyp	2.369E-13	-4.512E-12	0.	0.	0.	0.
1649	EQmyn	-2.369E-13	4.512E-12	0.	0.	0.	0.
1650	RSX	6.228E-10	6.235E-10	0.	0.	0.	0.
1650	RSY	7.219E-09	1.014E-08	0.	0.	0.	0.
1650	EQmxp	-1.210E-12	-6.361E-15	0.	0.	0.	0.
1650	EQmxn	1.210E-12	6.361E-15	0.	0.	0.	0.
1650	EQmyp	2.641E-13	-5.030E-12	0.	0.	0.	0.
1650	EQmyn	-2.641E-13	5.030E-12	0.	0.	0.	0.
1651	RSX	6.588E-10	6.219E-10	0.	0.	0.	0.
1651	RSY	6.301E-09	9.678E-09	0.	0.	0.	0.
1651	EQmxp	-9.990E-13	-5.254E-15	0.	0.	0.	0.
1651	EQmxn	9.990E-13	5.254E-15	0.	0.	0.	0.
1651	EQmyp	2.181E-13	-4.154E-12	0.	0.	0.	0.
1651	EQmyn	-2.181E-13	4.154E-12	0.	0.	0.	0.
1652	RSX	6.562E-10	6.261E-10	0.	0.	0.	0.
1652	RSY	5.252E-09	9.213E-09	0.	0.	0.	0.
1652	EQmxp	-6.737E-13	-3.543E-15	0.	0.	0.	0.
1652	EQmxn	6.737E-13	3.543E-15	0.	0.	0.	0.
1652	EQmyp	1.471E-13	-2.801E-12	0.	0.	0.	0.
1652	EQmyn	-1.471E-13	2.801E-12	0.	0.	0.	0.
1653	RSX	6.142E-10	6.307E-10	0.	0.	0.	0.
1653	RSY	4.551E-09	9.041E-09	0.	0.	0.	0.
1653	EQmxp	-3.683E-13	-1.937E-15	0.	0.	0.	0.
1653	EQmxn	3.683E-13	1.937E-15	0.	0.	0.	0.
1653	EQmyp	8.041E-14	-1.531E-12	0.	0.	0.	0.
1653	EQmyn	-8.041E-14	1.531E-12	0.	0.	0.	0.
1654	RSX	5.532E-10	6.470E-10	0.	0.	0.	0.
1654	RSY	4.368E-09	9.178E-09	0.	0.	0.	0.
1654	EQmxp	-1.435E-13	-7.546E-16	0.	0.	0.	0.
1654	EQmxn	1.435E-13	7.546E-16	0.	0.	0.	0.
1654	EQmyp	3.133E-14	-5.967E-13	0.	0.	0.	0.
1654	EQmyn	-3.133E-14	5.967E-13	0.	0.	0.	0.
1655	RSX	5.088E-10	6.605E-10	0.	0.	0.	0.
1655	RSY	4.852E-09	9.163E-09	0.	0.	0.	0.
1655	EQmxp	-9.421E-15	-4.954E-17	0.	0.	0.	0.
1655	EQmxn	9.421E-15	4.954E-17	0.	0.	0.	0.
1655	EQmyp	2.057E-15	-3.917E-14	0.	0.	0.	0.
1655	EQmyn	-2.057E-15	3.917E-14	0.	0.	0.	0.
1656	RSX	4.886E-10	6.578E-10	0.	0.	0.	0.
1656	RSY	5.846E-09	8.988E-09	0.	0.	0.	0.
1656	EQmxp	5.100E-14	2.682E-16	0.	0.	0.	0.
1656	EQmxn	-5.100E-14	-2.682E-16	0.	0.	0.	0.
1656	EQmyp	-1.114E-14	2.121E-13	0.	0.	0.	0.
1656	EQmyn	1.114E-14	-2.121E-13	0.	0.	0.	0.
1657	RSX	5.041E-10	6.543E-10	0.	0.	0.	0.
1657	RSY	6.823E-09	8.859E-09	0.	0.	0.	0.
1657	EQmxp	6.370E-14	3.350E-16	0.	0.	0.	0.
1657	EQmxn	-6.370E-14	-3.350E-16	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1657	EQmyp	-1.391E-14	2.649E-13	0.	0.	0.	0.
1657	EQmyn	1.391E-14	-2.649E-13	0.	0.	0.	0.
1658	RSX	5.190E-10	6.523E-10	0.	0.	0.	0.
1658	RSY	7.367E-09	8.777E-09	0.	0.	0.	0.
1658	EQmxp	5.236E-14	2.754E-16	0.	0.	0.	0.
1658	EQmxn	-5.236E-14	-2.754E-16	0.	0.	0.	0.
1658	EQmyp	-1.143E-14	2.177E-13	0.	0.	0.	0.
1658	EQmyn	1.143E-14	-2.177E-13	0.	0.	0.	0.
1659	RSX	5.420E-10	6.503E-10	0.	0.	0.	0.
1659	RSY	7.694E-09	9.010E-09	0.	0.	0.	0.
1659	EQmxp	3.367E-14	1.771E-16	0.	0.	0.	0.
1659	EQmxn	-3.367E-14	-1.771E-16	0.	0.	0.	0.
1659	EQmyp	-7.351E-15	1.400E-13	0.	0.	0.	0.
1659	EQmyn	7.351E-15	-1.400E-13	0.	0.	0.	0.
1660	RSX	5.894E-10	6.188E-10	0.	0.	0.	0.
1660	RSY	8.329E-09	9.174E-09	0.	0.	0.	0.
1660	EQmxp	1.686E-14	8.865E-17	0.	0.	0.	0.
1660	EQmxn	-1.686E-14	-8.865E-17	0.	0.	0.	0.
1660	EQmyp	-3.680E-15	7.009E-14	0.	0.	0.	0.
1660	EQmyn	3.680E-15	-7.009E-14	0.	0.	0.	0.
1661	RSX	6.412E-10	5.565E-10	0.	0.	0.	0.
1661	RSY	9.017E-09	8.882E-09	0.	0.	0.	0.
1661	EQmxp	5.394E-15	2.837E-17	0.	0.	0.	0.
1661	EQmxn	-5.394E-15	-2.837E-17	0.	0.	0.	0.
1661	EQmyp	-1.178E-15	2.243E-14	0.	0.	0.	0.
1661	EQmyn	1.178E-15	-2.243E-14	0.	0.	0.	0.
1662	RSX	6.506E-10	4.663E-10	0.	0.	0.	0.
1662	RSY	9.582E-09	8.658E-09	0.	0.	0.	0.
1662	EQmxp	-6.952E-16	-3.656E-18	0.	0.	0.	0.
1662	EQmxn	6.952E-16	3.656E-18	0.	0.	0.	0.
1662	EQmyp	1.518E-16	-2.891E-15	0.	0.	0.	0.
1662	EQmyn	-1.518E-16	2.891E-15	0.	0.	0.	0.
1663	RSX	6.043E-10	4.060E-10	0.	0.	0.	0.
1663	RSY	9.761E-09	8.795E-09	0.	0.	0.	0.
1663	EQmxp	-2.890E-15	-1.520E-17	0.	0.	0.	0.
1663	EQmxn	2.890E-15	1.520E-17	0.	0.	0.	0.
1663	EQmyp	6.310E-16	-1.202E-14	0.	0.	0.	0.
1663	EQmyn	-6.310E-16	1.202E-14	0.	0.	0.	0.
1664	RSX	5.452E-10	3.823E-10	0.	0.	0.	0.
1664	RSY	9.946E-09	8.914E-09	0.	0.	0.	0.
1664	EQmxp	-2.898E-15	-1.524E-17	0.	0.	0.	0.
1664	EQmxn	2.898E-15	1.524E-17	0.	0.	0.	0.
1664	EQmyp	6.327E-16	-1.205E-14	0.	0.	0.	0.
1664	EQmyn	-6.327E-16	1.205E-14	0.	0.	0.	0.
1665	RSX	4.710E-10	3.900E-10	0.	0.	0.	0.
1665	RSY	1.004E-08	8.899E-09	0.	0.	0.	0.
1665	EQmxp	-2.040E-15	-1.073E-17	0.	0.	0.	0.
1665	EQmxn	2.040E-15	1.073E-17	0.	0.	0.	0.
1665	EQmyp	4.454E-16	-8.483E-15	0.	0.	0.	0.
1665	EQmyn	-4.454E-16	8.483E-15	0.	0.	0.	0.
1666	RSX	4.342E-10	4.242E-10	0.	0.	0.	0.
1666	RSY	1.043E-08	8.884E-09	0.	0.	0.	0.
1666	EQmxp	-1.099E-15	-5.782E-18	0.	0.	0.	0.
1666	EQmxn	1.099E-15	5.782E-18	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1666	EQmyp	2.401E-16	-4.572E-15	0.	0.	0.	0.
1666	EQmyn	-2.401E-16	4.572E-15	0.	0.	0.	0.
1667	RSX	4.452E-10	4.624E-10	0.	0.	0.	0.
1667	RSY	1.080E-08	8.504E-09	0.	0.	0.	0.
1667	EQmxp	-4.103E-16	-2.158E-18	0.	0.	0.	0.
1667	EQmxn	4.103E-16	2.158E-18	0.	0.	0.	0.
1667	EQmyp	8.958E-17	-1.706E-15	0.	0.	0.	0.
1667	EQmyn	-8.958E-17	1.706E-15	0.	0.	0.	0.
1668	RSX	4.784E-10	4.827E-10	0.	0.	0.	0.
1668	RSY	1.067E-08	7.612E-09	0.	0.	0.	0.
1668	EQmxp	-2.766E-17	-1.455E-19	0.	0.	0.	0.
1668	EQmxn	2.766E-17	1.455E-19	0.	0.	0.	0.
1668	EQmyp	6.039E-18	-1.150E-16	0.	0.	0.	0.
1668	EQmyn	-6.039E-18	1.150E-16	0.	0.	0.	0.
1669	RSX	5.130E-10	4.874E-10	0.	0.	0.	0.
1669	RSY	1.010E-08	6.701E-09	0.	0.	0.	0.
1669	EQmxp	1.210E-16	6.365E-19	0.	0.	0.	0.
1669	EQmxn	-1.210E-16	-6.365E-19	0.	0.	0.	0.
1669	EQmyp	-2.642E-17	5.032E-16	0.	0.	0.	0.
1669	EQmyn	2.642E-17	-5.032E-16	0.	0.	0.	0.
1670	RSX	5.823E-10	4.697E-10	0.	0.	0.	0.
1670	RSY	9.879E-09	6.230E-09	0.	0.	0.	0.
1670	EQmxp	1.360E-16	7.154E-19	0.	0.	0.	0.
1670	EQmxn	-1.360E-16	-7.154E-19	0.	0.	0.	0.
1670	EQmyp	-2.970E-17	5.657E-16	0.	0.	0.	0.
1670	EQmyn	2.970E-17	-5.657E-16	0.	0.	0.	0.
1671	RSX	6.394E-10	4.514E-10	0.	0.	0.	0.
1671	RSY	9.905E-09	5.555E-09	0.	0.	0.	0.
1671	EQmxp	9.723E-17	5.113E-19	0.	0.	0.	0.
1671	EQmxn	-9.723E-17	-5.113E-19	0.	0.	0.	0.
1671	EQmyp	-2.123E-17	4.043E-16	0.	0.	0.	0.
1671	EQmyn	2.123E-17	-4.043E-16	0.	0.	0.	0.
1672	RSX	6.830E-10	4.617E-10	0.	0.	0.	0.
1672	RSY	9.590E-09	5.307E-09	0.	0.	0.	0.
1672	EQmxp	5.152E-17	2.710E-19	0.	0.	0.	0.
1672	EQmxn	-5.152E-17	-2.710E-19	0.	0.	0.	0.
1672	EQmyp	-1.125E-17	2.142E-16	0.	0.	0.	0.
1672	EQmyn	1.125E-17	-2.142E-16	0.	0.	0.	0.
1673	RSX	6.814E-10	4.689E-10	0.	0.	0.	0.
1673	RSY	9.527E-09	5.471E-09	0.	0.	0.	0.
1673	EQmxp	1.841E-17	9.683E-20	0.	0.	0.	0.
1673	EQmxn	-1.841E-17	-9.683E-20	0.	0.	0.	0.
1673	EQmyp	-4.020E-18	7.656E-17	0.	0.	0.	0.
1673	EQmyn	4.020E-18	-7.656E-17	0.	0.	0.	0.
1674	RSX	6.412E-10	4.624E-10	0.	0.	0.	0.
1674	RSY	9.540E-09	5.754E-09	0.	0.	0.	0.
1674	EQmxp	8.899E-19	0.	0.	0.	0.	0.
1674	EQmxn	-8.899E-19	0.	0.	0.	0.	0.
1674	EQmyp	-1.943E-19	3.700E-18	0.	0.	0.	0.
1674	EQmyn	1.943E-19	-3.700E-18	0.	0.	0.	0.
1675	RSX	5.699E-10	4.214E-10	0.	0.	0.	0.
1675	RSY	8.664E-09	6.246E-09	0.	0.	0.	0.
1675	EQmxp	-5.109E-18	-2.687E-20	0.	0.	0.	0.
1675	EQmxn	5.109E-18	2.687E-20	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1675	EQmyp	1.115E-18	-2.124E-17	0.	0.	0.	0.
1675	EQmyn	-1.115E-18	2.124E-17	0.	0.	0.	0.
1676	RSX	5.535E-10	4.008E-10	0.	0.	0.	0.
1676	RSY	8.065E-09	8.075E-09	0.	0.	0.	0.
1676	EQmxp	-5.862E-18	-3.083E-20	0.	0.	0.	0.
1676	EQmxn	5.862E-18	3.083E-20	0.	0.	0.	0.
1676	EQmyp	1.280E-18	-2.438E-17	0.	0.	0.	0.
1676	EQmyn	-1.280E-18	2.438E-17	0.	0.	0.	0.
1677	RSX	5.978E-10	4.445E-10	0.	0.	0.	0.
1677	RSY	8.567E-09	1.081E-08	0.	0.	0.	0.
1677	EQmxp	-4.835E-18	-2.543E-20	0.	0.	0.	0.
1677	EQmxn	4.835E-18	2.543E-20	0.	0.	0.	0.
1677	EQmyp	1.056E-18	-2.011E-17	0.	0.	0.	0.
1677	EQmyn	-1.056E-18	2.011E-17	0.	0.	0.	0.
1678	RSX	5.171E-10	3.924E-10	0.	0.	0.	0.
1678	RSY	8.731E-09	9.743E-09	0.	0.	0.	0.
1678	EQmxp	-2.111E-18	-1.110E-20	0.	0.	0.	0.
1678	EQmxn	2.111E-18	1.110E-20	0.	0.	0.	0.
1678	EQmyp	4.609E-19	-8.777E-18	0.	0.	0.	0.
1678	EQmyn	-4.609E-19	8.777E-18	0.	0.	0.	0.
1679	RSX	4.330E-10	3.721E-10	0.	0.	0.	0.
1679	RSY	9.529E-09	6.507E-09	0.	0.	0.	0.
1679	EQmxp	-1.203E-19	0.	0.	0.	0.	0.
1679	EQmxn	1.203E-19	0.	0.	0.	0.	0.
1679	EQmyp	2.626E-20	-5.001E-19	0.	0.	0.	0.
1679	EQmyn	-2.626E-20	5.001E-19	0.	0.	0.	0.
1680	RSX	3.664E-10	4.408E-10	0.	0.	0.	0.
1680	RSY	1.007E-08	4.564E-09	0.	0.	0.	0.
1680	EQmxp	5.416E-19	0.	0.	0.	0.	0.
1680	EQmxn	-5.416E-19	0.	0.	0.	0.	0.
1680	EQmyp	-1.183E-19	2.252E-18	0.	0.	0.	0.
1680	EQmyn	1.183E-19	-2.252E-18	0.	0.	0.	0.
1681	RSX	3.395E-10	5.766E-10	0.	0.	0.	0.
1681	RSY	8.903E-09	4.199E-09	0.	0.	0.	0.
1681	EQmxp	4.319E-19	0.	0.	0.	0.	0.
1681	EQmxn	-4.319E-19	0.	0.	0.	0.	0.
1681	EQmyp	-9.431E-20	1.796E-18	0.	0.	0.	0.
1681	EQmyn	9.431E-20	-1.796E-18	0.	0.	0.	0.
1682	RSX	4.143E-10	5.197E-10	0.	0.	0.	0.
1682	RSY	5.015E-09	5.721E-09	0.	0.	0.	0.
1682	EQmxp	1.496E-19	0.	0.	0.	0.	0.
1682	EQmxn	-1.496E-19	0.	0.	0.	0.	0.
1682	EQmyp	-3.266E-20	6.219E-19	0.	0.	0.	0.
1682	EQmyn	3.266E-20	-6.219E-19	0.	0.	0.	0.
1683	RSX	2.469E-10	1.952E-10	0.	0.	0.	0.
1683	RSY	1.589E-09	5.167E-09	0.	0.	0.	0.
1683	EQmxp	-5.657E-20	0.	0.	0.	0.	0.
1683	EQmxn	5.657E-20	0.	0.	0.	0.	0.
1683	EQmyp	1.235E-20	-2.353E-19	0.	0.	0.	0.
1683	EQmyn	-1.235E-20	2.353E-19	0.	0.	0.	0.
1684	RSX	0.011	2.216E-04	0.	0.	0.	0.
1684	RSY	1.222E-03	0.02	0.	0.	0.	0.
1684	EQmxp	-0.016	-5.869E-04	0.	0.	0.	0.
1684	EQmxn	0.016	5.869E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1684	EQmyp	4.291E-03	-0.097	0.	0.	0.	0.
1684	EQmyn	-4.291E-03	0.097	0.	0.	0.	0.
1685	RSX	9.378E-03	2.835E-04	0.	0.	0.	0.
1685	RSY	1.066E-03	0.018	0.	0.	0.	0.
1685	EQmxp	-0.014	-6.921E-04	0.	0.	0.	0.
1685	EQmxn	0.014	6.921E-04	0.	0.	0.	0.
1685	EQmyp	3.674E-03	-0.089	0.	0.	0.	0.
1685	EQmyn	-3.674E-03	0.089	0.	0.	0.	0.
1686	RSX	0.02	8.224E-04	2.225E-18	0.	0.	0.
1686	RSY	3.585E-03	0.046	1.929E-18	0.	0.	0.
1686	EQmxp	-0.031	3.532E-04	-1.735E-18	0.	0.	0.
1686	EQmxn	0.031	-3.532E-04	1.735E-18	0.	0.	0.
1686	EQmyp	0.016	-0.219	-6.939E-18	0.	0.	0.
1686	EQmyn	-0.016	0.219	6.939E-18	0.	0.	0.
1687	RSX	0.022	9.763E-04	7.184E-19	0.	0.	0.
1687	RSY	4.077E-03	0.053	3.810E-18	0.	0.	0.
1687	EQmxp	-0.034	4.554E-04	0.	0.	0.	0.
1687	EQmxn	0.034	-4.554E-04	0.	0.	0.	0.
1687	EQmyp	0.018	-0.253	-2.082E-17	0.	0.	0.
1687	EQmyn	-0.018	0.253	2.082E-17	0.	0.	0.
1688	RSX	0.023	1.106E-03	7.398E-19	0.	0.	0.
1688	RSY	4.432E-03	0.058	2.379E-19	0.	0.	0.
1688	EQmxp	-0.035	5.535E-04	-1.735E-18	0.	0.	0.
1688	EQmxn	0.035	-5.535E-04	1.735E-18	0.	0.	0.
1688	EQmyp	0.02	-0.278	-6.939E-18	0.	0.	0.
1688	EQmyn	-0.02	0.278	6.939E-18	0.	0.	0.
1689	RSX	0.024	1.213E-03	7.481E-19	0.	0.	0.
1689	RSY	4.664E-03	0.062	3.377E-18	0.	0.	0.
1689	EQmxp	-0.035	6.453E-04	-8.674E-19	0.	0.	0.
1689	EQmxn	0.035	-6.453E-04	8.674E-19	0.	0.	0.
1689	EQmyp	0.021	-0.297	0.	0.	0.	0.
1689	EQmyn	-0.021	0.297	0.	0.	0.	0.
1690	RSX	0.023	1.296E-03	7.378E-19	0.	0.	0.
1690	RSY	4.784E-03	0.064	3.194E-18	0.	0.	0.
1690	EQmxp	-0.035	7.294E-04	0.	0.	0.	0.
1690	EQmxn	0.035	-7.294E-04	0.	0.	0.	0.
1690	EQmyp	0.022	-0.308	1.388E-17	0.	0.	0.
1690	EQmyn	-0.022	0.308	-1.388E-17	0.	0.	0.
1691	RSX	0.021	1.303E-03	1.487E-18	0.	0.	0.
1691	RSY	4.609E-03	0.063	2.077E-18	0.	0.	0.
1691	EQmxp	-0.032	7.732E-04	2.602E-18	0.	0.	0.
1691	EQmxn	0.032	-7.732E-04	-2.602E-18	0.	0.	0.
1691	EQmyp	0.021	-0.301	0.	0.	0.	0.
1691	EQmyn	-0.021	0.301	0.	0.	0.	0.
1692	RSX	0.018	1.206E-03	0.	0.	0.	0.
1692	RSY	4.075E-03	0.056	1.232E-19	0.	0.	0.
1692	EQmxp	-0.026	7.534E-04	-8.674E-19	0.	0.	0.
1692	EQmxn	0.026	-7.534E-04	8.674E-19	0.	0.	0.
1692	EQmyp	0.019	-0.27	6.939E-18	0.	0.	0.
1692	EQmyn	-0.019	0.27	-6.939E-18	0.	0.	0.
1693	RSX	0.014	1.109E-03	1.484E-18	0.	0.	0.
1693	RSY	3.561E-03	0.05	9.003E-19	0.	0.	0.
1693	EQmxp	-0.021	7.294E-04	8.674E-19	0.	0.	0.
1693	EQmxn	0.021	-7.294E-04	-8.674E-19	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1693	EQmyp	0.016	-0.24	0.	0.	0.	0.
1693	EQmyn	-0.016	0.24	0.	0.	0.	0.
1694	RSX	0.011	1.011E-03	0.	0.	0.	0.
1694	RSY	3.062E-03	0.044	3.229E-18	0.	0.	0.
1694	EQmxp	-0.016	7.017E-04	1.301E-18	0.	0.	0.
1694	EQmxn	0.016	-7.017E-04	-1.301E-18	0.	0.	0.
1694	EQmyp	0.014	-0.21	0.	0.	0.	0.
1694	EQmyn	-0.014	0.21	0.	0.	0.	0.
1695	RSX	7.729E-03	8.865E-04	1.108E-18	0.	0.	0.
1695	RSY	2.502E-03	0.037	1.604E-18	0.	0.	0.
1695	EQmxp	-0.011	6.522E-04	0.	0.	0.	0.
1695	EQmxn	0.011	-6.522E-04	0.	0.	0.	0.
1695	EQmyp	0.012	-0.176	0.	0.	0.	0.
1695	EQmyn	-0.012	0.176	0.	0.	0.	0.
1696	RSX	4.485E-03	7.421E-04	1.207E-18	0.	0.	0.
1696	RSY	1.913E-03	0.029	1.199E-18	0.	0.	0.
1696	EQmxp	-6.183E-03	5.830E-04	-2.385E-18	0.	0.	0.
1696	EQmxn	6.183E-03	-5.830E-04	2.385E-18	0.	0.	0.
1696	EQmyp	9.088E-03	-0.138	-3.469E-18	0.	0.	0.
1696	EQmyn	-9.088E-03	0.138	3.469E-18	0.	0.	0.
1697	RSX	1.576E-03	6.039E-04	8.742E-19	0.	0.	0.
1697	RSY	1.376E-03	0.022	2.342E-19	0.	0.	0.
1697	EQmxp	-1.804E-03	5.127E-04	1.626E-19	0.	0.	0.
1697	EQmxn	1.804E-03	-5.127E-04	-1.626E-19	0.	0.	0.
1697	EQmyp	6.600E-03	-0.103	3.469E-18	0.	0.	0.
1697	EQmyn	-6.600E-03	0.103	-3.469E-18	0.	0.	0.
1698	RSX	1.022E-03	4.725E-04	2.086E-18	0.	0.	0.
1698	RSY	8.982E-04	0.015	1.902E-18	0.	0.	0.
1698	EQmxp	2.096E-03	4.422E-04	9.758E-19	0.	0.	0.
1698	EQmxn	-2.096E-03	-4.422E-04	-9.758E-19	0.	0.	0.
1698	EQmyp	4.293E-03	-0.071	-3.469E-18	0.	0.	0.
1698	EQmyn	-4.293E-03	0.071	3.469E-18	0.	0.	0.
1699	RSX	3.336E-03	3.484E-04	3.712E-19	0.	0.	0.
1699	RSY	5.177E-04	8.553E-03	4.728E-19	0.	0.	0.
1699	EQmxp	5.563E-03	3.723E-04	-4.337E-19	0.	0.	0.
1699	EQmxn	-5.563E-03	-3.723E-04	4.337E-19	0.	0.	0.
1699	EQmyp	2.158E-03	-0.04	0.	0.	0.	0.
1699	EQmyn	-2.158E-03	0.04	0.	0.	0.	0.
1700	RSX	5.407E-03	2.323E-04	3.693E-19	0.	0.	0.
1700	RSY	4.036E-04	2.673E-03	5.025E-19	0.	0.	0.
1700	EQmxp	8.656E-03	3.034E-04	-1.735E-18	0.	0.	0.
1700	EQmxn	-8.656E-03	-3.034E-04	1.735E-18	0.	0.	0.
1700	EQmyp	1.786E-04	-0.012	-7.373E-18	0.	0.	0.
1700	EQmyn	-1.786E-04	0.012	7.373E-18	0.	0.	0.
1701	RSX	5.803E-03	1.012E-04	1.114E-18	0.	0.	0.
1701	RSY	5.073E-04	2.304E-03	7.451E-19	0.	0.	0.
1701	EQmxp	9.122E-03	1.874E-04	-4.337E-19	0.	0.	0.
1701	EQmxn	-9.122E-03	-1.874E-04	4.337E-19	0.	0.	0.
1701	EQmyp	-1.338E-03	0.012	-2.602E-18	0.	0.	0.
1701	EQmyn	1.338E-03	-0.012	2.602E-18	0.	0.	0.
1702	RSX	6.930E-03	5.280E-05	5.619E-19	0.	0.	0.
1702	RSY	7.472E-04	6.337E-03	9.256E-19	0.	0.	0.
1702	EQmxp	0.011	1.275E-04	1.735E-18	0.	0.	0.
1702	EQmxn	-0.011	-1.275E-04	-1.735E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1702	EQmyp	-2.662E-03	0.031	3.469E-18	0.	0.	0.
1702	EQmyn	2.662E-03	-0.031	-3.469E-18	0.	0.	0.
1703	RSX	7.900E-03	1.034E-04	1.113E-18	0.	0.	0.
1703	RSY	9.877E-04	0.01	7.349E-19	0.	0.	0.
1703	EQmxp	0.012	6.845E-05	1.735E-18	0.	0.	0.
1703	EQmxn	-0.012	-6.845E-05	-1.735E-18	0.	0.	0.
1703	EQmyp	-3.885E-03	0.049	1.735E-18	0.	0.	0.
1703	EQmyn	3.885E-03	-0.049	-1.735E-18	0.	0.	0.
1704	RSX	8.937E-03	1.875E-04	2.588E-18	0.	0.	0.
1704	RSY	1.253E-03	0.014	1.082E-18	0.	0.	0.
1704	EQmxp	0.014	6.058E-06	-8.674E-19	0.	0.	0.
1704	EQmxn	-0.014	-6.058E-06	8.674E-19	0.	0.	0.
1704	EQmyp	-5.185E-03	0.068	6.939E-18	0.	0.	0.
1704	EQmyn	5.185E-03	-0.068	-6.939E-18	0.	0.	0.
1705	RSX	0.011	3.194E-04	8.879E-18	0.	0.	0.
1705	RSY	1.699E-03	0.02	5.582E-18	0.	0.	0.
1705	EQmxp	0.017	-7.799E-05	-7.373E-18	0.	0.	0.
1705	EQmxn	-0.017	7.799E-05	7.373E-18	0.	0.	0.
1705	EQmyp	-7.269E-03	0.098	-6.939E-18	0.	0.	0.
1705	EQmyn	7.269E-03	-0.098	6.939E-18	0.	0.	0.
1706	RSX	0.028	1.109E-03	2.439E-17	0.	0.	0.
1706	RSY	4.901E-03	0.062	9.425E-18	0.	0.	0.
1706	EQmxp	0.042	-4.680E-04	1.908E-17	0.	0.	0.
1706	EQmxn	-0.042	4.680E-04	-1.908E-17	0.	0.	0.
1706	EQmyp	-0.022	0.299	-4.163E-17	0.	0.	0.
1706	EQmyn	0.022	-0.299	4.163E-17	0.	0.	0.
1707	RSX	6.790E-03	3.839E-04	1.977E-17	0.	0.	0.
1707	RSY	1.412E-03	0.019	4.438E-18	0.	0.	0.
1707	EQmxp	0.01	-2.174E-04	-4.770E-18	0.	0.	0.
1707	EQmxn	-0.01	2.174E-04	4.770E-18	0.	0.	0.
1707	EQmyp	-6.393E-03	0.091	-3.123E-17	0.	0.	0.
1707	EQmyn	6.393E-03	-0.091	3.123E-17	0.	0.	0.
1708	RSX	2.130E-03	2.008E-04	8.599E-18	0.	0.	0.
1708	RSY	6.015E-04	8.653E-03	2.624E-18	0.	0.	0.
1708	EQmxp	3.092E-03	-1.406E-04	1.637E-17	0.	0.	0.
1708	EQmxn	-3.092E-03	1.406E-04	-1.637E-17	0.	0.	0.
1708	EQmyp	-2.806E-03	0.041	6.939E-18	0.	0.	0.
1708	EQmyn	2.806E-03	-0.041	-6.939E-18	0.	0.	0.
1709	RSX	4.067E-04	1.299E-04	4.125E-18	0.	0.	0.
1709	RSY	3.014E-04	4.717E-03	4.982E-18	0.	0.	0.
1709	EQmxp	4.895E-04	-1.090E-04	1.080E-17	0.	0.	0.
1709	EQmxn	-4.895E-04	1.090E-04	-1.080E-17	0.	0.	0.
1709	EQmyp	-1.444E-03	0.023	1.301E-17	0.	0.	0.
1709	EQmyn	1.444E-03	-0.023	-1.301E-17	0.	0.	0.
1710	RSX	5.037E-04	8.882E-05	9.973E-18	0.	0.	0.
1710	RSY	1.481E-04	2.502E-03	6.385E-18	0.	0.	0.
1710	EQmxp	-8.808E-04	-8.868E-05	-1.992E-17	0.	0.	0.
1710	EQmxn	8.808E-04	8.868E-05	1.992E-17	0.	0.	0.
1710	EQmyp	-6.843E-04	0.012	-3.643E-17	0.	0.	0.
1710	EQmyn	6.843E-04	-0.012	3.643E-17	0.	0.	0.
1711	RSX	1.034E-03	5.933E-05	1.017E-17	0.	0.	0.
1711	RSY	8.647E-05	1.013E-03	5.090E-18	0.	0.	0.
1711	EQmxp	-1.673E-03	-7.151E-05	-1.729E-17	0.	0.	0.
1711	EQmxn	1.673E-03	7.151E-05	1.729E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1711	EQmyp	-1.826E-04	4.710E-03	-3.469E-17	0.	0.	0.
1711	EQmyn	1.826E-04	-4.710E-03	3.469E-17	0.	0.	0.
1712	RSX	1.328E-03	3.692E-05	3.689E-18	0.	0.	0.
1712	RSY	1.034E-04	5.714E-05	1.253E-18	0.	0.	0.
1712	EQmxp	-2.104E-03	-5.598E-05	5.150E-18	0.	0.	0.
1712	EQmxn	2.104E-03	5.598E-05	-5.150E-18	0.	0.	0.
1712	EQmyp	1.617E-04	-3.192E-04	1.496E-17	0.	0.	0.
1712	EQmyn	-1.617E-04	3.192E-04	-1.496E-17	0.	0.	0.
1713	RSX	1.457E-03	2.027E-05	8.697E-19	0.	0.	0.
1713	RSY	1.343E-04	7.773E-04	2.400E-18	0.	0.	0.
1713	EQmxp	-2.284E-03	-4.170E-05	1.008E-17	0.	0.	0.
1713	EQmxn	2.284E-03	4.170E-05	-1.008E-17	0.	0.	0.
1713	EQmyp	3.952E-04	-3.850E-03	2.743E-17	0.	0.	0.
1713	EQmyn	-3.952E-04	3.850E-03	-2.743E-17	0.	0.	0.
1714	RSX	1.463E-03	1.136E-05	1.284E-17	0.	0.	0.
1714	RSY	1.550E-04	1.277E-03	2.698E-18	0.	0.	0.
1714	EQmxp	-2.277E-03	-2.855E-05	-9.541E-18	0.	0.	0.
1714	EQmxn	2.277E-03	2.855E-05	9.541E-18	0.	0.	0.
1714	EQmyp	5.440E-04	-6.231E-03	-9.324E-18	0.	0.	0.
1714	EQmyn	-5.440E-04	6.231E-03	9.324E-18	0.	0.	0.
1715	RSX	1.378E-03	1.413E-05	8.865E-18	0.	0.	0.
1715	RSY	1.638E-04	1.587E-03	2.468E-18	0.	0.	0.
1715	EQmxp	-2.132E-03	-1.659E-05	-2.358E-17	0.	0.	0.
1715	EQmxn	2.132E-03	1.659E-05	2.358E-17	0.	0.	0.
1715	EQmyp	6.263E-04	-7.700E-03	4.120E-18	0.	0.	0.
1715	EQmyn	-6.263E-04	7.700E-03	-4.120E-18	0.	0.	0.
1716	RSX	1.229E-03	2.063E-05	1.917E-17	0.	0.	0.
1716	RSY	1.626E-04	1.747E-03	7.456E-18	0.	0.	0.
1716	EQmxp	-1.890E-03	-5.864E-06	6.017E-18	0.	0.	0.
1716	EQmxn	1.890E-03	5.864E-06	-6.017E-18	0.	0.	0.
1716	EQmyp	6.569E-04	-8.448E-03	1.344E-17	0.	0.	0.
1716	EQmyn	-6.569E-04	8.448E-03	-1.344E-17	0.	0.	0.
1717	RSX	7.173E-04	1.819E-05	6.815E-18	0.	0.	0.
1717	RSY	1.064E-04	1.241E-03	4.187E-18	0.	0.	0.
1717	EQmxp	-1.096E-03	2.508E-06	-9.080E-18	0.	0.	0.
1717	EQmxn	1.096E-03	-2.508E-06	9.080E-18	0.	0.	0.
1717	EQmyp	4.489E-04	-5.984E-03	2.819E-18	0.	0.	0.
1717	EQmyn	-4.489E-04	5.984E-03	-2.819E-18	0.	0.	0.
1718	RSX	5.094E-04	1.914E-05	3.270E-17	0.	0.	0.
1718	RSY	8.732E-05	1.096E-03	2.350E-17	0.	0.	0.
1718	EQmxp	-7.709E-04	7.539E-06	6.063E-17	0.	0.	0.
1718	EQmxn	7.709E-04	-7.539E-06	-6.063E-17	0.	0.	0.
1718	EQmyp	3.824E-04	-5.272E-03	7.459E-17	0.	0.	0.
1718	EQmyn	-3.824E-04	5.272E-03	-7.459E-17	0.	0.	0.
1719	RSX	3.014E-04	1.816E-05	1.586E-18	0.	0.	0.
1719	RSY	6.482E-05	8.797E-04	3.223E-17	0.	0.	0.
1719	EQmxp	-4.483E-04	1.067E-05	7.713E-17	0.	0.	0.
1719	EQmxn	4.483E-04	-1.067E-05	-7.713E-17	0.	0.	0.
1719	EQmyp	2.948E-04	-4.221E-03	7.351E-17	0.	0.	0.
1719	EQmyn	-2.948E-04	4.221E-03	-7.351E-17	0.	0.	0.
1720	RSX	9.767E-05	1.541E-05	6.612E-17	0.	0.	0.
1720	RSY	4.006E-05	6.043E-04	8.948E-18	0.	0.	0.
1720	EQmxp	-1.346E-04	1.202E-05	-4.267E-17	0.	0.	0.
1720	EQmxn	1.346E-04	-1.202E-05	4.267E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1720	EQmyp	1.901E-04	-2.888E-03	3.600E-17	0.	0.	0.
1720	EQmyn	-1.901E-04	2.888E-03	-3.600E-17	0.	0.	0.
1721	RSX	6.192E-04	2.200E-05	6.651E-16	0.	0.	0.
1721	RSY	4.617E-05	1.485E-04	5.616E-16	0.	0.	0.
1721	EQmxp	9.867E-04	3.051E-05	1.658E-15	0.	0.	0.
1721	EQmxn	-9.867E-04	-3.051E-05	-1.658E-15	0.	0.	0.
1721	EQmyp	-2.667E-05	-6.342E-04	3.051E-15	0.	0.	0.
1721	EQmyn	2.667E-05	6.342E-04	-3.051E-15	0.	0.	0.
1722	RSX	1.845E-04	5.754E-06	1.573E-17	0.	0.	0.
1722	RSY	2.940E-05	3.565E-04	6.408E-17	0.	0.	0.
1722	EQmxp	2.806E-04	-1.647E-06	-2.720E-16	0.	0.	0.
1722	EQmxn	-2.806E-04	1.647E-06	2.720E-16	0.	0.	0.
1722	EQmyp	-1.265E-04	1.717E-03	-2.493E-16	0.	0.	0.
1722	EQmyn	1.265E-04	-1.717E-03	2.493E-16	0.	0.	0.
1723	RSX	1.213E-04	6.127E-06	1.720E-16	0.	0.	0.
1723	RSY	2.380E-05	3.142E-04	2.833E-17	0.	0.	0.
1723	EQmxp	1.818E-04	-3.223E-06	2.823E-17	0.	0.	0.
1723	EQmxn	-1.818E-04	3.223E-06	-2.823E-17	0.	0.	0.
1723	EQmyp	-1.068E-04	1.509E-03	2.577E-16	0.	0.	0.
1723	EQmyn	1.068E-04	-1.509E-03	-2.577E-16	0.	0.	0.
1724	RSX	7.237E-05	4.757E-06	1.388E-16	0.	0.	0.
1724	RSY	1.634E-05	2.246E-04	8.950E-17	0.	0.	0.
1724	EQmxp	1.072E-04	-2.920E-06	9.467E-17	0.	0.	0.
1724	EQmxn	-1.072E-04	2.920E-06	-9.467E-17	0.	0.	0.
1724	EQmyp	-7.474E-05	1.077E-03	-1.059E-16	0.	0.	0.
1724	EQmyn	7.474E-05	-1.077E-03	1.059E-16	0.	0.	0.
1725	RSX	3.210E-05	2.887E-06	2.258E-16	0.	0.	0.
1725	RSY	8.783E-06	1.257E-04	1.240E-16	0.	0.	0.
1725	EQmxp	4.668E-05	-1.995E-06	-4.667E-16	0.	0.	0.
1725	EQmxn	-4.668E-05	1.995E-06	4.667E-16	0.	0.	0.
1725	EQmyp	-4.088E-05	6.020E-04	-2.634E-16	0.	0.	0.
1725	EQmyn	4.088E-05	-6.020E-04	2.634E-16	0.	0.	0.
1726	RSX	2.161E-06	1.056E-06	1.077E-16	0.	0.	0.
1726	RSY	2.352E-06	3.728E-05	5.968E-17	0.	0.	0.
1726	EQmxp	2.172E-06	-9.074E-07	-6.599E-16	0.	0.	0.
1726	EQmxn	-2.172E-06	9.074E-07	6.599E-16	0.	0.	0.
1726	EQmyp	-1.129E-05	1.777E-04	-2.132E-16	0.	0.	0.
1726	EQmyn	1.129E-05	-1.777E-04	2.132E-16	0.	0.	0.
1727	RSX	2.100E-05	7.183E-07	8.238E-16	0.	0.	0.
1727	RSY	3.465E-06	4.274E-05	6.832E-16	0.	0.	0.
1727	EQmxp	-3.187E-05	2.454E-07	2.145E-15	0.	0.	0.
1727	EQmxn	3.187E-05	-2.454E-07	-2.145E-15	0.	0.	0.
1727	EQmyp	1.504E-05	-2.057E-04	3.021E-15	0.	0.	0.
1727	EQmyn	-1.504E-05	2.057E-04	-3.021E-15	0.	0.	0.
1728	RSX	8.445E-06	7.024E-07	3.818E-15	0.	0.	0.
1728	RSY	2.197E-06	3.114E-05	5.541E-16	0.	0.	0.
1728	EQmxp	-1.234E-05	4.731E-07	-1.088E-15	0.	0.	0.
1728	EQmxn	1.234E-05	-4.731E-07	1.088E-15	0.	0.	0.
1728	EQmyp	1.018E-05	-1.492E-04	4.978E-15	0.	0.	0.
1728	EQmyn	-1.018E-05	1.492E-04	-4.978E-15	0.	0.	0.
1729	RSX	1.955E-07	1.062E-07	1.275E-15	0.	0.	0.
1729	RSY	2.029E-07	3.347E-06	7.276E-16	0.	0.	0.
1729	EQmxp	4.216E-07	9.816E-08	2.848E-15	0.	0.	0.
1729	EQmxn	-4.216E-07	-9.816E-08	-2.848E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1729	EQmyp	9.695E-07	-1.592E-05	-1.445E-15	0.	0.	0.
1729	EQmyn	-9.695E-07	1.592E-05	1.445E-15	0.	0.	0.
1730	RSX	6.220E-07	3.344E-08	5.512E-15	0.	0.	0.
1730	RSY	1.268E-07	1.687E-06	3.389E-15	0.	0.	0.
1730	EQmxp	9.292E-07	-1.857E-08	4.903E-15	0.	0.	0.
1730	EQmxn	-9.292E-07	1.857E-08	-4.903E-15	0.	0.	0.
1730	EQmyp	-5.702E-07	8.097E-06	1.588E-14	0.	0.	0.
1730	EQmyn	5.702E-07	-8.097E-06	-1.588E-14	0.	0.	0.
1731	RSX	1.486E-07	1.337E-08	8.405E-16	0.	0.	0.
1731	RSY	4.234E-08	5.907E-07	1.191E-15	0.	0.	0.
1731	EQmxp	2.155E-07	-9.477E-09	3.495E-15	0.	0.	0.
1731	EQmxn	-2.155E-07	9.477E-09	-3.495E-15	0.	0.	0.
1731	EQmyp	-1.918E-07	2.828E-06	-3.504E-15	0.	0.	0.
1731	EQmyn	1.918E-07	-2.828E-06	3.504E-15	0.	0.	0.
1732	RSX	1.089E-08	1.015E-09	6.517E-15	0.	0.	0.
1732	RSY	2.558E-09	1.787E-08	2.216E-15	0.	0.	0.
1732	EQmxp	-1.766E-08	-9.453E-10	1.283E-14	0.	0.	0.
1732	EQmxn	1.766E-08	9.453E-10	-1.283E-14	0.	0.	0.
1732	EQmyp	-4.051E-09	8.375E-08	6.951E-15	0.	0.	0.
1732	EQmyn	4.051E-09	-8.375E-08	-6.951E-15	0.	0.	0.
1733	RSX	1.481E-08	5.148E-10	4.102E-15	0.	0.	0.
1733	RSY	1.046E-08	4.141E-08	2.014E-15	0.	0.	0.
1733	EQmxp	-2.074E-08	4.906E-10	1.105E-14	0.	0.	0.
1733	EQmxn	2.074E-08	-4.906E-10	-1.105E-14	0.	0.	0.
1733	EQmyp	1.353E-08	-1.937E-07	6.437E-15	0.	0.	0.
1733	EQmyn	-1.353E-08	1.937E-07	-6.437E-15	0.	0.	0.
1734	RSX	3.856E-09	4.537E-09	2.795E-15	0.	0.	0.
1734	RSY	6.260E-08	5.205E-08	8.247E-16	0.	0.	0.
1734	EQmxp	-2.304E-09	1.778E-10	-2.736E-15	0.	0.	0.
1734	EQmxn	2.304E-09	-1.778E-10	2.736E-15	0.	0.	0.
1734	EQmyp	2.959E-09	-4.469E-08	-9.491E-15	0.	0.	0.
1734	EQmyn	-2.959E-09	4.469E-08	9.491E-15	0.	0.	0.
1735	RSX	1.430E-11	1.123E-11	5.470E-19	0.	0.	0.
1735	RSY	1.595E-10	1.363E-10	8.687E-20	0.	0.	0.
1735	EQmxp	3.310E-12	-2.799E-14	1.556E-18	0.	0.	0.
1735	EQmxn	-3.310E-12	2.799E-14	-1.556E-18	0.	0.	0.
1735	EQmyp	-1.544E-12	2.124E-11	-2.492E-18	0.	0.	0.
1735	EQmyn	1.544E-12	-2.124E-11	2.492E-18	0.	0.	0.
1736	RSX	6.946E-11	5.811E-11	3.487E-18	0.	0.	0.
1736	RSY	8.138E-10	7.086E-10	1.619E-18	0.	0.	0.
1736	EQmxp	1.280E-11	-1.866E-13	8.293E-19	0.	0.	0.
1736	EQmxn	-1.280E-11	1.866E-13	-8.293E-19	0.	0.	0.
1736	EQmyp	-6.859E-12	9.608E-11	1.299E-17	0.	0.	0.
1736	EQmyn	6.859E-12	-9.608E-11	-1.299E-17	0.	0.	0.
1737	RSX	1.592E-10	1.413E-10	1.533E-18	0.	0.	0.
1737	RSY	1.953E-09	1.750E-09	2.595E-18	0.	0.	0.
1737	EQmxp	2.274E-11	-3.409E-13	4.506E-18	0.	0.	0.
1737	EQmxn	-2.274E-11	3.409E-13	-4.506E-18	0.	0.	0.
1737	EQmyp	-1.278E-11	1.789E-10	1.688E-17	0.	0.	0.
1737	EQmyn	1.278E-11	-1.789E-10	-1.688E-17	0.	0.	0.
1738	RSX	2.655E-10	2.469E-10	3.182E-18	0.	0.	0.
1738	RSY	3.406E-09	3.127E-09	2.002E-18	0.	0.	0.
1738	EQmxp	2.965E-11	-4.858E-13	5.030E-18	0.	0.	0.
1738	EQmxn	-2.965E-11	4.858E-13	-5.030E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1738	EQmyp	-1.696E-11	2.385E-10	7.711E-18	0.	0.	0.
1738	EQmyn	1.696E-11	-2.385E-10	-7.711E-18	0.	0.	0.
1739	RSX	3.695E-10	3.563E-10	1.871E-17	0.	0.	0.
1739	RSY	4.986E-09	4.547E-09	3.639E-18	0.	0.	0.
1739	EQmxp	3.206E-11	-5.490E-13	2.989E-17	0.	0.	0.
1739	EQmxn	-3.206E-11	5.490E-13	-2.989E-17	0.	0.	0.
1739	EQmyp	-1.844E-11	2.615E-10	3.263E-17	0.	0.	0.
1739	EQmyn	1.844E-11	-2.615E-10	-3.263E-17	0.	0.	0.
1740	RSX	4.580E-10	4.592E-10	6.328E-18	0.	0.	0.
1740	RSY	6.485E-09	5.733E-09	3.139E-18	0.	0.	0.
1740	EQmxp	3.013E-11	-5.386E-13	-1.913E-19	0.	0.	0.
1740	EQmxn	-3.013E-11	5.386E-13	1.913E-19	0.	0.	0.
1740	EQmyp	-1.729E-11	2.480E-10	1.906E-17	0.	0.	0.
1740	EQmyn	1.729E-11	-2.480E-10	-1.906E-17	0.	0.	0.
1741	RSX	5.199E-10	5.487E-10	1.286E-17	0.	0.	0.
1741	RSY	7.666E-09	6.585E-09	7.402E-18	0.	0.	0.
1741	EQmxp	2.491E-11	-4.811E-13	-2.317E-17	0.	0.	0.
1741	EQmxn	-2.491E-11	4.811E-13	2.317E-17	0.	0.	0.
1741	EQmyp	-1.428E-11	2.071E-10	-4.513E-17	0.	0.	0.
1741	EQmyn	1.428E-11	-2.071E-10	4.513E-17	0.	0.	0.
1742	RSX	5.558E-10	6.166E-10	2.244E-17	0.	0.	0.
1742	RSY	8.369E-09	7.133E-09	3.250E-18	0.	0.	0.
1742	EQmxp	1.791E-11	-2.756E-13	-3.484E-17	0.	0.	0.
1742	EQmxn	-1.791E-11	2.756E-13	3.484E-17	0.	0.	0.
1742	EQmyp	-1.055E-11	1.516E-10	-5.175E-17	0.	0.	0.
1742	EQmyn	1.055E-11	-1.516E-10	5.175E-17	0.	0.	0.
1743	RSX	5.689E-10	6.551E-10	1.597E-17	0.	0.	0.
1743	RSY	8.644E-09	7.598E-09	4.269E-18	0.	0.	0.
1743	EQmxp	1.082E-11	-1.843E-13	-5.619E-18	0.	0.	0.
1743	EQmxn	-1.082E-11	1.843E-13	5.619E-18	0.	0.	0.
1743	EQmyp	-6.581E-12	9.415E-11	2.793E-18	0.	0.	0.
1743	EQmyn	6.581E-12	-9.415E-11	-2.793E-18	0.	0.	0.
1744	RSX	5.668E-10	6.595E-10	6.727E-18	0.	0.	0.
1744	RSY	8.601E-09	8.177E-09	3.950E-18	0.	0.	0.
1744	EQmxp	4.716E-12	-1.086E-13	-1.838E-17	0.	0.	0.
1744	EQmxn	-4.716E-12	1.086E-13	1.838E-17	0.	0.	0.
1744	EQmyp	-3.188E-12	4.406E-11	4.599E-17	0.	0.	0.
1744	EQmyn	3.188E-12	-4.406E-11	-4.599E-17	0.	0.	0.
1745	RSX	5.555E-10	6.350E-10	3.207E-18	0.	0.	0.
1745	RSY	8.255E-09	8.822E-09	5.916E-18	0.	0.	0.
1745	EQmxp	3.769E-14	9.225E-14	-4.212E-18	0.	0.	0.
1745	EQmxn	-3.769E-14	-9.225E-14	4.212E-18	0.	0.	0.
1745	EQmyp	-9.202E-13	6.452E-12	-1.028E-17	0.	0.	0.
1745	EQmyn	9.202E-13	-6.452E-12	1.028E-17	0.	0.	0.
1746	RSX	5.498E-10	6.035E-10	3.519E-17	0.	0.	0.
1746	RSY	7.797E-09	9.495E-09	1.175E-17	0.	0.	0.
1746	EQmxp	-2.635E-12	1.167E-13	-6.128E-17	0.	0.	0.
1746	EQmxn	2.635E-12	-1.167E-13	6.128E-17	0.	0.	0.
1746	EQmyp	7.314E-13	-1.688E-11	-6.799E-17	0.	0.	0.
1746	EQmyn	-7.314E-13	1.688E-11	6.799E-17	0.	0.	0.
1747	RSX	5.548E-10	5.866E-10	1.594E-17	0.	0.	0.
1747	RSY	7.274E-09	1.011E-08	3.333E-18	0.	0.	0.
1747	EQmxp	-3.625E-12	8.347E-14	-6.177E-17	0.	0.	0.
1747	EQmxn	3.625E-12	-8.347E-14	6.177E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1747	EQmyp	1.841E-12	-2.772E-11	-3.282E-17	0.	0.	0.
1747	EQmyn	-1.841E-12	2.772E-11	3.282E-17	0.	0.	0.
1748	RSX	5.745E-10	5.918E-10	3.983E-17	0.	0.	0.
1748	RSY	6.685E-09	1.062E-08	1.726E-17	0.	0.	0.
1748	EQmxp	-3.455E-12	3.566E-14	8.032E-17	0.	0.	0.
1748	EQmxn	3.455E-12	-3.566E-14	-8.032E-17	0.	0.	0.
1748	EQmyp	2.327E-12	-2.924E-11	1.171E-16	0.	0.	0.
1748	EQmyn	-2.327E-12	2.924E-11	-1.171E-16	0.	0.	0.
1749	RSX	5.476E-10	5.565E-10	5.868E-17	0.	0.	0.
1749	RSY	5.570E-09	9.992E-09	2.666E-17	0.	0.	0.
1749	EQmxp	-2.579E-12	-5.660E-14	5.606E-17	0.	0.	0.
1749	EQmxn	2.579E-12	5.660E-14	-5.606E-17	0.	0.	0.
1749	EQmyp	2.004E-12	-2.300E-11	1.793E-16	0.	0.	0.
1749	EQmyn	-2.004E-12	2.300E-11	-1.793E-16	0.	0.	0.
1750	RSX	5.669E-10	5.655E-10	3.229E-18	0.	0.	0.
1750	RSY	5.089E-09	9.997E-09	1.794E-17	0.	0.	0.
1750	EQmxp	-2.043E-12	1.003E-13	-6.592E-17	0.	0.	0.
1750	EQmxn	2.043E-12	-1.003E-13	6.592E-17	0.	0.	0.
1750	EQmyp	1.159E-12	-1.716E-11	-9.506E-17	0.	0.	0.
1750	EQmyn	-1.159E-12	1.716E-11	9.506E-17	0.	0.	0.
1751	RSX	5.688E-10	5.664E-10	9.338E-18	0.	0.	0.
1751	RSY	4.876E-09	9.771E-09	1.294E-17	0.	0.	0.
1751	EQmxp	-1.281E-12	-1.086E-14	3.420E-18	0.	0.	0.
1751	EQmxn	1.281E-12	1.086E-14	-3.420E-18	0.	0.	0.
1751	EQmyp	7.220E-13	-1.082E-11	-4.383E-17	0.	0.	0.
1751	EQmyn	-7.220E-13	1.082E-11	4.383E-17	0.	0.	0.
1752	RSX	5.556E-10	5.616E-10	6.185E-18	0.	0.	0.
1752	RSY	5.025E-09	9.467E-09	7.392E-18	0.	0.	0.
1752	EQmxp	-4.925E-13	-1.259E-13	1.494E-17	0.	0.	0.
1752	EQmxn	4.925E-13	1.259E-13	-1.494E-17	0.	0.	0.
1752	EQmyp	5.445E-13	-5.470E-12	-1.901E-17	0.	0.	0.
1752	EQmyn	-5.445E-13	5.470E-12	1.901E-17	0.	0.	0.
1753	RSX	5.426E-10	5.523E-10	4.745E-17	0.	0.	0.
1753	RSY	5.493E-09	9.117E-09	2.418E-17	0.	0.	0.
1753	EQmxp	-6.621E-14	-2.588E-13	3.700E-17	0.	0.	0.
1753	EQmxn	6.621E-14	2.588E-13	-3.700E-17	0.	0.	0.
1753	EQmyp	3.043E-13	-1.695E-12	9.935E-17	0.	0.	0.
1753	EQmyn	-3.043E-13	1.695E-12	-9.935E-17	0.	0.	0.
1754	RSX	5.246E-10	5.483E-10	3.404E-17	0.	0.	0.
1754	RSY	6.276E-09	8.657E-09	5.861E-18	0.	0.	0.
1754	EQmxp	-1.753E-13	1.895E-15	4.146E-17	0.	0.	0.
1754	EQmxn	1.753E-13	-1.895E-15	-4.146E-17	0.	0.	0.
1754	EQmyp	-4.755E-13	2.481E-13	-7.462E-18	0.	0.	0.
1754	EQmyn	4.755E-13	-2.481E-13	7.462E-18	0.	0.	0.
1755	RSX	5.002E-10	5.609E-10	1.407E-17	0.	0.	0.
1755	RSY	7.244E-09	8.323E-09	8.810E-18	0.	0.	0.
1755	EQmxp	-1.431E-15	-4.616E-14	9.920E-18	0.	0.	0.
1755	EQmxn	1.431E-15	4.616E-14	-9.920E-18	0.	0.	0.
1755	EQmyp	-4.648E-13	1.354E-12	7.387E-18	0.	0.	0.
1755	EQmyn	4.648E-13	-1.354E-12	-7.387E-18	0.	0.	0.
1756	RSX	4.767E-10	5.786E-10	4.829E-17	0.	0.	0.
1756	RSY	8.178E-09	8.241E-09	1.196E-17	0.	0.	0.
1756	EQmxp	3.259E-13	-5.560E-14	4.793E-17	0.	0.	0.
1756	EQmxn	-3.259E-13	5.560E-14	-4.793E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1756	EQmyp	9.443E-14	1.692E-12	8.728E-17	0.	0.	0.
1756	EQmyn	-9.443E-14	-1.692E-12	-8.728E-17	0.	0.	0.
1757	RSX	4.588E-10	5.912E-10	3.462E-17	0.	0.	0.
1757	RSY	8.460E-09	8.215E-09	3.048E-17	0.	0.	0.
1757	EQmxp	6.459E-13	9.367E-14	-1.103E-16	0.	0.	0.
1757	EQmxn	-6.459E-13	-9.367E-14	1.103E-16	0.	0.	0.
1757	EQmyp	6.464E-13	1.918E-12	-1.327E-16	0.	0.	0.
1757	EQmyn	-6.464E-13	-1.918E-12	1.327E-16	0.	0.	0.
1758	RSX	4.633E-10	6.069E-10	5.075E-17	0.	0.	0.
1758	RSY	7.882E-09	7.884E-09	2.942E-17	0.	0.	0.
1758	EQmxp	6.388E-13	9.102E-13	6.039E-17	0.	0.	0.
1758	EQmxn	-6.388E-13	-9.102E-13	-6.039E-17	0.	0.	0.
1758	EQmyp	7.959E-13	1.900E-12	1.545E-16	0.	0.	0.
1758	EQmyn	-7.959E-13	-1.900E-12	-1.545E-16	0.	0.	0.
1759	RSX	4.925E-10	6.075E-10	4.067E-17	0.	0.	0.
1759	RSY	6.621E-09	7.327E-09	1.451E-17	0.	0.	0.
1759	EQmxp	1.451E-12	1.645E-12	3.282E-17	0.	0.	0.
1759	EQmxn	-1.451E-12	-1.645E-12	-3.282E-17	0.	0.	0.
1759	EQmyp	2.132E-12	2.912E-12	-1.346E-17	0.	0.	0.
1759	EQmyn	-2.132E-12	-2.912E-12	1.346E-17	0.	0.	0.
1760	RSX	5.288E-10	6.010E-10	5.452E-18	0.	0.	0.
1760	RSY	5.521E-09	7.174E-09	1.701E-17	0.	0.	0.
1760	EQmxp	2.733E-12	2.582E-12	4.756E-17	0.	0.	0.
1760	EQmxn	-2.733E-12	-2.582E-12	-4.756E-17	0.	0.	0.
1760	EQmyp	4.306E-12	4.421E-12	-1.400E-16	0.	0.	0.
1760	EQmyn	-4.306E-12	-4.421E-12	1.400E-16	0.	0.	0.
1761	RSX	5.529E-10	5.977E-10	6.817E-17	0.	0.	0.
1761	RSY	5.097E-09	7.564E-09	2.038E-17	0.	0.	0.
1761	EQmxp	3.792E-12	3.493E-12	-9.986E-18	0.	0.	0.
1761	EQmxn	-3.792E-12	-3.493E-12	9.986E-18	0.	0.	0.
1761	EQmyp	5.960E-12	6.021E-12	1.495E-16	0.	0.	0.
1761	EQmyn	-5.960E-12	-6.021E-12	-1.495E-16	0.	0.	0.
1762	RSX	5.891E-10	5.880E-10	2.903E-17	0.	0.	0.
1762	RSY	5.595E-09	8.430E-09	1.774E-17	0.	0.	0.
1762	EQmxp	3.311E-12	3.971E-12	9.480E-17	0.	0.	0.
1762	EQmxn	-3.311E-12	-3.971E-12	-9.480E-17	0.	0.	0.
1762	EQmyp	5.265E-12	5.637E-12	2.735E-17	0.	0.	0.
1762	EQmyn	-5.265E-12	-5.637E-12	-2.735E-17	0.	0.	0.
1763	RSX	6.275E-10	5.633E-10	4.915E-17	0.	0.	0.
1763	RSY	6.977E-09	9.192E-09	2.453E-17	0.	0.	0.
1763	EQmxp	1.002E-12	1.273E-12	-6.634E-17	0.	0.	0.
1763	EQmxn	-1.002E-12	-1.273E-12	6.634E-17	0.	0.	0.
1763	EQmyp	1.554E-12	1.746E-12	-1.520E-16	0.	0.	0.
1763	EQmyn	-1.554E-12	-1.746E-12	1.520E-16	0.	0.	0.
1764	RSX	6.436E-10	5.514E-10	9.629E-17	0.	0.	0.
1764	RSY	8.574E-09	9.573E-09	6.259E-17	0.	0.	0.
1764	EQmxp	-6.173E-12	-6.893E-12	-2.003E-16	0.	0.	0.
1764	EQmxn	6.173E-12	6.893E-12	2.003E-16	0.	0.	0.
1764	EQmyp	-9.675E-12	-1.076E-11	-1.746E-16	0.	0.	0.
1764	EQmyn	9.675E-12	1.076E-11	1.746E-16	0.	0.	0.
1765	RSX	6.236E-10	5.438E-10	6.670E-17	0.	0.	0.
1765	RSY	9.153E-09	9.414E-09	6.769E-17	0.	0.	0.
1765	EQmxp	-2.084E-11	-2.281E-11	-9.484E-17	0.	0.	0.
1765	EQmxn	2.084E-11	2.281E-11	9.484E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1765	EQmyp	-3.287E-11	-3.540E-11	-1.495E-16	0.	0.	0.
1765	EQmyn	3.287E-11	3.540E-11	1.495E-16	0.	0.	0.
1766	RSX	6.148E-10	5.424E-10	1.974E-17	0.	0.	0.
1766	RSY	9.583E-09	9.592E-09	5.722E-18	0.	0.	0.
1766	EQmxp	-4.673E-11	-4.929E-11	-2.877E-17	0.	0.	0.
1766	EQmxn	4.673E-11	4.929E-11	2.877E-17	0.	0.	0.
1766	EQmyp	-7.365E-11	-7.836E-11	3.159E-16	0.	0.	0.
1766	EQmyn	7.365E-11	7.836E-11	-3.159E-16	0.	0.	0.
1767	RSX	5.845E-10	5.143E-10	2.340E-17	0.	0.	0.
1767	RSY	9.351E-09	9.545E-09	2.868E-17	0.	0.	0.
1767	EQmxp	-7.983E-11	-8.485E-11	5.095E-17	0.	0.	0.
1767	EQmxn	7.983E-11	8.485E-11	-5.095E-17	0.	0.	0.
1767	EQmyp	-1.259E-10	-1.340E-10	-6.060E-17	0.	0.	0.
1767	EQmyn	1.259E-10	1.340E-10	6.060E-17	0.	0.	0.
1768	RSX	5.390E-10	5.141E-10	4.852E-17	0.	0.	0.
1768	RSY	8.587E-09	9.544E-09	2.516E-17	0.	0.	0.
1768	EQmxp	-1.073E-10	-1.148E-10	-1.619E-16	0.	0.	0.
1768	EQmxn	1.073E-10	1.148E-10	1.619E-16	0.	0.	0.
1768	EQmyp	-1.692E-10	-1.808E-10	6.977E-18	0.	0.	0.
1768	EQmyn	1.692E-10	1.808E-10	-6.977E-18	0.	0.	0.
1769	RSX	5.016E-10	5.515E-10	8.715E-17	0.	0.	0.
1769	RSY	7.699E-09	9.226E-09	1.749E-17	0.	0.	0.
1769	EQmxp	-9.536E-11	-1.024E-10	-5.553E-17	0.	0.	0.
1769	EQmxn	9.536E-11	1.024E-10	5.553E-17	0.	0.	0.
1769	EQmyp	-1.504E-10	-1.607E-10	-2.045E-16	0.	0.	0.
1769	EQmyn	1.504E-10	1.607E-10	2.045E-16	0.	0.	0.
1770	RSX	5.171E-10	6.121E-10	4.366E-17	0.	0.	0.
1770	RSY	7.127E-09	8.644E-09	2.389E-17	0.	0.	0.
1770	EQmxp	2.151E-11	2.360E-11	8.296E-17	0.	0.	0.
1770	EQmxn	-2.151E-11	-2.360E-11	-8.296E-17	0.	0.	0.
1770	EQmyp	3.382E-11	3.649E-11	-1.234E-16	0.	0.	0.
1770	EQmyn	-3.382E-11	-3.649E-11	1.234E-16	0.	0.	0.
1771	RSX	6.368E-10	7.637E-10	1.373E-16	0.	0.	0.
1771	RSY	7.403E-09	7.986E-09	6.569E-17	0.	0.	0.
1771	EQmxp	3.447E-10	3.679E-10	-1.267E-16	0.	0.	0.
1771	EQmxn	-3.447E-10	-3.679E-10	1.267E-16	0.	0.	0.
1771	EQmyp	5.436E-10	5.799E-10	-1.343E-16	0.	0.	0.
1771	EQmyn	-5.436E-10	-5.799E-10	1.343E-16	0.	0.	0.
1772	RSX	9.811E-10	1.105E-09	5.912E-17	0.	0.	0.
1772	RSY	8.273E-09	7.976E-09	5.721E-18	0.	0.	0.
1772	EQmxp	9.802E-10	1.045E-09	2.252E-17	0.	0.	0.
1772	EQmxn	-9.802E-10	-1.045E-09	-2.252E-17	0.	0.	0.
1772	EQmyp	1.546E-09	1.648E-09	1.082E-17	0.	0.	0.
1772	EQmyn	-1.546E-09	-1.648E-09	-1.082E-17	0.	0.	0.
1773	RSX	1.616E-09	1.710E-09	7.355E-17	0.	0.	0.
1773	RSY	9.322E-09	8.518E-09	4.646E-17	0.	0.	0.
1773	EQmxp	1.948E-09	2.076E-09	-2.256E-16	0.	0.	0.
1773	EQmxn	-1.948E-09	-2.076E-09	2.256E-16	0.	0.	0.
1773	EQmyp	3.072E-09	3.275E-09	-1.609E-16	0.	0.	0.
1773	EQmyn	-3.072E-09	-3.275E-09	1.609E-16	0.	0.	0.
1774	RSX	2.359E-09	2.396E-09	8.542E-17	0.	0.	0.
1774	RSY	1.070E-08	9.250E-09	2.712E-17	0.	0.	0.
1774	EQmxp	2.982E-09	3.180E-09	-1.032E-16	0.	0.	0.
1774	EQmxn	-2.982E-09	-3.180E-09	1.032E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1774	EQmyp	4.701E-09	5.013E-09	-1.637E-16	0.	0.	0.
1774	EQmyn	-4.701E-09	-5.013E-09	1.637E-16	0.	0.	0.
1775	RSX	2.595E-09	2.525E-09	7.227E-17	0.	0.	0.
1775	RSY	1.166E-08	9.723E-09	6.401E-17	0.	0.	0.
1775	EQmxp	3.188E-09	3.400E-09	1.571E-16	0.	0.	0.
1775	EQmxn	-3.188E-09	-3.400E-09	-1.571E-16	0.	0.	0.
1775	EQmyp	5.027E-09	5.360E-09	1.763E-16	0.	0.	0.
1775	EQmyn	-5.027E-09	-5.360E-09	-1.763E-16	0.	0.	0.
1776	RSX	1.047E-09	8.112E-10	2.988E-17	0.	0.	0.
1776	RSY	1.180E-08	9.680E-09	1.546E-17	0.	0.	0.
1776	EQmxp	6.264E-10	6.674E-10	1.029E-16	0.	0.	0.
1776	EQmxn	-6.264E-10	-6.674E-10	-1.029E-16	0.	0.	0.
1776	EQmyp	9.877E-10	1.053E-09	6.865E-17	0.	0.	0.
1776	EQmyn	-9.877E-10	-1.053E-09	-6.865E-17	0.	0.	0.
1777	RSX	4.636E-09	5.196E-09	3.433E-17	0.	0.	0.
1777	RSY	1.162E-08	9.196E-09	3.230E-17	0.	0.	0.
1777	EQmxp	-7.906E-09	-8.430E-09	8.420E-17	0.	0.	0.
1777	EQmxn	7.906E-09	8.430E-09	-8.420E-17	0.	0.	0.
1777	EQmyp	-1.247E-08	-1.329E-08	1.967E-16	0.	0.	0.
1777	EQmyn	1.247E-08	1.329E-08	-1.967E-16	0.	0.	0.
1778	RSX	1.656E-08	1.787E-08	1.537E-16	0.	0.	0.
1778	RSY	1.353E-08	1.190E-08	2.542E-17	0.	0.	0.
1778	EQmxp	-2.616E-08	-2.789E-08	9.288E-18	0.	0.	0.
1778	EQmxn	2.616E-08	2.789E-08	-9.288E-18	0.	0.	0.
1778	EQmyp	-4.124E-08	-4.397E-08	2.212E-16	0.	0.	0.
1778	EQmyn	4.124E-08	4.397E-08	-2.212E-16	0.	0.	0.
1779	RSX	3.574E-08	3.824E-08	3.634E-17	0.	0.	0.
1779	RSY	2.052E-08	2.077E-08	4.217E-17	0.	0.	0.
1779	EQmxp	-5.545E-08	-5.912E-08	-2.134E-16	0.	0.	0.
1779	EQmxn	5.545E-08	5.912E-08	2.134E-16	0.	0.	0.
1779	EQmyp	-8.743E-08	-9.321E-08	-2.900E-16	0.	0.	0.
1779	EQmyn	8.743E-08	9.321E-08	2.900E-16	0.	0.	0.
1780	RSX	5.687E-08	6.065E-08	2.521E-17	0.	0.	0.
1780	RSY	3.033E-08	3.181E-08	2.122E-17	0.	0.	0.
1780	EQmxp	-8.767E-08	-9.347E-08	1.796E-16	0.	0.	0.
1780	EQmxn	8.767E-08	9.347E-08	-1.796E-16	0.	0.	0.
1780	EQmyp	-1.382E-07	-1.474E-07	1.717E-16	0.	0.	0.
1780	EQmyn	1.382E-07	1.474E-07	-1.717E-16	0.	0.	0.
1781	RSX	5.834E-08	6.217E-08	1.149E-16	0.	0.	0.
1781	RSY	3.111E-08	3.256E-08	6.871E-17	0.	0.	0.
1781	EQmxp	-8.989E-08	-9.584E-08	2.307E-16	0.	0.	0.
1781	EQmxn	8.989E-08	9.584E-08	-2.307E-16	0.	0.	0.
1781	EQmyp	-1.417E-07	-1.511E-07	1.260E-16	0.	0.	0.
1781	EQmyn	1.417E-07	1.511E-07	-1.260E-16	0.	0.	0.
1782	RSX	2.471E-09	2.624E-09	1.007E-16	0.	0.	0.
1782	RSY	1.015E-08	7.926E-09	6.853E-17	0.	0.	0.
1782	EQmxp	-4.408E-09	-4.698E-09	8.639E-17	0.	0.	0.
1782	EQmxn	4.408E-09	4.698E-09	-8.639E-17	0.	0.	0.
1782	EQmyp	-6.950E-09	-7.409E-09	1.192E-16	0.	0.	0.
1782	EQmyn	6.950E-09	7.409E-09	-1.192E-16	0.	0.	0.
1783	RSX	1.818E-07	1.938E-07	7.522E-17	0.	0.	0.
1783	RSY	9.292E-08	9.883E-08	3.186E-17	0.	0.	0.
1783	EQmxp	2.775E-07	2.959E-07	9.109E-17	0.	0.	0.
1783	EQmxn	-2.775E-07	-2.959E-07	-9.109E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1783	EQmyp	4.376E-07	4.665E-07	2.638E-16	0.	0.	0.
1783	EQmyn	-4.376E-07	-4.665E-07	-2.638E-16	0.	0.	0.
1784	RSX	6.789E-07	7.238E-07	1.451E-17	0.	0.	0.
1784	RSY	3.454E-07	3.682E-07	4.053E-17	0.	0.	0.
1784	EQmxp	1.038E-06	1.107E-06	-4.969E-18	0.	0.	0.
1784	EQmxn	-1.038E-06	-1.107E-06	4.969E-18	0.	0.	0.
1784	EQmyp	1.637E-06	1.745E-06	-1.384E-16	0.	0.	0.
1784	EQmyn	-1.637E-06	-1.745E-06	1.384E-16	0.	0.	0.
1785	RSX	2.171E-06	2.315E-06	5.419E-17	0.	0.	0.
1785	RSY	1.104E-06	1.178E-06	4.716E-17	0.	0.	0.
1785	EQmxp	3.322E-06	3.542E-06	9.710E-17	0.	0.	0.
1785	EQmxn	-3.322E-06	-3.542E-06	-9.710E-17	0.	0.	0.
1785	EQmyp	5.239E-06	5.585E-06	-2.240E-17	0.	0.	0.
1785	EQmyn	-5.239E-06	-5.585E-06	2.240E-17	0.	0.	0.
1786	RSX	3.923E-06	4.182E-06	1.457E-16	0.	0.	0.
1786	RSY	1.995E-06	2.127E-06	2.120E-17	0.	0.	0.
1786	EQmxp	6.003E-06	6.400E-06	-4.570E-17	0.	0.	0.
1786	EQmxn	-6.003E-06	-6.400E-06	4.570E-17	0.	0.	0.
1786	EQmyp	9.466E-06	1.009E-05	-3.340E-16	0.	0.	0.
1786	EQmyn	-9.466E-06	-1.009E-05	3.340E-16	0.	0.	0.
1787	RSX	5.669E-07	6.041E-07	1.932E-16	0.	0.	0.
1787	RSY	2.885E-07	3.074E-07	6.657E-17	0.	0.	0.
1787	EQmxp	8.667E-07	9.240E-07	-2.173E-18	0.	0.	0.
1787	EQmxn	-8.667E-07	-9.240E-07	2.173E-18	0.	0.	0.
1787	EQmyp	1.367E-06	1.457E-06	5.983E-16	0.	0.	0.
1787	EQmyn	-1.367E-06	-1.457E-06	-5.983E-16	0.	0.	0.
1788	RSX	2.458E-05	2.621E-05	1.541E-16	0.	0.	0.
1788	RSY	1.251E-05	1.333E-05	5.679E-17	0.	0.	0.
1788	EQmxp	-3.763E-05	-4.012E-05	-1.310E-16	0.	0.	0.
1788	EQmxn	3.763E-05	4.012E-05	1.310E-16	0.	0.	0.
1788	EQmyp	-5.934E-05	-6.326E-05	-7.552E-16	0.	0.	0.
1788	EQmyn	5.934E-05	6.326E-05	7.552E-16	0.	0.	0.
1789	RSX	1.097E-04	1.170E-04	8.163E-16	0.	0.	0.
1789	RSY	5.583E-05	5.952E-05	3.828E-16	0.	0.	0.
1789	EQmxp	-1.680E-04	-1.791E-04	3.802E-16	0.	0.	0.
1789	EQmxn	1.680E-04	1.791E-04	-3.802E-16	0.	0.	0.
1789	EQmyp	-2.648E-04	-2.824E-04	3.496E-15	0.	0.	0.
1789	EQmyn	2.648E-04	2.824E-04	-3.496E-15	0.	0.	0.
1790	RSX	9.920E-03	3.228E-04	3.636E-19	0.	0.	0.
1790	RSY	7.986E-04	0.02	1.711E-18	0.	0.	0.
1790	EQmxp	-0.015	8.541E-05	-8.674E-19	0.	0.	0.
1790	EQmxn	0.015	-8.541E-05	8.674E-19	0.	0.	0.
1790	EQmyp	-7.276E-06	-0.095	-1.041E-17	0.	0.	0.
1790	EQmyn	7.276E-06	0.095	1.041E-17	0.	0.	0.
1791	RSX	8.627E-03	3.092E-04	3.793E-19	0.	0.	0.
1791	RSY	7.055E-04	0.018	2.610E-18	0.	0.	0.
1791	EQmxp	-0.013	1.016E-04	-8.674E-19	0.	0.	0.
1791	EQmxn	0.013	-1.016E-04	8.674E-19	0.	0.	0.
1791	EQmyp	2.427E-04	-0.087	-6.939E-18	0.	0.	0.
1791	EQmyn	-2.427E-04	0.087	6.939E-18	0.	0.	0.
1792	RSX	0.02	7.985E-04	7.429E-19	0.	0.	0.
1792	RSY	1.699E-03	0.045	4.619E-19	0.	0.	0.
1792	EQmxp	-0.031	3.054E-04	1.735E-18	0.	0.	0.
1792	EQmxn	0.031	-3.054E-04	-1.735E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1792	EQmyp	1.174E-03	-0.214	6.939E-18	0.	0.	0.
1792	EQmyn	-1.174E-03	0.214	-6.939E-18	0.	0.	0.
1793	RSX	0.022	9.563E-04	1.925E-20	0.	0.	0.
1793	RSY	1.916E-03	0.051	1.879E-18	0.	0.	0.
1793	EQmxp	-0.034	4.109E-04	0.	0.	0.	0.
1793	EQmxn	0.034	-4.109E-04	0.	0.	0.	0.
1793	EQmyp	1.980E-03	-0.246	6.939E-18	0.	0.	0.
1793	EQmyn	-1.980E-03	0.246	-6.939E-18	0.	0.	0.
1794	RSX	0.023	1.092E-03	1.476E-18	0.	0.	0.
1794	RSY	2.076E-03	0.057	4.016E-19	0.	0.	0.
1794	EQmxp	-0.035	5.156E-04	-4.337E-18	0.	0.	0.
1794	EQmxn	0.035	-5.156E-04	4.337E-18	0.	0.	0.
1794	EQmyp	2.853E-03	-0.271	-1.388E-17	0.	0.	0.
1794	EQmyn	-2.853E-03	0.271	1.388E-17	0.	0.	0.
1795	RSX	0.024	1.206E-03	7.277E-19	0.	0.	0.
1795	RSY	2.189E-03	0.06	1.904E-18	0.	0.	0.
1795	EQmxp	-0.035	6.169E-04	-1.735E-18	0.	0.	0.
1795	EQmxn	0.035	-6.169E-04	1.735E-18	0.	0.	0.
1795	EQmyp	3.756E-03	-0.288	0.	0.	0.	0.
1795	EQmyn	-3.756E-03	0.288	0.	0.	0.	0.
1796	RSX	0.023	1.299E-03	7.596E-19	0.	0.	0.
1796	RSY	2.264E-03	0.062	3.763E-18	0.	0.	0.
1796	EQmxp	-0.035	7.127E-04	-1.735E-18	0.	0.	0.
1796	EQmxn	0.035	-7.127E-04	1.735E-18	0.	0.	0.
1796	EQmyp	4.666E-03	-0.299	-2.776E-17	0.	0.	0.
1796	EQmyn	-4.666E-03	0.299	2.776E-17	0.	0.	0.
1797	RSX	0.021	1.316E-03	1.457E-18	0.	0.	0.
1797	RSY	2.214E-03	0.061	3.703E-18	0.	0.	0.
1797	EQmxp	-0.032	7.701E-04	-2.602E-18	0.	0.	0.
1797	EQmxn	0.032	-7.701E-04	2.602E-18	0.	0.	0.
1797	EQmyp	5.345E-03	-0.291	0.	0.	0.	0.
1797	EQmyn	-5.345E-03	0.291	0.	0.	0.	0.
1798	RSX	0.018	1.227E-03	1.948E-20	0.	0.	0.
1798	RSY	2.006E-03	0.055	1.881E-18	0.	0.	0.
1798	EQmxp	-0.026	7.635E-04	-1.735E-18	0.	0.	0.
1798	EQmxn	0.026	-7.635E-04	1.735E-18	0.	0.	0.
1798	EQmyp	5.568E-03	-0.261	6.939E-18	0.	0.	0.
1798	EQmyn	-5.568E-03	0.261	-6.939E-18	0.	0.	0.
1799	RSX	0.014	1.138E-03	1.486E-18	0.	0.	0.
1799	RSY	1.819E-03	0.048	1.880E-18	0.	0.	0.
1799	EQmxp	-0.021	7.515E-04	0.	0.	0.	0.
1799	EQmxn	0.021	-7.515E-04	0.	0.	0.	0.
1799	EQmyp	5.726E-03	-0.231	6.939E-18	0.	0.	0.
1799	EQmyn	-5.726E-03	0.231	-6.939E-18	0.	0.	0.
1800	RSX	0.011	1.046E-03	2.848E-20	0.	0.	0.
1800	RSY	1.652E-03	0.042	1.431E-18	0.	0.	0.
1800	EQmxp	-0.016	7.346E-04	-8.674E-19	0.	0.	0.
1800	EQmxn	0.016	-7.346E-04	8.674E-19	0.	0.	0.
1800	EQmyp	5.827E-03	-0.202	0.	0.	0.	0.
1800	EQmyn	-5.827E-03	0.202	0.	0.	0.	0.
1801	RSX	7.802E-03	9.273E-04	1.111E-18	0.	0.	0.
1801	RSY	1.464E-03	0.035	1.657E-18	0.	0.	0.
1801	EQmxp	-0.011	6.939E-04	-1.735E-18	0.	0.	0.
1801	EQmxn	0.011	-6.939E-04	1.735E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1801	EQmyp	5.721E-03	-0.168	-6.939E-18	0.	0.	0.
1801	EQmyn	-5.721E-03	0.168	6.939E-18	0.	0.	0.
1802	RSX	4.540E-03	7.860E-04	1.199E-18	0.	0.	0.
1802	RSY	1.267E-03	0.028	8.257E-19	0.	0.	0.
1802	EQmxp	-6.255E-03	6.309E-04	1.084E-18	0.	0.	0.
1802	EQmxn	6.255E-03	-6.309E-04	-1.084E-18	0.	0.	0.
1802	EQmyp	5.404E-03	-0.132	-3.469E-18	0.	0.	0.
1802	EQmyn	-5.404E-03	0.132	3.469E-18	0.	0.	0.
1803	RSX	1.615E-03	6.498E-04	7.901E-19	0.	0.	0.
1803	RSY	1.103E-03	0.021	1.676E-18	0.	0.	0.
1803	EQmxp	-1.857E-03	5.652E-04	0.	0.	0.	0.
1803	EQmxn	1.857E-03	-5.652E-04	0.	0.	0.	0.
1803	EQmyp	5.037E-03	-0.098	1.041E-17	0.	0.	0.
1803	EQmyn	-5.037E-03	0.098	-1.041E-17	0.	0.	0.
1804	RSX	9.973E-04	5.195E-04	7.463E-19	0.	0.	0.
1804	RSY	9.762E-04	0.014	1.434E-18	0.	0.	0.
1804	EQmxp	2.062E-03	4.980E-04	1.301E-18	0.	0.	0.
1804	EQmxn	-2.062E-03	-4.980E-04	-1.301E-18	0.	0.	0.
1804	EQmyp	4.630E-03	-0.066	5.204E-18	0.	0.	0.
1804	EQmyn	-4.630E-03	0.066	-5.204E-18	0.	0.	0.
1805	RSX	3.326E-03	3.958E-04	5.522E-19	0.	0.	0.
1805	RSY	8.881E-04	7.872E-03	8.082E-19	0.	0.	0.
1805	EQmxp	5.546E-03	4.301E-04	-4.337E-19	0.	0.	0.
1805	EQmxn	-5.546E-03	-4.301E-04	4.337E-19	0.	0.	0.
1805	EQmyp	4.195E-03	-0.037	0.	0.	0.	0.
1805	EQmyn	-4.195E-03	0.037	0.	0.	0.	0.
1806	RSX	5.410E-03	2.794E-04	2.225E-18	0.	0.	0.
1806	RSY	8.402E-04	2.183E-03	1.895E-18	0.	0.	0.
1806	EQmxp	8.655E-03	3.623E-04	-2.168E-18	0.	0.	0.
1806	EQmxn	-8.655E-03	-3.623E-04	2.168E-18	0.	0.	0.
1806	EQmyp	3.741E-03	-9.269E-03	-7.156E-18	0.	0.	0.
1806	EQmyn	-3.741E-03	9.269E-03	7.156E-18	0.	0.	0.
1807	RSX	5.814E-03	1.370E-04	2.408E-18	0.	0.	0.
1807	RSY	6.617E-04	2.622E-03	1.597E-18	0.	0.	0.
1807	EQmxp	9.134E-03	2.345E-04	-3.903E-18	0.	0.	0.
1807	EQmxn	-9.134E-03	-2.345E-04	3.903E-18	0.	0.	0.
1807	EQmyp	2.605E-03	0.013	-6.505E-18	0.	0.	0.
1807	EQmyn	-2.605E-03	-0.013	6.505E-18	0.	0.	0.
1808	RSX	6.949E-03	6.898E-05	1.846E-18	0.	0.	0.
1808	RSY	6.568E-04	6.512E-03	1.602E-18	0.	0.	0.
1808	EQmxp	0.011	1.726E-04	2.168E-18	0.	0.	0.
1808	EQmxn	-0.011	-1.726E-04	-2.168E-18	0.	0.	0.
1808	EQmyp	2.130E-03	0.032	0.	0.	0.	0.
1808	EQmyn	-2.130E-03	-0.032	0.	0.	0.	0.
1809	RSX	7.927E-03	8.535E-05	3.726E-19	0.	0.	0.
1809	RSY	6.727E-04	0.01	3.734E-19	0.	0.	0.
1809	EQmxp	0.012	1.110E-04	-3.036E-18	0.	0.	0.
1809	EQmxn	-0.012	-1.110E-04	3.036E-18	0.	0.	0.
1809	EQmyp	1.644E-03	0.049	-8.674E-18	0.	0.	0.
1809	EQmyn	-1.644E-03	-0.049	8.674E-18	0.	0.	0.
1810	RSX	8.972E-03	1.648E-04	3.325E-18	0.	0.	0.
1810	RSY	7.205E-04	0.014	2.015E-18	0.	0.	0.
1810	EQmxp	0.014	4.591E-05	-9.975E-18	0.	0.	0.
1810	EQmxn	-0.014	-4.591E-05	9.975E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1810	EQmyp	1.133E-03	0.067	-1.388E-17	0.	0.	0.
1810	EQmyn	-1.133E-03	-0.067	1.388E-17	0.	0.	0.
1811	RSX	0.011	2.969E-04	3.317E-18	0.	0.	0.
1811	RSY	8.687E-04	0.02	3.259E-18	0.	0.	0.
1811	EQmxp	0.017	-3.927E-05	-6.939E-18	0.	0.	0.
1811	EQmxn	-0.017	3.927E-05	6.939E-18	0.	0.	0.
1811	EQmyp	5.114E-04	0.097	-3.469E-18	0.	0.	0.
1811	EQmyn	-5.114E-04	-0.097	3.469E-18	0.	0.	0.
1812	RSX	0.028	1.074E-03	3.030E-17	0.	0.	0.
1812	RSY	2.328E-03	0.061	2.594E-17	0.	0.	0.
1812	EQmxp	0.042	-4.000E-04	-5.725E-17	0.	0.	0.
1812	EQmxn	-0.042	4.000E-04	5.725E-17	0.	0.	0.
1812	EQmyp	-1.427E-03	0.292	-8.327E-17	0.	0.	0.
1812	EQmyn	1.427E-03	-0.292	8.327E-17	0.	0.	0.
1813	RSX	6.832E-03	3.851E-04	2.717E-17	0.	0.	0.
1813	RSY	6.690E-04	0.018	5.706E-18	0.	0.	0.
1813	EQmxp	0.01	-2.128E-04	3.556E-17	0.	0.	0.
1813	EQmxn	-0.01	2.128E-04	-3.556E-17	0.	0.	0.
1813	EQmyp	-1.403E-03	0.088	5.204E-17	0.	0.	0.
1813	EQmyn	1.403E-03	-0.088	-5.204E-17	0.	0.	0.
1814	RSX	2.147E-03	2.082E-04	3.057E-18	0.	0.	0.
1814	RSY	3.284E-04	8.351E-03	4.502E-18	0.	0.	0.
1814	EQmxp	3.114E-03	-1.476E-04	-7.806E-18	0.	0.	0.
1814	EQmxn	-3.114E-03	1.476E-04	7.806E-18	0.	0.	0.
1814	EQmyp	-1.179E-03	0.04	-1.041E-17	0.	0.	0.
1814	EQmyn	1.179E-03	-0.04	1.041E-17	0.	0.	0.
1815	RSX	4.154E-04	1.395E-04	1.822E-19	0.	0.	0.
1815	RSY	2.346E-04	4.499E-03	3.829E-18	0.	0.	0.
1815	EQmxp	5.010E-04	-1.199E-04	-2.412E-18	0.	0.	0.
1815	EQmxn	-5.010E-04	1.199E-04	2.412E-18	0.	0.	0.
1815	EQmyp	-1.063E-03	0.021	1.388E-17	0.	0.	0.
1815	EQmyn	1.063E-03	-0.021	-1.388E-17	0.	0.	0.
1816	RSX	5.000E-04	9.920E-05	7.879E-19	0.	0.	0.
1816	RSY	2.026E-04	2.335E-03	3.619E-18	0.	0.	0.
1816	EQmxp	-8.755E-04	-1.012E-04	-4.906E-18	0.	0.	0.
1816	EQmxn	8.755E-04	1.012E-04	4.906E-18	0.	0.	0.
1816	EQmyp	-9.645E-04	0.011	-7.806E-18	0.	0.	0.
1816	EQmyn	9.645E-04	-0.011	7.806E-18	0.	0.	0.
1817	RSX	1.034E-03	6.970E-05	1.132E-17	0.	0.	0.
1817	RSY	1.865E-04	8.895E-04	4.757E-18	0.	0.	0.
1817	EQmxp	-1.672E-03	-8.434E-05	1.431E-17	0.	0.	0.
1817	EQmxn	1.672E-03	8.434E-05	-1.431E-17	0.	0.	0.
1817	EQmyp	-8.530E-04	4.017E-03	3.242E-17	0.	0.	0.
1817	EQmyn	8.530E-04	-4.017E-03	-3.242E-17	0.	0.	0.
1818	RSX	1.330E-03	4.662E-05	1.713E-17	0.	0.	0.
1818	RSY	1.730E-04	1.633E-04	3.557E-18	0.	0.	0.
1818	EQmxp	-2.106E-03	-6.829E-05	-2.087E-17	0.	0.	0.
1818	EQmxn	2.106E-03	6.829E-05	2.087E-17	0.	0.	0.
1818	EQmyp	-7.299E-04	-8.289E-04	-2.239E-17	0.	0.	0.
1818	EQmyn	7.299E-04	8.289E-04	2.239E-17	0.	0.	0.
1819	RSX	1.460E-03	2.851E-05	1.228E-19	0.	0.	0.
1819	RSY	1.580E-04	8.452E-04	2.525E-18	0.	0.	0.
1819	EQmxp	-2.288E-03	-5.292E-05	5.096E-18	0.	0.	0.
1819	EQmxn	2.288E-03	5.292E-05	-5.096E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1819	EQmyp	-5.997E-04	-4.200E-03	1.843E-17	0.	0.	0.
1819	EQmyn	5.997E-04	4.200E-03	-1.843E-17	0.	0.	0.
1820	RSX	1.467E-03	1.572E-05	7.915E-18	0.	0.	0.
1820	RSY	1.406E-04	1.317E-03	5.519E-18	0.	0.	0.
1820	EQmxp	-2.282E-03	-3.827E-05	1.073E-17	0.	0.	0.
1820	EQmxn	2.282E-03	3.827E-05	-1.073E-17	0.	0.	0.
1820	EQmyp	-4.663E-04	-6.442E-03	4.424E-17	0.	0.	0.
1820	EQmyn	4.663E-04	6.442E-03	-4.424E-17	0.	0.	0.
1821	RSX	1.383E-03	1.224E-05	8.197E-18	0.	0.	0.
1821	RSY	1.213E-04	1.604E-03	8.261E-18	0.	0.	0.
1821	EQmxp	-2.137E-03	-2.455E-05	-2.602E-18	0.	0.	0.
1821	EQmxn	2.137E-03	2.455E-05	2.602E-18	0.	0.	0.
1821	EQmyp	-3.342E-04	-7.789E-03	4.749E-17	0.	0.	0.
1821	EQmyn	3.342E-04	7.789E-03	-4.749E-17	0.	0.	0.
1822	RSX	1.233E-03	1.744E-05	2.605E-17	0.	0.	0.
1822	RSY	1.014E-04	1.744E-03	1.466E-17	0.	0.	0.
1822	EQmxp	-1.895E-03	-1.193E-05	-2.754E-17	0.	0.	0.
1822	EQmxn	1.895E-03	1.193E-05	2.754E-17	0.	0.	0.
1822	EQmyp	-2.070E-04	-8.433E-03	-9.237E-17	0.	0.	0.
1822	EQmyn	2.070E-04	8.433E-03	9.237E-17	0.	0.	0.
1823	RSX	7.203E-04	1.652E-05	4.077E-18	0.	0.	0.
1823	RSY	5.712E-05	1.227E-03	4.350E-18	0.	0.	0.
1823	EQmxp	-1.099E-03	-3.409E-07	-1.686E-17	0.	0.	0.
1823	EQmxn	1.099E-03	3.409E-07	1.686E-17	0.	0.	0.
1823	EQmyp	-6.032E-05	-5.913E-03	-5.573E-17	0.	0.	0.
1823	EQmyn	6.032E-05	5.913E-03	5.573E-17	0.	0.	0.
1824	RSX	5.119E-04	1.841E-05	5.257E-17	0.	0.	0.
1824	RSY	4.186E-05	1.075E-03	4.104E-17	0.	0.	0.
1824	EQmxp	-7.741E-04	6.184E-06	-9.492E-17	0.	0.	0.
1824	EQmxn	7.741E-04	-6.184E-06	9.492E-17	0.	0.	0.
1824	EQmyp	1.587E-05	-5.160E-03	-3.025E-16	0.	0.	0.
1824	EQmyn	-1.587E-05	5.160E-03	3.025E-16	0.	0.	0.
1825	RSX	3.033E-04	1.831E-05	7.424E-17	0.	0.	0.
1825	RSY	3.105E-05	8.551E-04	2.224E-17	0.	0.	0.
1825	EQmxp	-4.507E-04	1.059E-05	-1.022E-16	0.	0.	0.
1825	EQmxn	4.507E-04	-1.059E-05	1.022E-16	0.	0.	0.
1825	EQmyp	7.270E-05	-4.089E-03	-9.639E-17	0.	0.	0.
1825	EQmyn	-7.270E-05	4.089E-03	9.639E-17	0.	0.	0.
1826	RSX	9.884E-05	1.630E-05	9.644E-17	0.	0.	0.
1826	RSY	2.619E-05	5.796E-04	7.045E-17	0.	0.	0.
1826	EQmxp	-1.361E-04	1.299E-05	-1.197E-16	0.	0.	0.
1826	EQmxn	1.361E-04	-1.299E-05	1.197E-16	0.	0.	0.
1826	EQmyp	1.109E-04	-2.754E-03	-4.959E-16	0.	0.	0.
1826	EQmyn	-1.109E-04	2.754E-03	4.959E-16	0.	0.	0.
1827	RSX	6.197E-04	2.697E-05	1.225E-15	0.	0.	0.
1827	RSY	8.845E-05	1.065E-04	7.057E-16	0.	0.	0.
1827	EQmxp	9.870E-04	3.676E-05	-1.584E-15	0.	0.	0.
1827	EQmxn	-9.870E-04	-3.676E-05	1.584E-15	0.	0.	0.
1827	EQmyp	3.853E-04	-3.498E-04	-4.319E-15	0.	0.	0.
1827	EQmyn	-3.853E-04	3.498E-04	4.319E-15	0.	0.	0.
1828	RSX	1.853E-04	5.398E-06	4.630E-17	0.	0.	0.
1828	RSY	1.475E-05	3.511E-04	3.881E-17	0.	0.	0.
1828	EQmxp	2.816E-04	-1.030E-06	-1.907E-16	0.	0.	0.
1828	EQmxn	-2.816E-04	1.030E-06	1.907E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1828	EQmyp	5.299E-06	1.688E-03	5.386E-16	0.	0.	0.
1828	EQmyn	-5.299E-06	-1.688E-03	-5.386E-16	0.	0.	0.
1829	RSX	1.220E-04	6.085E-06	2.754E-16	0.	0.	0.
1829	RSY	1.116E-05	3.064E-04	2.583E-16	0.	0.	0.
1829	EQmxp	1.827E-04	-3.066E-06	-5.085E-16	0.	0.	0.
1829	EQmxn	-1.827E-04	3.066E-06	5.085E-16	0.	0.	0.
1829	EQmyp	-1.834E-05	1.467E-03	-1.194E-15	0.	0.	0.
1829	EQmyn	1.834E-05	-1.467E-03	1.194E-15	0.	0.	0.
1830	RSX	7.285E-05	4.827E-06	5.355E-17	0.	0.	0.
1830	RSY	7.972E-06	2.180E-04	1.889E-16	0.	0.	0.
1830	EQmxp	1.078E-04	-2.942E-06	2.662E-16	0.	0.	0.
1830	EQmxn	-1.078E-04	2.942E-06	-2.662E-16	0.	0.	0.
1830	EQmyp	-2.111E-05	1.042E-03	9.139E-16	0.	0.	0.
1830	EQmyn	2.111E-05	-1.042E-03	-9.139E-16	0.	0.	0.
1831	RSX	3.236E-05	2.986E-06	6.453E-16	0.	0.	0.
1831	RSY	4.719E-06	1.214E-04	3.448E-16	0.	0.	0.
1831	EQmxp	4.701E-05	-2.086E-06	-9.690E-16	0.	0.	0.
1831	EQmxn	-4.701E-05	2.086E-06	9.690E-16	0.	0.	0.
1831	EQmyp	-1.650E-05	5.788E-04	-1.711E-15	0.	0.	0.
1831	EQmyn	1.650E-05	-5.788E-04	1.711E-15	0.	0.	0.
1832	RSX	2.228E-06	1.139E-06	9.925E-16	0.	0.	0.
1832	RSY	1.956E-06	3.548E-05	3.383E-16	0.	0.	0.
1832	EQmxp	2.262E-06	-1.003E-06	8.095E-16	0.	0.	0.
1832	EQmxn	-2.262E-06	1.003E-06	-8.095E-16	0.	0.	0.
1832	EQmyp	-8.994E-06	1.680E-04	2.243E-15	0.	0.	0.
1832	EQmyn	8.994E-06	-1.680E-04	-2.243E-15	0.	0.	0.
1833	RSX	2.110E-05	6.827E-07	4.174E-15	0.	0.	0.
1833	RSY	1.696E-06	4.201E-05	1.329E-15	0.	0.	0.
1833	EQmxp	-3.199E-05	1.820E-07	9.453E-16	0.	0.	0.
1833	EQmxn	3.199E-05	-1.820E-07	-9.453E-16	0.	0.	0.
1833	EQmyp	-1.247E-08	-2.018E-04	5.904E-15	0.	0.	0.
1833	EQmyn	1.247E-08	2.018E-04	-5.904E-15	0.	0.	0.
1834	RSX	8.510E-06	7.235E-07	1.940E-15	0.	0.	0.
1834	RSY	1.148E-06	3.011E-05	3.167E-15	0.	0.	0.
1834	EQmxp	-1.243E-05	4.911E-07	3.914E-15	0.	0.	0.
1834	EQmxn	1.243E-05	-4.911E-07	-3.914E-15	0.	0.	0.
1834	EQmyp	3.813E-06	-1.437E-04	9.266E-15	0.	0.	0.
1834	EQmyn	-3.813E-06	1.437E-04	-9.266E-15	0.	0.	0.
1835	RSX	1.900E-07	1.163E-07	5.610E-15	0.	0.	0.
1835	RSY	2.166E-07	3.158E-06	5.181E-15	0.	0.	0.
1835	EQmxp	4.139E-07	1.104E-07	-6.206E-15	0.	0.	0.
1835	EQmxn	-4.139E-07	-1.104E-07	6.206E-15	0.	0.	0.
1835	EQmyp	1.024E-06	-1.489E-05	-1.466E-14	0.	0.	0.
1835	EQmyn	-1.024E-06	1.489E-05	1.466E-14	0.	0.	0.
1836	RSX	6.262E-07	3.323E-08	4.166E-15	0.	0.	0.
1836	RSY	5.918E-08	1.643E-06	1.557E-15	0.	0.	0.
1836	EQmxp	9.338E-07	-1.800E-08	-4.685E-17	0.	0.	0.
1836	EQmxn	-9.338E-07	1.800E-08	4.685E-17	0.	0.	0.
1836	EQmyp	-1.149E-07	7.861E-06	-1.990E-15	0.	0.	0.
1836	EQmyn	1.149E-07	-7.861E-06	1.990E-15	0.	0.	0.
1837	RSX	1.502E-07	1.384E-08	8.672E-16	0.	0.	0.
1837	RSY	2.394E-08	5.703E-07	1.648E-15	0.	0.	0.
1837	EQmxp	2.170E-07	-9.928E-09	-2.956E-15	0.	0.	0.
1837	EQmxn	-2.170E-07	9.928E-09	2.956E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1837	EQmyp	-7.887E-08	2.719E-06	-3.179E-15	0.	0.	0.
1837	EQmyn	7.887E-08	-2.719E-06	3.179E-15	0.	0.	0.
1838	RSX	1.085E-08	8.889E-10	1.363E-15	0.	0.	0.
1838	RSY	2.741E-09	1.625E-08	4.339E-15	0.	0.	0.
1838	EQmxp	-1.763E-08	-1.101E-09	2.752E-15	0.	0.	0.
1838	EQmxn	1.763E-08	1.101E-09	-2.752E-15	0.	0.	0.
1838	EQmyp	-1.087E-08	7.442E-08	1.886E-14	0.	0.	0.
1838	EQmyn	1.087E-08	-7.442E-08	-1.886E-14	0.	0.	0.
1839	RSX	1.499E-08	7.615E-10	1.715E-15	0.	0.	0.
1839	RSY	1.085E-08	4.257E-08	3.804E-15	0.	0.	0.
1839	EQmxp	-2.085E-08	4.859E-10	2.433E-15	0.	0.	0.
1839	EQmxn	2.085E-08	-4.859E-10	-2.433E-15	0.	0.	0.
1839	EQmyp	3.269E-09	-1.877E-07	7.871E-15	0.	0.	0.
1839	EQmyn	-3.269E-09	1.877E-07	-7.871E-15	0.	0.	0.
1840	RSX	3.187E-09	4.266E-09	2.620E-15	0.	0.	0.
1840	RSY	4.710E-08	7.609E-08	1.204E-15	0.	0.	0.
1840	EQmxp	-2.327E-09	1.914E-10	3.834E-15	0.	0.	0.
1840	EQmxn	2.327E-09	-1.914E-10	-3.834E-15	0.	0.	0.
1840	EQmyp	1.638E-09	-4.269E-08	6.951E-15	0.	0.	0.
1840	EQmyn	-1.638E-09	4.269E-08	-6.951E-15	0.	0.	0.
1841	RSX	1.272E-11	1.124E-11	1.266E-18	0.	0.	0.
1841	RSY	1.243E-10	1.881E-10	5.826E-19	0.	0.	0.
1841	EQmxp	3.324E-12	-2.187E-14	6.284E-20	0.	0.	0.
1841	EQmxn	-3.324E-12	2.187E-14	-6.284E-20	0.	0.	0.
1841	EQmyp	2.750E-14	2.081E-11	8.454E-19	0.	0.	0.
1841	EQmyn	-2.750E-14	-2.081E-11	-8.454E-19	0.	0.	0.
1842	RSX	6.408E-11	5.916E-11	5.292E-18	0.	0.	0.
1842	RSY	6.389E-10	9.565E-10	2.132E-18	0.	0.	0.
1842	EQmxp	1.286E-11	-1.721E-13	-5.249E-18	0.	0.	0.
1842	EQmxn	-1.286E-11	1.721E-13	5.249E-18	0.	0.	0.
1842	EQmyp	-6.916E-13	9.362E-11	-1.541E-17	0.	0.	0.
1842	EQmyn	6.916E-13	-9.362E-11	1.541E-17	0.	0.	0.
1843	RSX	1.539E-10	1.482E-10	2.990E-18	0.	0.	0.
1843	RSY	1.569E-09	2.322E-09	1.386E-18	0.	0.	0.
1843	EQmxp	2.286E-11	-3.225E-13	5.956E-18	0.	0.	0.
1843	EQmxn	-2.286E-11	3.225E-13	-5.956E-18	0.	0.	0.
1843	EQmyp	-1.738E-12	1.743E-10	4.204E-18	0.	0.	0.
1843	EQmyn	1.738E-12	-1.743E-10	-4.204E-18	0.	0.	0.
1844	RSX	2.703E-10	2.687E-10	6.339E-19	0.	0.	0.
1844	RSY	2.766E-09	4.065E-09	1.602E-18	0.	0.	0.
1844	EQmxp	2.981E-11	-4.680E-13	9.288E-18	0.	0.	0.
1844	EQmxn	-2.981E-11	4.680E-13	-9.288E-18	0.	0.	0.
1844	EQmyp	-2.531E-12	2.322E-10	-3.972E-18	0.	0.	0.
1844	EQmyn	2.531E-12	-2.322E-10	3.972E-18	0.	0.	0.
1845	RSX	3.882E-10	4.031E-10	9.886E-18	0.	0.	0.
1845	RSY	4.027E-09	5.853E-09	2.732E-18	0.	0.	0.
1845	EQmxp	3.225E-11	-5.373E-13	8.826E-18	0.	0.	0.
1845	EQmxn	-3.225E-11	5.373E-13	-8.826E-18	0.	0.	0.
1845	EQmyp	-2.763E-12	2.543E-10	2.040E-17	0.	0.	0.
1845	EQmyn	2.763E-12	-2.543E-10	-2.040E-17	0.	0.	0.
1846	RSX	4.840E-10	5.304E-10	1.335E-17	0.	0.	0.
1846	RSY	5.096E-09	7.415E-09	9.508E-18	0.	0.	0.
1846	EQmxp	3.031E-11	-5.358E-13	-1.910E-17	0.	0.	0.
1846	EQmxn	-3.031E-11	5.358E-13	1.910E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1846	EQmyp	-2.479E-12	2.409E-10	-3.529E-17	0.	0.	0.
1846	EQmyn	2.479E-12	-2.409E-10	3.529E-17	0.	0.	0.
1847	RSX	5.417E-10	6.318E-10	1.598E-17	0.	0.	0.
1847	RSY	5.821E-09	8.549E-09	6.080E-18	0.	0.	0.
1847	EQmxp	2.508E-11	-4.876E-13	-3.504E-18	0.	0.	0.
1847	EQmxn	-2.508E-11	4.876E-13	3.504E-18	0.	0.	0.
1847	EQmyp	-2.019E-12	2.009E-10	-3.495E-17	0.	0.	0.
1847	EQmyn	2.019E-12	-2.009E-10	3.495E-17	0.	0.	0.
1848	RSX	5.534E-10	6.918E-10	9.063E-18	0.	0.	0.
1848	RSY	6.060E-09	9.107E-09	1.304E-17	0.	0.	0.
1848	EQmxp	1.806E-11	-2.924E-13	-1.180E-17	0.	0.	0.
1848	EQmxn	-1.806E-11	2.924E-13	1.180E-17	0.	0.	0.
1848	EQmyp	-1.616E-12	1.475E-10	-4.066E-17	0.	0.	0.
1848	EQmyn	1.616E-12	-1.475E-10	4.066E-17	0.	0.	0.
1849	RSX	5.276E-10	7.079E-10	1.065E-17	0.	0.	0.
1849	RSY	5.951E-09	9.110E-09	8.697E-18	0.	0.	0.
1849	EQmxp	1.094E-11	-2.092E-13	-1.783E-17	0.	0.	0.
1849	EQmxn	-1.094E-11	2.092E-13	1.783E-17	0.	0.	0.
1849	EQmyp	-1.151E-12	9.134E-11	-2.106E-17	0.	0.	0.
1849	EQmyn	1.151E-12	-9.134E-11	2.106E-17	0.	0.	0.
1850	RSX	4.804E-10	6.920E-10	1.051E-17	0.	0.	0.
1850	RSY	5.741E-09	8.845E-09	2.855E-17	0.	0.	0.
1850	EQmxp	4.803E-12	-1.435E-13	4.570E-17	0.	0.	0.
1850	EQmxn	-4.803E-12	1.435E-13	-4.570E-17	0.	0.	0.
1850	EQmyp	-7.012E-13	4.231E-11	6.381E-17	0.	0.	0.
1850	EQmyn	7.012E-13	-4.231E-11	-6.381E-17	0.	0.	0.
1851	RSX	4.325E-10	6.502E-10	2.181E-17	0.	0.	0.
1851	RSY	5.696E-09	8.563E-09	1.929E-17	0.	0.	0.
1851	EQmxp	1.079E-13	4.689E-14	-3.829E-17	0.	0.	0.
1851	EQmxn	-1.079E-13	-4.689E-14	3.829E-17	0.	0.	0.
1851	EQmyp	-8.004E-13	6.764E-12	-8.900E-17	0.	0.	0.
1851	EQmyn	8.004E-13	-6.764E-12	8.900E-17	0.	0.	0.
1852	RSX	3.982E-10	5.962E-10	2.814E-17	0.	0.	0.
1852	RSY	5.933E-09	8.543E-09	6.529E-18	0.	0.	0.
1852	EQmxp	-2.587E-12	6.678E-14	-3.930E-17	0.	0.	0.
1852	EQmxn	2.587E-12	-6.678E-14	3.930E-17	0.	0.	0.
1852	EQmyp	-3.775E-13	-1.619E-11	-1.030E-16	0.	0.	0.
1852	EQmyn	3.775E-13	1.619E-11	1.030E-16	0.	0.	0.
1853	RSX	3.886E-10	5.532E-10	3.439E-17	0.	0.	0.
1853	RSY	6.456E-09	8.773E-09	1.573E-17	0.	0.	0.
1853	EQmxp	-3.603E-12	3.648E-14	1.926E-17	0.	0.	0.
1853	EQmxn	3.603E-12	-3.648E-14	-1.926E-17	0.	0.	0.
1853	EQmyp	1.269E-13	-2.707E-11	7.644E-17	0.	0.	0.
1853	EQmyn	-1.269E-13	2.707E-11	-7.644E-17	0.	0.	0.
1854	RSX	4.026E-10	5.324E-10	5.720E-18	0.	0.	0.
1854	RSY	6.989E-09	9.239E-09	4.018E-18	0.	0.	0.
1854	EQmxp	-3.449E-12	-4.957E-15	-1.399E-17	0.	0.	0.
1854	EQmxn	3.449E-12	4.957E-15	1.399E-17	0.	0.	0.
1854	EQmyp	7.505E-13	-2.888E-11	1.092E-16	0.	0.	0.
1854	EQmyn	-7.505E-13	2.888E-11	-1.092E-16	0.	0.	0.
1855	RSX	4.047E-10	4.830E-10	9.051E-18	0.	0.	0.
1855	RSY	6.779E-09	9.210E-09	3.918E-18	0.	0.	0.
1855	EQmxp	-2.569E-12	-8.265E-14	1.093E-17	0.	0.	0.
1855	EQmxn	2.569E-12	8.265E-14	-1.093E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1855	EQmyp	7.487E-13	-2.319E-11	6.108E-17	0.	0.	0.
1855	EQmyn	-7.487E-13	2.319E-11	-6.108E-17	0.	0.	0.
1856	RSX	4.543E-10	4.888E-10	9.640E-18	0.	0.	0.
1856	RSY	7.093E-09	9.995E-09	6.220E-18	0.	0.	0.
1856	EQmxp	-2.006E-12	8.088E-14	-6.622E-17	0.	0.	0.
1856	EQmxn	2.006E-12	-8.088E-14	6.622E-17	0.	0.	0.
1856	EQmyp	3.348E-13	-1.601E-11	-9.174E-17	0.	0.	0.
1856	EQmyn	-3.348E-13	1.601E-11	9.174E-17	0.	0.	0.
1857	RSX	5.144E-10	4.979E-10	1.697E-17	0.	0.	0.
1857	RSY	7.125E-09	1.058E-08	2.024E-17	0.	0.	0.
1857	EQmxp	-1.228E-12	-1.978E-14	-3.511E-18	0.	0.	0.
1857	EQmxn	1.228E-12	1.978E-14	3.511E-18	0.	0.	0.
1857	EQmyp	1.709E-13	-1.029E-11	6.028E-17	0.	0.	0.
1857	EQmyn	-1.709E-13	1.029E-11	-6.028E-17	0.	0.	0.
1858	RSX	5.764E-10	5.008E-10	5.014E-17	0.	0.	0.
1858	RSY	6.915E-09	1.080E-08	4.186E-17	0.	0.	0.
1858	EQmxp	-4.346E-13	-1.258E-13	-9.937E-17	0.	0.	0.
1858	EQmxn	4.346E-13	1.258E-13	9.937E-17	0.	0.	0.
1858	EQmyp	4.749E-13	-5.676E-12	-2.468E-16	0.	0.	0.
1858	EQmyn	-4.749E-13	5.676E-12	2.468E-16	0.	0.	0.
1859	RSX	6.186E-10	4.983E-10	1.063E-17	0.	0.	0.
1859	RSY	6.673E-09	1.054E-08	1.039E-17	0.	0.	0.
1859	EQmxp	-2.599E-15	-2.518E-13	-2.718E-17	0.	0.	0.
1859	EQmxn	2.599E-15	2.518E-13	2.718E-17	0.	0.	0.
1859	EQmyp	2.886E-13	-2.673E-12	-4.795E-17	0.	0.	0.
1859	EQmyn	-2.886E-13	2.673E-12	4.795E-17	0.	0.	0.
1860	RSX	6.483E-10	4.976E-10	6.752E-18	0.	0.	0.
1860	RSY	6.679E-09	9.685E-09	1.968E-17	0.	0.	0.
1860	EQmxp	-9.322E-14	6.374E-15	-7.716E-18	0.	0.	0.
1860	EQmxn	9.322E-14	-6.374E-15	7.716E-18	0.	0.	0.
1860	EQmyp	-3.845E-13	1.258E-12	-1.255E-17	0.	0.	0.
1860	EQmyn	3.845E-13	-1.258E-12	1.255E-17	0.	0.	0.
1861	RSX	6.758E-10	5.055E-10	3.082E-17	0.	0.	0.
1861	RSY	6.959E-09	8.440E-09	1.116E-17	0.	0.	0.
1861	EQmxp	7.068E-14	-3.627E-14	-3.643E-17	0.	0.	0.
1861	EQmxn	-7.068E-14	3.627E-14	3.643E-17	0.	0.	0.
1861	EQmyp	-2.121E-13	1.650E-12	2.868E-17	0.	0.	0.
1861	EQmyn	2.121E-13	-1.650E-12	-2.868E-17	0.	0.	0.
1862	RSX	6.980E-10	5.204E-10	3.764E-18	0.	0.	0.
1862	RSY	7.585E-09	7.190E-09	2.034E-17	0.	0.	0.
1862	EQmxp	3.663E-13	-4.452E-14	-1.729E-17	0.	0.	0.
1862	EQmxn	-3.663E-13	4.452E-14	1.729E-17	0.	0.	0.
1862	EQmyp	2.833E-13	1.310E-12	-6.716E-17	0.	0.	0.
1862	EQmyn	-2.833E-13	-1.310E-12	6.716E-17	0.	0.	0.
1863	RSX	7.197E-10	5.536E-10	1.817E-17	0.	0.	0.
1863	RSY	8.229E-09	6.036E-09	7.318E-18	0.	0.	0.
1863	EQmxp	6.488E-13	9.232E-14	8.117E-19	0.	0.	0.
1863	EQmxn	-6.488E-13	-9.232E-14	-8.117E-19	0.	0.	0.
1863	EQmyp	1.057E-12	7.310E-13	-1.585E-18	0.	0.	0.
1863	EQmyn	-1.057E-12	-7.310E-13	1.585E-18	0.	0.	0.
1864	RSX	7.480E-10	5.990E-10	2.401E-17	0.	0.	0.
1864	RSY	8.498E-09	5.289E-09	2.582E-17	0.	0.	0.
1864	EQmxp	6.195E-13	8.685E-13	-8.598E-18	0.	0.	0.
1864	EQmxn	-6.195E-13	-8.685E-13	8.598E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1864	EQmyp	1.047E-12	3.526E-12	1.881E-17	0.	0.	0.
1864	EQmyn	-1.047E-12	-3.526E-12	-1.881E-17	0.	0.	0.
1865	RSX	7.569E-10	6.403E-10	6.771E-17	0.	0.	0.
1865	RSY	8.061E-09	5.188E-09	3.789E-17	0.	0.	0.
1865	EQmxp	1.372E-12	1.546E-12	-1.049E-16	0.	0.	0.
1865	EQmxn	-1.372E-12	-1.546E-12	1.049E-16	0.	0.	0.
1865	EQmyp	2.864E-12	4.069E-12	-7.794E-17	0.	0.	0.
1865	EQmyn	-2.864E-12	-4.069E-12	7.794E-17	0.	0.	0.
1866	RSX	7.406E-10	6.708E-10	2.809E-17	0.	0.	0.
1866	RSY	7.258E-09	5.774E-09	8.545E-18	0.	0.	0.
1866	EQmxp	2.571E-12	2.419E-12	4.633E-17	0.	0.	0.
1866	EQmxn	-2.571E-12	-2.419E-12	-4.633E-17	0.	0.	0.
1866	EQmyp	5.366E-12	5.022E-12	-1.169E-16	0.	0.	0.
1866	EQmyn	-5.366E-12	-5.022E-12	1.169E-16	0.	0.	0.
1867	RSX	7.206E-10	6.793E-10	1.727E-17	0.	0.	0.
1867	RSY	6.354E-09	6.634E-09	1.325E-17	0.	0.	0.
1867	EQmxp	3.570E-12	3.268E-12	3.217E-17	0.	0.	0.
1867	EQmxn	-3.570E-12	-3.268E-12	-3.217E-17	0.	0.	0.
1867	EQmyp	7.652E-12	6.028E-12	6.902E-17	0.	0.	0.
1867	EQmyn	-7.652E-12	-6.028E-12	-6.902E-17	0.	0.	0.
1868	RSX	6.817E-10	6.643E-10	3.634E-17	0.	0.	0.
1868	RSY	5.967E-09	7.667E-09	2.321E-17	0.	0.	0.
1868	EQmxp	3.118E-12	3.726E-12	-4.382E-18	0.	0.	0.
1868	EQmxn	-3.118E-12	-3.726E-12	4.382E-18	0.	0.	0.
1868	EQmyp	6.626E-12	8.896E-12	-2.036E-16	0.	0.	0.
1868	EQmyn	-6.626E-12	-8.896E-12	2.036E-16	0.	0.	0.
1869	RSX	6.255E-10	6.204E-10	1.417E-17	0.	0.	0.
1869	RSY	5.961E-09	8.622E-09	1.860E-17	0.	0.	0.
1869	EQmxp	9.418E-13	1.160E-12	2.677E-17	0.	0.	0.
1869	EQmxn	-9.418E-13	-1.160E-12	-2.677E-17	0.	0.	0.
1869	EQmyp	2.125E-12	2.709E-12	-6.971E-17	0.	0.	0.
1869	EQmyn	-2.125E-12	-2.709E-12	6.971E-17	0.	0.	0.
1870	RSX	5.586E-10	5.536E-10	7.671E-17	0.	0.	0.
1870	RSY	6.227E-09	9.015E-09	3.981E-17	0.	0.	0.
1870	EQmxp	-5.858E-12	-6.597E-12	-1.107E-16	0.	0.	0.
1870	EQmxn	5.858E-12	6.597E-12	1.107E-16	0.	0.	0.
1870	EQmyp	-1.255E-11	-1.457E-11	-8.460E-17	0.	0.	0.
1870	EQmyn	1.255E-11	1.457E-11	8.460E-17	0.	0.	0.
1871	RSX	4.720E-10	4.536E-10	5.305E-17	0.	0.	0.
1871	RSY	6.357E-09	8.345E-09	4.310E-17	0.	0.	0.
1871	EQmxp	-1.980E-11	-2.163E-11	-1.263E-16	0.	0.	0.
1871	EQmxn	1.980E-11	2.163E-11	1.263E-16	0.	0.	0.
1871	EQmyp	-4.216E-11	-4.722E-11	-1.671E-16	0.	0.	0.
1871	EQmyn	4.216E-11	4.722E-11	1.671E-16	0.	0.	0.
1872	RSX	4.281E-10	4.064E-10	4.337E-17	0.	0.	0.
1872	RSY	7.077E-09	7.507E-09	3.706E-17	0.	0.	0.
1872	EQmxp	-4.433E-11	-4.667E-11	1.221E-17	0.	0.	0.
1872	EQmxn	4.433E-11	4.667E-11	-1.221E-17	0.	0.	0.
1872	EQmyp	-9.458E-11	-9.833E-11	-8.372E-17	0.	0.	0.
1872	EQmyn	9.458E-11	9.833E-11	8.372E-17	0.	0.	0.
1873	RSX	4.015E-10	4.099E-10	5.159E-17	0.	0.	0.
1873	RSY	7.764E-09	7.034E-09	1.094E-17	0.	0.	0.
1873	EQmxp	-7.565E-11	-8.034E-11	-4.078E-17	0.	0.	0.
1873	EQmxn	7.565E-11	8.034E-11	4.078E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1873	EQmyp	-1.613E-10	-1.709E-10	-1.529E-16	0.	0.	0.
1873	EQmyn	1.613E-10	1.709E-10	1.529E-16	0.	0.	0.
1874	RSX	3.859E-10	4.429E-10	5.669E-17	0.	0.	0.
1874	RSY	7.821E-09	7.251E-09	3.230E-17	0.	0.	0.
1874	EQmxp	-1.017E-10	-1.087E-10	1.482E-18	0.	0.	0.
1874	EQmxn	1.017E-10	1.087E-10	-1.482E-18	0.	0.	0.
1874	EQmyp	-2.169E-10	-2.322E-10	1.997E-17	0.	0.	0.
1874	EQmyn	2.169E-10	2.322E-10	-1.997E-17	0.	0.	0.
1875	RSX	3.899E-10	4.785E-10	8.827E-17	0.	0.	0.
1875	RSY	7.236E-09	8.015E-09	4.083E-17	0.	0.	0.
1875	EQmxp	-9.029E-11	-9.694E-11	1.906E-16	0.	0.	0.
1875	EQmxn	9.029E-11	9.694E-11	-1.906E-16	0.	0.	0.
1875	EQmyp	-1.925E-10	-2.082E-10	1.747E-16	0.	0.	0.
1875	EQmyn	1.925E-10	2.082E-10	-1.747E-16	0.	0.	0.
1876	RSX	4.634E-10	5.363E-10	1.769E-16	0.	0.	0.
1876	RSY	6.714E-09	8.556E-09	8.716E-17	0.	0.	0.
1876	EQmxp	2.033E-11	2.236E-11	1.333E-16	0.	0.	0.
1876	EQmxn	-2.033E-11	-2.236E-11	-1.333E-16	0.	0.	0.
1876	EQmyp	4.351E-11	4.902E-11	2.699E-16	0.	0.	0.
1876	EQmyn	-4.351E-11	-4.902E-11	-2.699E-16	0.	0.	0.
1877	RSX	6.333E-10	6.878E-10	1.782E-17	0.	0.	0.
1877	RSY	6.482E-09	8.435E-09	7.545E-18	0.	0.	0.
1877	EQmxp	3.263E-10	3.484E-10	-1.047E-16	0.	0.	0.
1877	EQmxn	-3.263E-10	-3.484E-10	1.047E-16	0.	0.	0.
1877	EQmyp	6.957E-10	7.434E-10	-1.461E-17	0.	0.	0.
1877	EQmyn	-6.957E-10	-7.434E-10	1.461E-17	0.	0.	0.
1878	RSX	9.870E-10	1.038E-09	1.443E-17	0.	0.	0.
1878	RSY	6.600E-09	8.391E-09	2.686E-17	0.	0.	0.
1878	EQmxp	9.280E-10	9.892E-10	3.779E-17	0.	0.	0.
1878	EQmxn	-9.280E-10	-9.892E-10	-3.779E-17	0.	0.	0.
1878	EQmyp	1.979E-09	2.109E-09	-1.262E-16	0.	0.	0.
1878	EQmyn	-1.979E-09	-2.109E-09	1.262E-16	0.	0.	0.
1879	RSX	1.583E-09	1.648E-09	3.719E-17	0.	0.	0.
1879	RSY	6.911E-09	8.624E-09	5.887E-17	0.	0.	0.
1879	EQmxp	1.844E-09	1.966E-09	-1.681E-16	0.	0.	0.
1879	EQmxn	-1.844E-09	-1.966E-09	1.681E-16	0.	0.	0.
1879	EQmyp	3.933E-09	4.190E-09	-3.164E-16	0.	0.	0.
1879	EQmyn	-3.933E-09	-4.190E-09	3.164E-16	0.	0.	0.
1880	RSX	2.271E-09	2.349E-09	7.572E-17	0.	0.	0.
1880	RSY	7.236E-09	8.957E-09	4.861E-17	0.	0.	0.
1880	EQmxp	2.823E-09	3.010E-09	-4.097E-17	0.	0.	0.
1880	EQmxn	-2.823E-09	-3.010E-09	4.097E-17	0.	0.	0.
1880	EQmyp	6.020E-09	6.421E-09	-1.204E-16	0.	0.	0.
1880	EQmyn	-6.020E-09	-6.421E-09	1.204E-16	0.	0.	0.
1881	RSX	2.498E-09	2.553E-09	7.811E-18	0.	0.	0.
1881	RSY	6.638E-09	9.039E-09	7.491E-18	0.	0.	0.
1881	EQmxp	3.019E-09	3.219E-09	3.673E-17	0.	0.	0.
1881	EQmxn	-3.019E-09	-3.219E-09	-3.673E-17	0.	0.	0.
1881	EQmyp	6.437E-09	6.864E-09	3.223E-17	0.	0.	0.
1881	EQmyn	-6.437E-09	-6.864E-09	-3.223E-17	0.	0.	0.
1882	RSX	1.022E-09	9.590E-10	7.683E-17	0.	0.	0.
1882	RSY	5.558E-09	9.048E-09	1.108E-17	0.	0.	0.
1882	EQmxp	5.930E-10	6.319E-10	-1.541E-18	0.	0.	0.
1882	EQmxn	-5.930E-10	-6.319E-10	1.541E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1882	EQmyp	1.265E-09	1.347E-09	3.345E-16	0.	0.	0.
1882	EQmyn	-1.265E-09	-1.347E-09	-3.345E-16	0.	0.	0.
1883	RSX	4.279E-09	4.719E-09	5.011E-17	0.	0.	0.
1883	RSY	5.707E-09	9.942E-09	4.865E-17	0.	0.	0.
1883	EQmxp	-7.485E-09	-7.981E-09	-5.647E-17	0.	0.	0.
1883	EQmxn	7.485E-09	7.981E-09	5.647E-17	0.	0.	0.
1883	EQmyp	-1.596E-08	-1.702E-08	-3.033E-16	0.	0.	0.
1883	EQmyn	1.596E-08	1.702E-08	3.033E-16	0.	0.	0.
1884	RSX	1.553E-08	1.666E-08	3.983E-17	0.	0.	0.
1884	RSY	1.160E-08	1.509E-08	1.507E-17	0.	0.	0.
1884	EQmxp	-2.476E-08	-2.640E-08	7.345E-17	0.	0.	0.
1884	EQmxn	2.476E-08	2.640E-08	-7.345E-17	0.	0.	0.
1884	EQmyp	-5.281E-08	-5.630E-08	1.343E-16	0.	0.	0.
1884	EQmyn	5.281E-08	5.630E-08	-1.343E-16	0.	0.	0.
1885	RSX	3.357E-08	3.580E-08	5.301E-17	0.	0.	0.
1885	RSY	2.337E-08	2.620E-08	2.636E-17	0.	0.	0.
1885	EQmxp	-5.250E-08	-5.597E-08	-9.726E-17	0.	0.	0.
1885	EQmxn	5.250E-08	5.597E-08	9.726E-17	0.	0.	0.
1885	EQmyp	-1.119E-07	-1.194E-07	-2.915E-16	0.	0.	0.
1885	EQmyn	1.119E-07	1.194E-07	2.915E-16	0.	0.	0.
1886	RSX	5.339E-08	5.685E-08	8.013E-17	0.	0.	0.
1886	RSY	3.668E-08	3.956E-08	4.816E-17	0.	0.	0.
1886	EQmxp	-8.300E-08	-8.849E-08	6.744E-17	0.	0.	0.
1886	EQmxn	8.300E-08	8.849E-08	-6.744E-17	0.	0.	0.
1886	EQmyp	-1.770E-07	-1.887E-07	2.858E-16	0.	0.	0.
1886	EQmyn	1.770E-07	1.887E-07	-2.858E-16	0.	0.	0.
1887	RSX	5.478E-08	5.829E-08	5.981E-17	0.	0.	0.
1887	RSY	3.782E-08	4.023E-08	1.944E-17	0.	0.	0.
1887	EQmxp	-8.511E-08	-9.074E-08	3.301E-17	0.	0.	0.
1887	EQmxn	8.511E-08	9.074E-08	-3.301E-17	0.	0.	0.
1887	EQmyp	-1.815E-07	-1.935E-07	6.264E-17	0.	0.	0.
1887	EQmyn	1.815E-07	1.935E-07	-6.264E-17	0.	0.	0.
1888	RSX	2.343E-09	2.307E-09	1.030E-17	0.	0.	0.
1888	RSY	8.455E-09	6.259E-09	6.681E-17	0.	0.	0.
1888	EQmxp	-4.173E-09	-4.448E-09	-1.481E-16	0.	0.	0.
1888	EQmxn	4.173E-09	4.448E-09	1.481E-16	0.	0.	0.
1888	EQmyp	-8.899E-09	-9.483E-09	-3.945E-16	0.	0.	0.
1888	EQmyn	8.899E-09	9.483E-09	3.945E-16	0.	0.	0.
1889	RSX	1.708E-07	1.823E-07	1.286E-17	0.	0.	0.
1889	RSY	1.154E-07	1.229E-07	3.399E-17	0.	0.	0.
1889	EQmxp	2.628E-07	2.801E-07	-6.911E-17	0.	0.	0.
1889	EQmxn	-2.628E-07	-2.801E-07	6.911E-17	0.	0.	0.
1889	EQmyp	5.603E-07	5.974E-07	1.006E-16	0.	0.	0.
1889	EQmyn	-5.603E-07	-5.974E-07	-1.006E-16	0.	0.	0.
1890	RSX	6.382E-07	6.804E-07	3.044E-17	0.	0.	0.
1890	RSY	4.306E-07	4.591E-07	1.490E-16	0.	0.	0.
1890	EQmxp	9.831E-07	1.048E-06	2.334E-16	0.	0.	0.
1890	EQmxn	-9.831E-07	-1.048E-06	-2.334E-16	0.	0.	0.
1890	EQmyp	2.096E-06	2.235E-06	3.943E-16	0.	0.	0.
1890	EQmyn	-2.096E-06	-2.235E-06	-3.943E-16	0.	0.	0.
1891	RSX	2.041E-06	2.176E-06	1.450E-16	0.	0.	0.
1891	RSY	1.378E-06	1.469E-06	8.137E-17	0.	0.	0.
1891	EQmxp	3.146E-06	3.354E-06	3.282E-17	0.	0.	0.
1891	EQmxn	-3.146E-06	-3.354E-06	-3.282E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1891	EQmyp	6.708E-06	7.152E-06	-1.518E-16	0.	0.	0.
1891	EQmyn	-6.708E-06	-7.152E-06	1.518E-16	0.	0.	0.
1892	RSX	3.688E-06	3.932E-06	2.355E-16	0.	0.	0.
1892	RSY	2.489E-06	2.654E-06	2.726E-16	0.	0.	0.
1892	EQmxp	5.684E-06	6.060E-06	-4.643E-16	0.	0.	0.
1892	EQmxn	-5.684E-06	-6.060E-06	4.643E-16	0.	0.	0.
1892	EQmyp	1.212E-05	1.292E-05	-6.178E-16	0.	0.	0.
1892	EQmyn	-1.212E-05	-1.292E-05	6.178E-16	0.	0.	0.
1893	RSX	5.330E-07	5.680E-07	3.839E-16	0.	0.	0.
1893	RSY	3.596E-07	3.833E-07	1.262E-16	0.	0.	0.
1893	EQmxp	8.206E-07	8.749E-07	-1.092E-16	0.	0.	0.
1893	EQmxn	-8.206E-07	-8.749E-07	1.092E-16	0.	0.	0.
1893	EQmyp	1.750E-06	1.866E-06	4.981E-16	0.	0.	0.
1893	EQmyn	-1.750E-06	-1.866E-06	-4.981E-16	0.	0.	0.
1894	RSX	2.311E-05	2.464E-05	1.327E-16	0.	0.	0.
1894	RSY	1.560E-05	1.664E-05	1.485E-16	0.	0.	0.
1894	EQmxp	-3.563E-05	-3.799E-05	-3.777E-16	0.	0.	0.
1894	EQmxn	3.563E-05	3.799E-05	3.777E-16	0.	0.	0.
1894	EQmyp	-7.598E-05	-8.101E-05	-1.166E-15	0.	0.	0.
1894	EQmyn	7.598E-05	8.101E-05	1.166E-15	0.	0.	0.
1895	RSX	1.032E-04	1.100E-04	2.012E-16	0.	0.	0.
1895	RSY	6.964E-05	7.425E-05	4.098E-17	0.	0.	0.
1895	EQmxp	-1.590E-04	-1.696E-04	7.889E-16	0.	0.	0.
1895	EQmxn	1.590E-04	1.696E-04	-7.889E-16	0.	0.	0.
1895	EQmyp	-3.391E-04	-3.616E-04	5.475E-16	0.	0.	0.
1895	EQmyn	3.391E-04	3.616E-04	-5.475E-16	0.	0.	0.
1896	RSX	9.396E-03	1.514E-04	3.662E-19	0.	0.	0.
1896	RSY	8.042E-04	0.013	5.288E-19	0.	0.	0.
1896	EQmxp	-0.014	-5.193E-05	-4.337E-19	0.	0.	0.
1896	EQmxn	0.014	5.193E-05	4.337E-19	0.	0.	0.
1896	EQmyp	1.433E-03	-0.061	-3.469E-18	0.	0.	0.
1896	EQmyn	-1.433E-03	0.061	3.469E-18	0.	0.	0.
1897	RSX	8.098E-03	1.305E-04	0.	0.	0.	0.
1897	RSY	6.925E-04	0.011	8.107E-19	0.	0.	0.
1897	EQmxp	-0.012	-4.468E-05	4.337E-19	0.	0.	0.
1897	EQmxn	0.012	4.468E-05	-4.337E-19	0.	0.	0.
1897	EQmyp	1.233E-03	-0.053	-3.469E-18	0.	0.	0.
1897	EQmyn	-1.233E-03	0.053	3.469E-18	0.	0.	0.
1898	RSX	0.019	3.049E-04	0.	0.	0.	0.
1898	RSY	1.617E-03	0.026	9.263E-19	0.	0.	0.
1898	EQmxp	-0.029	-1.042E-04	-8.674E-19	0.	0.	0.
1898	EQmxn	0.029	1.042E-04	8.674E-19	0.	0.	0.
1898	EQmyp	2.874E-03	-0.123	-6.939E-18	0.	0.	0.
1898	EQmyn	-2.874E-03	0.123	6.939E-18	0.	0.	0.
1899	RSX	0.021	3.313E-04	1.475E-18	0.	0.	0.
1899	RSY	1.755E-03	0.028	1.601E-18	0.	0.	0.
1899	EQmxp	-0.031	-1.130E-04	1.735E-18	0.	0.	0.
1899	EQmxn	0.031	1.130E-04	-1.735E-18	0.	0.	0.
1899	EQmyp	3.116E-03	-0.133	-6.939E-18	0.	0.	0.
1899	EQmyn	-3.116E-03	0.133	6.939E-18	0.	0.	0.
1900	RSX	0.021	3.433E-04	7.436E-19	0.	0.	0.
1900	RSY	1.816E-03	0.029	1.690E-18	0.	0.	0.
1900	EQmxp	-0.032	-1.168E-04	0.	0.	0.	0.
1900	EQmxn	0.032	1.168E-04	0.	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1900	EQmyp	3.222E-03	-0.138	-6.939E-18	0.	0.	0.
1900	EQmyn	-3.222E-03	0.138	6.939E-18	0.	0.	0.
1901	RSX	0.021	3.431E-04	0.	0.	0.	0.
1901	RSY	1.813E-03	0.029	1.630E-18	0.	0.	0.
1901	EQmxp	-0.032	-1.164E-04	-3.469E-18	0.	0.	0.
1901	EQmxn	0.032	1.164E-04	3.469E-18	0.	0.	0.
1901	EQmyp	3.211E-03	-0.137	-6.939E-18	0.	0.	0.
1901	EQmyn	-3.211E-03	0.137	6.939E-18	0.	0.	0.
1902	RSX	0.021	3.322E-04	0.	0.	0.	0.
1902	RSY	1.753E-03	0.028	8.017E-19	0.	0.	0.
1902	EQmxp	-0.031	-1.123E-04	-1.735E-18	0.	0.	0.
1902	EQmxn	0.031	1.123E-04	1.735E-18	0.	0.	0.
1902	EQmyp	3.098E-03	-0.133	6.939E-18	0.	0.	0.
1902	EQmyn	-3.098E-03	0.133	-6.939E-18	0.	0.	0.
1903	RSX	0.019	2.992E-04	7.397E-19	0.	0.	0.
1903	RSY	1.576E-03	0.025	8.306E-19	0.	0.	0.
1903	EQmxp	-0.028	-1.007E-04	8.674E-19	0.	0.	0.
1903	EQmxn	0.028	1.007E-04	-8.674E-19	0.	0.	0.
1903	EQmyp	2.778E-03	-0.119	-3.469E-18	0.	0.	0.
1903	EQmyn	-2.778E-03	0.119	3.469E-18	0.	0.	0.
1904	RSX	0.015	2.438E-04	0.	0.	0.	0.
1904	RSY	1.281E-03	0.02	2.441E-19	0.	0.	0.
1904	EQmxp	-0.022	-8.160E-05	-1.735E-18	0.	0.	0.
1904	EQmxn	0.022	8.160E-05	1.735E-18	0.	0.	0.
1904	EQmyp	2.251E-03	-0.096	3.469E-18	0.	0.	0.
1904	EQmyn	-2.251E-03	0.096	-3.469E-18	0.	0.	0.
1905	RSX	0.012	1.917E-04	1.106E-18	0.	0.	0.
1905	RSY	1.003E-03	0.016	4.504E-19	0.	0.	0.
1905	EQmxp	-0.017	-6.364E-05	-4.337E-19	0.	0.	0.
1905	EQmxn	0.017	6.364E-05	4.337E-19	0.	0.	0.
1905	EQmyp	1.756E-03	-0.075	-3.469E-18	0.	0.	0.
1905	EQmyn	-1.756E-03	0.075	3.469E-18	0.	0.	0.
1906	RSX	8.840E-03	1.421E-04	2.576E-18	0.	0.	0.
1906	RSY	7.395E-04	0.012	1.362E-18	0.	0.	0.
1906	EQmxp	-0.013	-4.656E-05	-2.168E-18	0.	0.	0.
1906	EQmxn	0.013	4.656E-05	2.168E-18	0.	0.	0.
1906	EQmyp	1.285E-03	-0.055	6.939E-18	0.	0.	0.
1906	EQmyn	-1.285E-03	0.055	-6.939E-18	0.	0.	0.
1907	RSX	5.710E-03	9.164E-05	7.391E-19	0.	0.	0.
1907	RSY	4.718E-04	7.349E-03	2.394E-19	0.	0.	0.
1907	EQmxp	-8.045E-03	-2.928E-05	-4.337E-19	0.	0.	0.
1907	EQmxn	8.045E-03	2.928E-05	4.337E-19	0.	0.	0.
1907	EQmyp	8.079E-04	-0.035	0.	0.	0.	0.
1907	EQmyn	-8.079E-04	0.035	0.	0.	0.	0.
1908	RSX	2.714E-03	4.339E-05	1.660E-18	0.	0.	0.
1908	RSY	2.163E-04	3.299E-03	6.074E-19	0.	0.	0.
1908	EQmxp	-3.525E-03	-1.283E-05	-6.505E-19	0.	0.	0.
1908	EQmxn	3.525E-03	1.283E-05	6.505E-19	0.	0.	0.
1908	EQmyp	3.540E-04	-0.015	2.168E-18	0.	0.	0.
1908	EQmyn	-3.540E-04	0.015	-2.168E-18	0.	0.	0.
1909	RSX	5.063E-05	2.162E-06	3.491E-19	0.	0.	0.
1909	RSY	1.669E-05	3.417E-04	1.468E-19	0.	0.	0.
1909	EQmxp	4.820E-04	1.755E-06	-3.388E-19	0.	0.	0.
1909	EQmxn	-4.820E-04	-1.755E-06	3.388E-19	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1909	EQmyp	-4.841E-05	2.073E-03	-5.421E-19	0.	0.	0.
1909	EQmyn	4.841E-05	-2.073E-03	5.421E-19	0.	0.	0.
1910	RSX	2.305E-03	3.756E-05	2.788E-19	0.	0.	0.
1910	RSY	2.118E-04	3.478E-03	2.332E-19	0.	0.	0.
1910	EQmxp	4.017E-03	1.462E-05	-1.518E-18	0.	0.	0.
1910	EQmxn	-4.017E-03	-1.462E-05	1.518E-18	0.	0.	0.
1910	EQmyp	-4.034E-04	0.017	1.735E-18	0.	0.	0.
1910	EQmyn	4.034E-04	-0.017	-1.735E-18	0.	0.	0.
1911	RSX	4.384E-03	7.100E-05	1.471E-18	0.	0.	0.
1911	RSY	3.883E-04	6.270E-03	6.037E-19	0.	0.	0.
1911	EQmxp	7.126E-03	2.594E-05	-2.602E-18	0.	0.	0.
1911	EQmxn	-7.126E-03	-2.594E-05	2.602E-18	0.	0.	0.
1911	EQmyp	-7.156E-04	0.031	6.072E-18	0.	0.	0.
1911	EQmyn	7.156E-04	-0.031	-6.072E-18	0.	0.	0.
1912	RSX	6.225E-03	1.006E-04	7.378E-19	0.	0.	0.
1912	RSY	5.444E-04	8.739E-03	1.208E-18	0.	0.	0.
1912	EQmxp	9.872E-03	3.593E-05	-2.602E-18	0.	0.	0.
1912	EQmxn	-9.872E-03	-3.593E-05	2.602E-18	0.	0.	0.
1912	EQmyp	-9.914E-04	0.042	0.	0.	0.	0.
1912	EQmyn	9.914E-04	-0.042	0.	0.	0.	0.
1913	RSX	6.274E-03	1.013E-04	9.228E-19	0.	0.	0.
1913	RSY	5.451E-04	8.722E-03	8.277E-19	0.	0.	0.
1913	EQmxp	9.820E-03	3.575E-05	-2.168E-18	0.	0.	0.
1913	EQmxn	-9.820E-03	-3.575E-05	2.168E-18	0.	0.	0.
1913	EQmyp	-9.862E-04	0.042	-3.469E-18	0.	0.	0.
1913	EQmyn	9.862E-04	-0.042	3.469E-18	0.	0.	0.
1914	RSX	7.210E-03	1.164E-04	1.107E-18	0.	0.	0.
1914	RSY	6.238E-04	9.958E-03	1.611E-18	0.	0.	0.
1914	EQmxp	0.011	4.072E-05	1.735E-18	0.	0.	0.
1914	EQmxn	-0.011	-4.072E-05	-1.735E-18	0.	0.	0.
1914	EQmyp	-1.124E-03	0.048	5.204E-18	0.	0.	0.
1914	EQmyn	1.124E-03	-0.048	-5.204E-18	0.	0.	0.
1915	RSX	7.994E-03	1.290E-04	2.949E-18	0.	0.	0.
1915	RSY	6.893E-04	0.011	1.618E-18	0.	0.	0.
1915	EQmxp	0.012	4.485E-05	1.301E-18	0.	0.	0.
1915	EQmxn	-0.012	-4.485E-05	-1.301E-18	0.	0.	0.
1915	EQmyp	-1.238E-03	0.053	-1.735E-18	0.	0.	0.
1915	EQmyn	1.238E-03	-0.053	1.735E-18	0.	0.	0.
1916	RSX	8.834E-03	1.425E-04	0.	0.	0.	0.
1916	RSY	7.596E-04	0.012	2.017E-18	0.	0.	0.
1916	EQmxp	0.014	4.929E-05	-4.337E-19	0.	0.	0.
1916	EQmxn	-0.014	-4.929E-05	4.337E-19	0.	0.	0.
1916	EQmyp	-1.360E-03	0.058	5.204E-18	0.	0.	0.
1916	EQmyn	1.360E-03	-0.058	-5.204E-18	0.	0.	0.
1917	RSX	0.011	1.697E-04	1.861E-18	0.	0.	0.
1917	RSY	9.026E-04	0.014	1.916E-18	0.	0.	0.
1917	EQmxp	0.016	5.839E-05	-1.735E-18	0.	0.	0.
1917	EQmxn	-0.016	-5.839E-05	1.735E-18	0.	0.	0.
1917	EQmyp	-1.611E-03	0.069	0.	0.	0.	0.
1917	EQmyn	1.611E-03	-0.069	0.	0.	0.	0.
1918	RSX	0.026	4.215E-04	7.220E-17	0.	0.	0.
1918	RSY	2.234E-03	0.035	4.972E-17	0.	0.	0.
1918	EQmxp	0.04	1.440E-04	-1.492E-16	0.	0.	0.
1918	EQmxn	-0.04	-1.440E-04	1.492E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1918	EQmyp	-3.972E-03	0.17	2.290E-16	0.	0.	0.
1918	EQmyn	3.972E-03	-0.17	-2.290E-16	0.	0.	0.
1919	RSX	6.061E-03	9.758E-05	6.278E-18	0.	0.	0.
1919	RSY	5.143E-04	8.130E-03	6.001E-18	0.	0.	0.
1919	EQmxp	9.040E-03	3.291E-05	-2.168E-18	0.	0.	0.
1919	EQmxn	-9.040E-03	-3.291E-05	2.168E-18	0.	0.	0.
1919	EQmyp	-9.078E-04	0.039	1.735E-18	0.	0.	0.
1919	EQmyn	9.078E-04	-0.039	-1.735E-18	0.	0.	0.
1920	RSX	1.688E-03	2.712E-05	5.678E-18	0.	0.	0.
1920	RSY	1.408E-04	2.205E-03	4.131E-18	0.	0.	0.
1920	EQmxp	2.428E-03	8.838E-06	-8.132E-18	0.	0.	0.
1920	EQmxn	-2.428E-03	-8.838E-06	8.132E-18	0.	0.	0.
1920	EQmyp	-2.438E-04	0.01	6.939E-18	0.	0.	0.
1920	EQmyn	2.438E-04	-0.01	-6.939E-18	0.	0.	0.
1921	RSX	8.117E-05	1.308E-06	7.858E-18	0.	0.	0.
1921	RSY	4.517E-06	4.631E-05	1.325E-18	0.	0.	0.
1921	EQmxp	1.828E-06	6.654E-09	-1.677E-17	0.	0.	0.
1921	EQmxn	-1.828E-06	-6.654E-09	1.677E-17	0.	0.	0.
1921	EQmyp	-1.836E-07	7.861E-06	2.932E-17	0.	0.	0.
1921	EQmyn	1.836E-07	-7.861E-06	-2.932E-17	0.	0.	0.
1922	RSX	7.572E-04	1.229E-05	2.195E-18	0.	0.	0.
1922	RSY	6.787E-05	1.102E-03	4.913E-19	0.	0.	0.
1922	EQmxp	-1.259E-03	-4.584E-06	-3.361E-18	0.	0.	0.
1922	EQmxn	1.259E-03	4.584E-06	3.361E-18	0.	0.	0.
1922	EQmyp	1.265E-04	-5.416E-03	1.670E-17	0.	0.	0.
1922	EQmyn	-1.265E-04	5.416E-03	-1.670E-17	0.	0.	0.
1923	RSX	1.230E-03	1.990E-05	3.649E-18	0.	0.	0.
1923	RSY	1.080E-04	1.736E-03	7.598E-19	0.	0.	0.
1923	EQmxp	-1.965E-03	-7.152E-06	-5.692E-18	0.	0.	0.
1923	EQmxn	1.965E-03	7.152E-06	5.692E-18	0.	0.	0.
1923	EQmyp	1.973E-04	-8.449E-03	9.541E-18	0.	0.	0.
1923	EQmyn	-1.973E-04	8.449E-03	-9.541E-18	0.	0.	0.
1924	RSX	1.475E-03	2.383E-05	8.871E-18	0.	0.	0.
1924	RSY	1.285E-04	2.059E-03	9.046E-18	0.	0.	0.
1924	EQmxp	-2.322E-03	-8.451E-06	2.179E-17	0.	0.	0.
1924	EQmxn	2.322E-03	8.451E-06	-2.179E-17	0.	0.	0.
1924	EQmyp	2.332E-04	-9.983E-03	-2.212E-17	0.	0.	0.
1924	EQmyn	-2.332E-04	9.983E-03	2.212E-17	0.	0.	0.
1925	RSX	1.560E-03	2.519E-05	1.843E-17	0.	0.	0.
1925	RSY	1.354E-04	2.165E-03	7.900E-18	0.	0.	0.
1925	EQmxp	-2.436E-03	-8.867E-06	-1.507E-17	0.	0.	0.
1925	EQmxn	2.436E-03	8.867E-06	1.507E-17	0.	0.	0.
1925	EQmyp	2.446E-04	-0.01	3.816E-17	0.	0.	0.
1925	EQmyn	-2.446E-04	0.01	-3.816E-17	0.	0.	0.
1926	RSX	1.527E-03	2.466E-05	6.631E-18	0.	0.	0.
1926	RSY	1.322E-04	2.110E-03	1.633E-18	0.	0.	0.
1926	EQmxp	-2.371E-03	-8.630E-06	1.572E-17	0.	0.	0.
1926	EQmxn	2.371E-03	8.630E-06	-1.572E-17	0.	0.	0.
1926	EQmyp	2.381E-04	-0.01	-6.072E-18	0.	0.	0.
1926	EQmyn	-2.381E-04	0.01	6.072E-18	0.	0.	0.
1927	RSX	1.409E-03	2.273E-05	3.377E-18	0.	0.	0.
1927	RSY	1.216E-04	1.939E-03	2.629E-18	0.	0.	0.
1927	EQmxp	-2.175E-03	-7.918E-06	4.825E-18	0.	0.	0.
1927	EQmxn	2.175E-03	7.918E-06	-4.825E-18	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1927	EQmyp	2.185E-04	-9.354E-03	-4.337E-19	0.	0.	0.
1927	EQmyn	-2.185E-04	9.354E-03	4.337E-19	0.	0.	0.
1928	RSX	1.230E-03	1.983E-05	5.057E-17	0.	0.	0.
1928	RSY	1.058E-04	1.686E-03	1.206E-17	0.	0.	0.
1928	EQmxp	-1.889E-03	-6.876E-06	-3.030E-17	0.	0.	0.
1928	EQmxn	1.889E-03	6.876E-06	3.030E-17	0.	0.	0.
1928	EQmyp	1.897E-04	-8.123E-03	4.901E-17	0.	0.	0.
1928	EQmyn	-1.897E-04	8.123E-03	-4.901E-17	0.	0.	0.
1929	RSX	7.002E-04	1.129E-05	3.556E-17	0.	0.	0.
1929	RSY	6.010E-05	9.556E-04	2.234E-17	0.	0.	0.
1929	EQmxp	-1.069E-03	-3.892E-06	-5.009E-17	0.	0.	0.
1929	EQmxn	1.069E-03	3.892E-06	5.009E-17	0.	0.	0.
1929	EQmyp	1.074E-04	-4.597E-03	8.348E-17	0.	0.	0.
1929	EQmyn	-1.074E-04	4.597E-03	-8.348E-17	0.	0.	0.
1930	RSX	4.804E-04	7.742E-06	1.515E-17	0.	0.	0.
1930	RSY	4.105E-05	6.512E-04	2.676E-17	0.	0.	0.
1930	EQmxp	-7.268E-04	-2.646E-06	-2.873E-17	0.	0.	0.
1930	EQmxn	7.268E-04	2.646E-06	2.873E-17	0.	0.	0.
1930	EQmyp	7.299E-05	-3.125E-03	3.773E-17	0.	0.	0.
1930	EQmyn	-7.299E-05	3.125E-03	-3.773E-17	0.	0.	0.
1931	RSX	2.660E-04	4.282E-06	6.144E-17	0.	0.	0.
1931	RSY	2.252E-05	3.556E-04	4.005E-17	0.	0.	0.
1931	EQmxp	-3.949E-04	-1.438E-06	-6.657E-17	0.	0.	0.
1931	EQmxn	3.949E-04	1.438E-06	6.657E-17	0.	0.	0.
1931	EQmyp	3.966E-05	-1.698E-03	2.637E-16	0.	0.	0.
1931	EQmyn	-3.966E-05	1.698E-03	-2.637E-16	0.	0.	0.
1932	RSX	6.108E-05	9.770E-07	2.731E-17	0.	0.	0.
1932	RSY	4.878E-06	7.447E-05	3.101E-17	0.	0.	0.
1932	EQmxp	-7.968E-05	-2.900E-07	-1.600E-17	0.	0.	0.
1932	EQmxn	7.968E-05	2.900E-07	1.600E-17	0.	0.	0.
1932	EQmyp	8.002E-06	-3.426E-04	-7.154E-17	0.	0.	0.
1932	EQmyn	-8.002E-06	3.426E-04	7.154E-17	0.	0.	0.
1933	RSX	7.004E-04	1.132E-05	7.405E-16	0.	0.	0.
1933	RSY	6.116E-05	9.810E-04	4.433E-16	0.	0.	0.
1933	EQmxp	1.107E-03	4.031E-06	-1.784E-15	0.	0.	0.
1933	EQmxn	-1.107E-03	-4.031E-06	1.784E-15	0.	0.	0.
1933	EQmyp	-1.112E-04	4.761E-03	-9.253E-16	0.	0.	0.
1933	EQmyn	1.112E-04	-4.761E-03	9.253E-16	0.	0.	0.
1934	RSX	1.772E-04	2.856E-06	3.723E-16	0.	0.	0.
1934	RSY	1.517E-05	2.410E-04	2.755E-16	0.	0.	0.
1934	EQmxp	2.693E-04	9.804E-07	5.481E-16	0.	0.	0.
1934	EQmxn	-2.693E-04	-9.804E-07	-5.481E-16	0.	0.	0.
1934	EQmyp	-2.705E-05	1.158E-03	-7.271E-16	0.	0.	0.
1934	EQmyn	2.705E-05	-1.158E-03	7.271E-16	0.	0.	0.
1935	RSX	1.102E-04	1.775E-06	3.240E-16	0.	0.	0.
1935	RSY	9.371E-06	1.483E-04	1.419E-16	0.	0.	0.
1935	EQmxp	1.650E-04	6.008E-07	-2.642E-16	0.	0.	0.
1935	EQmxn	-1.650E-04	-6.008E-07	2.642E-16	0.	0.	0.
1935	EQmyp	-1.657E-05	7.097E-04	9.456E-16	0.	0.	0.
1935	EQmyn	1.657E-05	-7.097E-04	-9.456E-16	0.	0.	0.
1936	RSX	6.282E-05	1.011E-06	3.045E-17	0.	0.	0.
1936	RSY	5.307E-06	8.368E-05	5.285E-17	0.	0.	0.
1936	EQmxp	9.282E-05	3.379E-07	-1.450E-16	0.	0.	0.
1936	EQmxn	-9.282E-05	-3.379E-07	1.450E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1936	EQmyp	-9.321E-06	3.991E-04	2.935E-17	0.	0.	0.
1936	EQmyn	9.321E-06	-3.991E-04	-2.935E-17	0.	0.	0.
1937	RSX	2.582E-05	4.146E-07	5.203E-16	0.	0.	0.
1937	RSY	2.156E-06	3.379E-05	1.749E-16	0.	0.	0.
1937	EQmxp	3.723E-05	1.355E-07	3.627E-16	0.	0.	0.
1937	EQmxn	-3.723E-05	-1.355E-07	-3.627E-16	0.	0.	0.
1937	EQmyp	-3.739E-06	1.601E-04	-1.733E-15	0.	0.	0.
1937	EQmyn	3.739E-06	-1.601E-04	1.733E-15	0.	0.	0.
1938	RSX	5.319E-07	1.028E-08	7.945E-16	0.	0.	0.
1938	RSY	7.802E-08	1.450E-06	2.843E-16	0.	0.	0.
1938	EQmxp	-1.860E-06	-6.770E-09	-6.224E-17	0.	0.	0.
1938	EQmxn	1.860E-06	6.770E-09	6.224E-17	0.	0.	0.
1938	EQmyp	1.868E-07	-7.997E-06	1.402E-15	0.	0.	0.
1938	EQmyn	-1.868E-07	7.997E-06	-1.402E-15	0.	0.	0.
1939	RSX	2.000E-05	3.227E-07	1.658E-15	0.	0.	0.
1939	RSY	1.711E-06	2.716E-05	1.607E-15	0.	0.	0.
1939	EQmxp	-3.034E-05	-1.104E-07	5.769E-16	0.	0.	0.
1939	EQmxn	3.034E-05	1.104E-07	-5.769E-16	0.	0.	0.
1939	EQmyp	3.046E-06	-1.304E-04	4.234E-15	0.	0.	0.
1939	EQmyn	-3.046E-06	1.304E-04	-4.234E-15	0.	0.	0.
1940	RSX	6.943E-06	1.118E-07	2.451E-15	0.	0.	0.
1940	RSY	5.819E-07	9.134E-06	1.016E-15	0.	0.	0.
1940	EQmxp	-1.008E-05	-3.670E-08	-9.286E-16	0.	0.	0.
1940	EQmxn	1.008E-05	3.670E-08	9.286E-16	0.	0.	0.
1940	EQmyp	1.013E-06	-4.336E-05	1.442E-14	0.	0.	0.
1940	EQmyn	-1.013E-06	4.336E-05	-1.442E-14	0.	0.	0.
1941	RSX	4.809E-07	7.450E-09	1.994E-15	0.	0.	0.
1941	RSY	4.531E-08	7.328E-07	3.409E-15	0.	0.	0.
1941	EQmxp	8.485E-07	3.083E-09	-2.356E-15	0.	0.	0.
1941	EQmxn	-8.485E-07	-3.083E-09	2.356E-15	0.	0.	0.
1941	EQmyp	-8.520E-08	3.648E-06	-1.994E-14	0.	0.	0.
1941	EQmyn	8.520E-08	-3.648E-06	1.994E-14	0.	0.	0.
1942	RSX	5.595E-07	8.769E-09	2.862E-16	0.	0.	0.
1942	RSY	4.877E-08	7.501E-07	1.164E-15	0.	0.	0.
1942	EQmxp	8.342E-07	3.038E-09	-2.324E-15	0.	0.	0.
1942	EQmxn	-8.342E-07	-3.038E-09	2.324E-15	0.	0.	0.
1942	EQmyp	-8.377E-08	3.587E-06	5.510E-15	0.	0.	0.
1942	EQmyn	8.377E-08	-3.587E-06	-5.510E-15	0.	0.	0.
1943	RSX	1.189E-07	1.610E-09	7.013E-15	0.	0.	0.
1943	RSY	1.152E-08	1.552E-07	4.273E-15	0.	0.	0.
1943	EQmxp	1.706E-07	6.204E-10	9.670E-15	0.	0.	0.
1943	EQmxn	-1.706E-07	-6.204E-10	-9.670E-15	0.	0.	0.
1943	EQmyp	-1.714E-08	7.337E-07	-2.606E-14	0.	0.	0.
1943	EQmyn	1.714E-08	-7.337E-07	2.606E-14	0.	0.	0.
1944	RSX	1.360E-08	3.412E-10	5.325E-15	0.	0.	0.
1944	RSY	1.919E-09	1.907E-08	8.989E-16	0.	0.	0.
1944	EQmxp	-2.156E-08	-7.345E-11	-6.771E-15	0.	0.	0.
1944	EQmxn	2.156E-08	7.345E-11	6.771E-15	0.	0.	0.
1944	EQmyp	2.157E-09	-9.275E-08	3.083E-14	0.	0.	0.
1944	EQmyn	-2.157E-09	9.275E-08	-3.083E-14	0.	0.	0.
1945	RSX	1.302E-08	6.892E-10	3.446E-15	0.	0.	0.
1945	RSY	1.047E-08	1.826E-08	2.431E-15	0.	0.	0.
1945	EQmxp	-1.831E-08	-7.206E-11	-4.712E-15	0.	0.	0.
1945	EQmxn	1.831E-08	7.206E-11	4.712E-15	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1945	EQmyp	1.848E-09	-7.869E-08	2.423E-14	0.	0.	0.
1945	EQmyn	-1.848E-09	7.869E-08	-2.423E-14	0.	0.	0.
1946	RSX	3.453E-09	3.801E-09	6.590E-17	0.	0.	0.
1946	RSY	5.607E-08	5.575E-08	3.096E-15	0.	0.	0.
1946	EQmxp	-1.478E-09	-3.611E-12	-5.393E-15	0.	0.	0.
1946	EQmxn	1.478E-09	3.611E-12	5.393E-15	0.	0.	0.
1946	EQmyp	1.475E-10	-6.369E-09	5.794E-15	0.	0.	0.
1946	EQmyn	-1.475E-10	6.369E-09	-5.794E-15	0.	0.	0.
1947	RSX	1.194E-11	1.027E-11	1.538E-18	0.	0.	0.
1947	RSY	1.391E-10	1.310E-10	3.638E-19	0.	0.	0.
1947	EQmxp	3.154E-12	1.398E-14	-1.052E-18	0.	0.	0.
1947	EQmxn	-3.154E-12	-1.398E-14	1.052E-18	0.	0.	0.
1947	EQmyp	-3.339E-13	1.351E-11	2.523E-18	0.	0.	0.
1947	EQmyn	3.339E-13	-1.351E-11	-2.523E-18	0.	0.	0.
1948	RSX	5.879E-11	5.403E-11	2.349E-18	0.	0.	0.
1948	RSY	6.996E-10	6.525E-10	8.349E-19	0.	0.	0.
1948	EQmxp	1.186E-11	5.525E-14	3.445E-18	0.	0.	0.
1948	EQmxn	-1.186E-11	-5.525E-14	-3.445E-18	0.	0.	0.
1948	EQmyp	-1.225E-12	5.085E-11	-1.014E-18	0.	0.	0.
1948	EQmyn	1.225E-12	-5.085E-11	1.014E-18	0.	0.	0.
1949	RSX	1.358E-10	1.333E-10	4.718E-19	0.	0.	0.
1949	RSY	1.653E-09	1.570E-09	3.619E-18	0.	0.	0.
1949	EQmxp	2.088E-11	6.378E-14	-7.101E-18	0.	0.	0.
1949	EQmxn	-2.088E-11	-6.378E-14	7.101E-18	0.	0.	0.
1949	EQmyp	-2.077E-12	8.993E-11	8.400E-18	0.	0.	0.
1949	EQmyn	2.077E-12	-8.993E-11	-8.400E-18	0.	0.	0.
1950	RSX	2.264E-10	2.372E-10	6.362E-18	0.	0.	0.
1950	RSY	2.858E-09	2.766E-09	1.862E-18	0.	0.	0.
1950	EQmxp	2.709E-11	9.277E-14	1.036E-18	0.	0.	0.
1950	EQmxn	-2.709E-11	-9.277E-14	-1.036E-18	0.	0.	0.
1950	EQmyp	-2.711E-12	1.166E-10	3.713E-18	0.	0.	0.
1950	EQmyn	2.711E-12	-1.166E-10	-3.713E-18	0.	0.	0.
1951	RSX	3.158E-10	3.479E-10	1.236E-17	0.	0.	0.
1951	RSY	4.164E-09	4.002E-09	3.507E-18	0.	0.	0.
1951	EQmxp	2.920E-11	1.000E-13	-1.708E-17	0.	0.	0.
1951	EQmxn	-2.920E-11	-1.000E-13	1.708E-17	0.	0.	0.
1951	EQmyp	-3.074E-12	1.253E-10	2.172E-17	0.	0.	0.
1951	EQmyn	3.074E-12	-1.253E-10	-2.172E-17	0.	0.	0.
1952	RSX	3.918E-10	4.487E-10	7.259E-18	0.	0.	0.
1952	RSY	5.450E-09	5.091E-09	6.212E-18	0.	0.	0.
1952	EQmxp	2.736E-11	9.599E-14	-1.544E-17	0.	0.	0.
1952	EQmxn	-2.736E-11	-9.599E-14	1.544E-17	0.	0.	0.
1952	EQmyp	-3.106E-12	1.169E-10	1.922E-17	0.	0.	0.
1952	EQmyn	3.106E-12	-1.169E-10	-1.922E-17	0.	0.	0.
1953	RSX	4.460E-10	5.311E-10	1.275E-17	0.	0.	0.
1953	RSY	6.543E-09	5.912E-09	7.490E-18	0.	0.	0.
1953	EQmxp	2.256E-11	9.449E-14	2.077E-17	0.	0.	0.
1953	EQmxn	-2.256E-11	-9.449E-14	-2.077E-17	0.	0.	0.
1953	EQmyp	-2.675E-12	9.592E-11	2.871E-18	0.	0.	0.
1953	EQmyn	2.675E-12	-9.592E-11	-2.871E-18	0.	0.	0.
1954	RSX	4.821E-10	5.867E-10	8.027E-18	0.	0.	0.
1954	RSY	7.280E-09	6.389E-09	1.028E-17	0.	0.	0.
1954	EQmxp	1.615E-11	-2.424E-14	-1.102E-17	0.	0.	0.
1954	EQmxn	-1.615E-11	2.424E-14	1.102E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1954	EQmyp	-1.812E-12	6.936E-11	4.031E-17	0.	0.	0.
1954	EQmyn	1.812E-12	-6.936E-11	-4.031E-17	0.	0.	0.
1955	RSX	5.065E-10	6.158E-10	8.540E-18	0.	0.	0.
1955	RSY	7.731E-09	6.530E-09	8.468E-18	0.	0.	0.
1955	EQmxp	9.688E-12	-2.340E-14	2.270E-17	0.	0.	0.
1955	EQmxn	-9.688E-12	2.340E-14	-2.270E-17	0.	0.	0.
1955	EQmyp	-9.575E-13	4.179E-11	-7.325E-17	0.	0.	0.
1955	EQmyn	9.575E-13	-4.179E-11	7.325E-17	0.	0.	0.
1956	RSX	5.240E-10	6.343E-10	1.424E-17	0.	0.	0.
1956	RSY	7.980E-09	6.486E-09	1.079E-17	0.	0.	0.
1956	EQmxp	4.134E-12	-1.275E-14	-7.414E-18	0.	0.	0.
1956	EQmxn	-4.134E-12	1.275E-14	7.414E-18	0.	0.	0.
1956	EQmyp	-2.218E-13	1.812E-11	-2.800E-17	0.	0.	0.
1956	EQmyn	2.218E-13	-1.812E-11	2.800E-17	0.	0.	0.
1957	RSX	5.308E-10	6.473E-10	3.508E-17	0.	0.	0.
1957	RSY	8.213E-09	6.448E-09	1.222E-17	0.	0.	0.
1957	EQmxp	-1.138E-13	-1.416E-13	-7.442E-17	0.	0.	0.
1957	EQmxn	1.138E-13	1.416E-13	7.442E-17	0.	0.	0.
1957	EQmyp	7.501E-13	1.629E-12	1.077E-16	0.	0.	0.
1957	EQmyn	-7.501E-13	-1.629E-12	-1.077E-16	0.	0.	0.
1958	RSX	5.268E-10	6.634E-10	2.945E-17	0.	0.	0.
1958	RSY	8.453E-09	6.562E-09	3.293E-17	0.	0.	0.
1958	EQmxp	-2.519E-12	-1.186E-13	4.016E-17	0.	0.	0.
1958	EQmxn	2.519E-12	1.186E-13	-4.016E-17	0.	0.	0.
1958	EQmyp	9.069E-13	-8.996E-12	-9.299E-17	0.	0.	0.
1958	EQmyn	-9.069E-13	8.996E-12	9.299E-17	0.	0.	0.
1959	RSX	5.203E-10	6.784E-10	1.602E-17	0.	0.	0.
1959	RSY	8.662E-09	7.101E-09	2.310E-18	0.	0.	0.
1959	EQmxp	-3.389E-12	-5.910E-14	1.403E-17	0.	0.	0.
1959	EQmxn	3.389E-12	5.910E-14	-1.403E-17	0.	0.	0.
1959	EQmyp	6.559E-13	-1.383E-11	-7.937E-17	0.	0.	0.
1959	EQmyn	-6.559E-13	1.383E-11	7.937E-17	0.	0.	0.
1960	RSX	5.136E-10	6.854E-10	2.203E-17	0.	0.	0.
1960	RSY	8.693E-09	8.050E-09	1.380E-17	0.	0.	0.
1960	EQmxp	-3.203E-12	-1.059E-15	-5.410E-17	0.	0.	0.
1960	EQmxn	3.203E-12	1.059E-15	5.410E-17	0.	0.	0.
1960	EQmyp	1.020E-13	-1.438E-11	1.570E-16	0.	0.	0.
1960	EQmyn	-1.020E-13	1.438E-11	-1.570E-16	0.	0.	0.
1961	RSX	4.691E-10	6.200E-10	1.884E-17	0.	0.	0.
1961	RSY	7.780E-09	8.250E-09	2.162E-17	0.	0.	0.
1961	EQmxp	-2.383E-12	8.484E-14	-3.537E-17	0.	0.	0.
1961	EQmxn	2.383E-12	-8.484E-14	3.537E-17	0.	0.	0.
1961	EQmyp	-5.474E-14	-1.147E-11	1.626E-16	0.	0.	0.
1961	EQmyn	5.474E-14	1.147E-11	-1.626E-16	0.	0.	0.
1962	RSX	4.766E-10	6.019E-10	3.083E-17	0.	0.	0.
1962	RSY	7.559E-09	8.890E-09	4.351E-17	0.	0.	0.
1962	EQmxp	-1.890E-12	-7.666E-14	3.374E-17	0.	0.	0.
1962	EQmxn	1.890E-12	7.666E-14	-3.374E-17	0.	0.	0.
1962	EQmyp	2.597E-13	-7.444E-12	-7.626E-17	0.	0.	0.
1962	EQmyn	-2.597E-13	7.444E-12	7.626E-17	0.	0.	0.
1963	RSX	4.864E-10	5.617E-10	1.505E-17	0.	0.	0.
1963	RSY	7.386E-09	9.205E-09	1.396E-17	0.	0.	0.
1963	EQmxp	-1.192E-12	2.459E-14	-3.145E-17	0.	0.	0.
1963	EQmxn	1.192E-12	-2.459E-14	3.145E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1963	EQmyp	2.732E-13	-4.789E-12	7.535E-17	0.	0.	0.
1963	EQmyn	-2.732E-13	4.789E-12	-7.535E-17	0.	0.	0.
1964	RSX	4.961E-10	5.093E-10	3.061E-17	0.	0.	0.
1964	RSY	7.501E-09	9.291E-09	1.489E-17	0.	0.	0.
1964	EQmxp	-4.661E-13	1.301E-13	4.309E-17	0.	0.	0.
1964	EQmxn	4.661E-13	-1.301E-13	-4.309E-17	0.	0.	0.
1964	EQmyp	-1.257E-13	-2.752E-12	-2.688E-17	0.	0.	0.
1964	EQmyn	1.257E-13	2.752E-12	2.688E-17	0.	0.	0.
1965	RSX	4.860E-10	4.688E-10	4.206E-18	0.	0.	0.
1965	RSY	7.608E-09	9.173E-09	4.892E-18	0.	0.	0.
1965	EQmxp	-8.104E-14	2.520E-13	4.945E-20	0.	0.	0.
1965	EQmxn	8.104E-14	-2.520E-13	-4.945E-20	0.	0.	0.
1965	EQmyp	-5.264E-14	-1.557E-12	1.164E-17	0.	0.	0.
1965	EQmyn	5.264E-14	1.557E-12	-1.164E-17	0.	0.	0.
1966	RSX	4.712E-10	4.470E-10	5.520E-17	0.	0.	0.
1966	RSY	7.463E-09	8.713E-09	3.326E-17	0.	0.	0.
1966	EQmxp	-1.927E-13	-1.555E-14	-6.000E-17	0.	0.	0.
1966	EQmxn	1.927E-13	1.555E-14	6.000E-17	0.	0.	0.
1966	EQmyp	5.780E-13	8.862E-13	7.084E-17	0.	0.	0.
1966	EQmyn	-5.780E-13	-8.862E-13	-7.084E-17	0.	0.	0.
1967	RSX	4.534E-10	4.445E-10	2.450E-17	0.	0.	0.
1967	RSY	7.277E-09	8.155E-09	1.583E-17	0.	0.	0.
1967	EQmxp	-3.206E-14	1.525E-14	1.355E-19	0.	0.	0.
1967	EQmxn	3.206E-14	-1.525E-14	-1.355E-19	0.	0.	0.
1967	EQmyp	3.812E-13	9.084E-13	-1.441E-17	0.	0.	0.
1967	EQmyn	-3.812E-13	-9.084E-13	1.441E-17	0.	0.	0.
1968	RSX	4.498E-10	4.573E-10	3.052E-18	0.	0.	0.
1968	RSY	7.198E-09	7.415E-09	1.343E-17	0.	0.	0.
1968	EQmxp	2.677E-13	8.301E-15	-6.155E-17	0.	0.	0.
1968	EQmxn	-2.677E-13	-8.301E-15	6.155E-17	0.	0.	0.
1968	EQmyp	-1.606E-13	6.325E-13	7.537E-17	0.	0.	0.
1968	EQmyn	1.606E-13	-6.325E-13	-7.537E-17	0.	0.	0.
1969	RSX	4.631E-10	4.784E-10	1.236E-17	0.	0.	0.
1969	RSY	7.090E-09	6.892E-09	1.147E-17	0.	0.	0.
1969	EQmxp	5.585E-13	-1.448E-13	-3.030E-17	0.	0.	0.
1969	EQmxn	-5.585E-13	1.448E-13	3.030E-17	0.	0.	0.
1969	EQmyp	-9.120E-13	3.836E-13	-1.613E-17	0.	0.	0.
1969	EQmyn	9.120E-13	-3.836E-13	1.613E-17	0.	0.	0.
1970	RSX	4.856E-10	5.064E-10	2.885E-17	0.	0.	0.
1970	RSY	7.030E-09	6.481E-09	3.745E-17	0.	0.	0.
1970	EQmxp	5.382E-13	-9.368E-13	5.863E-17	0.	0.	0.
1970	EQmxn	-5.382E-13	9.368E-13	-5.863E-17	0.	0.	0.
1970	EQmyp	-9.214E-13	2.972E-12	-2.410E-16	0.	0.	0.
1970	EQmyn	9.214E-13	-2.972E-12	2.410E-16	0.	0.	0.
1971	RSX	4.952E-10	5.386E-10	2.940E-17	0.	0.	0.
1971	RSY	6.662E-09	6.100E-09	2.436E-17	0.	0.	0.
1971	EQmxp	1.297E-12	-1.625E-12	5.690E-17	0.	0.	0.
1971	EQmxn	-1.297E-12	1.625E-12	-5.690E-17	0.	0.	0.
1971	EQmyp	-2.694E-12	3.877E-12	-2.531E-17	0.	0.	0.
1971	EQmyn	2.694E-12	-3.877E-12	2.531E-17	0.	0.	0.
1972	RSX	5.070E-10	5.580E-10	1.585E-17	0.	0.	0.
1972	RSY	5.927E-09	6.142E-09	5.377E-18	0.	0.	0.
1972	EQmxp	2.502E-12	-2.502E-12	7.946E-17	0.	0.	0.
1972	EQmxn	-2.502E-12	2.502E-12	-7.946E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1972	EQmyp	-5.216E-12	5.152E-12	-2.228E-18	0.	0.	0.
1972	EQmyn	5.216E-12	-5.152E-12	2.228E-18	0.	0.	0.
1973	RSX	5.166E-10	5.515E-10	1.248E-18	0.	0.	0.
1973	RSY	5.008E-09	6.459E-09	1.430E-17	0.	0.	0.
1973	EQmxp	3.505E-12	-3.355E-12	-3.073E-17	0.	0.	0.
1973	EQmxn	-3.505E-12	3.355E-12	3.073E-17	0.	0.	0.
1973	EQmyp	-7.460E-12	6.428E-12	9.215E-17	0.	0.	0.
1973	EQmyn	7.460E-12	-6.428E-12	-9.215E-17	0.	0.	0.
1974	RSX	5.275E-10	5.281E-10	7.960E-18	0.	0.	0.
1974	RSY	4.488E-09	6.946E-09	7.178E-18	0.	0.	0.
1974	EQmxp	3.064E-12	-3.817E-12	-2.926E-17	0.	0.	0.
1974	EQmxn	-3.064E-12	3.817E-12	2.926E-17	0.	0.	0.
1974	EQmyp	-6.482E-12	8.783E-12	1.649E-17	0.	0.	0.
1974	EQmyn	6.482E-12	-8.783E-12	-1.649E-17	0.	0.	0.
1975	RSX	5.433E-10	5.078E-10	2.011E-17	0.	0.	0.
1975	RSY	4.613E-09	7.208E-09	1.807E-18	0.	0.	0.
1975	EQmxp	9.112E-13	-1.251E-12	-2.973E-17	0.	0.	0.
1975	EQmxn	-9.112E-13	1.251E-12	2.973E-17	0.	0.	0.
1975	EQmyp	-2.018E-12	2.839E-12	-7.523E-17	0.	0.	0.
1975	EQmyn	2.018E-12	-2.839E-12	7.523E-17	0.	0.	0.
1976	RSX	5.816E-10	4.971E-10	6.824E-18	0.	0.	0.
1976	RSY	5.436E-09	7.438E-09	5.864E-18	0.	0.	0.
1976	EQmxp	-5.845E-12	6.502E-12	-1.006E-17	0.	0.	0.
1976	EQmxn	5.845E-12	-6.502E-12	1.006E-17	0.	0.	0.
1976	EQmyp	1.243E-11	-1.413E-11	2.805E-17	0.	0.	0.
1976	EQmyn	-1.243E-11	1.413E-11	-2.805E-17	0.	0.	0.
1977	RSX	5.762E-10	4.734E-10	3.673E-18	0.	0.	0.
1977	RSY	6.315E-09	7.273E-09	3.104E-17	0.	0.	0.
1977	EQmxp	-1.973E-11	2.151E-11	5.465E-17	0.	0.	0.
1977	EQmxn	1.973E-11	-2.151E-11	-5.465E-17	0.	0.	0.
1977	EQmyp	4.177E-11	-4.639E-11	-6.240E-17	0.	0.	0.
1977	EQmyn	-4.177E-11	4.639E-11	6.240E-17	0.	0.	0.
1978	RSX	5.740E-10	4.689E-10	5.948E-17	0.	0.	0.
1978	RSY	7.228E-09	7.046E-09	1.769E-17	0.	0.	0.
1978	EQmxp	-4.418E-11	4.650E-11	-1.752E-17	0.	0.	0.
1978	EQmxn	4.418E-11	-4.650E-11	1.752E-17	0.	0.	0.
1978	EQmyp	9.369E-11	-9.772E-11	1.065E-16	0.	0.	0.
1978	EQmyn	-9.369E-11	9.772E-11	-1.065E-16	0.	0.	0.
1979	RSX	5.466E-10	4.913E-10	1.980E-17	0.	0.	0.
1979	RSY	8.199E-09	6.908E-09	6.117E-17	0.	0.	0.
1979	EQmxp	-7.541E-11	8.009E-11	8.783E-17	0.	0.	0.
1979	EQmxn	7.541E-11	-8.009E-11	-8.783E-17	0.	0.	0.
1979	EQmyp	1.598E-10	-1.695E-10	-1.500E-16	0.	0.	0.
1979	EQmyn	-1.598E-10	1.695E-10	1.500E-16	0.	0.	0.
1980	RSX	4.943E-10	5.246E-10	2.827E-17	0.	0.	0.
1980	RSY	8.910E-09	6.675E-09	5.278E-17	0.	0.	0.
1980	EQmxp	-1.014E-10	1.084E-10	1.827E-16	0.	0.	0.
1980	EQmxn	1.014E-10	-1.084E-10	-1.827E-16	0.	0.	0.
1980	EQmyp	2.150E-10	-2.300E-10	-1.082E-16	0.	0.	0.
1980	EQmyn	-2.150E-10	2.300E-10	1.082E-16	0.	0.	0.
1981	RSX	4.538E-10	5.107E-10	8.714E-17	0.	0.	0.
1981	RSY	9.437E-09	6.681E-09	7.785E-17	0.	0.	0.
1981	EQmxp	-9.004E-11	9.664E-11	1.457E-16	0.	0.	0.
1981	EQmxn	9.004E-11	-9.664E-11	-1.457E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1981	EQmyp	1.908E-10	-2.059E-10	-2.974E-16	0.	0.	0.
1981	EQmyn	-1.908E-10	2.059E-10	2.974E-16	0.	0.	0.
1982	RSX	4.858E-10	4.148E-10	8.590E-18	0.	0.	0.
1982	RSY	9.610E-09	7.139E-09	4.790E-17	0.	0.	0.
1982	EQmxp	2.026E-11	-2.233E-11	-1.458E-16	0.	0.	0.
1982	EQmxn	-2.026E-11	2.233E-11	1.458E-16	0.	0.	0.
1982	EQmyp	-4.306E-11	4.829E-11	4.358E-17	0.	0.	0.
1982	EQmyn	4.306E-11	-4.829E-11	-4.358E-17	0.	0.	0.
1983	RSX	6.351E-10	3.107E-10	7.191E-17	0.	0.	0.
1983	RSY	9.205E-09	7.648E-09	2.528E-17	0.	0.	0.
1983	EQmxp	3.254E-10	-3.474E-10	1.061E-17	0.	0.	0.
1983	EQmxn	-3.254E-10	3.474E-10	-1.061E-17	0.	0.	0.
1983	EQmyp	-6.896E-10	7.369E-10	1.186E-16	0.	0.	0.
1983	EQmyn	6.896E-10	-7.369E-10	-1.186E-16	0.	0.	0.
1984	RSX	1.013E-09	4.598E-10	3.841E-17	0.	0.	0.
1984	RSY	8.924E-09	7.556E-09	2.130E-17	0.	0.	0.
1984	EQmxp	9.254E-10	-9.864E-10	-1.376E-16	0.	0.	0.
1984	EQmxn	-9.254E-10	9.864E-10	1.376E-16	0.	0.	0.
1984	EQmyp	-1.962E-09	2.091E-09	-9.477E-18	0.	0.	0.
1984	EQmyn	1.962E-09	-2.091E-09	9.477E-18	0.	0.	0.
1985	RSX	1.620E-09	1.003E-09	3.327E-17	0.	0.	0.
1985	RSY	8.889E-09	6.995E-09	9.769E-18	0.	0.	0.
1985	EQmxp	1.839E-09	-1.960E-09	-1.378E-17	0.	0.	0.
1985	EQmxn	-1.839E-09	1.960E-09	1.378E-17	0.	0.	0.
1985	EQmyp	-3.899E-09	4.154E-09	1.718E-16	0.	0.	0.
1985	EQmyn	3.899E-09	-4.154E-09	-1.718E-16	0.	0.	0.
1986	RSX	2.252E-09	1.628E-09	9.973E-17	0.	0.	0.
1986	RSY	8.370E-09	6.484E-09	4.748E-17	0.	0.	0.
1986	EQmxp	2.815E-09	-3.002E-09	1.276E-16	0.	0.	0.
1986	EQmxn	-2.815E-09	3.002E-09	-1.276E-16	0.	0.	0.
1986	EQmyp	-5.967E-09	6.365E-09	-3.878E-16	0.	0.	0.
1986	EQmyn	5.967E-09	-6.365E-09	3.878E-16	0.	0.	0.
1987	RSX	2.382E-09	1.751E-09	6.497E-17	0.	0.	0.
1987	RSY	7.477E-09	5.976E-09	5.866E-17	0.	0.	0.
1987	EQmxp	3.010E-09	-3.210E-09	-1.770E-16	0.	0.	0.
1987	EQmxn	-3.010E-09	3.210E-09	1.770E-16	0.	0.	0.
1987	EQmyp	-6.381E-09	6.804E-09	1.992E-16	0.	0.	0.
1987	EQmyn	6.381E-09	-6.804E-09	-1.992E-16	0.	0.	0.
1988	RSX	8.887E-10	2.577E-10	1.547E-16	0.	0.	0.
1988	RSY	6.752E-09	6.115E-09	6.715E-17	0.	0.	0.
1988	EQmxp	5.913E-10	-6.301E-10	-6.870E-17	0.	0.	0.
1988	EQmxn	-5.913E-10	6.301E-10	6.870E-17	0.	0.	0.
1988	EQmyp	-1.254E-09	1.335E-09	3.218E-16	0.	0.	0.
1988	EQmyn	1.254E-09	-1.335E-09	-3.218E-16	0.	0.	0.
1989	RSX	4.403E-09	5.543E-09	2.225E-17	0.	0.	0.
1989	RSY	6.850E-09	8.353E-09	3.877E-17	0.	0.	0.
1989	EQmxp	-7.464E-09	7.959E-09	-6.786E-17	0.	0.	0.
1989	EQmxn	7.464E-09	-7.959E-09	6.786E-17	0.	0.	0.
1989	EQmyp	1.582E-08	-1.687E-08	1.072E-16	0.	0.	0.
1989	EQmyn	-1.582E-08	1.687E-08	-1.072E-16	0.	0.	0.
1990	RSX	1.568E-08	1.755E-08	6.801E-17	0.	0.	0.
1990	RSY	1.235E-08	1.481E-08	2.134E-17	0.	0.	0.
1990	EQmxp	-2.470E-08	2.633E-08	-5.888E-17	0.	0.	0.
1990	EQmxn	2.470E-08	-2.633E-08	5.888E-17	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1990	EQmyp	5.235E-08	-5.581E-08	1.185E-16	0.	0.	0.
1990	EQmyn	-5.235E-08	5.581E-08	-1.185E-16	0.	0.	0.
1991	RSX	3.385E-08	3.691E-08	9.253E-17	0.	0.	0.
1991	RSY	2.370E-08	2.653E-08	7.012E-17	0.	0.	0.
1991	EQmxp	-5.235E-08	5.581E-08	7.969E-17	0.	0.	0.
1991	EQmxn	5.235E-08	-5.581E-08	-7.969E-17	0.	0.	0.
1991	EQmyp	1.110E-07	-1.183E-07	-4.007E-16	0.	0.	0.
1991	EQmyn	-1.110E-07	1.183E-07	4.007E-16	0.	0.	0.
1992	RSX	5.385E-08	5.824E-08	5.618E-17	0.	0.	0.
1992	RSY	3.668E-08	4.009E-08	5.536E-17	0.	0.	0.
1992	EQmxp	-8.277E-08	8.825E-08	-1.570E-16	0.	0.	0.
1992	EQmxn	8.277E-08	-8.825E-08	1.570E-16	0.	0.	0.
1992	EQmyp	1.755E-07	-1.871E-07	5.698E-16	0.	0.	0.
1992	EQmyn	-1.755E-07	1.871E-07	-5.698E-16	0.	0.	0.
1993	RSX	5.526E-08	5.975E-08	5.994E-17	0.	0.	0.
1993	RSY	3.748E-08	4.097E-08	4.676E-17	0.	0.	0.
1993	EQmxp	-8.487E-08	9.048E-08	-1.116E-16	0.	0.	0.
1993	EQmxn	8.487E-08	-9.048E-08	1.116E-16	0.	0.	0.
1993	EQmyp	1.799E-07	-1.918E-07	6.708E-16	0.	0.	0.
1993	EQmyn	-1.799E-07	1.918E-07	-6.708E-16	0.	0.	0.
1994	RSX	2.260E-09	3.248E-09	1.053E-16	0.	0.	0.
1994	RSY	5.555E-09	1.089E-08	5.876E-17	0.	0.	0.
1994	EQmxp	-4.162E-09	4.436E-09	-2.798E-17	0.	0.	0.
1994	EQmxn	4.162E-09	-4.436E-09	2.798E-17	0.	0.	0.
1994	EQmyp	8.822E-09	-9.401E-09	3.719E-16	0.	0.	0.
1994	EQmyn	-8.822E-09	9.401E-09	-3.719E-16	0.	0.	0.
1995	RSX	1.727E-07	1.833E-07	1.233E-16	0.	0.	0.
1995	RSY	1.138E-07	1.217E-07	9.170E-17	0.	0.	0.
1995	EQmxp	2.620E-07	-2.793E-07	-1.323E-17	0.	0.	0.
1995	EQmxn	-2.620E-07	2.793E-07	1.323E-17	0.	0.	0.
1995	EQmyp	-5.554E-07	5.922E-07	6.363E-16	0.	0.	0.
1995	EQmyn	5.554E-07	-5.922E-07	-6.363E-16	0.	0.	0.
1996	RSX	6.447E-07	6.865E-07	2.254E-17	0.	0.	0.
1996	RSY	4.258E-07	4.542E-07	5.809E-17	0.	0.	0.
1996	EQmxp	9.803E-07	-1.045E-06	2.585E-16	0.	0.	0.
1996	EQmxn	-9.803E-07	1.045E-06	-2.585E-16	0.	0.	0.
1996	EQmyp	-2.078E-06	2.216E-06	-9.340E-17	0.	0.	0.
1996	EQmyn	2.078E-06	-2.216E-06	9.340E-17	0.	0.	0.
1997	RSX	2.062E-06	2.197E-06	1.224E-16	0.	0.	0.
1997	RSY	1.363E-06	1.453E-06	2.567E-17	0.	0.	0.
1997	EQmxp	3.137E-06	-3.344E-06	-4.503E-17	0.	0.	0.
1997	EQmxn	-3.137E-06	3.344E-06	4.503E-17	0.	0.	0.
1997	EQmyp	-6.650E-06	7.090E-06	2.546E-16	0.	0.	0.
1997	EQmyn	6.650E-06	-7.090E-06	-2.546E-16	0.	0.	0.
1998	RSX	3.725E-06	3.970E-06	7.433E-18	0.	0.	0.
1998	RSY	2.462E-06	2.625E-06	6.618E-17	0.	0.	0.
1998	EQmxp	5.668E-06	-6.043E-06	-1.314E-16	0.	0.	0.
1998	EQmxn	-5.668E-06	6.043E-06	1.314E-16	0.	0.	0.
1998	EQmyp	-1.201E-05	1.281E-05	4.781E-17	0.	0.	0.
1998	EQmyn	1.201E-05	-1.281E-05	-4.781E-17	0.	0.	0.
1999	RSX	5.379E-07	5.727E-07	1.090E-16	0.	0.	0.
1999	RSY	3.557E-07	3.792E-07	7.220E-17	0.	0.	0.
1999	EQmxp	8.183E-07	-8.724E-07	3.906E-16	0.	0.	0.
1999	EQmxn	-8.183E-07	8.724E-07	-3.906E-16	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
1999	EQmyp	-1.735E-06	1.849E-06	-6.851E-16	0.	0.	0.
1999	EQmyn	1.735E-06	-1.849E-06	6.851E-16	0.	0.	0.
2000	RSX	2.335E-05	2.489E-05	1.149E-16	0.	0.	0.
2000	RSY	1.544E-05	1.646E-05	5.527E-17	0.	0.	0.
2000	EQmxp	-3.553E-05	3.788E-05	-2.197E-16	0.	0.	0.
2000	EQmxn	3.553E-05	-3.788E-05	2.197E-16	0.	0.	0.
2000	EQmyp	7.532E-05	-8.030E-05	8.673E-16	0.	0.	0.
2000	EQmyn	-7.532E-05	8.030E-05	-8.673E-16	0.	0.	0.
2001	RSX	1.042E-04	1.111E-04	4.394E-17	0.	0.	0.
2001	RSY	6.890E-05	7.346E-05	2.925E-16	0.	0.	0.
2001	EQmxp	-1.586E-04	1.691E-04	7.593E-17	0.	0.	0.
2001	EQmxn	1.586E-04	-1.691E-04	-7.593E-17	0.	0.	0.
2001	EQmyp	3.362E-04	-3.584E-04	-1.535E-16	0.	0.	0.
2001	EQmyn	-3.362E-04	3.584E-04	1.535E-16	0.	0.	0.
2028	RSX	2.015E-04	2.148E-04	1.366E-15	0.	0.	0.
2028	RSY	6.128E-05	6.533E-05	2.504E-16	0.	0.	0.
2028	EQmxp	-3.020E-04	3.220E-04	2.185E-15	0.	0.	0.
2028	EQmxn	3.020E-04	-3.220E-04	-2.185E-15	0.	0.	0.
2028	EQmyp	5.390E-05	-5.746E-05	-4.148E-16	0.	0.	0.
2028	EQmyn	-5.390E-05	5.746E-05	4.148E-16	0.	0.	0.
2244	RSX	1.375E-09	2.083E-09	0.	0.	0.	0.
2244	RSY	2.012E-08	1.446E-08	0.	0.	0.	0.
2244	EQmxp	-5.988E-16	0.	0.	0.	0.	0.
2244	EQmxn	5.988E-16	0.	0.	0.	0.	0.
2244	EQmyp	2.719E-17	0.	0.	0.	0.	0.
2244	EQmyn	-2.719E-17	0.	0.	0.	0.	0.
2345	RSX	1.21	0.016	1.419E-16	0.	0.	0.
2345	RSY	0.128	0.462	2.639E-17	0.	0.	0.
2345	EQmxp	-1.745	-0.025	7.216E-16	0.	0.	0.
2345	EQmxn	1.745	0.025	-7.216E-16	0.	0.	0.
2345	EQmyp	0.453	-0.901	2.637E-16	0.	0.	0.
2345	EQmyn	-0.453	0.901	-2.637E-16	0.	0.	0.
2451	RSX	1.203	0.015	5.231E-16	0.	0.	0.
2451	RSY	0.097	0.364	4.803E-16	0.	0.	0.
2451	EQmxp	-1.738	0.024	-1.832E-15	0.	0.	0.
2451	EQmxn	1.738	-0.024	1.832E-15	0.	0.	0.
2451	EQmyp	-0.399	-0.52	-1.388E-16	0.	0.	0.
2451	EQmyn	0.399	0.52	1.388E-16	0.	0.	0.
2557	RSX	2.079E-04	2.217E-04	1.034E-15	0.	0.	0.
2557	RSY	5.848E-05	6.235E-05	9.335E-17	0.	0.	0.
2557	EQmxp	-3.129E-04	3.336E-04	-4.038E-16	0.	0.	0.
2557	EQmxn	3.129E-04	-3.336E-04	4.038E-16	0.	0.	0.
2557	EQmyp	1.014E-04	-1.081E-04	4.124E-16	0.	0.	0.
2557	EQmyn	-1.014E-04	1.081E-04	-4.124E-16	0.	0.	0.
2663	RSX	2.079E-04	2.217E-04	11.146	0.	0.	0.
2663	RSY	5.848E-05	6.235E-05	3.135	0.	0.	0.
2663	EQmxp	3.129E-04	-3.336E-04	16.774	0.	0.	0.
2663	EQmxn	-3.129E-04	3.336E-04	-16.774	0.	0.	0.
2663	EQmyp	-1.014E-04	1.081E-04	-5.434	0.	0.	0.
2663	EQmyn	1.014E-04	-1.081E-04	5.434	0.	0.	0.
2664	RSX	2.126E-04	2.267E-04	11.397	0.	0.	0.
2664	RSY	6.178E-05	6.587E-05	3.312	0.	0.	0.
2664	EQmxp	3.211E-04	3.423E-04	17.211	0.	0.	0.
2664	EQmxn	-3.211E-04	-3.423E-04	-17.211	0.	0.	0.

Table 37: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
2664	EQmyp	1.104E-04	1.177E-04	5.916	0.	0.	0.
2664	EQmyn	-1.104E-04	-1.177E-04	-5.916	0.	0.	0.
2665	RSX	0.	0.	0.169	0.	0.	0.
2665	RSY	0.	0.	1.894	0.	0.	0.
2665	EQmxp	0.	0.	0.28	0.	0.	0.
2665	EQmxn	0.	0.	-0.28	0.	0.	0.
2665	EQmyp	0.	0.	-3.302	0.	0.	0.
2665	EQmyn	0.	0.	3.302	0.	0.	0.
2666	RSX	0.	0.	0.136	0.	0.	0.
2666	RSY	0.	0.	1.774	0.	0.	0.
2666	EQmxp	0.	0.	0.285	0.	0.	0.
2666	EQmxn	0.	0.	-0.285	0.	0.	0.
2666	EQmyp	0.	0.	2.714	0.	0.	0.
2666	EQmyn	0.	0.	-2.714	0.	0.	0.
2667	RSX	2.063E-04	2.199E-04	11.059	0.	0.	0.
2667	RSY	6.170E-05	6.578E-05	3.307	0.	0.	0.
2667	EQmxp	3.102E-04	3.307E-04	-16.627	0.	0.	0.
2667	EQmxn	-3.102E-04	-3.307E-04	16.627	0.	0.	0.
2667	EQmyp	4.897E-05	5.221E-05	-2.625	0.	0.	0.
2667	EQmyn	-4.897E-05	-5.221E-05	2.625	0.	0.	0.
2668	RSX	2.015E-04	2.148E-04	10.802	0.	0.	0.
2668	RSY	6.128E-05	6.533E-05	3.285	0.	0.	0.
2668	EQmxp	3.020E-04	-3.220E-04	-16.191	0.	0.	0.
2668	EQmxn	-3.020E-04	3.220E-04	16.191	0.	0.	0.
2668	EQmyp	-5.390E-05	5.746E-05	2.889	0.	0.	0.
2668	EQmyn	5.390E-05	-5.746E-05	-2.889	0.	0.	0.

9. Material take-off

This section provides a material take-off.

Table 38: Material List 2 - By Section Property

Table 38: Material List 2 - By Section Property

Section	ObjectType	NumPieces	TotalLength	TotalWeight
			ft	Kip
HP12X53	Frame	3	36.	1.899
HSS8X8X1/2	Frame	12	14.3338	0.658
Pipe4STD	Frame	1264	1095.7104	11.036
Truss Panel	Frame	6	616.	0.
W16X36	Frame	54	216.	7.791
BFIXSS-1	Link	22		0.
ComprTenSprng Pin	Link	12		0.
CompTensprng	Link	12		0.
LIN1	Link	4		0.



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CSiBridge Analysis and Design Report

Prepared by

Bowman

Model Name: Seismic Analysis of Pedestrian Boardwalk.bdb

6 August 2026

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1. Model geometry

This section provides model geometry information, including items such as the layout line and lane definitions.

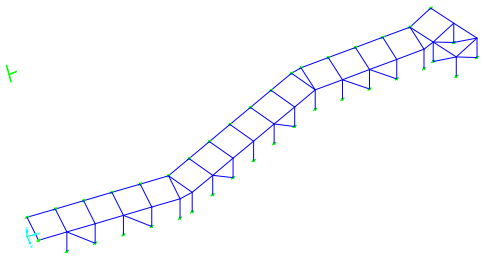


Figure 1: Finite element model

2. Material properties

This section provides material property information for materials used in the model.

Table 1: Material Properties 02 - Basic Mechanical Properties

Table 1: Material Properties 02 - Basic Mechanical Properties

Material	UnitWeight	UnitMass	E1	G12	U12	A1
	Kip/ft3	Kip-s2/ft4	Kip/ft2	Kip/ft2		1/F
4000Psi	1.5000E-01	4.6621E-03	519119.5	216299.79	0.2	5.5000E-06
A416Gr270	4.9000E-01	1.5230E-02	4104000.			6.5000E-06
A615Gr60	4.9000E-01	1.5230E-02	4176000.			6.5000E-06
A709Gr50	4.9000E-01	1.5230E-02	4176000.	1606153.85	0.3	6.5000E-06
GLB-DF#2	3.1210E-02	1.0070E-03	187200.	72000.	0.3	2.8000E-06
Timber-DF#2	3.2400E-02	1.0070E-03	230400.	88615.38	0.3	2.8000E-06

Table 2: Material Properties 03a - Steel Data

Table 2: Material Properties 03a - Steel Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
A709Gr50	7200.	9360.	-0.1	Von Mises

Table 3: Material Properties 03b - Concrete Data

Table 3: Material Properties 03b - Concrete Data

Material	Fc	eFc	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
4000Psi	576.	576.	-0.1	Modified Darwin-Pecknold

Table 4: Material Properties 03e - Rebar Data

Table 4: Material Properties 03e - Rebar Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
A615Gr60	8640.	12960.	-0.1	Von Mises

Table 5: Material Properties 03f - Tendon Data

Table 5: Material Properties 03f - Tendon Data

Material	Fy	Fu	FinalSlope	CoupModType
	Kip/ft2	Kip/ft2		
A416Gr270	35294.4	38880.	-0.1	Von Mises

3. Section properties

This section provides section property information for objects used in the model.

3.1. Frames

Table 6: Frame Section Properties 01 - General, Part 1 of 7

Table 6: Frame Section Properties 01 - General, Part 1 of 7

SectionName	Material	Shape	t3	t2	FilletRadius	tf	tw
			ft	ft	ft	ft	ft
Crossframe 4x12	Timber-DF#2	Rectangular	1.	0.33333			
FSEC1	A709Gr50	I/Wide Flange	1.	0.41667	0.	0.03167	0.02083
GLB5.5X11.875	GLB-DF#2	Rectangular	0.98958	0.45833			
Post 6x6	Timber-DF#2	Rectangular	0.5	0.5			
Stringers	Timber-DF#2	Rectangular	1.	0.25			
Tierod 1/2	A709Gr50	Circle	0.04167				

Table 6: Frame Section Properties 01 - General, Part 2 of 7

Table 6: Frame Section Properties 01 - General, Part 2 of 7

SectionName	t2b	tfb
	ft	ft
Crossframe 4x12		
FSEC1	0.41667	0.03167
GLB5.5X11.875		
Post 6x6		
Stringers		
Tierod 1/2		

Table 6: Frame Section Properties 01 - General, Part 3 of 7

Table 6: Frame Section Properties 01 - General, Part 3 of 7

SectionName	S33Top	Area	TorsConst	S33Bot	S22Left	I33	I22	S22Right
	ft3	ft2	ft4	ft3	ft3	ft4	ft4	ft3
Crossframe 4x12	0.055556	0.3333	0.009756	0.055556	0.018519	0.027778	0.003086	0.018519
FSEC1	0.01523	0.0459	0.000011	0.01523	0.001836	0.007615	0.000382	0.001836
GLB5.5X11.875	0.074806	0.4536	0.022528	0.074806	0.034647	0.037013	0.00794	0.034647
Post 6x6	0.020833	0.25	0.008802	0.020833	0.020833	0.005208	0.005208	0.020833
Stringers	0.041667	0.25	0.004388	0.041667	0.010417	0.020833	0.001302	0.010417
Tierod 1/2	7.102E-06	0.0014	2.959E-07	7.102E-06	7.102E-06	1.480E-07	1.480E-07	7.102E-06

Table 6: Frame Section Properties 01 - General, Part 4 of 7

Table 6: Frame Section Properties 01 - General, Part 4 of 7

SectionName	I23	AS2	AS3
	ft4	ft2	ft2
Crossframe 4x12	0.	0.2778	0.2778
FSEC1	0.	0.0208	0.022
GLB5.5X11.875	0.	0.378	0.378
Post 6x6	0.	0.2083	0.2083
Stringers	0.	0.2083	0.2083
Tierod 1/2	0.	0.0012	0.0012

Table 6: Frame Section Properties 01 - General, Part 5 of 7

Table 6: Frame Section Properties 01 - General, Part 5 of 7

SectionName	CGOffset3	CGOffset2	Z33	Z22	R33	EccV3	Cw	R22
	ft	ft	ft3	ft3	ft	ft	ft6	ft
Crossframe 4x12	0.	0.	0.083333	0.027778	0.28868	0.	0.	0.09623
FSEC1	0.	0.	0.017346	0.00285	0.4073	0.	0.000089	0.09128
GLB5.5X11.875	0.	0.	0.112209	0.05197	0.28567	0.	0.	0.13231
Post 6x6	0.	0.	0.03125	0.03125	0.14434	0.	0.	0.14434
Stringers	0.	0.	0.0625	0.015625	0.28868	0.	0.	0.07217
Tierod 1/2	0.	0.	0.000012	0.000012	0.01042	0.	0.	0.01042

Table 6: Frame Section Properties 01 - General, Part 6 of 7

Table 6: Frame Section Properties 01 - General, Part 6 of 7

SectionName	EccV2	AMod	A2Mod	A3Mod	JMod	I2Mod	I3Mod	MMod
	ft							
Crossframe 4x12	0.	1.	1.	1.	1.	1.	1.	1.
FSEC1	0.	1.	1.	1.	1.	1.	1.	1.
GLB5.5X11.875	0.	1.	1.	1.	1.	1.	1.	1.
Post 6x6	0.	1.	1.	1.	1.	1.	1.	1.
Stringers	0.	1.	1.	1.	1.	1.	1.	1.
Tierod 1/2	0.	1.	1.	1.	1.	1.	1.	1.

Table 6: Frame Section Properties 01 - General, Part 7 of 7

Table 6: Frame Section Properties 01 - General, Part 7 of 7

SectionName	WMod
Crossframe 4x12	1.
FSEC1	1.
GLB5.5X11.875	1.
Post 6x6	1.
Stringers	1.
Tierod 1/2	1.

3.2. Areas

Table 7: Area Section Properties, Part 1 of 3

Table 7: Area Section Properties, Part 1 of 3

Section	Material	AreaType	Type	DrillDOF	Thickness	BendThick	F11Mod
					ft	ft	
ASEC1	A709Gr50	Shell	Shell-Thin	Yes	1.	1.	1.

Table 7: Area Section Properties, Part 2 of 3

Table 7: Area Section Properties, Part 2 of 3

Section	F22Mod	F12Mod	M11Mod	M22Mod	M12Mod	V13Mod	V23Mod
ASEC1	1.	1.	1.	1.	1.	1.	1.

Table 7: Area Section Properties, Part 3 of 3

Table 7: Area Section Properties, Part 3 of 3

Section	MMod	WMod
ASEC1	1.	1.

3.3. Solids

Table 8: Solid Property Definitions

Table 8: Solid Property Definitions

SolidProp	Material	MatAngleA	MatAngleB	MatAngleC
		Degrees	Degrees	Degrees
Solid1	4000Psi	0.	0.	0.

4. Loading

This section provides loading information as applied to the model.

4.1. Load patterns

Table 9: Load Pattern Definitions

Table 9: Load Pattern Definitions

LoadPat	DesignType	SelfWtMult	AutoLoad
DEAD	Dead	1.	
DECK	Dead	0.	
barrier	Dead	0.	
EQx	Quake	0.	None
EQy	Quake	0.	None

5. Load cases

This section provides load case information.

5.1. Definitions

Table 10: Load Case Definitions, Part 1 of 2

Table 10: Load Case Definitions, Part 1 of 2

Case	Type	InitialCond	ModalCase	BaseCase	MassSource	DesActOpt
DEAD	LinStatic	Zero				Prog Det
DECK	LinStatic	Zero				Prog Det
barrier	LinStatic	Zero				Prog Det
EQx	NonStatic	Zero				Prog Det
EQy	NonStatic	Zero				Prog Det

Table 10: Load Case Definitions, Part 2 of 2

Table 10: Load Case Definitions, Part 2 of 2

Case	DesignAct
DEAD	Non-Composite
DECK	Non-Composite
barrier	Non-Composite
EQx	Short-Term Composite
EQy	Short-Term Composite

5.2. Static case load assignments

Table 11: Case - Static 1 - Load Assignments

Table 11: Case - Static 1 - Load Assignments

Case	LoadType	LoadName	LoadSF
DEAD	Load pattern	DEAD	1.
DECK	Load pattern	DECK	1.
barrier	Load pattern	barrier	1.
EQx	Load pattern	EQx	1.
EQy	Load pattern	EQy	-1.

6. Load combinations

This section provides load combination information.

Table 12: Combination Definitions

Table 12: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
DL+0.7EQhxy+0.7EQv	Linear Add	barrier	1.136
DL+0.7EQhxy+0.7EQv		DEAD	1.136
DL+0.7EQhxy+0.7EQv		DECK	1.136
DL+0.7EQhxy+0.7EQv		EQx	0.7
DL+0.7EQhxy+0.7EQv		EQy	0.21
DL-0.7EQhxy+0.7EQv	Linear Add	barrier	1.136
DL-0.7EQhxy+0.7EQv		DEAD	1.136
DL-0.7EQhxy+0.7EQv		DECK	1.136
DL-0.7EQhxy+0.7EQv		EQx	-0.7
DL-0.7EQhxy+0.7EQv		EQy	-0.21
0.6DL+0.7EQhxy-0.7EQv	Linear Add	barrier	0.464
0.6DL+0.7EQhxy-0.7EQv		DEAD	0.464
0.6DL+0.7EQhxy-0.7EQv		DECK	0.464
0.6DL+0.7EQhxy-0.7EQv		EQx	0.7
0.6DL+0.7EQhxy-0.7EQv		EQy	0.21
0.6DL-0.7EQhxy-0.7EQv	Linear Add	barrier	0.464

Table 12: Combination Definitions

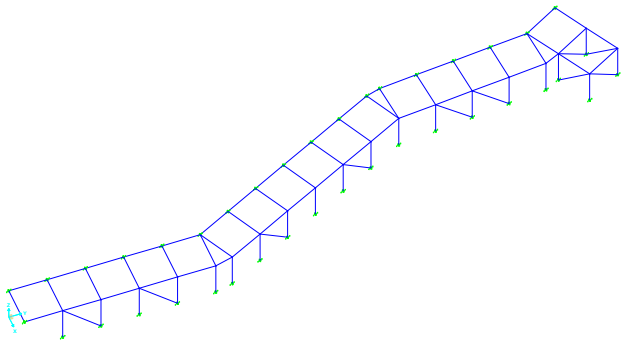
ComboName	ComboType	CaseName	ScaleFactor
0.6DL-0.7EQhxy-0.7EQv		DEAD	0.464
0.6DL-0.7EQhxy-0.7EQv		DECK	0.464
0.6DL-0.7EQhxy-0.7EQv		EQx	-0.7
0.6DL-0.7EQhxy-0.7EQv		EQy	-0.21
DL+0.7EQhyx+0.7EQv	Linear Add	barrier	1.136
DL+0.7EQhyx+0.7EQv		DEAD	1.136
DL+0.7EQhyx+0.7EQv		DECK	1.136
DL+0.7EQhyx+0.7EQv		EQy	0.7
DL+0.7EQhyx+0.7EQv		EQx	0.21
DL-0.7EQhyx+0.7EQv	Linear Add	barrier	1.136
DL-0.7EQhyx+0.7EQv		DEAD	1.136
DL-0.7EQhyx+0.7EQv		DECK	1.136
DL-0.7EQhyx+0.7EQv		EQy	-0.7
DL-0.7EQhyx+0.7EQv		EQx	-0.21
0.6DL+0.7EQhyx-0.7EQv	Linear Add	barrier	0.464
0.6DL+0.7EQhyx-0.7EQv		DEAD	0.464
0.6DL+0.7EQhyx-0.7EQv		DECK	0.464
0.6DL+0.7EQhyx-0.7EQv		EQy	0.7
0.6DL+0.7EQhyx-0.7EQv		EQx	0.21
0.6DL-0.7EQhyx-0.7EQv	Linear Add	barrier	0.464
0.6DL-0.7EQhyx-0.7EQv		DEAD	0.464
0.6DL-0.7EQhyx-0.7EQv		DECK	0.464
0.6DL-0.7EQhyx-0.7EQv		EQy	-0.7
0.6DL-0.7EQhyx-0.7EQv		EQx	-0.21
Envelope	Envelope	0.6DL-0.7EQhxy-0.7EQv	1.
Envelope		0.6DL-0.7EQhyx-0.7EQv	1.
Envelope		0.6DL+0.7EQhxy-0.7EQv	1.
Envelope		0.6DL+0.7EQhyx-0.7EQv	1.
Envelope		DL-0.7EQhxy+0.7EQv	1.
Envelope		DL-0.7EQhyx+0.7EQv	1.

Table 12: Combination Definitions

ComboName	ComboType	CaseName	ScaleFactor
Envelope		DL+0.7EQhxy+0.7EQv	1.
Envelope		DL+0.7EQhyx+0.7EQv	1.

7. Structure results

This section provides structure results, including items such as structural periods and base reactions.



7.1. Base reactions

Table 13: Base Reactions

Table 13: Base Reactions

OutputCase	GlobalFX	GlobalFY	GlobalFZ	GlobalMX	GlobalMY	GlobalMZ
	Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
DEAD	0.	0.	6.807	475.1811	52.644	0.
DECK	0.	0.	34.68	2326.9899	280.5764	0.
barrier	0.	0.	5.66	383.4413	47.1179	0.

8. Joint results

This section provides joint results, including items such as displacements and reactions.

Table 14: Joint Reactions

Table 14: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
10	DEAD	0.	0.	0.103	0.	0.	0.
10	DECK	0.	0.	0.51	0.	0.	0.
10	barrier	0.	0.	0.08	0.	0.	0.
12	DEAD	0.	0.	0.147	0.	0.	0.
12	DECK	0.	0.	1.02	0.	0.	0.
12	barrier	0.	0.	0.16	0.	0.	0.
14	DEAD	0.	0.	0.103	0.	0.	0.
14	DECK	0.	0.	0.51	0.	0.	0.
14	barrier	0.	0.	0.08	0.	0.	0.
15	DEAD	0.	0.	0.215	0.	0.	0.
15	DECK	0.	0.	1.02	0.	0.	0.
15	barrier	0.	0.	0.16	0.	0.	0.
42	DEAD	0.	0.	0.147	0.	0.	0.
42	DECK	0.	0.	1.02	0.	0.	0.
42	barrier	0.	0.	0.16	0.	0.	0.
43	DEAD	0.	0.	0.215	0.	0.	0.
43	DECK	0.	0.	1.02	0.	0.	0.
43	barrier	0.	0.	0.16	0.	0.	0.

Table 14: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
46	DEAD	0.	0.	0.147	0.	0.	0.
46	DECK	0.	0.	1.02	0.	0.	0.
46	barrier	0.	0.	0.16	0.	0.	0.
47	DEAD	0.	0.	0.215	0.	0.	0.
47	DECK	0.	0.	1.02	0.	0.	0.
47	barrier	0.	0.	0.16	0.	0.	0.
50	DEAD	0.	0.	0.147	0.	0.	0.
50	DECK	0.	0.	1.02	0.	0.	0.
50	barrier	0.	0.	0.16	0.	0.	0.
51	DEAD	0.	0.	0.215	0.	0.	0.
51	DECK	0.	0.	1.02	0.	0.	0.
51	barrier	0.	0.	0.16	0.	0.	0.
54	DEAD	0.	0.	0.178	0.	0.	0.
54	DECK	0.	0.	1.02	0.	0.	0.
54	barrier	0.	0.	0.16	0.	0.	0.
55	DEAD	0.	0.	0.175	0.	0.	0.
55	DECK	0.	0.	0.51	0.	0.	0.
55	barrier	0.	0.	0.119	0.	0.	0.
106	DEAD	0.	0.	0.106	0.	0.	0.
106	DECK	0.	0.	0.51	0.	0.	0.
106	barrier	0.	0.	0.112	0.	0.	0.
126	DEAD	0.	0.	0.103	0.	0.	0.
126	DECK	0.	0.	0.51	0.	0.	0.
126	barrier	0.	0.	0.165	0.	0.	0.
222	DEAD	0.	0.	0.147	0.	0.	0.
222	DECK	0.	0.	1.02	0.	0.	0.
222	barrier	0.	0.	0.16	0.	0.	0.
223	DEAD	0.	0.	0.175	0.	0.	0.
223	DECK	0.	0.	0.51	0.	0.	0.
223	barrier	0.	0.	0.119	0.	0.	0.
225	DEAD	0.	0.	0.215	0.	0.	0.
225	DECK	0.	0.	1.02	0.	0.	0.
225	barrier	0.	0.	0.16	0.	0.	0.
228	DEAD	0.	0.	0.147	0.	0.	0.
228	DECK	0.	0.	1.02	0.	0.	0.
228	barrier	0.	0.	0.16	0.	0.	0.
229	DEAD	0.	0.	0.215	0.	0.	0.
229	DECK	0.	0.	1.02	0.	0.	0.
229	barrier	0.	0.	0.16	0.	0.	0.
232	DEAD	0.	0.	0.147	0.	0.	0.
232	DECK	0.	0.	1.02	0.	0.	0.
232	barrier	0.	0.	0.16	0.	0.	0.
233	DEAD	0.	0.	0.211	0.	0.	0.
233	DECK	0.	0.	1.02	0.	0.	0.
233	barrier	0.	0.	0.16	0.	0.	0.
236	DEAD	0.	0.	0.147	0.	0.	0.
236	DECK	0.	0.	1.02	0.	0.	0.
236	barrier	0.	0.	0.16	0.	0.	0.
237	DEAD	0.	0.	0.215	0.	0.	0.
237	DECK	0.	0.	1.02	0.	0.	0.
237	barrier	0.	0.	0.16	0.	0.	0.
240	DEAD	0.	0.	0.147	0.	0.	0.
240	DECK	0.	0.	1.02	0.	0.	0.
240	barrier	0.	0.	0.16	0.	0.	0.

Table 14: Joint Reactions

Joint	OutputCase	F1	F2	F3	M1	M2	M3
		Kip	Kip	Kip	Kip-ft	Kip-ft	Kip-ft
241	DEAD	0.	0.	0.215	0.	0.	0.
241	DECK	0.	0.	1.02	0.	0.	0.
241	barrier	0.	0.	0.16	0.	0.	0.
244	DEAD	0.	0.	0.106	0.	0.	0.
244	DECK	0.	0.	0.51	0.	0.	0.
244	barrier	0.	0.	0.112	0.	0.	0.
245	DEAD	0.	0.	0.243	0.	0.	0.
245	DECK	0.	0.	1.02	0.	0.	0.
245	barrier	0.	0.	0.16	0.	0.	0.
250	DEAD	0.	0.	0.147	0.	0.	0.
250	DECK	0.	0.	1.02	0.	0.	0.
250	barrier	0.	0.	0.16	0.	0.	0.
251	DEAD	0.	0.	0.215	0.	0.	0.
251	DECK	0.	0.	1.02	0.	0.	0.
251	barrier	0.	0.	0.16	0.	0.	0.
254	DEAD	0.	0.	0.147	0.	0.	0.
254	DECK	0.	0.	1.02	0.	0.	0.
254	barrier	0.	0.	0.16	0.	0.	0.
255	DEAD	0.	0.	0.219	0.	0.	0.
255	DECK	0.	0.	1.02	0.	0.	0.
255	barrier	0.	0.	0.16	0.	0.	0.
258	DEAD	0.	0.	0.147	0.	0.	0.
258	DECK	0.	0.	1.02	0.	0.	0.
258	barrier	0.	0.	0.16	0.	0.	0.
259	DEAD	0.	0.	0.215	0.	0.	0.
259	DECK	0.	0.	1.02	0.	0.	0.
259	barrier	0.	0.	0.16	0.	0.	0.
262	DEAD	0.	0.	0.192	0.	0.	0.
262	DECK	0.	0.	1.02	0.	0.	0.
262	barrier	0.	0.	0.165	0.	0.	0.
263	DEAD	0.	0.	0.173	0.	0.	0.
263	DECK	0.	0.	0.51	0.	0.	0.
263	barrier	0.	0.	0.115	0.	0.	0.
267	DEAD	0.	0.	0.219	0.	0.	0.
267	DECK	0.	0.	1.02	0.	0.	0.
267	barrier	0.	0.	0.16	0.	0.	0.
269	DEAD	0.	0.	0.238	0.	0.	0.
269	DECK	0.	0.	1.02	0.	0.	0.
269	barrier	0.	0.	0.115	0.	0.	0.
271	DEAD	0.	0.	0.176	0.	0.	0.
271	DECK	0.	0.	0.51	0.	0.	0.
271	barrier	0.	0.	0.08	0.	0.	0.
273	DEAD	0.	0.	0.176	0.	0.	0.
273	DECK	0.	0.	0.51	0.	0.	0.
273	barrier	0.	0.	0.08	0.	0.	0.

9. Material take-off

This section provides a material take-off.

Table 15: Material List 2 - By Section Property

Table 15: Material List 2 - By Section Property

Section	ObjectType	NumPieces	TotalLength	TotalWeight
			ft	Kip
Crossframe 4x12	Frame	42	325.0064	3.51
Post 6x6	Frame	20	160.	1.296
Tierod 1/2	Frame	10	113.8549	0.076
GLB5.5X11.875	Frame	16	136.	1.925
AUGER	Link	39		0.

Geotechnical Report

Beaverton Marsh Multi-Modal Trail

BOWMAN CONSULTING GROUP LTD.

Geosyntec consultants

engineers | scientists | innovators

GEOTECHNICAL ENGINEERING REPORT

Town of Friday Harbor to Zylstra Lake Multimodal Trail - Beaverton Marsh Segment

Prepared for: San Juan County Conservation Land Bank

Project No. 26002272 • August 5, 2026 FINAL

Geosyntec consultants

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8/5/2026

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1 Introduction

This report presents the results of a geotechnical engineering study performed by Geosyntec Consultants, Inc. (Geosyntec; formerly Aspect Consulting) for the Town of Friday Harbor to Zylstra Lake Multimodal Trail - Beaverton Marsh segment and wetland crossing (Project) located near Friday Harbor on San Juan Island (Site; Figure 1). In 2021, Geosyntec (as Aspect) completed a preliminary geotechnical engineering study for the San Juan County Conservation Land Bank (CLB). This study included drilled soil borings and hand explorations to evaluate feasible wetland crossing foundation options. The results of our work in 2021 were summarized in a draft preliminary geotechnical engineering report for CLB. Subsequently, CLB hired Bowman Consulting Group Ltd. (Bowman) to complete a full design for the Project. As a geotechnical subconsultant to Bowman, we have performed additional geotechnical services which are summarized in this updated geotechnical engineering report, intended to support final design and construction of the Project. Our services were provided in general accordance with our scope of work outlined in our subconsultant agreement with Bowman dated September 25, 2025, and supplemented via email approval on July 1, 2026.

1.1 Project Description

San Juan County Conservation Land Bank plans to construct a 3.2-mile-long, accessible, multimodal (pedestrian and bicycle) trail at the Beaverton Marsh Preserve and John O. Linde Community Park. The trail is proposed to be 8 feet wide and surfaced with gravel, and will include viewpoint areas, bike racks, trail signs, benches, and other features. A 306-foot-long, three-span steel truss pedestrian bridge is planned to cross the wetland area (Figure 2). To facilitate grading on the steeper slopes to the south of the wetland area, a 141-foot-long wooden boardwalk connected to the wetland crossing is planned as well as numerous cut and fill walls down the slope with heights typically less than 4 feet but as high as 9 feet near Station 18+67 (Bowman, 2026).

2 Site Conditions

This section presents descriptions of the surface conditions, geologic setting, subsurface conditions at the pedestrian wetland crossing, and a brief description of the trail alignment. This information provides context for the discussion of types and distribution of geologic soil units and a basis for our geotechnical engineering recommendations.

Geosyntec (as Aspect) conducted an initial Site reconnaissance on June 23, 2021, and a subsurface investigation on September 28, 2021. We revisited the Site with the Project team on October 20, 2025. The layout of the Site, approximate topography from GIS mapping, and locations of our completed subsurface explorations are shown on Figure 2.

2.1 Surface Conditions

Along the future wetland crossing alignment, the marsh is roughly 300 feet wide and is bordered by densely vegetated forest areas to the northwest and southeast (Photograph 1). The wetland crossing will be constructed through the marsh, perpendicular to the tree lines, to connect a proposed trail network. The forested areas slope upward away from the marsh at inclinations between 12 and 55 percent (Figure 2).



Photograph 1. *Beaverton Marsh near proposed wetland crossing location, looking southwest.*

The marsh is relatively flat and heavily vegetated with reed canary grass (Photograph 2), which can grow greater than 6 feet high.

The proposed wetland crossing alignment was saturated during our initial Site reconnaissance in June 2021, but relatively dry during our subsurface investigation in September 2021 and Site visit in October 2025. We understand that the marsh has standing water during the wet season, with water levels often extending to the tree lines.



Photograph 2. *Reed canary grass.*

During our Site visit in October, 2025, we walked the entire trail alignment with the design team and CLB. The trail alignment to the north/northwest of the marsh (from the Beaverton Marsh Preserve parking area) generally followed an existing trail through the forest. The new trail portion that will traverse from the existing trail down to the marsh was generally a moderate grade with thick vegetation. In the uplands area to the north of the marsh crossing, we observed bedrock outcroppings as shown in Photograph 3 below.



Photograph 3. *Uplands to northwest of the marsh crossing (view to the north-northeast)*

The trail alignment to the south/southeast of the marsh (from John O. Linde Park) also starts on an existing trail before descending a relatively steep slope down to the marsh area through a forested/vegetated area (Photograph 4). We observed boulders and bedrock outcroppings on this slope, but the distribution of intact bedrock was difficult to distinguish due to the thick vegetation and undergrowth.



Photograph 4. *Slope above marsh crossing to the southeast*

2.2 Site Geology

Review of the Natural Resources Conservation Service (NRSC) Soil map of San Juan Island indicates that the near-surface soil type in the marsh area is Semiahmoo muck (USDA NRCS, 2009). Available large-scale geologic mapping of the Site vicinity (Dethier et al, 1996) indicates there are three nearby geologic units: marine subtidal deposits (Qvrms), Vashon diamicton (Qvd), and pre-Tertiary bedrock (br).

NRSC describes Semiahmoo muck as highly decomposed plant material (peat) mixed with fossilized remains of small aquatic organisms. Generally, Semiahmoo muck is located at the surface of flat topographic depressions and extends at least 5 feet below the ground surface (bgs). This soil unit is considered very poorly drained and has a moderately high or high hydraulic conductivity (USDA NRCS, 2009).

Marine subtidal deposits (Qvrms) consist of gray to bluish gray moderately well to well sorted sand, silty sand, and silt containing local pods and lenses of gravel and locally fossiliferous. The unit thickness generally ranges between 10 and 15 feet and stratigraphically overlies marine diamicton, till, or undifferentiated diamicton. This unit is generally found in topographic depressions at elevations less than 200 ft above sea level. (Dethier et al., 1996).

The Vashon diamicton (Qvd) unit contains undifferentiated till, sand, gravel, silt, and clay. The material consists of either Vashon till or outwash. Vashon till is generally an unsorted, unstratified, highly compacted mixture of clay, silt, sand, gravel, and boulders. Outwash consists of stratified pebble and cobble deposits from glacial meltwater. This unit is generally not fossiliferous.

The bedrock (br) unit is of the Constitution Formation and described as metamorphosed sandstone, argillite, mudstone, and conglomerate. It is commonly dark gray-brown and highly penetrated by veinlets of secondary minerals. The estimated depth to bedrock is 20 to 40 feet bgs in the marsh and less than 20 feet bgs in the surrounded forested areas (Dethier et al, 1996).

2.3 Subsurface Conditions

Subsurface conditions at the Site were inferred from the completed field explorations, laboratory testing of soil samples collected during our subsurface investigation, review of applicable geologic literature, and our experience with the local geology. We developed a generalized geologic cross section of the Site (Figure 3) based on our observations.

2.3.1 Soil Borings

We explored the Site with two machine-drilled borings (AB-01 and AB-02) and four hand tool explorations (AHA-01 to AHA-04) at the locations depicted on Figures 2 and 3. Our exploration logs and detailed descriptions of the drilling, sampling, and soil classification methods are in Appendix A.

The machine-drilled borings were advanced by Boretec, Inc., subcontracted to Geosyntec, using a track-mounted drill rig with hollow-stem auger methods. AB-01 and AB-02 were drilled 61.5 and 83 feet bgs, respectively. Disturbed soil samples were

collected from the borings at 2.5- to 5-foot intervals using Standard Penetration Test (SPT) methods.

Hand tool explorations were advanced using a hand auger and spade shovel by an Geosyntec geotechnical engineer. The explorations were advanced between 3.75 and 9.5 feet bgs. A disturbed soil sample was also collected from AHA-04.

2.3.2 Laboratory Testing

Geotechnical laboratory testing of selected soil samples was performed by Materials Testing & Consulting, Inc. under subcontract to Geosyntec. Laboratory testing included determination of moisture content, organic content, fines content, grain-size distribution, and plasticity (Atterberg Limits). The laboratory tests were conducted in general accordance with appropriate ASTM International (ASTM) test methods. Detailed descriptions of the tests and results are in Appendix B, and the results were incorporated into the exploration logs in Appendix A.

2.3.3 Stratigraphy

The soil units observed at the proposed wetland crossing location, from top to bottom, were Semiahmoo muck, marine subtidal deposits, and glacial drift. The inferred depth of these units is depicted in a geologic cross section (Figure 3). The characteristics of the units are described in more detail below. We did not encounter bedrock in the explorations.

Semiahmoo Muck

We encountered Semiahmoo muck at the ground surface consisting of very soft dark brown peat (PT)[1] with roots and wood debris. The peat ranged in thickness from 2.5 to 6 feet bgs near the tree lines in AHA-01, AHA-03, and AHA-04 and extended to 25 feet bgs at the center of the marsh in AB-02.

The muck deposits have very low shear strength and are highly compressible.

Marine Subtidal Deposits

Underlying the muck, we encountered marine subtidal deposits mostly consisting of very soft to soft, gray, clay (CL) with shell fragments. The deposits extended to 45 and 60 feet bgs in the northeast boring (AB-01) and center boring (AB-02). We encountered a 10-foot-thick layer of medium dense gray well sorted sand with gravel (SW) and shell fragments roughly 30 feet bgs in AB-02. The bottom of this unit was not encountered in the hand auger explorations.

The marine subtidal deposits have low shear strength and high compressibility.

Glacial Drift

Below the marine subtidal deposits, we encountered medium dense clayey sand (CL) with trace fine gravel, which we interpreted as glacial drift because it does not appear to be glacially compacted. This material was gray and had no evidence of shell fragments. A hydrometer test performed on the sample from 50 feet bgs in AB-01 (Appendix B) classified this material as silty sand (SM); however, based on our field observations, we

[1] Soils are classified per the Unified Soil Classification System (USCS) in general accordance with the ASTM Method D2488 *Standard Practice of Description and Identification of Soils*.

conclude that the fines in this unit will behave like clay, rather than silt. The glacial drift extended to the bottom of the borings, 61.5 feet bgs in AB-01 and 83 feet bgs in AB-02.

As it has not been glacially consolidated, the glacial drift exhibits moderate shear strength and moderate compressibility.

2.3.4 Groundwater

At the time of our Site reconnaissance on June 23, 2021, the marsh was saturated and groundwater was flush with the ground surface at the locations of AHA-01 and AHA-02. During the subsurface investigation on September 28, 2021, groundwater was inferred from soils at depths that correlated near the top of the marine subtidal deposits. Groundwater levels will fluctuate seasonally with precipitation, as well as with the water level in the marsh and any changes in site and near-site usage.

3 Geotechnical Conclusions and Recommendations

Our key geotechnical findings and conclusions for the Project include the following:

- The subsurface conditions vary along the trail alignment generally according to the topography. In the low-lying marsh area, there are relatively thick deposits of weak Semiahmoo muck and marine subtidal deposits underlain by competent glacial drift and bedrock. In the upland areas, competent glacial drift and bedrock is relatively shallow. Site-specific subsurface explorations were completed in the marsh area; however, there is uncertainty in subsurface conditions at the two abutments of the wetland crossing (i.e., piers 1 and 4), along the approach boardwalk and along retaining wall alignments to the south of the wetland crossing. Geosyntec recommended completing additional explorations (excavator dug test pits) during design, but this was not permissible due to environmental concerns and schedule constraints. Therefore, the design should maintain flexibility for the range of expected subsurface conditions and the contractor should be prepared to implement the best foundation option(s) as discussed further in the sections below.
- For the main wetland crossing structure across the marsh, shallow footings are not recommended for the interior supports (piers 2 and 3) due to the weak Semiahmoo muck and marine subtidal deposits. Instead, we recommend deep foundations consisting of helical piles that transmit wetland crossing loads into the more competent glacial drift and possibly bedrock.
- For the wetland crossing abutments at the edges of the marsh area/base of slopes (piers 1 and 4), a shallow foundation option is theoretically possible depending on subsurface conditions. We recommend the abutment foundations be designed as either supported on shallow spread footings, or deep helical piles, with the actual foundation type to be decided in the field during construction.
- For the approach boardwalk to the south of the wetland crossing, shallow foundations consisting of buried, cast-in-place concrete in neat cut excavations or in Sonotubes® forms, are appropriate. Shallow foundations may gain support from bedrock and/or soil, so a shallow foundation option should be designed and available for implementation in construction for both design support conditions (soil or bedrock).
- The subsurface conditions along the trail alignment are generally suitable for construction of the planned short rockery retaining cut walls. Provided our construction recommendations are followed, rockery walls may be constructed as cut walls with heights up to 5 feet. We recommend the base of all rockery walls be buried/embedded at least 1 foot below finished trail grade. We expect locally available rock will be suitable for rockery construction. For fill walls, structural earth walls (SEWs) are feasible provided there is sufficient space for the reinforcement to extend behind the wall. SEWs may be faced with stacked rocks, vegetated facing, or other options permitted by Bowman and CLB.

3.1 Seismic Design

It is our understanding that seismic design for the Project will be in accordance with the 2021 International Building Code, which references the American Society of Civil Engineers (ASCE) Standard ASCE/SEI 7-16, *Minimum Design Loads for Buildings and Other Structures* (ASCE, 2017) for seismic design. The effects of site-specific subsurface conditions on the ground motion at the ground surface are established based on the "Site Class." The Site Class can be correlated to the average standard penetration resistance (N-value), average shear wave velocity, or average undrained strength (for fine-grained soils) in the upper 100 feet of the soil profile. Based on the average N-value from our explorations, we conclude the Site soil profile can be classified as Site Class E.

For the wooden approach boardwalk structures, which will generally have a height varying from 0 to 8 feet, and with spans between supports of as little as 8 feet, we conclude that these need not be designed for seismic loading. We consider the risk to life safety, due to an earthquake-triggered failure or partial failure of these structures, to be very low.

3.1.1 Liquefaction

Liquefaction occurs when loose, saturated, and relatively cohesionless soil deposits temporarily lose strength and stiffness as a result of earthquake shaking. Potential effects of soil liquefaction include temporary loss of shallow foundation bearing capacity, loss of deep foundation axial and lateral capacity, vertical ground settlement, and lateral ground movement towards riverbanks or slopes—any of which could result in structural damage.

The Washington State Department of Natural Resources (DNR) maps the Site area as very low to low liquefaction susceptibility (DNR, 2007), which is attributed to the presence of shallow bedrock in the area. However, our site-specific borings in the marsh area encountered areas of relatively loose and saturated soils.

Using the data from our borings, we assessed liquefaction at the Site for the design ASCE earthquake with the aid of WSliq, a liquefaction analysis software program (WSDOT, 2009). Based on our assessment, the Semiahmoo muck and marine subtidal deposits are not likely to be susceptible to liquefaction; however, portions of the underlying glacial drift are predicted to liquefy under the design earthquake. The consequences of liquefaction at the site are vertical settlements on the order of half a foot or more.

From a seismic design perspective, where liquefiable glacial drift exists, we recommend that the wetland crossing foundations bypass the liquefiable material and gain foundation support from the underlying denser glacial drift and/or bedrock.

3.2 Wetland Crossing Foundations

We collaborated with Bowman on numerous different wetland crossing foundation design concepts as the design has developed. We understand a three-span (span lengths of 70, 166, and 70 feet) steel truss bridge supported on driven helical piles is proposed (Bowman, 2026). In our opinion, this option is feasible; however, the potential shallow refusal of helical piles near the edges of the marsh at the bridge abutments (piers 1 and 4) and the challenge of delivering and constructing such long bridge spans at this Site should be considered.

We recommend that an alternative shallow foundation design be included as an option for the bridge abutments (piers 1 and 4) where helical anchors might meet shallow refusal and not gain the required uplift resistance and/or fixity to support the elevated wetland crossing. Additional details on our recommendations for wetland crossing foundations are discussed below.

3.2.1 Helical Anchors

Helical anchors are proprietary systems consisting of anchors that are "screwed" into the ground by hydraulic drills. They consist of a long lead section and one or multiple bearing plates (helixes) near the base of the anchor. The helixes are typically 8 to 16 inches in diameter. Helical anchors are installed to a minimum depth based on the diameter of the helixes and specified torque to provide axial bearing and uplift capacity. For this Project, we recommend helical anchors with a minimum shaft diameter of 4.5 inches and minimum wall thickness of 0.337 inches. Square bar CHANCE® or Dixie anchors should not be used for this Project.

The glacial drift is a suitable bearing layer for helical anchors. Glacial drift was encountered 60 feet bgs at the center of the marsh and 45 feet bgs towards the tree line (Figures 2 and 3).

For calculating the axial bearing and uplift capacity, the design soil parameters below in Table 1 should be used.

Table 1. Soil Engineering Properties for Helical Pile Capacity Calculations

Soil Unit	Soil Type	Effective Unit Weight (above/below groundwater) (pcf)	Friction Angle (degrees)	Cohesion (psf)
Semiahmoo Muck	Cohesive	90/27.6	-	250
Marine Subtidal Drift	Cohesive	110/47.6	-	500
Glacial Drift	Cohesionless	57.6	32	-

Notes: pcf = pounds per cubic foot; psf = pounds per square foot

If helical anchors encounter bedrock, we expect they will quickly meet installation refusal, or they might spin without advancing deeper, such that they do not gain any notable embedment or uplift resistance. The axial bearing capacity of a helical pile on bedrock will approach the structural capacity of the steel section.

As requested by Bowman, we completed helical pile uplift capacity calculations to estimate the required embedment in the marine subtidal drift unit to achieve a design uplift resistance of 18 kips. We estimate that helical piles would need 26 feet of embedment to achieve the design load uplift load of 18 kips.

Our key assumptions for this calculation include the following:

- Factor of safety (FS) of 2 (if we use a FS of 1.5, minimum length goes down to 28 feet).

- Helical pile uplift resistance is derived entirely from the marine subtidal drift unit with an estimated undrained shear strength of 500 pounds per square foot (psf). Where the helical piles can gain embedment in the glacial drift, higher resistances will be feasible.
- Helical piles have a 4.5-inch-diameter shaft with 16-inch-diameter helixes.

3.2.2 Lateral Pile Analysis Inputs

Our recommended soil inputs for lateral pile analysis are provided in Table 2 below. The soil unit depth ranges were established using AB-01 and AB-02, and depths will vary according to our geologic cross section in other areas (Figure 3). We recommend that seismic inertial shaking forces, which will develop during the onset of the design earthquake, be analyzed using static, non-liquefied soil parameters. Fully liquefied soil parameters should be considered after the earthquake shaking has stopped. This practice, referred to as a "de-coupled analysis," is appropriate based on the structure type and the de-aggregation of seismic hazard contributions for the Site.

Table 2. Parameters for Lateral Pile Analysis

STATIC PARAMETERS[1]							
Soil Unit	**Elevation Range (feet)**	**LPile Soil Model**	**Effective Unit Weight (pcf)**	**Friction Angle (deg)**	**Cohesion (psf)**	**E50**	**p-y Modulus, k (pci)**
Semiahmoo Muck (above groundwater)[2]	Above 77 (AB-01) Above 70 (AB-02)	Soft Clay (Matlock)	90	-	250	0.02	-
Semiahmoo Muck (below groundwater)[2]	Above 59 (AB-02)	Soft Clay (Matlock)	27.6	-	250	0.02	-
Subtidal Deposits	Above 40 up to Muck (AB-01) Above 25 up to Muck (AB-02)	Soft Clay (Matlock)	47.6	-	500	0.02	-

STATIC PARAMETERS[1]							
Soil Unit	**Elevation Range (feet)**	**LPile Soil Model**	**Effective Unit Weight (pcf)**	**Friction Angle (deg)**	**Cohesion (psf)**	**E50**	**p-y Modulus, k (pci)**
Glacial Drift	Below 40 (AB-01) Below 25 (AB-02)	Sand (Reese)	57.6	32	-	-	60
FULLY LIQUEFIED PARAMETERS[3]							
Liquefied Subtidal Deposits	Between 77 and 72 (AB-01) Between 56 and 46 (AB-02)	Liquefied Sands (Rollins)	47.6	-	-	-	-
Liquefied Glacial Drift	Below 40 (AB-01) Below 25 (AB-02)	Liquefied Sands (Rollins)	57.6	-	-	-	-

Notes: pcf = pounds per cubic foot; psf = pounds per square foot; pci = pounds per cubic inch; and deg = degrees

1. Existing ground surface elevation where explorations were completed estimated as Elevation 85.
2. At time of drilling groundwater levels assumed, see boring logs in Appendix A.
3. Any soil units or depth ranges not listed in the fully liquefied parameters section of the table are not liquefiable and static parameters should be used.

3.2.3 Helical Pile Load Testing

We recommend a minimum of one helical pile per pier (four total) be loaded tested in compression and tension in accordance with ASTM D1143 and ASTM D3689, respectively (ASTM, 2018). The load tests should be conducted up to twice the design load (FS of 2). The contractor should provide all necessary equipment to complete load testing. Helical piles not passing the load tests should be lengthened or reinstalled with larger helixes by the contractor. Helical piles that pass load tests and are not damaged from installation or testing may be used as production piles.

Prior to the start of construction, the contractor should submit the proposed load testing equipment and setup including current calibration sheets for all equipment.

3.3 Shallow Foundation Alternative for the Abutments and for the Approach Boardwalk

At the wetland crossing abutments (piers 1 and 4), uncertainty remains in the subsurface conditions. Based on the steeply sloping topography, shallow bedrock and/or dense glacial drift soils are expected to be encountered at pier 4. These conditions may also be encountered at pier 1, although some depth of marine subtidal drift is expected to overlie this material. If shallow bedrock and/or dense glacial drift soils are encountered, we expect that advancing helical piles to a sufficient depth to achieve uplift capacity and fixity for supporting the elevated wetland crossing will not be possible; therefore, we recommend an alternative shallow foundation design be prepared that can be implemented in construction if necessary. A shallow foundation option would gain bearing support from underlying dense soils and/or bedrock, and lateral support from passive resistance of the buried foundation and friction along its base. As discussed in Section 3.4 below, shallow foundations will also be required for the wooden approach boardwalk connecting to the south of the wetland crossing.

As requested by Bowman, we have provided shallow foundation design recommendations that can be applied to both the wetland crossing (if shallow bedrock is encountered making helical pile foundations infeasible) and the approach boardwalk following both Load and Resistance Factor Design (LRFD) and Allowable Stress Design (ASD). The design calculations and resistance factors provided are based on guidance in the American Association of State Highway and Transportation Officials (AASHTO) LRFD Bridge Design Specifications (BDS) 10th Edition (AASHTO, 2024).

Shallow foundations are assumed to consist of cast-in-place concrete foundations constructed in neat cut excavations and/or using forms such as Sonotubes® with a minimum diameter of 2 feet or minimum length/width of 2 feet. Foundations should extend down to bedrock, or 30 inches into soil, whichever comes first. Larger/deeper foundations may be required as calculated by the structural engineer.

As there is uncertainty on the depth to and condition of the bedrock, we have provided shallow foundation design parameters for bedrock and soil. Note that for the wetland crossing, helical pile foundations are planned if shallow bedrock is not encountered as shown on the Project plans.

LRFD Shallow Foundation Design Parameters for Foundations Bearing on Bedrock

- Nominal (Ultimate) Bearing Resistance:20 kips per square foot (ksf); Strength Limit Resistance Factor = 0.45
- Service Limit Bearing Resistance corresponding to 1-inch or less of total Settlement = 10 ksf.
- Nominal (Ultimate) Coefficient of Friction between bedrock and cast-in-place (CIP) concrete footing = 0.7; Strength Limit Resistance Factor = 0.8.
- Passive Soil Resistance = 300 pounds per cubic foot (pcf); Strength Limit Resistance Factor = 0.5. Neglect passive resistance in the upper 18 inches to account for possible disturbance, erosion, or excavations (applies to all).

ASD Shallow Foundation Design Parameters for Foundations Bearing on Bedrock

- Allowable Bearing Capacity = 6.67 ksf; includes an FS of 3. An increase in the above-mentioned bearing pressure of one-third may be used for short-term wind or seismic loading.
- Estimated settlement = less than 1 inch.
- Allowable Coefficient of Friction between bedrock and cast-in-place (CIP) concrete footing = 0.46; includes an FS of 1.5.
- Allowable Passive Soil Pressure = 150 pcf; includes and FS of 2.

LRFD Shallow Foundation Design Parameters for Foundations Bearing on Soil

- Nominal (Ultimate) Bearing Resistance = 5 ksf; Strength Limit Resistance Factor = 0.45
- Service Limit Bearing Resistance corresponding to 1-inch or less of total Settlement = 2.5 ksf
- Nominal (Ultimate) Coefficient of Friction between bedrock and cast-in-place (CIP) concrete footing = 0.5; Strength Limit Resistance Factor = 0.8
- Passive Soil Resistance = 300 pcf; Strength Limit Resistance Factor = 0.5

ASD Shallow Foundation Design Parameters for Foundations Bearing on Soil

- Allowable Bearing Capacity = 1.66 ksf; includes an FS of 3. An increase in the above-mentioned bearing pressure of one-third may be used for short-term wind or seismic loading.
- Estimated settlement = less than 1 inch.
- Allowable Coefficient of Friction between bedrock and CIP concrete footing = 0.33; includes an FS of 1.5.
- Allowable Passive Soil Pressure = 150 pcf; includes an FS of 2.

Lateral passive resistance along the vertical side of shallow foundations should neglect in the upper 18 inches of soil which may be disturbed or removed. The passive pressure value may be applied across 2.5 shaft diameters/footing widths for the small, isolated footings.

If footings are on bedrock, the exposed bedrock at the base should be chipped down as needed to create a level surface. If the foundations are into bedrock, it may be beneficial to embed the reinforcing bars into the bedrock. We suggest a 6-inch minimum embedment into bedrock. An ASD-based allowable bond strength of 100 pounds per square inch (psi) for epoxy-doweled anchors into bedrock may be utilized for design.

3.4 Approach Boardwalk

On the south side of the wetland crossing, a wooden boardwalk supported on cast-in-place concrete foundations is proposed. As no explorations were permitted to be completed along the boardwalk alignment, uncertainty remains in the subsurface conditions; however, based on our site observations and understanding of the geologic setting, we expect shallow bedrock and/or dense glacial drift soil, similar to pier 4. In our opinion, this uncertainty in conditions can be designed for with a buried shallow foundation for this wooden boardwalk that is expected to be relatively light.

Shallow foundations for the approach boardwalk can be designed using the same shallow foundation parameters provided above in Section 3.3.

As discussed in Section 3.1, we do not consider it necessary to design the approach boardwalk for seismic loading.

3.5 Retaining Walls

We understand that both cut and fill walls are required along the trail on the south side of the wetland crossing with heights typically of 4 feet or less, but with select locations between 4 to 6 feet tall and one fill wall as tall as 9 feet at Station 18+67 (Bowman, 2026). To the extent feasible, we recommend the trail geometry and grading be optimized to minimize wall extents and heights. We recommend cut walls, planned to be rockeries, have a maximum exposed height of 5 feet.

We recommend grading be designed so that walls taller than 5 feet are fill walls, which should be designed and specified as structural earth walls (Bowman, 2026). For SEWs, the length of reinforcement extending behind the wall should be considered when laying out the wall geometry and considering the required cut slopes to construct the walls. For planning purposes, the SEW reinforcement will typically extend on the order of 0.7 to 1 times the height of the wall.

The subsurface conditions along the upland trail portion with retaining walls are unknown but expected to consist of topsoil/forest duff underlain by shallow bedrock and/or relatively dense soils with cobbles and boulders.

Rockery retaining walls have been selected as the preferred cut wall type to match the nature of the trail and limit the amount of cast-in-place concrete required for the Project. A rockery is a retaining structure that consists of stacked rocks without mortar, concrete, or steel reinforcement. These structures rely on the weight, size, shape, and interface friction of the rock elements to provide stability. From our review, there is a suitable rock quarry on San Juan Island for sourcing boulders for rockery construction. Our general recommendations for rockeries include the following:

- The cut slope for the rockery should be evaluated by a qualified professional for stability and suitable soil/bedrock conditions.
- Surficial topsoil and forest duff should be removed and rockeries should be founded on competent soil and/or bedrock.
- Rockery faces should be battered between about 1H:4V and 1H:6V (horizontal:vertical).

- Rocks should be placed in a tight fit and with adequate contact between adjacent rocks. Ideally, each rock should be in contact with at least two rocks below it.
- No rock should have a top surface that is sloped downward out of the face of the rockery. The top surface of the rocks should be sloped downward into the cut or slope behind it.
- Rocks should be placed with their long dimension extending into the slope (i.e., not parallel to the wall) for maximum stability.
- Rocks should gradually decrease in size from the bottom of the rockery to the top.
- Gaps between rocks where there is little contact between the surrounding rocks should be chinked with smaller rocks.
- A 12- to 18-inch-thick drainage layer should be installed between the back of the rockery and the native cut or slope being protected. Depth of burial of basal layer of rock should be no less than 12 inches.

Additional details can be found in Section 8-24 of the Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction (Standard Specification; WSDOT, 2026), the Associated Rockery Contractors manuals or Federal Highway Administration (FHWA) guidance on rockery design and construction.

SEWs have been selected for fill walls with heights up to 9 feet. The SEWs can be faced with stacked rocks to maintain the rockery appearance, vegetated facing, or other options deemed acceptable by Bowman and CLB. Our recommended design parameters for SEWs, which we expect will be contractor-designed, are provided in Table 3 below. We can provide the contractor with additional information for design upon request.

Table 3. SEW Design Parameters

Soil Unit	Unit Weight (pcf)	Friction Angle (degrees)	Cohesion (psf)
Foundation Soil	120	30	0
Reinforced Soil	135	38	0
Retained Soil	120	30	0

Notes: pcf = pounds per cubic foot; psf = pounds per square foot

These design parameters include the following key assumptions:

- The reinforced zone of the MSE consists of material meeting the WSDOT Standard Specifications for Gravel Backfill for Structural Earth Wall (Section 9-03.14(4); WSDOT, 2026), or a similar and locally available approved equal.
- Surficial topsoil and forest duff should be removed, and the foundation material should be inspected by a qualified geotechnical engineer. If bedrock is encountered, the assumed foundation design friction angle will be conservative

and could be refined if necessary. The bedrock surface (if encountered) should be chipped to create a level surface.

3.6 Construction Considerations

Construction of the wetland crossing should be performed near the end of the dry season when the marsh is accessible using low ground pressure construction equipment. To start construction, we recommend that the contractor explore the subsurface conditions at the locations of the taller walls and approach boardwalk to understand the soil and/or bedrock conditions. In addition, the contractor should start helical pile construction by installing a test pile at wetland crossing piers 1 and 4 to understand if helical piles or shallow foundations will be required.

Installation of helical anchors might be impacted by the presence of obstructions, such as trees or fibrous woody debris. The potential for encountered obstructions should be appropriately addressed in the contract documents. Obstructions encountered during foundation installation may cause some of the helical anchors to be installed out-of-plumb, or to drift from the design horizontal location. Also, if significant obstructions are encountered, it may be necessary to adjust certain foundation locations to avoid the obstruction. Because of this potential effect, some flexibility should be allowed in the design to enable adjustment of foundation locations. In certain instances, it may be necessary to alter the size of the foundation cap to accommodate the new locations. Any such situations which arise during construction should be evaluated on a case-by-case basis by the owner, structural engineer, and Geosyntec.

Local variations of subsurface conditions along the wetland crossing alignment should be expected. The lengths of certain helical anchors will need to be adjusted in the field based on conditions encountered during installation. Variable helical anchor lengths should be anticipated, and contingency provisions should be included in the contract documents to facilitate adjustment in payments to the contractor based on actual lengths installed.

The contractor should be prepared to encounter shallow bedrock and large boulders when constructing the trail, particularly down the steep slope to the southeast of the marsh crossing.

4 Recommended Additional Geotechnical Services

Throughout this report, we have provided recommendations where we consider it would be appropriate for Geosyntec to provide additional geotechnical input to the design and construction process. Additional recommendations are summarized in this section.

4.1 Additional Design and Consultation Services

Before construction begins, we recommend that Geosyntec

- meet with the design team to finalize details of the wetland crossing foundation design, and
- review the geotechnical elements of the Project plans to see that the geotechnical engineering recommendations are properly interpreted.

4.2 Additional Construction Services

We are available to provide geotechnical engineering and monitoring services during construction. The integrity of the geotechnical elements depend on proper construction procedures. In addition, engineering decisions may have to be made in the field if variations in subsurface conditions become apparent.

During the construction phase of the Project, we recommend that Geosyntec be retained to perform the following tasks:

- Review applicable submittals
- Observe foundation installation for wetland crossing and approach boardwalk
- Observe retaining wall/rockery foundation subgrade and construction
- Attend meetings, as needed
- Address other geotechnical engineering considerations that may arise during construction

The purpose of our observations is to verify compliance with design concepts and recommendations and to allow design changes or evaluation of appropriate construction methods in the event that subsurface conditions differ from those anticipated prior to the start of construction.

5 References

American Association of State Highway and Transportation Officials (AASHTO), 2024, AASHTO LRFD Bridge Design Specifications, American Association of State Highway and Transportation Officials, 10th Edition.

American Society of Civil Engineers (ASCE), 2017, Minimum Design Loads for Buildings and Other Structures, ASCE/SEI Standard 7-16.

ASTM International (ASTM), 2018, 2018 Annual Book of ASTM Standards, West Conshohocken, Pennsylvania.

Bowman Consulting Group Ltd. (Bowman), 2026, Beaverton Marsh Multi-Modal Trail, 90 Percent Submittal with interim updates for 100 Percent, June 26, 2026.

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United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), 2009, Soil survey of San Juan County, Washington, August 2009.

Washington State Department of Natural Resources (DNR), 2007, Liquefaction Susceptibility and Site Class Maps of Washington State, By County, Washington Division of Geology and Earth Resources Open File Report 2004-20, by Palmer, S.P., S.L. Magsino, E.L. Bilderback, J.L. Poelstra, D.S. Folger, and R.A. Niggemann.

Washington State Department of Transportation (WSDOT), 2009, WSDOT Liquefaction Hazard Evaluation System (WSliq), 2009.

Washington State Department of Transportation (WSDOT), 2026, Standard Specifications for Road, Bridge, and Municipal Construction, Washington State Department of Transportation. Manual M 41-10, 2026.

6 Limitations

Work for this project was performed for San Juan County Conservation Land Bank and Bowman (Client), and this report was prepared consistent with recognized standards of professionals in the same locality and involving similar conditions, at the time the work was performed. No other warranty, expressed or implied, is made by Geosyntec Consultants, Inc. (Geosyntec).

Recommendations presented herein are based on our interpretation of site conditions, geotechnical engineering calculations, and judgment in accordance with our mutually agreed-upon scope of work. Our recommendations are unique and specific to the project, site, and Client. Application of this report for any purpose other than the project should be done only after consultation with Geosyntec.

Variations may exist between the soil and groundwater conditions reported and those actually underlying the site. The nature and extent of such soil variations may change over time and may not be evident before construction begins. If any soil conditions are encountered at the site that are different from those described in this report, Geosyntec should be notified immediately to review the applicability of our recommendations.

It is the Client's responsibility to see that all parties to this project, including the designer, contractor, subcontractors, and agents, are made aware of this report in its entirety. At the time of this report, design plans and construction methods have not been finalized, and the recommendations presented herein are based on preliminary project information. If project developments result in changes from the preliminary project information, Geosyntec should be contacted to determine if our recommendations contained in this report should be revised and/or expanded upon.

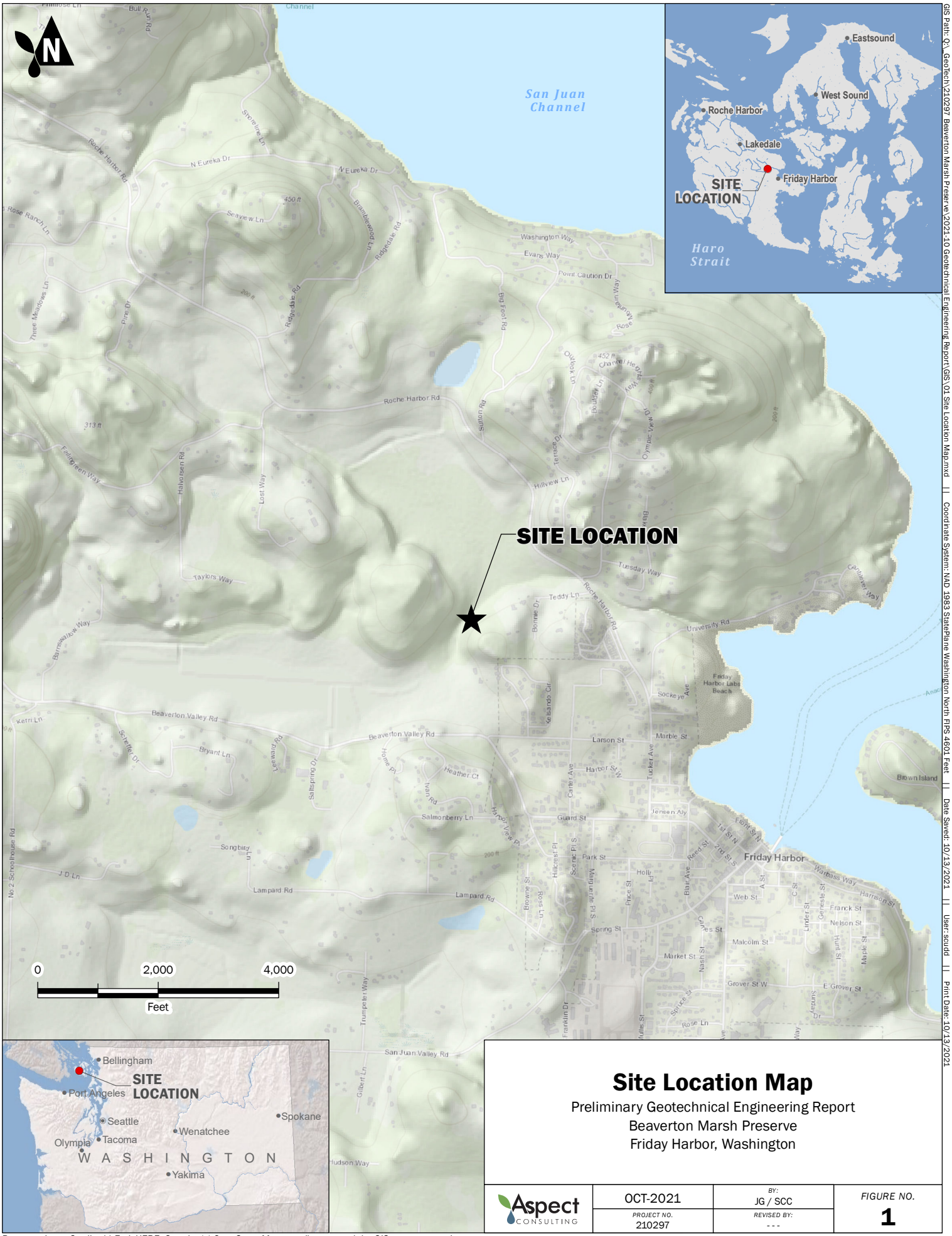
The scope of work does not include services related to construction safety precautions. Site safety is typically the responsibility of the contractor, and our recommendations are not intended to direct the contractor’s site safety methods, techniques, sequences, or procedures. The scope of our work also does not include the assessment of environmental characteristics, particularly those involving potentially hazardous substances in soil or groundwater.

All reports prepared by Geosyntec for the Client apply only to the services described in the Agreement(s) with the Client. Any use or reuse by any party other than the Client is at the sole risk of that party, and without liability to Geosyntec. Geosyntec’s original files/reports shall govern in the event of any dispute regarding the content of electronic documents furnished to others.

Please refer to Appendix C titled “Report Limitations and Guidelines for Use” for additional information governing the use of this report.

We appreciate the opportunity to perform these services. If you have any questions please call Henry N. Haselton, Senior Geotechnical Engineer, (360) 483-0664.

FIGURES



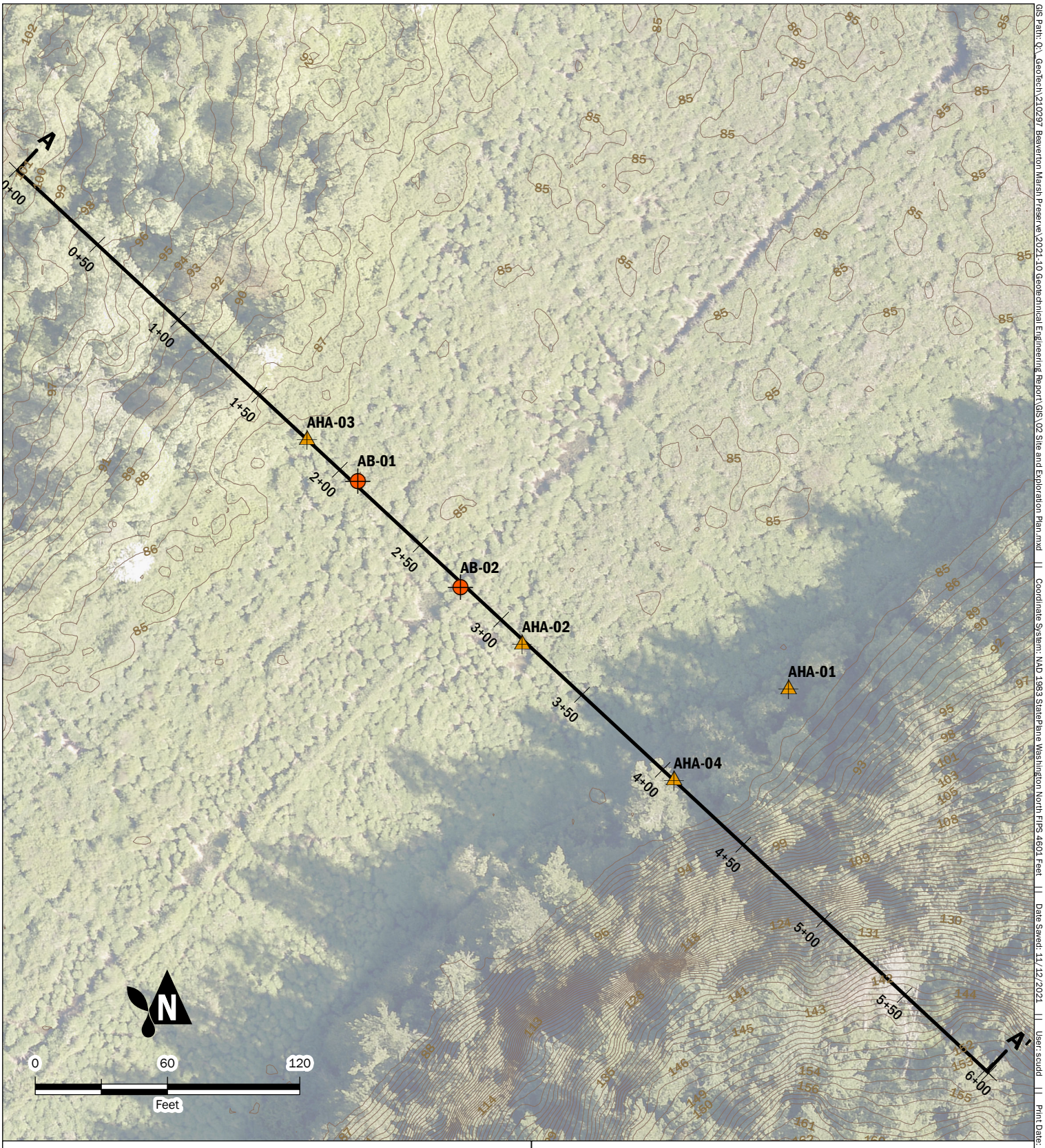
Site Location Map

Preliminary Geotechnical Engineering Report
Beaverton Marsh Preserve
Friday Harbor, Washington

Aspect CONSULTING	OCT-2021	BY: JG / SCC	FIGURE NO. 1
	PROJECT NO. 210297	REVISED BY: ---	

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GIS Path: Q:_GeoTech\210297 Beaverton Marsh Preserve\2021-10 Geotechnical Engineering Report\GIS\01 Site Location Map.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 10/13/2021 || User: scudd || Print Date: 10/13/2021



Boring Location

Hand Auger Location

1-Foot Elevation Contour (San Juan County 2019 LiDAR)

A A' Cross Section Location

Site and Exploration Plan

Preliminary Geotechnical Engineering Report
Beaverton Marsh Preserve
Friday Harbor, Washington

Aspect Consulting	NOV-2021	BY: JG / SCC	FIGURE NO. 2
	PROJECT NO. 210297	REVISED BY: ---	

Basemap Layer Credits | | Pictometry International Corp.

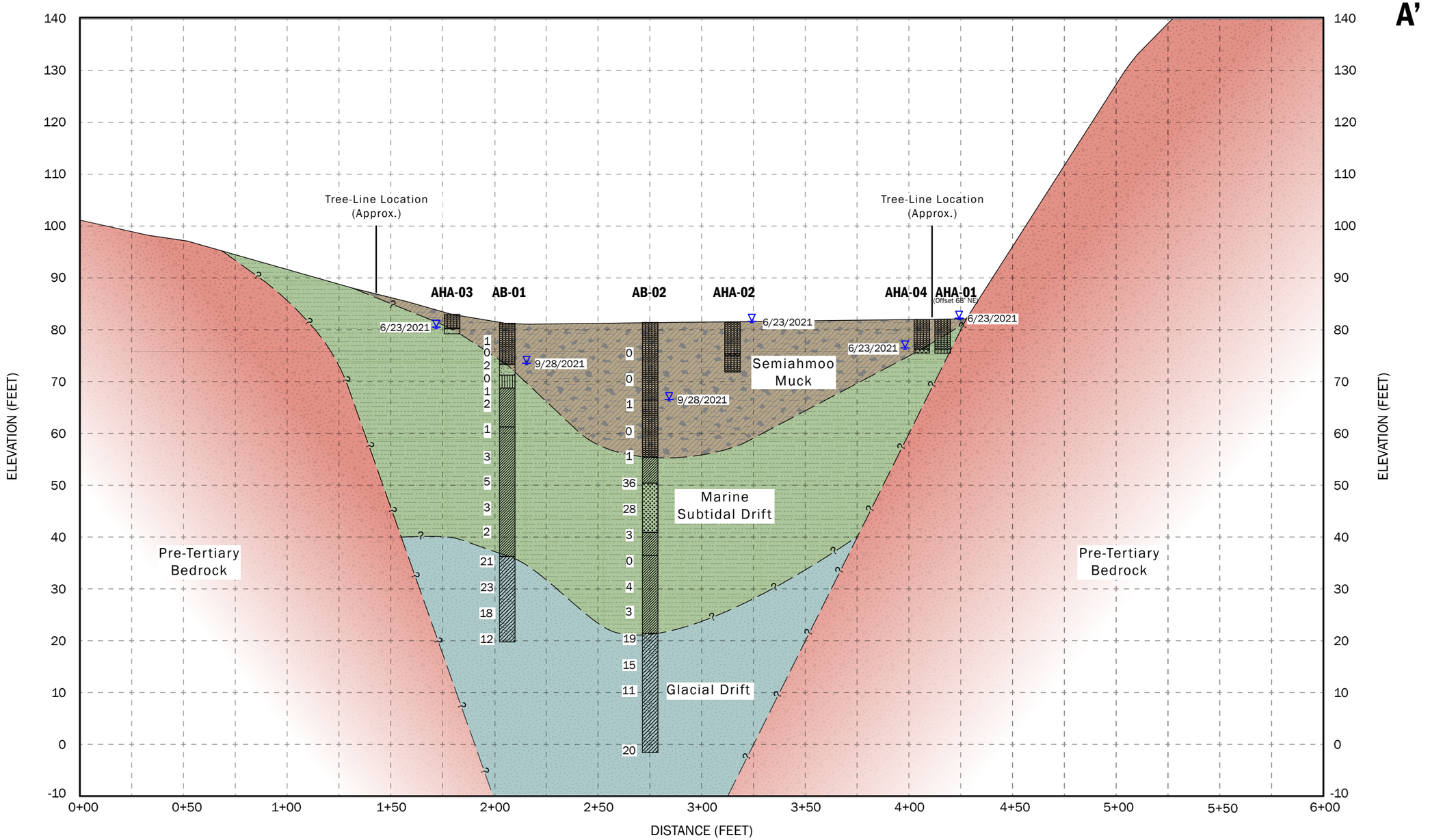
GIS Path: Q:_GeoTech\210297 Beaverton Marsh Preserve\2021-10 Geotechnical Engineering Report\GIS\02 Site and Exploration Plan.mxd || Coordinate System: NAD 1983 StatePlane Washington North FIPS 4601 Feet || Date Saved: 11/12/2021 || User: ssudd || Print Date: 11/12/2021

NORTHWEST

A

SOUTHEAST

A’



Legend

Lithology Graphics

- Semiahmoo Muck
- Glacial Drift
- Marine Subtidal Drift
- Pre-Tertiary Bedrock

Contacts and Borings

- Contact - Known
- Contact - Inferred
- Contact - Queried

Explorations

Exploration ID — **AB-01**
SPT Blow Count / N Value — 8
Modified California Blow Count — **8**
Material Type (see Appendix A)
Water Level in Exploration at time of drilling
Water Level in Monitoring Well, Date

0 — 50 — 100
Feet

Horizontal Scale 1” = 50’
Vertical Scale 1” = 20’
Vertical Exaggeration 2.5x

DISCLAIMER: The subsurface conditions presented in this geologic cross section are conceptual. Variations may exist between the soil and groundwater conditions depicted on this figure and those actually underlying the site. Refer to the contents of this report and boring logs for further context.

Cross section surface generated from LiDAR derived 1-foot contours provided by client on 11/1/2021. Topographic profile is approximate.

Geologic Cross Section A- A’

Preliminary Geotechnical Engineering Report
Beaverton Marsh Preserve
Friday Harbor, Washington

Aspect Consulting

NOV-2021	BY: JBM	FIGURE NO. 3
PROJECT NO. 210297	REVISED BY: JRG/AAF	

APPENDIX A

Subsurface Explorations

A. Subsurface Explorations

A field exploration program was performed to define the geotechnical properties of materials at the Site. An Geosyntec geotechnical engineer was present throughout the program to observe the drilling procedure, assist in sampling, and to prepare descriptive logs of the exploration. Soils were classified in general accordance with ASTM D2488, *Standard Practice for Description and Identification of Soils* (Visual-Manual Procedure.) The summary exploration logs represent our interpretation of the contents of the field logs. The stratigraphic contacts shown on the individual summary logs represent the approximate boundaries between soil types; actual transitions may be more gradual. The subsurface conditions depicted are only for the specific date and locations reported and are not necessarily representative of other locations and times.

The exploration logs are provided within this appendix and exploration locations are shown on Figure 2. A geologic cross section is provided as Figure 3.

A.1 Hand Augers

Geosyntec (as Aspect) completed four shallow hand auger explorations, designated AHA-01 to AHA-04, towards the ends of the proposed wetland crossing alignment. AHA-01 and AHA-02 were advanced during the Site reconnaissance on June 23, 2021. AHA-03 and AHA-04 were advanced on September 28, 2021, the same day as the hollow-stem borings. The explorations were extended 3.75 to 9.5 feet bgs. A disturbed soil sample was collected from AHA-04.

A.2 Hollow-Stem Auger Borings

Geotechnical borings AB-01 and AB-02 were drilled using hollow-stem auger drilling techniques on September 28, 2021. The drilling was subcontracted to Boretec, Inc, an experienced and licensed local driller. Drilling was completed with a track mounted drill rig advancing an 6-inch (2.25-inch inside diameter) hollow-stem auger. The borings were advanced to depths ranging from 61.5 and 83 feet bgs. Upon completion, the borings were backfilled with hydrated 3/8-inch bentonite chips in accordance with requirements of the Washington State Department of Ecology.

Disturbed samples were obtained at 2.5-foot intervals in accordance ASTM D1586, *Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils*. This involves driving a 2-inch-outside-diameter split-barrel sampler a distance of 18 inches into the soil with a manual 140-pound hammer free-falling from a height of 30 inches. The number of blows for each 6-inch interval is recorded and the number of blows required to drive the final 12 inches is known as the Standard Penetration Resistance (“N-value”). The N-value provides a measure of the relative density of granular soils or the relative consistency of cohesive soils.

Coarse-Grained Soils - More than 50%[1] Retained on No. 200 Sieve	Gravels - More than 50%[1] of Coarse Fraction Retained on No. 4 Sieve	≤5% Fines	GW	Well-graded GRAVEL Well-graded GRAVEL WITH SAND
			GP	Poorly-graded GRAVEL Poorly-graded GRAVEL WITH SAND
		≥15% Fines	GM	SILTY GRAVEL SILTY GRAVEL WITH SAND
			GC	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
	Sands - 50%[1] or More of Coarse Fraction Passes No. 4 Sieve	≤5% Fines	SW	Well-graded SAND Well-graded SAND WITH GRAVEL
			SP	Poorly-graded SAND Poorly-graded SAND WITH GRAVEL
		≥15% Fines	SM	SILTY SAND SILTY SAND WITH GRAVEL
			SC	CLAYEY SAND CLAYEY SAND WITH GRAVEL
Fine-Grained Soils - 50%[1] or More Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50%		ML	SILT SANDY or GRAVELLY SILT SILT WITH SAND SILT WITH GRAVEL
			CL	LEAN CLAY SANDY or GRAVELLY LEAN CLAY LEAN CLAY WITH SAND LEAN CLAY WITH GRAVEL
			OL	ORGANIC SILT SANDY or GRAVELLY ORGANIC SILT ORGANIC SILT WITH SAND ORGANIC SILT WITH GRAVEL
	Silts and Clays Liquid Limit 50% or More		MH	ELASTIC SILT SANDY or GRAVELLY ELASTIC SILT ELASTIC SILT WITH SAND ELASTIC SILT WITH GRAVEL
			CH	FAT CLAY SANDY or GRAVELLY FAT CLAY FAT CLAY WITH SAND FAT CLAY WITH GRAVEL
			OH	ORGANIC CLAY SANDY or GRAVELLY ORGANIC CLAY ORGANIC CLAY WITH SAND ORGANIC CLAY WITH GRAVEL
Highly Organic Soils			PT	PEAT and other mostly organic soils

"WITH SILT" or "WITH CLAY" means 5 to 15% silt and clay, denoted by a "-" in the group name; e.g., SP-SM • "SILTY" or "CLAYEY" means >15% silt and clay • "WITH SAND" or "WITH GRAVEL" means 15 to 30% sand and gravel. • "SANDY" or "GRAVELLY" means >30% sand and gravel. • "Well-graded" means approximately equal amounts of fine to coarse grain sizes • "Poorly graded" means unequal amounts of grain sizes • Group names separated by "/" means soil contains layers of the two soil types; e.g., SM/ML.

Soils were described and identified in the field in general accordance with the methods described in ASTM D2488. Where indicated in the log, soils were classified using ASTM D2487 or other laboratory tests as appropriate. Refer to the report accompanying these exploration logs for details.

1. Estimated or measured percentage by dry weight
2. (SPT) Standard Penetration Test (ASTM D1586)
3. Determined by SPT, DCPT (ASTM STP399) or other field methods. See report text for details.

GEOTECHNICAL LAB TESTS

MC	=	Natural Moisture Content
PS	=	Particle Size Distribution
FC	=	Fines Content (% < 0.075 mm)
GH	=	Hydrometer Test
AL	=	Atterberg Limits
C	=	Consolidation Test
Str	=	Strength Test
OC	=	Organic Content (% Loss by Ignition)
Comp	=	Proctor Test
K	=	Hydraulic Conductivity Test
SG	=	Specific Gravity Test

CHEMICAL LAB TESTS

Organic Chemicals

BTEX	=	Benzene, Toluene, Ethylbenzene, Xylenes
TPH-Dx	=	Diesel and Oil-Range Petroleum Hydrocarbons
TPH-G	=	Gasoline-Range Petroleum Hydrocarbons
VOCs	=	Volatile Organic Compounds
SVOCs	=	Semi-Volatile Organic Compounds
PAHs	=	Polycyclic Aromatic Hydrocarbon Compounds
PCBs	=	Polychlorinated Biphenyls

Metals

RCRA8	=	As, Ba, Cd, Cr, Pb, Hg, Se, Ag, (d = dissolved, t = total)
MTCA5	=	As, Cd, Cr, Hg, Pb (d = dissolved, t = total)
PP-13	=	Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn (d=dissolved, t=total)

FIELD TESTS

PID	=	Photoionization Detector
Sheen	=	Oil Sheen Test
SPT[2]	=	Standard Penetration Test
NSPT	=	Non-Standard Penetration Test
DCPT	=	Dynamic Cone Penetration Test

COMPONENT DEFINITIONS

Descriptive Term		*Size Range and Sieve Number*
Boulders	=	Larger than 12 inches
Cobbles	=	3 inches to 12 inches
Coarse Gravel	=	3 inches to 3/4 inches
Fine Gravel	=	3/4 inches to No. 4 (4.75 mm)
Coarse Sand	=	No. 4 (4.75 mm) to No. 10 (2.00 mm)
Medium Sand	=	No. 10 (2.00 mm) to No. 40 (0.425 mm)
Fine Sand	=	No. 40 (0.425 mm) to No. 200 (0.075 mm)
Silt and Clay	=	Smaller than No. 200 (0.075 mm)

ESTIMATED[1] PERCENTAGE

% by Weight		*Modifier*	*% by Weight*		*Modifier*
<1	=	Subtrace	15 to 25	=	Little
1 to <5	=	Trace	30 to 45	=	Some
5 to 10	=	Few	>50	=	Mostly

MOISTURE CONTENT

Dry	=	Absence of moisture, dusty, dry to the touch
Slightly Moist	=	Perceptible moisture
Moist	=	Damp but no visible water
Very Moist	=	Water visible but not free draining
Wet	=	Visible free water, usually from below water table

RELATIVE DENSITY

Non-Cohesive or Coarse-Grained Soils

Density[3]		*SPT*[2] *Blows/Foot*	*Penetration with 1/2" Diameter Rod*
Very Loose	=	0 to 4	≥ 2'
Loose	=	5 to 10	1' to 2'
Medium Dense	=	11 to 30	3" to 1'
Dense	=	31 to 50	1" to 3"
Very Dense	=	> 50	< 1"

CONSISTENCY

Cohesive or Fine-Grained Soils

Consistency[3]		*SPT*[2] *Blows/Foot*	*Manual Test*
Very Soft	=	0 to 1	Penetrated >1" easily by thumb. Extrudes between thumb & fingers.
Soft	=	2 to 4	Penetrated 1/4" to 1" easily by thumb. Easily molded.
Medium Stiff	=	5 to 8	Penetrated >1/4" with effort by thumb. Molded with strong pressure.
Stiff	=	9 to 15	Indented ~1/4" with effort by thumb.
Very Stiff	=	16 to 30	Indented easily by thumbnail.
Hard	=	> 30	Indented with difficulty by thumbnail.

GEOLOGIC CONTACTS

Observed and Distinct — Observed and Gradual — Inferred

Geosyntec consultants

Exploration Log Key

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, 60 feet from northwest treeline	48.5454, -123.0359 (est)	**AB-01**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Rotary drill rig	Rope & cathead; 140 lb hammer; 30" drop	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	6" OD X 2.25" ID Hollow Stem Auger	2021-09-28	NA	8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%) ● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
0	85	Backfilled with 3/8-inch bentonite chips.						**SEMIAHMOO MUCK** PEAT (PT); very soft, dark brown to black, wet; abundant roots and organics; few woody debris.	0
5	80	▽ 2021-09-28	S1		1 0 1				5
			S2		1 0 0				
			S3		0 1 1				
10	75		S4		1 0 0			**MARINE SUBTIDAL DEPOSITS** SAND (SP); very loose, gray, wet; fine to medium sand; little shell fragments. SILT (ML); soft, light brown, wet; low plasticity; trace fine sand; some shell fragments.	10
			S5	31.4 ●	1 1 0	MC		CLAY WITH SAND (CL); very soft, gray, wet; medium plasticity; fine sand; few shell fragment. 2-inch gray poorly graded sand at 13.5 feet bgs.	
15	70		S6		1 1 1			Becomes some shell fragments. 2-inch brown poorly graded sand at 16.5 feet bgs.	15
20	65		S7		1 0 1			CLAY WITH SAND (CL); very soft, light brown, wet; medium plasticity; coarse sand; few fine rounded gravel.	20
25	60		S8		1 1 2			Becomes fine to coarse gravel.	25
30	55		S9		1 2 3				30
35	50		S10		1 1 2				35
40	45		S11	34.2 ●	1 1 1	MC, PS, AL FC=77.9% LL=46% PL=21% D50=0.048mm			40

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◪ Split Barrel 2" X 1.375" (SPT)

Plastic Limit ⊢ ⊣ Liquid Limit

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
Approved by: AF 11/11/21

Exploration Log AB-01
Sheet 1 of 2

GEOSYNTEC LOGO EXPL LOG P:\GINT\PROJECTS\210297 - SAN JUAN BEAVERTON MARSH.GPJ July 30, 2026

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, 60 feet from northwest treeline	48.5454, -123.0359 (est)	**AB-01**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Rotary drill rig	Rope & cathead; 140 lb hammer; 30" drop	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	6" OD X 2.25" ID Hollow Stem Auger	2021-09-28	NA	8' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%)● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
50	35		S12		3 7 14			**GLACIAL DRIFT** CLAYEY SAND (SC); medium dense, gray, wet; fine sand; fine rounded gravel.	50
			S13	12 ● ▲	7 10 13	MC, GH FC=46.3% D50=0.11mm			
55	30		S14	▲	7 9 9			Becomes fine to coarse sand.	55
60	25		S15	▲	3 6 6			Bottom of exploration at 61.5 ft. bgs. Note: Boring terminated as planned.	60
65	20								65
70	15								70
75	10								75
80	5								80
85	0								85

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◪ Split Barrel 2" X 1.375" (SPT)

Plastic Limit ⊢—⊣ Liquid Limit

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
Approved by: AF 11/11/21

Exploration Log AB-01
Sheet 2 of 2

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, marsh center (130 ft from treelines)	48.5452, -123.0357 (est)	**AB-02**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Rotary drill rig	Rope & cathead; 140 lb hammer; 30" drop	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	6" OD X 2.25" ID Hollow Stem Auger	2021-09-28	NA	15' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%) ● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
0	85	Backfilled with 3/8-inch bentonite chips.						**SEMIAHMOO MUCK** PEAT (PT); very soft, dark brown to black, moist; abundant roots and organics; few woody debris.	0
5	80		S1	▲	1 0 0				5
10	75		S2	● 680.5 ▲	1 0 0	MC, OC OC=39.6%		Becomes red brown to brown at 10 feet bgs.	10
15	70	▽ 2021-09-28	S3	▲	1 0 1			PEAT (PT); very soft, red brown, orange brown, light brown, and brown, very moist; trace shell fragments; trace roots.	15
20	65		S4	▲	1 0 0			Becomes red brown with subtrace roots at 20 feet bgs.	20
25	60		S5	▲	1 0 1			**MARINE SUBTIDAL DEPOSITS** CLAY (CL); very soft, gray, very moist; medium plasticity; trace shell fragments.	25
30	55		S6	▲	0 13 24			SAND WITH GRAVEL (SW); medium dense, gray, wet; medium plasticity; fine to medium sand; fine subangular to subrounded gravel; little shell fragments.	30
35	50		S7	● 9.7 ▲	13 14 14	MC, PS FC=4.6% D50=1.966mm			35
40	45		S8	▲	2 1 2			CLAY WITH SAND (CL); soft, gray, wet;; medium plasticity; fine to coarse sand; fine subangular gravel; some large shell fragments.	40

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◪ Split Barrel 2" X 1.375" (SPT)

Plastic Limit ⊢⊣ Liquid Limit

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
Approved by: AF 11/11/21

Exploration Log AB-02

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, marsh center (130 ft from treelines)	48.5452, -123.0357 (est)	**AB-02**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Rotary drill rig	Rope & cathead; 140 lb hammer; 30" drop	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	6" OD X 2.25" ID Hollow Stem Auger	2021-09-28	NA	15' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%) ● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
50	35		S9		1 0 0			CLAY (CL); very soft, gray, very moist; medium plasticity; trace coarse sand; trace shell fragments; trace roots.	50
			S10		1 2 2			Becomes soft at 50 feet bgs.	
55	30		S11		2 1 2				55
60	25		S12		5 9 10			**GLACIAL DRIFT** CLAYEY SAND (SC); medium dense, gray, moist; fine to coarse sand; fine gravel.	60
65	20		S13	17.5	4 7 8	MC			65
70	15		S14		3 5 6				70
75	10								75
80	5		S15		7 8 12			Bottom of exploration at 83 ft. bgs. Note: Boring terminated as planned.	80
85	0								85

Legend

Sample Type
- ◯ No Soil Sample Recovery
- ◪ Split Barrel 2" X 1.375" (SPT)

Plastic Limit ⊢⊣ Liquid Limit

Water Level
- ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

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Exploration Log AB-02

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, southeast treeline	48.5451, -123.0351 (est)	**AHA-01**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Hand	Grab	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	Hand tools	2021-06-23	NA	0' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%)● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
0	85	2021-06-23 Backfilled with native material.						**SEMIAHMOO MUCK** PEAT (PT); very soft, dark brown to black, wet; abundant roots.	0
1	84							Becomes without roots.	1
2	83								2
3	82								3
4	81								4
5	80								5
6	79							**MARINE SUBTIDAL DEPOSITS** SILTY SAND WITH GRAVEL (SM); very loose, gray, wet; fine to coarse sand and gravel.	6
6.5	78.5							Bottom of exploration at 6.5 ft. bgs. Note: Boring terminated due to practical refusal.	6.5
7	78								7
8	77								8
9	76								9
10	75								10

Legend

Sample Type

Plastic Limit ⊢⊣ Liquid Limit

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
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Exploration Log AHA-01
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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, 35 feet southeast of marsh center	48.5452, -123.0356 (est)	**AHA-02**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Hand	Grab	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	Hand tools	2021-06-23	NA	0' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%)● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
0	85	2021-06-23 Backfilled with native material.						**SEMIAHMOO MUCK** PEAT (PT); very soft, dark brown to black, wet; abundant roots.	0
1	84								1
2	83								2
3	82								3
4	81								4
5	80								5
6	79							WOODY DEBRIS; very soft, red brown, wet; decomposed; some white ash. PEAT (PT); very soft, dark brown to black, wet; abundant roots.	6
7	78								7
8	77								8
9	76								9
9.5	75.5							Bottom of exploration at 9.5 ft. bgs. Note: Boring terminated as planned.	9.5
10	75								10

Legend

Sample Type

Plastic Limit ⊢⊣ Liquid Limit

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
Approved by: AF 11/11/21

Exploration Log AHA-02
Sheet 1 of 1

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, northwest treeline	48.5454, -123.0360 (est)	**AHA-03**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Hand	Grab	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	Hand tools	2021-09-28	NA	2.75' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%)● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
1	84	Backfilled with native material.						**SEMIAHMOO MUCK** PEAT (PT); very soft, dark brown to black, moist; abundant roots.	1
2	83	▽ 2021-06-23							2
3	82							**MARINE SUBTIDAL DEPOSITS** SAND (SP); very loose, gray, wet; fine to medium sand; trace shell fragments.	3
4	81							Bottom of exploration at 3.75 ft. bgs. Note: Boring terminated as planned.	4
5	80								5
6	79								6
7	78								7
8	77								8
9	76								9
10	75								10

Legend

Sample Type

Plastic Limit ⊢⊣ Liquid Limit

Water Level ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
Approved by: AF 11/11/21

Exploration Log AHA-03
Sheet 1 of 1

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Beaverton Marsh Preserve Project - 210297

Geotechnical Exploration Log

Project Address & Site Specific Location	Coordinates (Lat,Lon WGS84)	Exploration Number
Parcel Number 351122001000, southeast treeline	48.5450, -123.0353 (est)	**AHA-04**

Contractor	Equipment	Sampling Method	Ground Surface Elev. (NAVD88)	
Aspect	Hand	Grab	85' (est)	
Operator	**Exploration Method(s)**	**Work Start/Completion Dates**	**Top of Casing Elev. (NAVD88)**	**Depth to Water (Below GS)**
JRG	Hand tools	2021-09-28	NA	5.75' (ATD)

Depth (feet)	Elev. (feet)	Exploration Notes and Completion Details	Sample Type/ID	Blows/foot ▲ Water Content (%)● 0 10 20 30 40 50	Blows/6"	Tests	Material Type	Description	Depth (ft)
1	84	Backfilled with native material.						**SEMIAHMOO MUCK** PEAT (PT); very soft, dark brown to black, wet; abundant roots.	1
2	83								2
3	82								3
4	81								4
5	80	▽ 2021-06-23	S1	14 ●	1	MC, PS FC=2.3% D50=1.797mm			5
6	79							**MARINE SUBTIDAL DEPOSITS** SAND WITH GRAVEL (SW); very loose, gray to blue gray, wet; medium to coarse sand; fine subangular gravel.	6
7	78							Bottom of exploration at 6 ft. bgs. Note: Boring terminated as planned.	7
8	77								8
9	76								9
10	75								10

Legend

Sample Type: Grab sample

Plastic Limit ⊢——⊣ Liquid Limit

Water Level: ▽ Water Level ATD

See Exploration Log Key for explanation of symbols

Logged by: JRG
Approved by: AF 11/11/21

Exploration Log AHA-04
Sheet 1 of 1

GEOSYNTEC LOGO EXPL LOG P:\GINT\PROJECTS\210297 - SAN JUAN BEAVERTON MARSH.GPJ July 30, 2026

APPENDIX B

Geotechnical Laboratory Testing Results

B. Geotechnical Laboratory Testing Results

We developed a geotechnical laboratory testing program to establish index and engineering properties of materials at the Site. Selected soil samples from the hand explorations and borings were tested by Materials Testing & Consulting, Inc. under subcontract to Geosyntec. The test results are summarized in Table B-1, and complete results are included within this appendix.

The tests that were performed and the procedures followed are outlined below.

B.1 Soil Classification

Soil samples from the explorations were visually classified in the field and then taken to our office where the classifications were verified in a relatively controlled environment. Field and laboratory observations include density/consistency, moisture condition, and grain-size and plasticity estimates. The classifications of selected samples were checked by grain-size analysis and plasticity index testing. Classifications were made in general accordance with the Unified Soil Classification System (USCS) according to ASTM D2488, *Standard Practice for Description and Identification of Soils (Visual-Manual Procedures)*, and ASTM D2487, *Standard Practice for Classification of Soils for Engineering Purposes* (Unified Soil Classification System).

B.2 Moisture-Content Determination

Moisture contents were identified for samples recovered in the explorations in general accordance with ASTM D2216, *Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass*, as soon as possible following their arrival to the laboratory. Moisture contents are summarized in the report text and shown on the exploration logs and shown in this appendix.

B.3 Grain-Size Analysis

Grain-size analysis was performed on selected soil samples in general accordance with ASTM D6913, Standard Test Methods for Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis. The results of the tests are presented in this appendix showing percent finer by weight versus grain size.

B.4 Fines Content

Fines-content analyses were performed on selected soil samples in general accordance with ASTM D-1140, *Standard Test Methods for Determining the Amount of Material Finer than 75-µm (No. 200) Sieve in Soils by Washing*. The results of the tests are presented in this appendix showing percent passing the No. 200 sieve by weight.

B.5 Hydrometer Testing

The percent of silt and clay in sample S-13 from AB-01 was identified using ASTM D7928, *Standard Test Method for Particle-Size Distribution (Gradation) of Fine-Grained Soils Using the Sedimentation (Hydrometer) Analysis*.

B.6 Organic Content

Geosyntec identified organic contents of selected SPT soil samples in general accordance with ASTM D 2974, *Standard Test Methods for Determining the Water (Moisture) Content, Ash Content, and Organic Material of Peat and Other Organic Soils*.

B.7 Atterberg Limits

Select subsurface soil samples from the soil borings were submitted for analysis of plasticity index by the ASTM D4318 test method, *Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils*. This test method allows for the laboratory determination of the liquid limit and the plastic limit of the fines in a soil sample. Test results are shown in this appendix.

Table B-1. Laboratory Testing Results Summary

Boring	Sample Number	Top Depth (feet bgs)	Results										
			MC (%)	Percent Gravel (%)	Percent Sand (%)	Percent Fines (%)	Percent Silt (%)	Percent Clay (%)	Organic Content (%)	Plastic Limit	Liquid Limit	Plasticity Index	USCS
AB-01	S-5	12.5	31.4										
AB-01	S-11	40.0	34.2	2.2	19.9	77.9				21.0	46.0	25.0	CL
AB-01	S-13	50.0	12.0	3.1	50.6	46.3	35.2	11.1					SM
AB-02	S-4	10.0	680.5						39.6				
AB-02	S-7	35.0	9.7	29.3	66.0	4.6							SW
AB-02	S-13	65.0	17.5										
AHA-04	S-1	6.0	14.1	28.8	68.9	2.3							SW

Notes: % = percent
AB = Geosyntec soil boring
AHA = Geosyntec hand auger
ft bgs = feet below ground surface
CL = lean clay
MC = moisture content
MH = elastic silt
SM = silty sand
SW = well graded sand
USCS = Unified Soil Classification System

Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Client:	Aspect Consulting	**Date:**	October 21, 2021
Address:	103 E. Holly Street, Suite 418	**Project:**	Q.C. - Beaverton Marsh Preserve
	Bellingham, WA 98229	**Project #:**	21B077-24
Attn:	Jane Gregg	**Sample #:**	B21-2136-2142
Date Revised:		**Date Sampled:**	September 28, 2021

As requested MTC, Inc. has performed the following test(s) on the sample referenced above. The testing was performed in accordance with current applicable AASHTO or ASTM standards as indicated below. The results obtained in our laboratory were as follows below or on the attached pages:

	Test(s) Performed:	Test Results		Test(s) Performed:	Test Results
X	Sieve Analysis	Please See Attached Reports		Sulfate Soundness	
	Proctor			Bulk Density & Voids	
	Sand Equivalent			WSDOT Degradation	
	Fracture Count		X	% Passing #200 Sieve	Please See Attached Report
X	Moisture Content	Please See Attached Report	X	Organic Content	Please See Attached Report
	Specific Gravity, Coarse				
	Specific Gravity, Fine				
X	Hydrometer Analysis	Please See Attached Report			
X	Atterberg Limits	Please See Attached Report			
	Asphalt Extraction/Gradation				
	Rice Density				

If you have any questions concerning the test results, the procedures used, or if we can be of any further assistance please call on us at the number below.

Respectfully Submitted,
Meghan Blodgett-Carrillo
NW Region Laboratory Manager

Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Date Received: October 8, 2021
Date Tested: October 14, 2021

Client: Aspect Consulting
Sampled by: Client
Tested by: A. Eifrig

Moisture Content - ASTM C-566, ASTM D-2216 & AASHTO T-265

Sample #	Location	Tare	Wet + Tare	Dry + Tare	Wgt. Of Moisture	Wgt. Of Soil	% Moisture
B21-2136	AB-01 S-5 @ 12.5 ft	392.2	1191.2	1000.3	190.9	608.1	31.4%
B21-2137	AB-01 S-11 @ 40 ft	498.1	1388.8	1161.9	226.9	663.8	34.2%
B21-2138	AB-01 S-13 @ 50 ft	424.0	568.1	552.7	15.4	128.7	12.0%
B21-2139	AB-02 S-4 @ 10 ft	417.6	1038.9	497.2	541.7	79.6	680.5%
B21-2140	AB-02 S-7 @ 35 ft	510.2	1161.8	1104.3	57.5	594.1	9.7%
B21-2141	AB-02 S-13 @ 65 ft	424.3	1294.4	1164.7	129.7	740.4	17.5%
B21-2142	AHA-04 S-1 @ 6 ft	500.4	900.1	850.7	49.4	350.3	14.1%

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Reviewed by: Meghan Blodgett-Carrillo

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Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Date Received: October 8, 2021
Date Tested: October 14, 2021

Client: Aspect Consulting
Sampled by: Client
Tested by: A. Eifrig

Amount of Materials Finer Than #200 Sieve - ASTM C-117, ASTM D-1140 & AASHTO T-11

Sample #	Location	Tare	Before Wash + Tare	After Wash + Tare	Amount of Loss	% -#200
B21-2137	AB-01 S-11 @ 40 ft	498.1	1161.9	645.0	516.9	77.9%
B21-2140	AB-02 S-7 @ 35 ft	510.2	1104.3	1076.9	27.4	4.6%
B21-2142	AHA-04 S-1 @ 6 ft	500.4	850.7	842.7	8.0	2.3%

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Meghan Blodgett-Carrillo

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Materials Testing & Consulting, Inc.

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Sieve Report

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Client: Aspect Consulting
Source: AB-01 S-11 @ 40 ft
Sample#: B21-2137

Date Received: 8-Oct-21
Sampled By: Client
Date Tested: 14-Oct-21
Tested By: A. Eifrig

ASTM D-2487 Unified Soils Classification System
CL, Lean Clay with Sand
Sample Color:
gray

ACCREDITED
Certificate #: 1366.01, 1366.02 & 1366.04

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

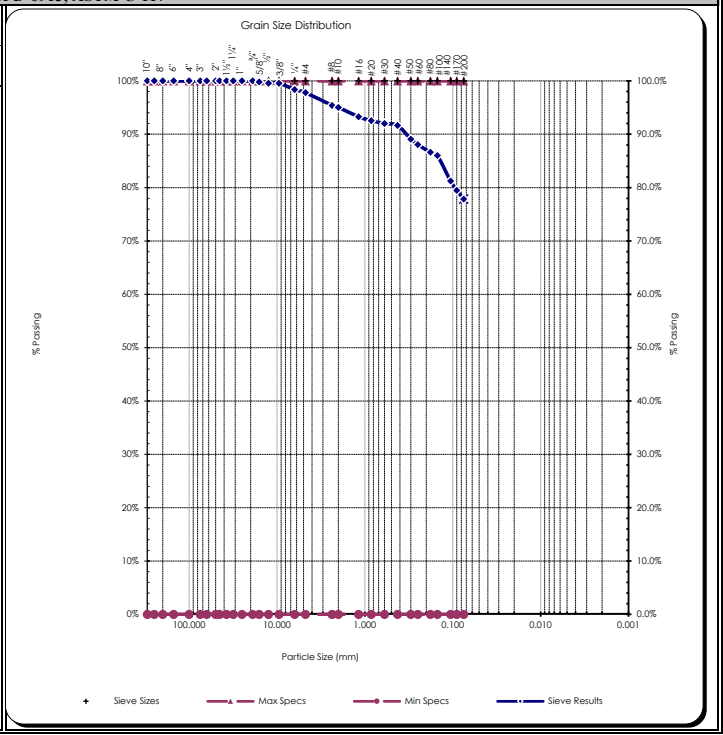
Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.005 mm	% Gravel =	2.2%	Coeff. of Curvature, C_C =	1.50
$D_{(10)}$ =	0.010 mm	% Sand =	19.9%	Coeff. of Uniformity, C_U =	6.00
$D_{(15)}$ =	0.014 mm	% Silt & Clay =	77.9%	Fineness Modulus =	0.47
$D_{(30)}$ =	0.029 mm	Liquid Limit =	46.4%	Plastic Limit =	20.9%
$D_{(50)}$ =	0.048 mm	Plasticity Index =	25.4%	Moisture %, as sampled =	34.2%
$D_{(60)}$ =	0.058 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	0.345 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	17/20	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913, ASTM C-117

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00	100%	100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	100%	100%	100.0%	0.0%
5/8"	16.00		100%	100.0%	0.0%
1/2"	12.50	100%	100%	100.0%	0.0%
3/8"	9.50	100%	100%	100.0%	0.0%
1/4"	6.30		98%	100.0%	0.0%
#4	4.75	98%	98%	100.0%	0.0%
#8	2.36		95%	100.0%	0.0%
#10	2.00	95%	95%	100.0%	0.0%
#16	1.18		93%	100.0%	0.0%
#20	0.850		93%	100.0%	0.0%
#30	0.600		92%	100.0%	0.0%
#40	0.425	92%	92%	100.0%	0.0%
#50	0.300		89%	100.0%	0.0%
#60	0.250		88%	100.0%	0.0%
#80	0.180		87%	100.0%	0.0%
#100	0.150	86%	86%	100.0%	0.0%
#140	0.106		81%	100.0%	0.0%
#170	0.090		79%	100.0%	0.0%
#200	0.075	77.9%	77.9%	100.0%	0.0%

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Comments:

Reviewed by:
Meghan Blodgett-Carrillo

Materials Testing & Consulting, Inc.

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ASTM D4318 - Liquid Limit, Plastic Limit and Plasticity Index of Soils

Project:	Q.C. - Beaverton Marsh Preserv	**Date Received:**	8-Oct-21
Project #:	21B077-24	**Sampled By:**	Client
Client:	Aspect Consulting	**Date Tested:**	14-Oct-21
Source:	AB-01 S-11 @ 40 ft	**Tested By:**	A. Eifrig
Sample #:	B21-2137		

Unified Soils Classification System, ASTM D-2487
CL, Lean Clay with Sand
Sample Color
gray

Liquid Limit Determination

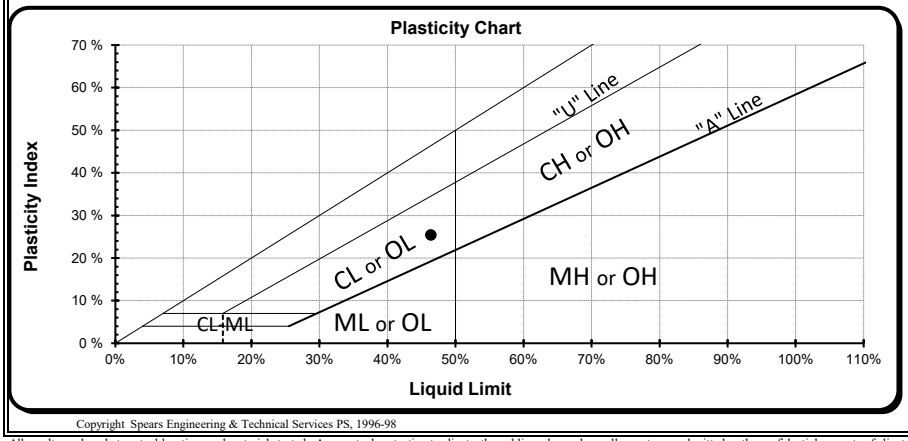
	#1	#2	#3	#4	#5	#6
Weight of Wet Soils + Pan:	34.10	35.71	36.64			
Weight of Dry Soils + Pan:	29.74	30.81	31.19			
Weight of Pan:	19.77	20.04	19.61			
Weight of Dry Soils:	9.97	10.77	11.58			
Weight of Moisture:	4.36	4.90	5.45			
% Moisture:	43.7 %	45.5 %	47.1 %			
Number of Blows:	35	29	22			

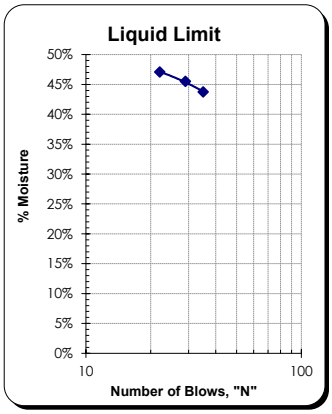
Liquid Limit @ 25 Blows: 46 %
Plastic Limit: 21 %
Plasticity Index, I_P: 25 %

Plastic Limit Determination

	#1	#2	#3	#4	#5	#6
Weight of Wet Soils + Pan:	35.28	36.03				
Weight of Dry Soils + Pan:	34.06	34.75				
Weight of Pan:	28.27	28.60				
Weight of Dry Soils:	5.79	6.15				
Weight of Moisture:	1.22	1.28				
% Moisture:	21.1 %	20.8 %				

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Certificate #: 1366.01, 1366.02 & 1366.04





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Comments: _____

Reviewed by: _____
Meghan Blodgett-Carrillo

Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Sieve Report

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Client: Aspect Consulting
Source: AB-01 S-13 @ 50 ft
Sample#: B21-2138

Date Received: 8-Oct-21
Sampled By: Client
Date Tested: 14-Oct-21
Tested By: A. Eifrig

ASTM D-2487 Unified Soils Classification System
SM, Silty Sand
Sample Color:
gray

ACCREDITED
Certificate #: 1366.01, 1366.02 & 1366.04

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

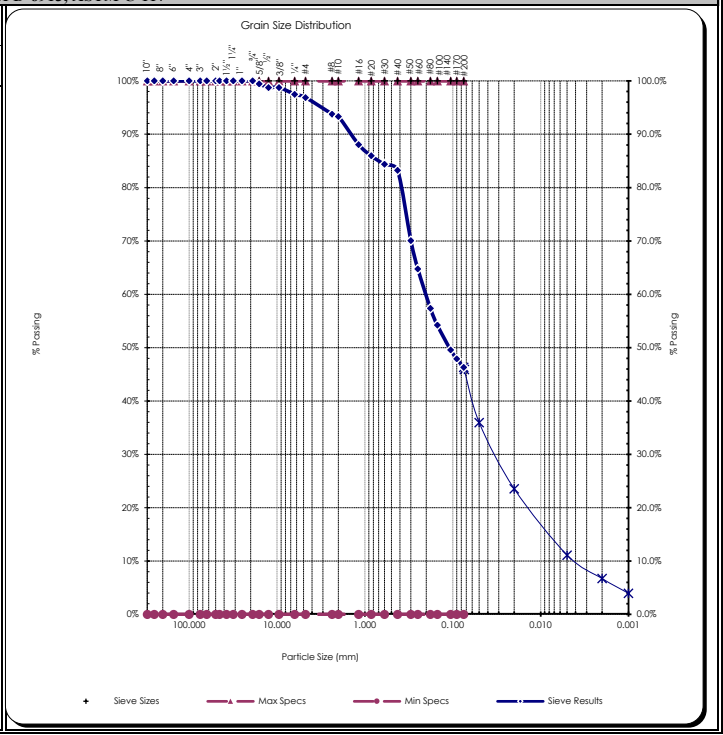
Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.008 mm	% Gravel =	3.1%	Coeff. of Curvature, C_C =	0.71
$D_{(10)}$ =	0.016 mm	% Sand =	50.6%	Coeff. of Uniformity, C_U =	12.64
$D_{(15)}$ =	0.024 mm	% Silt & Clay =	46.3%	Fineness Modulus =	1.14
$D_{(30)}$ =	0.049 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	0.110 mm	Plasticity Index =	n/a	Moisture %, as sampled =	12.0%
$D_{(60)}$ =	0.205 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	1.480 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	5/9	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913, ASTM C-117

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00	100%	100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	100%	100%	100.0%	0.0%
5/8"	16.00		99%	100.0%	0.0%
1/2"	12.50	99%	99%	100.0%	0.0%
3/8"	9.50	99%	99%	100.0%	0.0%
1/4"	6.30		98%	100.0%	0.0%
#4	4.75	97%	97%	100.0%	0.0%
#8	2.36		94%	100.0%	0.0%
#10	2.00	93%	93%	100.0%	0.0%
#16	1.18		88%	100.0%	0.0%
#20	0.850		86%	100.0%	0.0%
#30	0.600		84%	100.0%	0.0%
#40	0.425	83%	83%	100.0%	0.0%
#50	0.300		70%	100.0%	0.0%
#60	0.250		65%	100.0%	0.0%
#80	0.180		57%	100.0%	0.0%
#100	0.150		54%	100.0%	0.0%
#140	0.106		50%	100.0%	0.0%
#170	0.090		48%	100.0%	0.0%
#200	0.075	46.3%	46.3%	100.0%	0.0%

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Comments:

Reviewed by:
Meghan Blodgett-Carrillo

Materials Testing & Consulting, Inc.

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Hydrometer Report

Project:	Q.C. - Beaverton Marsh Preserve	**Date Received:**	8-Oct-21
Project #:	21B077-24	**Sampled By:**	Client
Client :	Aspect Consulting	**Date Tested:**	14-Oct-21
Source:	AB-01 S-13 @ 50 ft	**Tested By:**	A. Eifrig
Sample#:	B21-2138		

ASTM D 2487 Soils Classification
SM, Silty Sand
Sample Color
gray

ASTM D-422, HYDROMETER ANALYSIS

Assumed Sp Gr :	2.65	
Sample Weight:	50.04	grams
Hydroscopic Moist.:	0.56%	
Adj. Sample Wgt :	49.76	grams

ACCREDITED
Certificate #: 1366.01, 1366.02 & 1366.04

Hydrometer Reading Minutes	Corrected Reading	Percent Passing	Soils Particle Diameter
2	16	30.0%	0.0357 mm
5	13.5	25.3%	0.0230 mm
15	10.5	19.7%	0.0135 mm
30	9	16.9%	0.0096 mm
60	7	13.1%	0.0069 mm
250	5	9.4%	0.0034 mm
1440	3	5.6%	0.0014 mm

% Gravel:	3.1%	**Liquid Limit:**	n/a
% Sand:	50.6%	**Plastic Limit:**	n/a
% Silt:	35.2%	**Plasticity Index:**	n/a
% Clay:	11.1%		

ASTM C-136

Sieve Analysis
Grain Size Distribution

Sieve Size	Percent Passing	Soils Particle Diameter
3.0"	100%	75.000 mm
2.0"	100%	50.000 mm
1.5"	100%	37.500 mm
1.25"	100%	31.500 mm
1.0"	100%	25.000 mm
3/4"	100%	19.000 mm
5/8"	99%	16.000 mm
1/2"	99%	12.500 mm
3/8"	99%	9.500 mm
1/4"	98%	6.300 mm
#4	97%	4.750 mm
#10	93%	2.000 mm
#20	86%	0.850 mm
#40	83%	0.425 mm
#100	54%	0.150 mm
#200	46.3%	0.075 mm
Silts	45.9%	0.074 mm
	35.9%	0.050 mm
	23.5%	0.020 mm
Clays	11.1%	0.005 mm
	6.7%	0.002 mm
Colloids	3.9%	0.001 mm

USDA Soil Textural Classification

	Particle Size
% Sand:	2.0 - 0.05 mm
% Silt:	0.05 - 0.002 mm
% Clay:	< 0.002 mm

USDA Soil Textural Classification
Sandy Loam

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Comments:

Reviewed by: Meghan Blodgett-Carrillo

Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Date Received: October 8, 2021
Date Tested: October 15, 2021

Client: Aspect Consulting
Sampled by: Client
Tested by: A. Eifrig

Moisture Content - ASTM C-566, ASTM D-2216 & AASHTO T-265

Sample #	Location	Tare	Wet + Tare	Dry + Tare	Wgt. Of Moisture	Wgt. Of Soil	% Moisture
B21-2139	AB-02 S-4 @ 10 ft	417.6	1038.9	497.2	541.7	79.6	680.5%

Organic Content - ASTM D-2974, AASHTO T-267

Sample #	Location	Tare	Soil + Tare, Pre-Ignition	Soil + Tare, Post Ignition	% Organics
B21-2139	AB-02 S-4 @ 10 ft	68.09	87.33	79.71	39.60%

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Reviewed by: Meghan Blodgett-Carrillo

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Sieve Report

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Client: Aspect Consulting
Source: AB-02 S-7 @ 35 ft
Sample#: B21-2140

Date Received: 8-Oct-21
Sampled By: Client
Date Tested: 14-Oct-21
Tested By: A. Eifrig

ASTM D-2487 Unified Soils Classification System
SW, Well-graded Sand with Gravel
Sample Color:
gray

ACCREDITED
Certificate #: 1366.01, 1366.02 & 1366.04

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

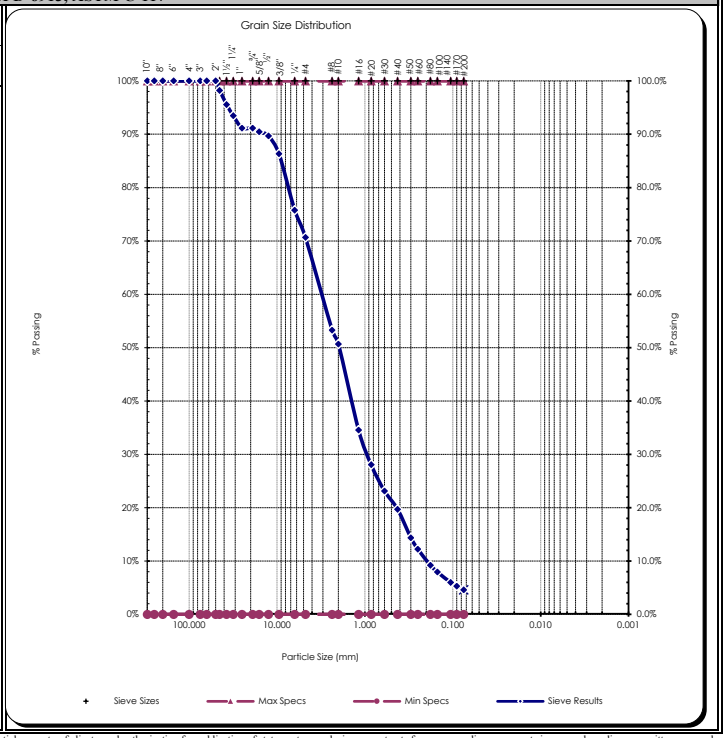
Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.084	mm	% Gravel =	29.3%	Coeff. of Curvature, C_C = 1.38
$D_{(10)}$ =	0.198	mm	% Sand =	66.0%	Coeff. of Uniformity, C_U = 16.58
$D_{(15)}$ =	0.315	mm	% Silt & Clay =	4.6%	Fineness Modulus = 4.19
$D_{(30)}$ =	0.949	mm	Liquid Limit =	n/a	Plastic Limit = n/a
$D_{(50)}$ =	1.966	mm	Plasticity Index =	n/a	Moisture %, as sampled = 9.7%
$D_{(60)}$ =	3.284	mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =
$D_{(90)}$ =	13.880	mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =
Dust Ratio =	11/47		Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =

ASTM C-136, ASTM D-6913, ASTM C-117

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00	100%	100%	100.0%	0.0%
1.75"	45.00		98%	100.0%	0.0%
1.50"	37.50		96%	100.0%	0.0%
1.25"	31.50		93%	100.0%	0.0%
1.00"	25.00	91%	91%	100.0%	0.0%
3/4"	19.00	91%	91%	100.0%	0.0%
5/8"	16.00		90%	100.0%	0.0%
1/2"	12.50	90%	90%	100.0%	0.0%
3/8"	9.50	86%	86%	100.0%	0.0%
1/4"	6.30		76%	100.0%	0.0%
#4	4.75	71%	71%	100.0%	0.0%
#8	2.36		53%	100.0%	0.0%
#10	2.00	51%	51%	100.0%	0.0%
#16	1.18		35%	100.0%	0.0%
#20	0.850		28%	100.0%	0.0%
#30	0.600		23%	100.0%	0.0%
#40	0.425	20%	20%	100.0%	0.0%
#50	0.300		14%	100.0%	0.0%
#60	0.250		12%	100.0%	0.0%
#80	0.180		9%	100.0%	0.0%
#100	0.150	8%	8%	100.0%	0.0%
#140	0.106		6%	100.0%	0.0%
#170	0.090		5%	100.0%	0.0%
#200	0.075	4.6%	4.6%	100.0%	0.0%

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All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Comments:

Reviewed by:
Meghan Blodgett-Carrillo

Materials Testing & Consulting, Inc.

Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting

Sieve Report

Project: Q.C. - Beaverton Marsh Preserve
Project #: 21B077-24
Client: Aspect Consulting
Source: AHA-04 S-1 @ 6 ft
Sample#: B21-2142

Date Received: 8-Oct-21
Sampled By: Client
Date Tested: 14-Oct-21
Tested By: A. Eifrig

ASTM D-2487 Unified Soils Classification System
SW, Well-graded Sand with Gravel
Sample Color:
brown

ACCREDITED
Certificate #: 1366.01, 1366.02 & 1366.04

ASTM D-2216, ASTM D-2419, ASTM D-4318, ASTM D-5821

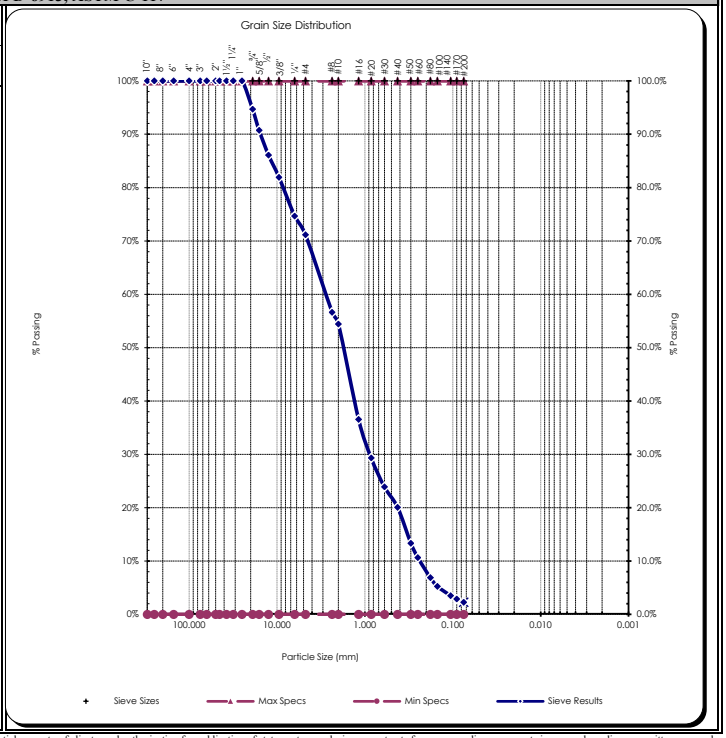
Specifications
No Specs
Sample Meets Specs ? N/A

$D_{(5)}$ =	0.144 mm	% Gravel =	28.8%	Coeff. of Curvature, C_C =	1.12
$D_{(10)}$ =	0.238 mm	% Sand =	68.9%	Coeff. of Uniformity, C_U =	12.24
$D_{(15)}$ =	0.331 mm	% Silt & Clay =	2.3%	Fineness Modulus =	4.17
$D_{(30)}$ =	0.880 mm	Liquid Limit =	n/a	Plastic Limit =	n/a
$D_{(50)}$ =	1.797 mm	Plasticity Index =	n/a	Moisture %, as sampled =	14.1%
$D_{(60)}$ =	2.914 mm	Sand Equivalent =	n/a	Req'd Sand Equivalent =	
$D_{(90)}$ =	15.442 mm	Fracture %, 1 Face =	n/a	Req'd Fracture %, 1 Face =	
Dust Ratio =	5/44	Fracture %, 2+ Faces =	n/a	Req'd Fracture %, 2+ Faces =	

ASTM C-136, ASTM D-6913, ASTM C-117

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
12.00"	300.00		100%	100.0%	0.0%
10.00"	250.00		100%	100.0%	0.0%
8.00"	200.00		100%	100.0%	0.0%
6.00"	150.00		100%	100.0%	0.0%
4.00"	100.00		100%	100.0%	0.0%
3.00"	75.00		100%	100.0%	0.0%
2.50"	63.00		100%	100.0%	0.0%
2.00"	50.00	100%	100%	100.0%	0.0%
1.75"	45.00		100%	100.0%	0.0%
1.50"	37.50		100%	100.0%	0.0%
1.25"	31.50		100%	100.0%	0.0%
1.00"	25.00	100%	100%	100.0%	0.0%
3/4"	19.00	95%	95%	100.0%	0.0%
5/8"	16.00		91%	100.0%	0.0%
1/2"	12.50	86%	86%	100.0%	0.0%
3/8"	9.50	82%	82%	100.0%	0.0%
1/4"	6.30		75%	100.0%	0.0%
#4	4.75	71%	71%	100.0%	0.0%
#8	2.36		57%	100.0%	0.0%
#10	2.00	54%	54%	100.0%	0.0%
#16	1.18		37%	100.0%	0.0%
#20	0.850		29%	100.0%	0.0%
#30	0.600		24%	100.0%	0.0%
#40	0.425	20%	20%	100.0%	0.0%
#50	0.300		13%	100.0%	0.0%
#60	0.250		11%	100.0%	0.0%
#80	0.180		7%	100.0%	0.0%
#100	0.150	5%	5%	100.0%	0.0%
#140	0.106		4%	100.0%	0.0%
#170	0.090		3%	100.0%	0.0%
#200	0.075	2.3%	2.3%	100.0%	0.0%

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Comments:

Reviewed by:
Meghan Blodgett-Carrillo

APPENDIX C

Report Limitations and Guidelines for Use

C. REPORT LIMITATIONS AND GUIDELINES FOR USE

C.1 This Report and Project-Specific Factors

Geosyntec Consultants, Inc. (Geosyntec) considered a number of unique, project-specific factors when establishing the Scope of Work for this project and report. You should not rely on this report if it was:

- Not prepared for you
- Not prepared for the specific purpose identified in the Agreement
- Not prepared for the specific real property assessed
- Completed before important changes occurred concerning the subject property, project or governmental regulatory actions

C.2 Geoscience Interpretations

The geoscience practices (geotechnical engineering, geology, and environmental science) require interpretation of spatial information that can make them less exact than other engineering and natural science disciplines. It is important to recognize this limitation in evaluating the content of the report. If you are unclear how these "Report Limitations and Use Guidelines" apply to your project or site, you should contact Geosyntec.

C.2 Reliance Conditions for Third Parties

This report was prepared for the exclusive use of the Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against liability claims by third parties with whom there would otherwise be no contractual limitations. Within the limitations of scope, schedule, and budget, our services have been executed in accordance with our Agreement with the Client and recognized geoscience practices in the same locality and involving similar conditions at the time this report was prepared.

C.4 Property Conditions Change Over Time

This report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by events such as a change in property use or occupancy, or by natural events, such as floods, earthquakes, slope instability, or groundwater fluctuations. If any of the described events may have occurred following the issuance of the report, you should contact Geosyntec so that we may evaluate whether changed conditions affect the continued reliability or applicability of our conclusions and recommendations.

C.5 Discipline-Specific Reports Are Not Interchangeable

The equipment, techniques, and personnel used to perform a geotechnical or geologic study differ significantly from those used to perform an environmental study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually address any environmental findings, conclusions, or recommendations (e.g., about the likelihood of encountering underground storage tanks or regulated contaminants). Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding the subject property.

We appreciate the opportunity to perform these services. If you have any questions please contact the Geosyntec Project Manager for this project.