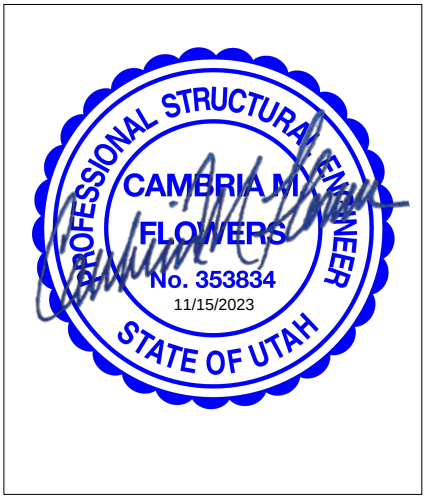
canyons
STRUCTURAL



CALCULATIONS

Pinshon Properties LLC

40’-0”x75’-0” Warehouse

1206 W 2150 N
Ogden, UT

SPRUNG STRUCTURES
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Table of Contents

DESIGN CRITERIA

Codes	IBC 2021		
	ASCE 7-16 for wind and seismic forces		
Arch spacing	typical	15	ft
Loads	Wind (LRFD) = 3 sec gust, risk category II	115	mph
	Exposure	C	
	base shear factor	33.3%	
	fabric (0.2) + utility (2.0) + insulation (0.0)	2.2	psf
	Roof snow (see supporting information studies)	12	psf
	Ground snow at location	43	psf
Material	Arch: proprietary I-shaped aluminium section	5x10	in x in
	Spreaders: 6351-T6 aluminium	4x4	in x in
	Bolts: SAE grade 8, structural		
	Plates, bars, and angles,: CAN/SCA G40.21 steel		
Load cases			
	SWT = self weight of aluminium members		
	RFLD = uniform roof dead load	1	psf
	HRF = half roof dead load, 1st half	1	psf
	HRF2 = half roof dead load, 2nd half	1	psf
	IP = internal pressure	1	psf
	W0 = longitudinal wind, 1psf x Cp value from wind tunnel testing	1	psf
	W30 = 30* from longitudinal wind, 1psf x Cp value from wind tunnel testing	1	psf
	W60 = 60* from longitudinal wind, 1psf x Cp value from wind tunnel testing	1	psf
	W90 = 90* from longitudinal wind, 1psf x Cp value from wind tunnel testing	1	psf
	EQX = earthquake in X direction, SWT + 2.2 psf		
	EQY = earthquake in Y direction, SWT + 2.2 psf		
	EQZ = earthquake in Z direction, SWT + 2.2 psf		

See page 3 for information on how loading envelopes are generated using units loads

ASD Load combinations from ASCE 7-16, section 2.4.1: combo factor * load (Cp for wind, base shear for seismic)

DL	COM1 = 1.0SWT + 2.2RFLD	
DL + snow	COM2 = 1.0SWT + 2.2RFLD + 12HRFD = DL + 12psf on half roof	
DL + snow	COM3 = 1.0SWT + 2.2RFLD + 12HRFD + 12HRFD2 = DL + 12psf snow on full roof	
0.6DL + 0.6W	COM4 = 0.6SWT + 1.32RFLD + 2.0328IP + 15.2W0 = DL + W0	
0.6DL + 0.6W	COM5 = 0.6SWT + 1.32RFLD + 3.0996IP + 15.2W30 = DL + W30	
0.6DL + 0.6W	COM6 = 0.6SWT + 1.32RFLD + 1.2393IP + 15.2W60 = DL + W60	
0.6DL + 0.6W	COM7 = 0.6SWT + 1.32RFLD + 1.0449IP + 15.2W90 = DL + W90	
DL + 0.7Eh + 0.7Ev	COM8 = 1.0SWT + 2.2RFLD + 0.2331EQX + 0.034965EQZ	last term is 15% seismic effect
DL + 0.7Eh + 0.7Ev	COM9 = 1.0SWT + 2.2RFLD + 0.2331EQY + 0.034965EQZ	last term is 15% seismic effect
0.6DL + 0.7Eh - 0.7Ev	COM10 = 0.6SWT + 1.32RFLD + 0.2331EQY - 0.034965EQZ	last term is 15% seismic effect
0.6DL + 0.7Eh - 0.7Ev	COM11 = 0.6SWT + 1.32RFLD + 0.2331EQY - 0.034965EQZ	last term is 15% seismic effect

Correlation of load combos and IBC requirements explained on following page

seismic combinations, detailed RISA input

0.7Ex + 0.7*15%Ez	BLC1 *1.0 + BLC2 *2.2 + BLC13 *0.2331 + BLC14 *0.51282 + BLC1 *0.034965 + BLC2 *0.076923
0.7Ex - 0.7*15%Ez	BLC1 *0.6 + BLC2 *1.32 + BLC13 *0.2331 + BLC14 *0.51282 - BLC1 *0.034965 - BLC2 *0.076923

Load combination review

Load combos are based on IBC 2021

Due to the shape of the structure, for which the wind tends to create primarily suction forces, and to its relatively light weight, the controlling design conditions tend to maximize gravity forces and reduce the effects of wind or tend to maximize wind forces and reduce the effects of gravity.

Load combos and their comparable Section 1605.3 equations are as follows

COM1 = 16-8

COM2 = 16-10

COM2 = 16-10

COM4 = 16-15

COM5 = 16-15

COM6 = 16-15

COM7 = 16-15

COM8 = 16-12 for .7E

COM9 = 16-12 for .7E

16-9 is not applicable

16-11 is not applicable

16-12 is not applicable for .6W since full DL reduces the effect of wind

16-13 is not applicable as per 16-12

16-14 and 16-16 are not applicable since full seismic + full gravity control over a reduced combination of one or both.

2020 ADM Section C requires stability analysis at ultimate loads. Multiply W * 1.6. Q is not considered.

Ultimate (overload) combinations

COM1 = 1.0SWT +2.2RFLD

COM2 = 1.0SWT + 2.2RFLD + 12HRFD

COM3 = 1.0SWT + 2.2RFLD + 12HRFD + 12HRFD2

COM4 = 1.0SWT + 2.2RFLD + 4.32IP + 24.32W0

COM5 = 1.0SWT + 2.2RFLD + 4.32IP + 24.32W30

COM6 = 1.0SWT + 2.2RFLD + 4.32IP + 24.32W60

COM7 = 1.0SWT + 2.2RFLD + 4.32IP + 24.32W90

Resistance to wind and seismic forces is provided by 3-pin arches in the direction perpendicular to the ridge. In the direction parallel to the ridge, resistance to wind and seismic forces is provided by the purlins/spreaders transfering HORZ forces to the flat (or rounded) ends.

Wind acts perpendicular to the fabric's surface thus resulting primarily in suction forces on the structure. Seismic forces act in a horizontal and vertical direction.

Loading combination factors, and loading envelopes - how they are constructed.
The process involves creating envelopes that are based on unit loads and scaling them up with a factor derived from the wind speed applicable at the site. Since we design on average 6 such structures per week and that they are erected all over the world, it would be impractical to use conventional combination factor and specific pressure at each node. To simplify the design process, the joint loads are entered as a unit load multiplied by the wind tunnel testing resultant Cp values (report available upon request), and finally mutiplied by the tributary width between node points. Verifying a structure for any wind load thus simply involves multiplying the combination factor by a the wind pressure value and running the combination with the unit load envelopes. Similarly for snow, seismic and utility loads.

The process is as follows.
1) the Cp value is determined at 21 nodes along each primary arch, 11 nodes at each half arch (in the case of a structure with rounded ends), and top and bottom of the flat end vertical mullions. We use the Cp value given in the wind tunnel report at points A, B, C, D, and E and interpolate between them for additional notes.
2) The Cp value at the node is multiplied by the tributary distance to the flanking nodes, which is based on the spacing of the arches. This number is divided by 1000 to match the klf input field in RISA. See page 12. These unit based pressures are added to every node in the model.
3) The wind speed is then used to compute the ultimate design pressure q. See page 4 of the calculations for calculation of pressure q. The formula for q is per ASCE7.

4) Since we are using ASD combinations for our analysis (page 1, left margin), the combination factor for W is 0.6. 0.6 * q (25.4) = 15.2. 15.2 is thus entered as the combination factor in RISA to account for 0.6 and q. We develop loading envelopes of a turbulent boundary at 0*, 30*, 60*, and 90*, and thus verify load combination 0.6DL + 0.6W for all 4 conditions.

5) The same scaled unit loading approach is used for all basic load cases: DL, SL, internal pressure, and seismic forces. In this fashion we can rapidly verify any permutation of site specific loads simply by adjusting the load combination factors instead of reprograming the complex loading envelopes.
6) For dead, snow, and internal pressure, a unit value of 1 psf is programed into RISA and adjusted for tributary geometry. The combination factor accounts for the project/location specific loads as described above.
7) For seismic loads, the values entered at each node is the structure's uniform DL * the tributary area. The combination factor entered into RISA is then the resultant of 0.7 * Cs.
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winds pressure combination factors calculation

Speed	115	mph	wall height	4	ft
Exp	C		max height	21.3	ft
h	12.65	ft			
G	1	gust factor			
Kz	0.855	at average structure height (h)			
Kzt	1				
Kd	0.85				

q	25.4	psf	Ultimate pressure	
0.6q	15.2	psf	ASD (0.6q)	

GCpf	0.61	windward wa	0 & 30	Fig. 28.4-1
	9.3	psf		
GCpf	-0.43	leeward wall		
	-6.5	psf		
GCpf	0	wind and lee	60 & 90	
	0.0	psf		

GCpi	0.18	Enclosed	or 60 & 90 if partially enclosed
	0.55	Partially	0 & 30
COM1 = 1	2.7	psf	Enclosed
COM2 = 1	8.4	psf	Partially

Combination factor =	8.4	partially enclosed, based on unit load of 1psf
Combination factor =	2.7	enclosed (or 60 & 90 if partially enclosed), based on unit load of 1psf

Internal pressure combination factor adjustment for wind tunnel Cp value

Cp @ 0* wind	0.242	2.033	2.033
Cp @ 30* wind	0.369	3.100	3.100
Cp @ 60* wind	0.459	1.239	
Cp @ 90* wind	0.387	1.045	

5x10 Aluminum Section

A510	8.31	in2	6351-T6	Fy1	37	ksi
tf	0.625	in2		Fcy1	37	
d510	10	in		Fu1	42	
tw	0.3125	in		Fbu1	84	
bw	7.625	in		Fsu1	27	
				Fsy1	22.2	
b1510	5	in				
b2510	5		6061-T6	Fy2	35	
t1510	0.625			Fu2	42	
t2510	0.625			Fbu2	82	
				Fby2	58	
J510	0.891	in4				
Aw510	2.38	in2	α	0.5		
Ix	134.73	in4	Cw	189.25985		
Iy	10.94	in4				
			ϕ	0.9	flexural limit states	
Sxt	26.946	in3				
Sxb	26.946	in3				
Syt	4.376	in3				
Syb	4.376	in3				
Zpx	31.7	in3				
rx	4.02	in				
ry	1.15	in				
κ	1	ksi				
rye	2.11	in				
kt	1					

Allowable Strength Design

Tension - Chapter D

Pnt	307.5	K	Pnt/Ωty	186.3 K	gross section
1	in hole				
Ae	7.9975	in2			
Pnt2	335.895	K	Pnt2/Ωtr	172.25385 K	

Compression - Chapter E

Member Bucking - E.2

			member length	k
Pnc	307.47	K		
λ1c	17.71			
λ2c	63.77			
Lcx	16.0	ft	20	0.8
Lcy	7.0	ft	10.75	0.65

Lcz	7.0	ft	10.75	0.65	

Flexural Buckling - E2.1

λxc	47.76	>	λ2c	thus use	47.76
λyc	72.91				
Fcc	37.14	ksi			
Pncc	308.67	K			

Torsional and Flexural-Torsional Buckling - E2.2

Doubly Symmetric

Lz	20	ft
Fe	41.67	ksi
λtft	48.91	
Fc2	37.14	ksi
Pnc3	308.67	K

Local Buckling - E.3

E3.2

Pnc1	307.47	K

E.4

Pnc2	328.04	K

Flexure - Chapter F

Yeilding - F.2

Mnp1	97.74	K-ft
Mnp2	124.63	K-ft
Mnp3	124.63	K-ft
Mnu	110.95	K-ft
Mnp	110.95	K-ft
Mnlb	83.08	K-ft

ASD stress design		LRFD strength design		
Mnu/Ωtr	56.90	Mnu*ϕb	99.86	K-ft
Mnp1/Ωb	59.24	Mnp1*ϕb	87.97	
Mnlb/Ωb	50.35	Mnlb*ϕb	74.78	K-ft
Mnmb1/Ωb	50.90			K-ft

Local Buckling - F.3

Mnlb	83.08	K-ft

Lateral Torsional Buckling - F.4

Cb	1.67	
rye1	1.38	in
λlbt	30.75	
Cc	63.77	
Sxc=Sxb	26.946	in3
Mnmb1	83.99	K-ft
Mnmb2	236.71	K-ft

Shear - Chapter G

λs1	34.69	

λs2	61.30	
bw/tw	24.4	
Fsv=Fsy1	22.2	ksi

Allowable Forces

	ASD		LRFD
Pt	186.35	K	276.72
Pc	187.07	K	277.80
Mcx	50.35	K-ft	74.78
Va	32.06	K	47.61

Splice

Ixsplice	39.03	in4
Iysplice	1.72	in4
dsplice	7.25	in
bsplice	1.94	in
Zxsplice	14.24	in3
Sxsplice	10.8	in3
Asplice	5.22	in2
Awsplice	2.22	in2
rxsplice	2.73	in
rysplice	0.57	in

Allowable Forces (splice)

	ASD		**LRFD**
Moment			
Mx(allowable)	22.84	K-ft	33.92
2*Mx(allowable)	45.68	K-ft	67.83
Shear			
V(allowable)	29.87	K	44.36
2*V(allowable)	59.74	K	88.71
Compression			
Pcomp(allowable)	193.14	K	286.81
Tension			
Ptens(allowable)	193.14	K	286.81

3.5"x3.875" spreader Aluminum Section

A44	3.19	in2	6351-T6	Fy1	37	ksi
t44	0.1875	in2		Fcy1	37	
t442	0.375	in		Fu1	42	
d44	1.85	in		Fbu1	84	
bw44	-0.125	in		Fsu1	27	
				Fsy1	22.2	
Aw44	-0.023	in2				
Ix	5.75	in4	6061-T6	Fy2	35	
Iy	5.48	in4		Fu2	42	
				Fbu2	82	
Sx44	6.22	in3		Fby2	58	
rx44	1.34	in				
ry44	1.31	in				

Allowable Strength Design

Tension - Chapter D

Pnt	118.03	K	Pnt/Ωty	71.53 K	gross section
0.8125	in hole				
A44net	2.56	in2			
Pnt2	107.40	K	Pnt2/Ωtr	55.08 K	

Compression - Chapter E

Member Bucking - E.2

λ1c	17.71	
L44	15	ft
k44	1	
λ44	137.33	
λ2c	63.77	
Fc44	4.49	ksi
Pnc44	14.33	K
Pnc44/Ωc	8.69	K

Bolt Strength, Bolt Tearout, Bolt Bearing, Pullout

dbolt	0.625	in	8x12 beams 3/4", all others use 5/8"
Fnt	113	ksi	
Fnv	68	ksi	
Fnvx	84	ksi	
Ωbolt	1.95		
Abolt	0.31	in2	
Pntbolt	34.67	K	
Pntbolt/Ωbolt	17.78	K	bolt tension

Vnvbolt	25.77	K	bolt in single shear
Vnvbolt/Ωbolt	13.22	K	single shear
	26.43	K	double shear

Bolt bearing at tab plate to beam clip (single shear)

tab plate thickness	0.5	in
no. of bolts @ clip	1	
Rn44	13.13	K

Brace capacity

	ASD		LRFD
length	15	ft	
Allowable tension	13.13	K	15.16
Allowable compresion	8.69	K	10.03

This is a beta release of the new ATC Hazards by Location website. Please contact us with feedback.

The ATC Hazards by Location website will not be updated to support ASCE 7-22. Find out why.

Hazards by Location

Search Information

Address:	1206 W 2150 N, Ogden, UT 84404, USA
Coordinates:	41.2977303, -112.0094683
Elevation:	4283 ft
Timestamp:	2023-11-07T22:37:30.336Z
Hazard Type:	Seismic
Reference Document:	ASCE7-16
Risk Category:	II
Site Class:	D-default

Basic Parameters

Name	Value	Description
S_S	1.483	MCE_R ground motion (period=0.2s)
S_1	0.537	MCE_R ground motion (period=1.0s)
S_{MS}	1.78	Site-modified spectral acceleration value
S_{M1}	* null	Site-modified spectral acceleration value
S_{DS}	1.187	Numeric seismic design value at 0.2s SA
S_{D1}	* null	Numeric seismic design value at 1.0s SA

* See Section 11.4.8

Additional Information

Name	Value	Description
SDC	* null	Seismic design category
F_a	1.2	Site amplification factor at 0.2s
F_v	* null	Site amplification factor at 1.0s
CR_S	0.86	Coefficient of risk (0.2s)
CR_1	0.862	Coefficient of risk (1.0s)
PGA	0.669	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.803	Site modified peak ground acceleration
T_L	8	Long-period transition period (s)
SsRT	1.483	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.725	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	3.09	Factored deterministic acceleration value (0.2s)
S1RT	0.537	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.623	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	1.225	Factored deterministic acceleration value (1.0s)
PGAd	1.209	Factored deterministic acceleration value (PGA)

* See Section 11.4.8

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Canyons Structural, Inc.
1245 E Brickyard Rd, Suite 200
Salt Lake City, UT 84106
801.486.6848

JOB TITLE Pinshon Properties LLC 40X75
JOB NO. Sprung **SHEET NO.**
CALCULATED BY Shubham M P **DATE**
CHECKED BY **DATE**

Seismic Loads: ASCE 7- 16 Strength Level Forces

Risk Category : II
Importance Factor (I) : 1.00
Site Class : D - code default

Ss (0.2 sec) = 148.30 %g
S1 (1.0 sec) = 53.70 %g
A site specific ground motion analysis is required for seismically isolated structures or with damping systems, see ASCE7 11.4.8

Fa =	1.200	Sms =	1.780	S_{DS} =	1.186	Design Category =	D
Fv =	1.763	Sm1 =	0.947	S_{D1} =	0.631	Design Category =	D

Seismic Design Category = **D**

Redundancy Coefficient ρ = 1.00 Code exception must be met for p to equal 1.0
Number of Stories: 1
Structure Type: All other building systems
Horizontal Struct Irregularities: No plan Irregularity
Vertical Structural Irregularities: No vertical Irregularity

Flexible Diaphragms: Yes
Building System: **Structural steel systems not specifically detailed for seismic resistance**
Seismic resisting system: **Structural steel systems not specifically detailed for seismic resistance**
System Structural Height Limit: **System not permitted for this seismic design category**
Actual Structural Height (hn) = 21.3 ft
See ASCE7 Section 12.2.5 for exceptions and other system limitations

DESIGN COEFFICIENTS AND FACTORS

Response Modification Coefficient (R) = 3
Over-Strength Factor (Ωo) = 2.5
Deflection Amplification Factor (Cd) = 3
S_{DS} = 1.000 (Sds modified for Cs & Ev calculation since
S_{D1} = 0.631 meets ASCE 7 section 12.8.1.3)

Seismic Load Effect (E) = Eh +/-Ev = ρQ_E +/- $0.2S_{DS}$ D = Qe +/- 0.200D Q_E = horizontal seismic force
Special Seismic Load Effect (Em) = Emh +/- Ev = $\Omega o\, Q_E$ +/- $0.2S_{DS}$ D = 2.5Qe +/- 0.237D D = dead load

PERMITTED ANALYTICAL PROCEDURES

Simplified Analysis - Use Equivalent Lateral Force Analysis

Equivalent Lateral-Force Analysis - Permitted
Building period coef. (C_T) = 0.020 Cu = 1.40
Approx fundamental period (Ta) = $C_T h_n^x$ = 0.198 sec x= 0.75 Tmax = CuTa = 0.277
User calculated fundamental period (T) = sec Use T = 0.198
Long Period Transition Period (TL) = ASCE7 map = 10

Seismic response coef. (Cs) = SdsI/R = 0.333 ASCE7 11.4.8 exception 2 equations used
but not less than Cs = 0.044SdsI = 0.044
USE Cs = 0.333
Design Base Shear V = 0.333W

Model & Seismic Response Analysis - Permitted (see code for procedure)

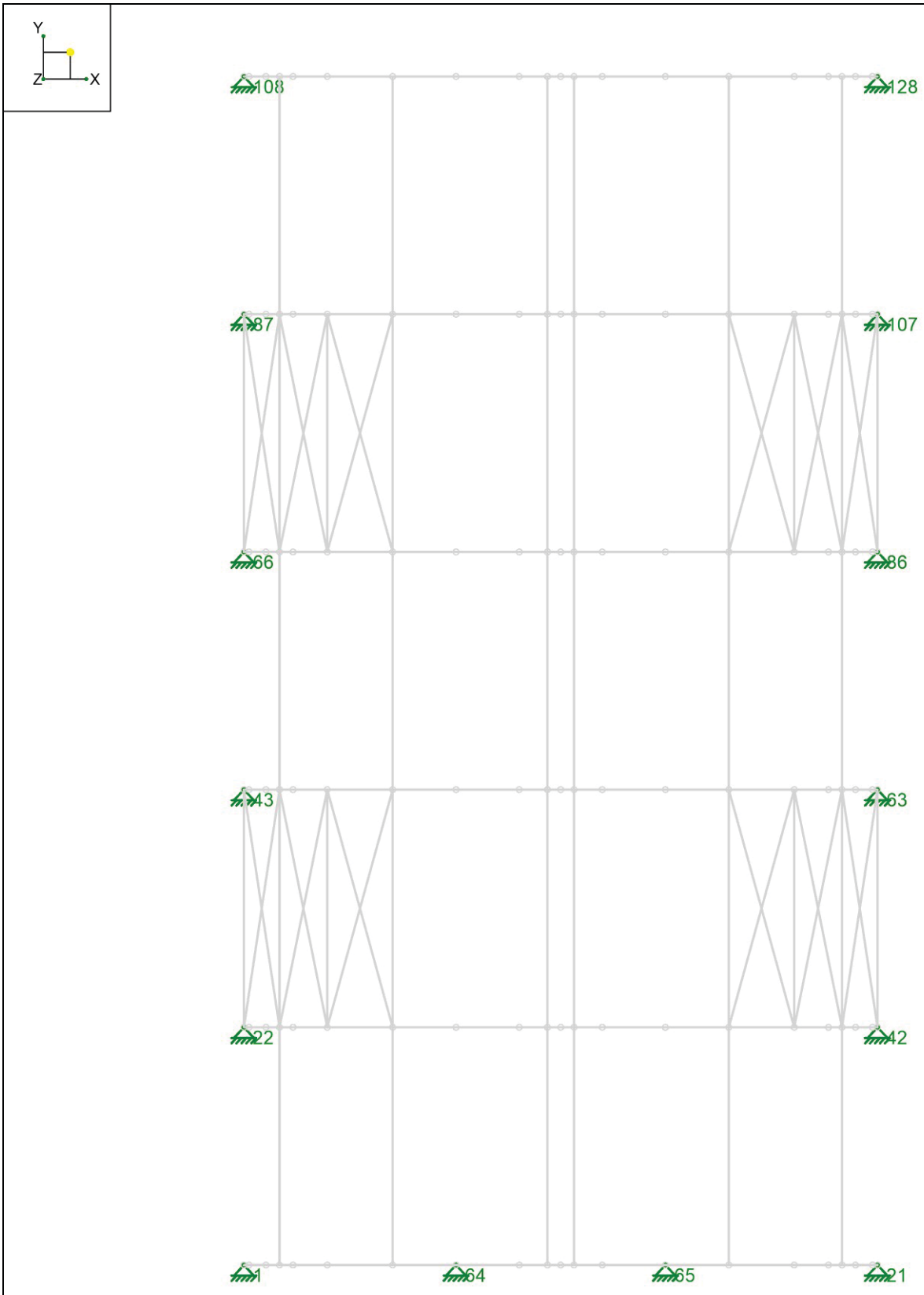
ALLOWABLE STORY DRIFT

Structure Type: All other structures
Allowable story drift Δa = 0.020hsx where hsx is the story height below level x

	End arch			Distributed wind load (klf) = 1psf x trib x Cp / 1000											
Arch			ft	0		30ab		30dc		60ab		60dc		90	
Membe	i	j	trib	wi	wj	wi	wj	wi	wj	wi	wj	wi	wj	wi	wj
1	1	2	7.5	-0.0029	-0.0029	-0.0003	-0.0003	-0.0024	-0.0024	0.0025	0.0025	-0.0029	-0.0029	0.0022	0.0022
2	2	3	7.5	-0.0029	-0.0033	-0.0003	-0.0005	-0.0024	-0.0032	0.0025	0.0025	-0.0029	-0.0033	0.0022	0.0024
3	3	4	7.5	-0.0033	-0.0037	-0.0005	-0.0008	-0.0032	-0.0039	0.0025	0.0024	-0.0033	-0.0038	0.0024	0.0025
4	4	5	7.5	-0.0037	-0.0034	-0.0008	-0.0010	-0.0039	-0.0040	0.0024	0.0016	-0.0038	-0.0046	0.0025	0.0018
5	5	6	7.5	-0.0034	-0.0032	-0.0010	-0.0013	-0.0040	-0.0041	0.0016	0.0007	-0.0046	-0.0055	0.0018	0.0010
6	6	7	7.5	-0.0032	-0.0036	-0.0013	-0.0018	-0.0041	-0.0049	0.0007	-0.0001	-0.0055	-0.0058	0.0010	0.0003
7	7	8	7.5	-0.0036	-0.0040	-0.0018	-0.0024	-0.0049	-0.0057	-0.0001	-0.0009	-0.0058	-0.0061	0.0003	-0.0005
8	8	9	7.5	-0.0040	-0.0054	-0.0024	-0.0048	-0.0057	-0.0062	-0.0009	-0.0040	-0.0061	-0.0062	-0.0005	-0.0022
9	9	10	7.5	-0.0054	-0.0061	-0.0048	-0.0059	-0.0062	-0.0065	-0.0040	-0.0054	-0.0062	-0.0063	-0.0022	-0.0030
10	10	11	7.5	-0.0061	-0.0064	-0.0059	-0.0064	-0.0065	-0.0066	-0.0054	-0.0060	-0.0063	-0.0063	-0.0030	-0.0034
11	11	12	7.5	-0.0064	-0.0061	-0.0045	-0.0044	-0.0042	-0.0037	-0.0032	-0.0031	-0.0032	-0.0032	-0.0033	-0.0033
12	12	13	7.5	-0.0061	-0.0054	-0.0044	-0.0042	-0.0037	-0.0027	-0.0031	-0.0028	-0.0032	-0.0034	-0.0033	-0.0033
13	13	14	7.5	-0.0054	-0.0040	-0.0042	-0.0037	-0.0027	-0.0005	-0.0028	-0.0023	-0.0034	-0.0037	-0.0033	-0.0034
14	14	15	7.5	-0.0040	-0.0036	-0.0037	-0.0034	-0.0005	0.0003	-0.0023	-0.0018	-0.0037	-0.0034	-0.0034	-0.0036
15	15	16	7.5	-0.0036	-0.0032	-0.0034	-0.0031	0.0003	0.0010	-0.0018	-0.0014	-0.0034	-0.0030	-0.0036	-0.0039
16	16	17	7.5	-0.0032	-0.0034	-0.0031	-0.0029	0.0010	0.0018	-0.0014	-0.0008	-0.0030	-0.0032	-0.0039	-0.0040
17	17	18	7.5	-0.0034	-0.0037	-0.0029	-0.0027	0.0018	0.0025	-0.0008	-0.0003	-0.0032	-0.0034	-0.0040	-0.0041
18	18	19	7.5	-0.0037	-0.0033	-0.0027	-0.0026	0.0025	0.0024	-0.0003	-0.0003	-0.0034	-0.0030	-0.0041	-0.0039
19	19	20	7.5	-0.0033	-0.0029	-0.0026	-0.0024	0.0024	0.0022	-0.0003	-0.0003	-0.0030	-0.0026	-0.0039	-0.0038
20	20	21	7.5	-0.0029	-0.0029	-0.0024	-0.0024	0.0022	0.0022	-0.0003	-0.0003	-0.0026	-0.0026	-0.0038	-0.0038

	1st interior arch			Distributed wind load (klf) = 1psf x trib x Cp / 1000											
Arch			ft	0		30ab		30dc		60ab		60dc		90	
Membe	i	j	trib	wi	wj	wi	wj	wi	wj	wi	wj	wi	wj	wi	wj
21	22	23	15	-0.0018	-0.0018	0.0009	0.0009	-0.0018	-0.0018	0.0050	0.0050	-0.0042	-0.0042	0.0057	0.0057
22	23	24	15	-0.0018	-0.0019	0.0009	0.0009	-0.0018	-0.0024	0.0050	0.0047	-0.0042	-0.0056	0.0057	0.0056
23	24	25	15	-0.0019	-0.0019	0.0009	0.0009	-0.0024	-0.0030	0.0047	0.0044	-0.0056	-0.0070	0.0056	0.0055
24	25	26	15	-0.0019	-0.0022	0.0009	0.0002	-0.0030	-0.0039	0.0044	0.0027	-0.0070	-0.0087	0.0055	0.0039
25	26	27	15	-0.0022	-0.0024	0.0002	-0.0005	-0.0039	-0.0048	0.0027	0.0010	-0.0087	-0.0104	0.0039	0.0024
26	27	28	15	-0.0024	-0.0025	-0.0005	-0.0015	-0.0048	-0.0055	0.0010	-0.0001	-0.0104	-0.0109	0.0024	0.0014
27	28	29	15	-0.0025	-0.0026	-0.0015	-0.0025	-0.0055	-0.0062	-0.0001	-0.0011	-0.0109	-0.0113	0.0014	0.0004
28	29	30	15	-0.0026	-0.0027	-0.0025	-0.0077	-0.0062	-0.0098	-0.0011	-0.0071	-0.0113	-0.0113	0.0004	-0.0033
29	30	31	15	-0.0027	-0.0027	-0.0077	-0.0101	-0.0098	-0.0114	-0.0071	-0.0097	-0.0113	-0.0113	-0.0033	-0.0049
30	31	32	15	-0.0027	-0.0027	-0.0101	-0.0112	-0.0114	-0.0121	-0.0097	-0.0110	-0.0113	-0.0113	-0.0049	-0.0057
31	32	33	15	-0.0027	-0.0027	-0.0112	-0.0102	-0.0099	-0.0088	-0.0099	-0.0088	-0.0097	-0.0095	-0.0061	-0.0061
32	33	34	15	-0.0027	-0.0027	-0.0102	-0.0081	-0.0088	-0.0065	-0.0088	-0.0065	-0.0095	-0.0091	-0.0061	-0.0061
33	34	35	15	-0.0027	-0.0026	-0.0081	-0.0034	-0.0065	-0.0013	-0.0065	-0.0013	-0.0091	-0.0083	-0.0061	-0.0063
34	35	36	15	-0.0026	-0.0025	-0.0034	-0.0029	-0.0013	-0.0006	-0.0013	-0.0006	-0.0083	-0.0087	-0.0063	-0.0068
35	36	37	15	-0.0025	-0.0024	-0.0029	-0.0024	-0.0006	0.0000	-0.0006	0.0000	-0.0087	-0.0091	-0.0068	-0.0073
36	37	38	15	-0.0024	-0.0022	-0.0024	-0.0016	0.0000	0.0016	0.0000	0.0016	-0.0091	-0.0089	-0.0073	-0.0076
37	38	39	15	-0.0022	-0.0019	-0.0016	-0.0008	0.0016	0.0032	0.0016	0.0032	-0.0089	-0.0087	-0.0076	-0.0079
38	39	40	15	-0.0019	-0.0019	-0.0008	-0.0005	0.0032	0.0045	0.0032	0.0033	-0.0087	-0.0063	-0.0079	-0.0069
39	40	41	15	-0.0019	-0.0018	-0.0005	-0.0002	0.0045	0.0057	0.0033	0.0034	-0.0063	-0.0039	-0.0069	-0.0060
40	41	42	15	-0.0018	-0.0018	-0.0002	-0.0002	0.0057	0.0057	0.0034	0.0034	-0.0039	-0.0039	-0.0060	-0.0060

	TYP interior arch			Distributed wind load (klf) = 1psf x trib x Cp / 1000											
Arch			ft	0		30ab		30dc		60ab		60dc		90	
Membe	i	j	trib	wi	wj	wi	wj	wi	wj	wi	wj	wi	wj	wi	wj
41	43	44	15	-0.0010	-0.0010	0.0008	0.0008	-0.0014	-0.0014	0.0041	0.0041	0.0038	0.0038	0.0056	0.0056
42	44	45	15	-0.0010	-0.0013	0.0008	0.0006	-0.0014	-0.0015	0.0041	0.0041	0.0038	-0.0024	0.0056	0.0058
43	45	46	15	-0.0013	-0.0015	0.0006	0.0005	-0.0015	-0.0017	0.0041	0.0041	-0.0024	-0.0085	0.0058	0.0060
44	46	47	15	-0.0015	-0.0018	0.0005	-0.0003	-0.0017	-0.0026	0.0041	0.0024	-0.0085	-0.0098	0.0060	0.0045
45	47	48	15	-0.0018	-0.0021	-0.0003	-0.0011	-0.0026	-0.0035	0.0024	0.0008	-0.0098	-0.0112	0.0045	0.0030
46	48	49	15	-0.0021	-0.0022	-0.0011	-0.0018	-0.0035	-0.0041	0.0008	-0.0002	-0.0112	-0.0114	0.0030	0.0020
47	49	50	15	-0.0022	-0.0022	-0.0018	-0.0024	-0.0041	-0.0047	-0.0002	-0.0012	-0.0114	-0.0115	0.0020	0.0012
48	50	51	15	-0.0022	-0.0025	-0.0024	-0.0076	-0.0047	-0.0089	-0.0012	-0.0068	-0.0115	-0.0116	0.0012	-0.0026
49	51	52	15	-0.0025	-0.0026	-0.0076	-0.0100	-0.0089	-0.0108	-0.0068	-0.0093	-0.0116	-0.0116	-0.0026	-0.0043
50	52	53	15	-0.0026	-0.0026	-0.0100	-0.0110	-0.0108	-0.0117	-0.0093	-0.0105	-0.0116	-0.0116	-0.0043	-0.0051
51	53	54	15	-0.0026	-0.0026	-0.0114	-0.0103	-0.0110	-0.0102	-0.0107	-0.0095	-0.0106	-0.0106	-0.0049	-0.0050
52	54	55	15	-0.0026	-0.0025	-0.0103	-0.0080	-0.0102	-0.0085	-0.0095	-0.0070	-0.0106	-0.0106	-0.0050	-0.0052
53	55	56	15	-0.0025	-0.0022	-0.0080	-0.0029	-0.0085	-0.0048	-0.0070	-0.0014	-0.0106	-0.0106	-0.0052	-0.0056
54	56	57	15	-0.0022	-0.0022	-0.0029	-0.0022	-0.0048	-0.0042	-0.0014	-0.0004	-0.0106	-0.0104	-0.0056	-0.0062
55	57	58	15	-0.0022	-0.0021	-0.0022	-0.0015	-0.0042	-0.0035	-0.0004	0.0007	-0.0104	-0.0103	-0.0062	-0.0069
56	58	59	15	-0.0021	-0.0018	-0.0015	-0.0006	-0.0035	0.0004	0.0007	0.0025	-0.0103	-0.0092	-0.0069	-0.0073
57	59	60	15	-0.0018	-0.0015	-0.0006	0.0003	0.0004	0.0043	0.0025	0.0043	-0.0092	-0.0082	-0.0073	-0.0078
58	60	61	15	-0.0015	-0.0013	0.0003	0.0004	0.0043	0.0043	0.0043	0.0043	-0.0082	-0.0060	-0.0078	-0.0061
59	61	62	15	-0.0013	-0.0010	0.0004	0.0005	0.0043	0.0043	0.0043	0.0043	-0.0060	-0.0037	-0.0061	-0.0043
60	62	63	15	-0.0010	-0.0010	0.0005	0.0005	0.0043	0.0043	0.0043	0.0043	-0.0037	-0.0037	-0.0043	-0.0043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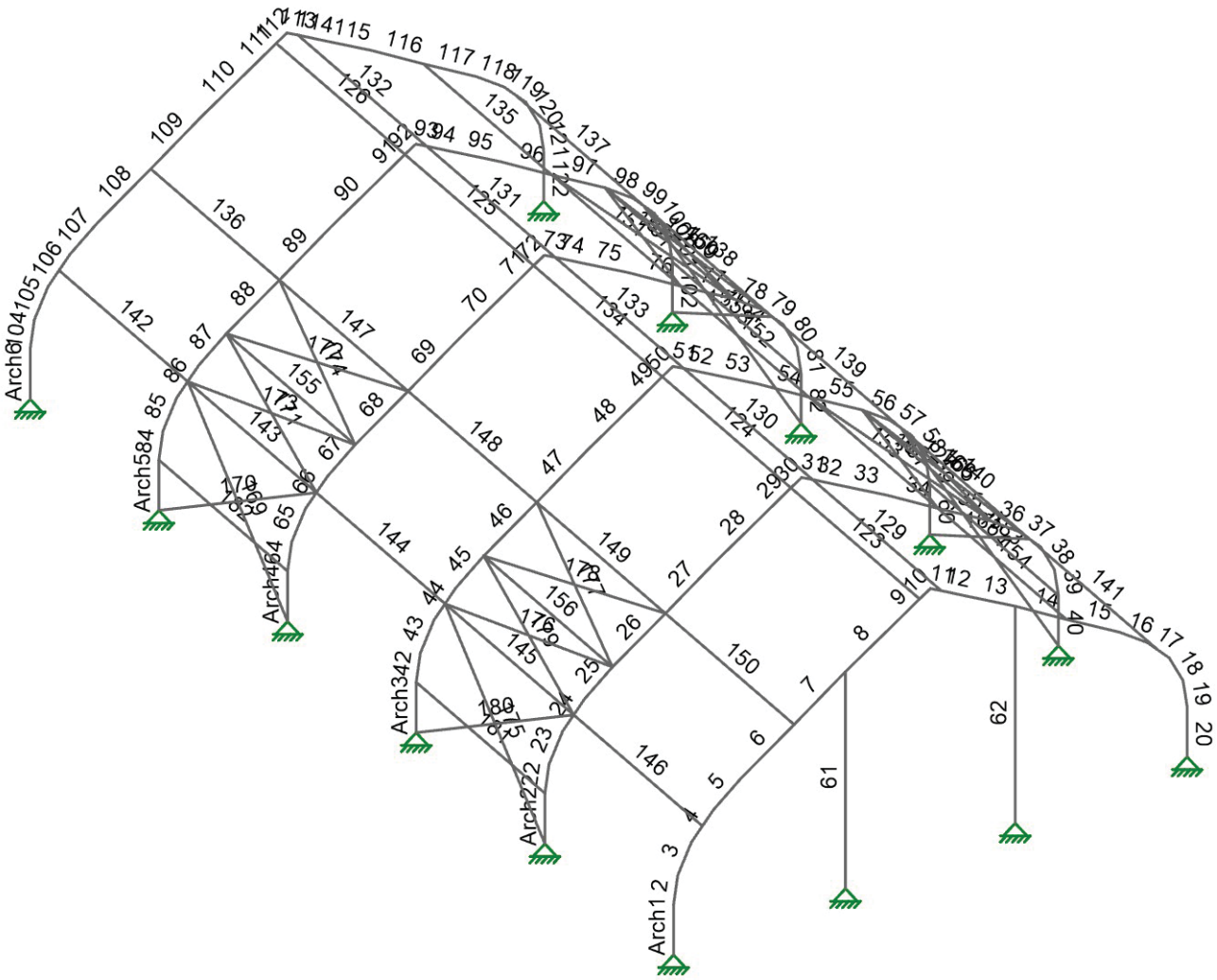
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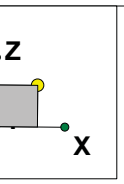
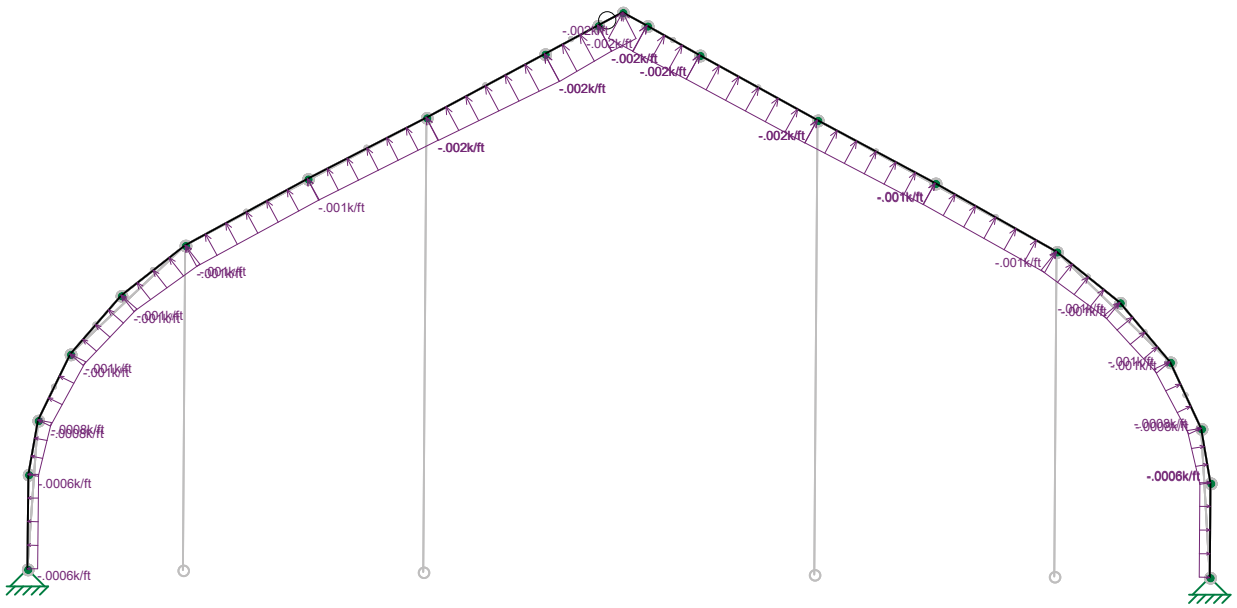
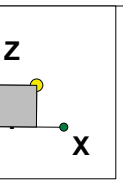
Y
X
Arch1
Arch342
Arch584
Arch222
Arch464

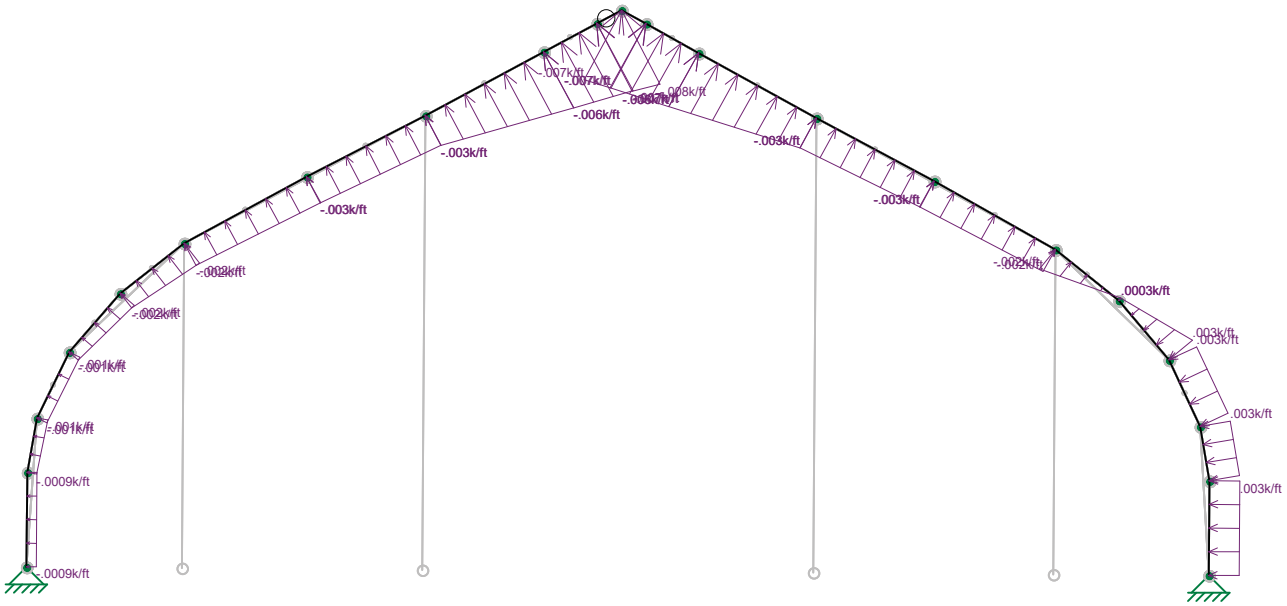




Loads: BLC 6, 0 degree wind 1 psf

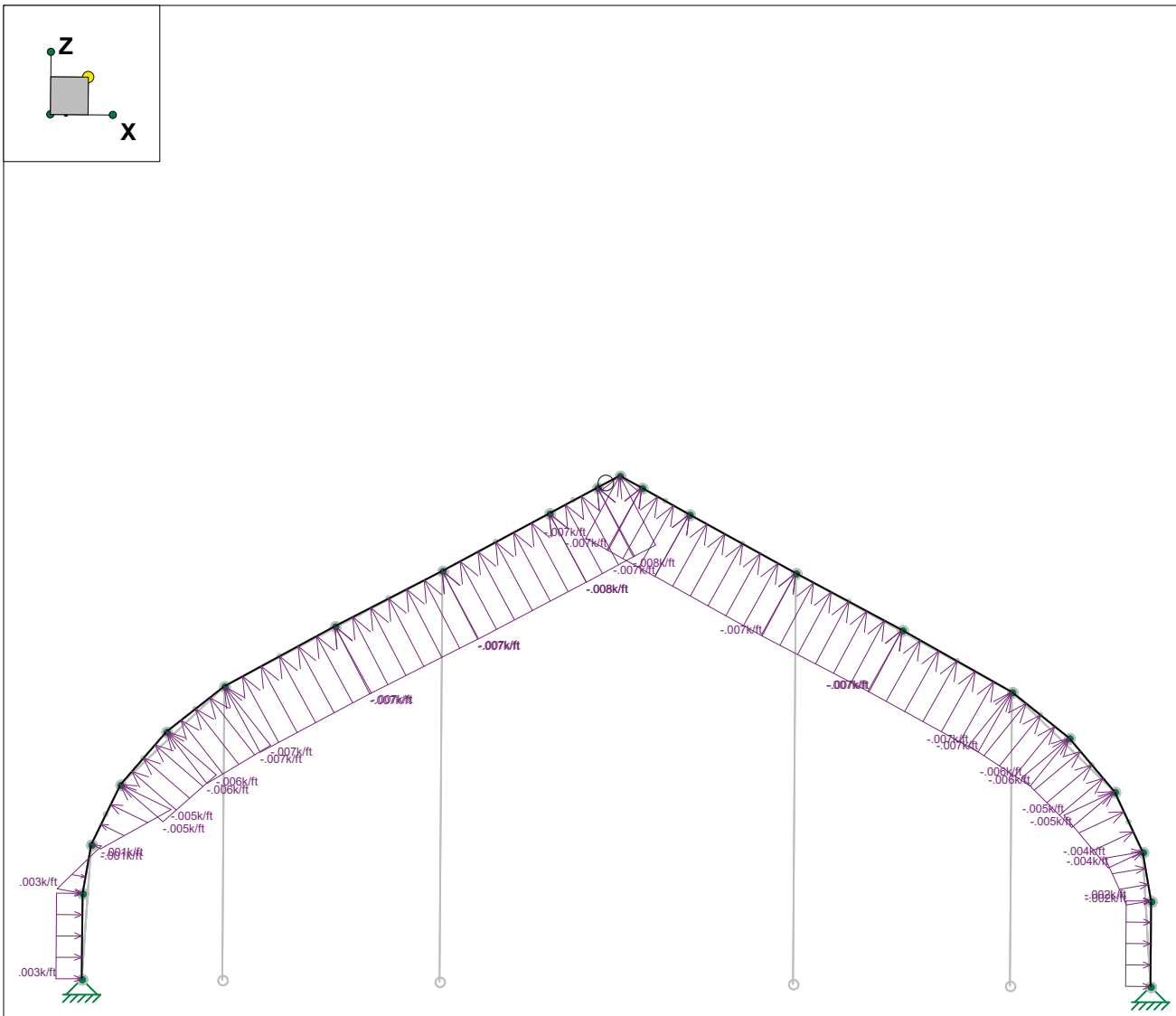
Canyons Structural Inc.		
Dany Tremblay, SE PE PE...		Mar 30, 2020 at 11:51 PM
	wind tunnel loading envelope, 0* influence	





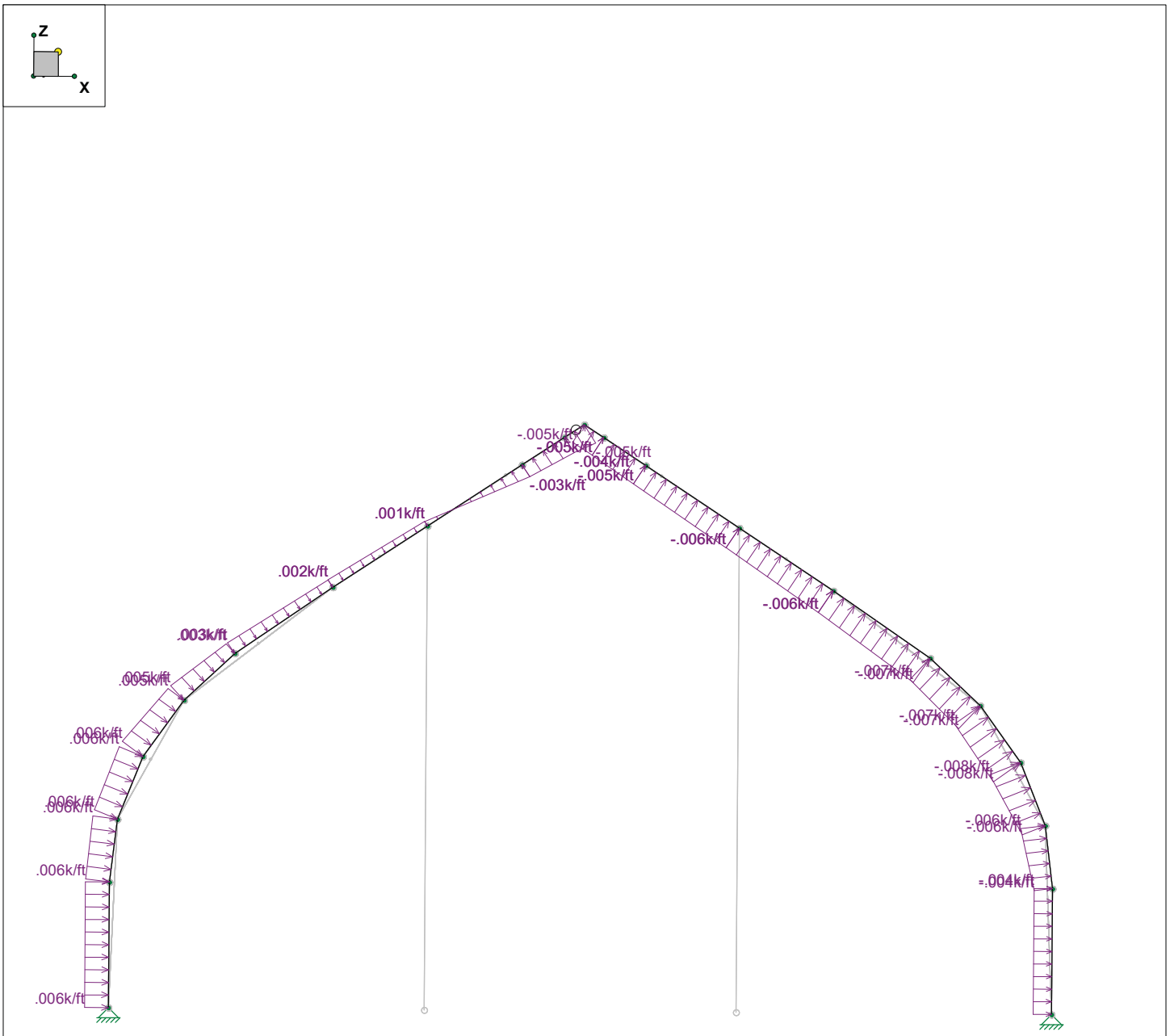
Loads: BLC 7, 30 degree wind 1 psf

Canyons Structural Inc.		
Dany Tremblay, SE PE PE...		Mar 30, 2020 at 11:51 PM
	wind tunnel loading envelope, 30* influence	



Loads: BLC 8, 60 degree wind 1 psf

Canyons Structural Inc.		
Dany Tremblay, SE PE PE...		Mar 30, 2020 at 11:51 PM
	wind tunnel loading envelope, 60* influence	



Loads: BLC 9, 90 Degree Wind 1 psf

Canyons Structural Inc.		
Dany Tremblay, SE PE PE...		Mar 4, 2020 at 5:58 PM
	Wind tunnel loading envelope, 90* influence	Default flat 30 x 8 arches x 15ft.r3d

Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	-20	0	0	
2	2	-20	0	4	
3	3	-19.68	0	6.18	
4	4	-18.61	0	8.4	
5	5	-16.9	0	10.29	
6	6	-14.74	0	11.96	
7	7	-10.61	0	14.59	
8	8	-6.61	0	17.22	
9	9	-2.62	0	19.63	
10	10	-0.84	0	20.72	
11	11	0	0	21.21	
12	12	0.84	0	20.72	
13	13	2.62	0	19.63	
14	14	6.61	0	17.22	Yes
15	15	10.61	0	14.59	
16	16	14.74	0	11.96	
17	17	16.9	0	10.29	
18	18	18.61	0	8.4	
19	19	19.68	0	6.18	
20	20	20	0	4	
21	21	20	0	0	
22	22	-20	15	0	
23	23	-20	15	4	
24	24	-19.68	15	6.18	
25	25	-18.61	15	8.4	
26	26	-16.9	15	10.29	
27	27	-14.74	15	11.96	
28	28	-10.61	15	14.59	
29	29	-6.61	15	17.22	
30	30	-2.62	15	19.63	
31	31	-0.84	15	20.72	
32	32	0	15	21.21	
33	33	0.84	15	20.72	
34	34	2.62	15	19.63	
35	35	6.61	15	17.22	
36	36	10.61	15	14.59	
37	37	14.74	15	11.96	
38	38	16.9	15	10.29	
39	39	18.61	15	8.4	
40	40	19.68	15	6.18	
41	41	20	15	4	
42	42	20	15	0	
43	43	-20	30	0	
44	44	-20	30	4	
45	45	-19.68	30	6.18	
46	46	-18.61	30	8.4	
47	47	-16.9	30	10.29	
48	48	-14.74	30	11.96	
49	49	-10.61	30	14.59	
50	50	-6.61	30	17.22	
51	51	-2.62	30	19.63	
52	52	-0.84	30	20.72	
53	53	0	30	21.21	
54	54	0.84	30	20.72	
55	55	2.62	30	19.63	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	56	6.61	30	17.22	
57	57	10.61	30	14.59	
58	58	14.74	30	11.96	
59	59	16.9	30	10.29	
60	60	18.61	30	8.4	
61	61	19.68	30	6.18	
62	62	20	30	4	
63	63	20	30	0	
64	64	-6.61	0	0	
65	65	6.61	0	0	
66	66	-20	45	0	
67	67	-20	45	4	
68	68	-19.68	45	6.18	
69	69	-18.61	45	8.4	
70	70	-16.9	45	10.29	
71	71	-14.74	45	11.96	
72	72	-10.61	45	14.59	
73	73	-6.61	45	17.22	
74	74	-2.62	45	19.63	
75	75	-0.84	45	20.72	
76	76	0	45	21.21	
77	77	0.84	45	20.72	
78	78	2.62	45	19.63	
79	79	6.61	45	17.22	
80	80	10.61	45	14.59	
81	81	14.74	45	11.96	
82	82	16.9	45	10.29	
83	83	18.61	45	8.4	
84	84	19.68	45	6.18	
85	85	20	45	4	
86	86	20	45	0	
87	87	-20	60	0	
88	88	-20	60	4	
89	89	-19.68	60	6.18	Yes
90	90	-18.61	60	8.4	
91	91	-16.9	60	10.29	
92	92	-14.74	60	11.96	
93	93	-10.61	60	14.59	
94	94	-6.61	60	17.22	
95	95	-2.62	60	19.63	
96	96	-0.84	60	20.72	
97	97	0	60	21.21	
98	98	0.84	60	20.72	
99	99	2.62	60	19.63	
100	100	6.61	60	17.22	
101	101	10.61	60	14.59	
102	102	14.74	60	11.96	
103	103	16.9	60	10.29	
104	104	18.61	60	8.4	
105	105	19.68	60	6.18	
106	106	20	60	4	
107	107	20	60	0	
108	108	-20	75	0	
109	109	-20	75	4	
110	110	-19.68	75	6.18	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	111	-18.61	75	8.4	
112	112	-16.9	75	10.29	
113	113	-14.74	75	11.96	
114	114	-10.61	75	14.59	
115	115	-6.61	75	17.22	
116	116	-2.62	75	19.63	
117	117	-0.84	75	20.72	
118	118	0	75	21.21	
119	119	0.84	75	20.72	
120	120	2.62	75	19.63	
121	121	6.61	75	17.22	
122	122	10.61	75	14.59	
123	123	14.74	75	11.96	
124	124	16.9	75	10.29	
125	125	18.61	75	8.4	
126	126	19.68	75	6.18	
127	127	20	75	4	
128	128	20	75	0	
129	129	17.755	75	9.345	
130	130	-17.755	75	9.345	
131	131	17.755	60	9.345	
132	132	-17.755	60	9.345	
133	133	17.755	45	9.345	
134	134	-17.755	45	9.345	
135	135	17.755	30	9.345	
136	136	-17.755	30	9.345	
137	137	17.755	15	9.345	
138	138	-17.755	15	9.345	
139	139	17.755	0	9.345	
140	140	-17.755	0	9.345	

General Section Sets

	Label	Shape	Type	Material	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	5x10		None	Alum_6351-T6	8.31	134.73	10.94	0.891
2	5x10VERT		None	Alum_6351-T6	8.31	134.73	10.94	0.891
3	5x10splice		None	Alum_6351-T6	8.31	134.73	10.94	0.891
4	purlin		None	Alum_6351-T6	2.97	5.48	5.75	1
5	cable	BAR0.5	None	gen_Steel	0.196	0.003	0.003	0.006
6	fabric		None	PTFE_Tedlar	0.062	0.003	0.003	1

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	Arch1	1	2		5x10	None	None	Alum_6351-T6	DR1_7
2	2	2	3	90	5x10	None	None	Alum_6351-T6	DR1_7
3	3	3	4	90	5x10	None	None	Alum_6351-T6	DR1_7
4	4	4	5	90	5x10	None	None	Alum_6351-T6	DR1_7
5	5	5	6	90	5x10	None	None	Alum_6351-T6	DR1_7
6	6	6	7	90	5x10	None	None	Alum_6351-T6	DR1_7
7	7	7	8	90	5x10splice	None	None	Alum_6351-T6	DR1_7
8	8	8	9	90	5x10	None	None	Alum_6351-T6	DR1_7
9	9	9	10	90	5x10	None	None	Alum_6351-T6	DR1_7
10	10	10	11	90	5x10	None	None	Alum_6351-T6	DR1_7
11	11	11	12	90	5x10	None	None	Alum_6351-T6	DR1_7

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
12	12	12	13	90	5x10	None	None	Alum_6351-T6	DR1_7
13	13	13	14	90	5x10	None	None	Alum_6351-T6	DR1_7
14	14	14	15	90	5x10splice	None	None	Alum_6351-T6	DR1_7
15	15	15	16	90	5x10	None	None	Alum_6351-T6	DR1_7
16	16	16	17	90	5x10	None	None	Alum_6351-T6	DR1_7
17	17	17	18	90	5x10	None	None	Alum_6351-T6	DR1_7
18	18	18	19	90	5x10	None	None	Alum_6351-T6	DR1_7
19	19	19	20	90	5x10	None	None	Alum_6351-T6	DR1_7
20	20	20	21		5x10	None	None	Alum_6351-T6	DR1_7
21	Arch2	22	23		5x10	None	None	Alum_6351-T6	DR1_7
22	22	23	24	90	5x10	None	None	Alum_6351-T6	DR1_7
23	23	24	25	90	5x10	None	None	Alum_6351-T6	DR1_7
24	24	25	26	90	5x10	None	None	Alum_6351-T6	DR1_7
25	25	26	27	90	5x10	None	None	Alum_6351-T6	DR1_7
26	26	27	28	90	5x10	None	None	Alum_6351-T6	DR1_7
27	27	28	29	90	5x10splice	None	None	Alum_6351-T6	DR1_7
28	28	29	30	90	5x10	None	None	Alum_6351-T6	DR1_7
29	29	30	31	90	5x10	None	None	Alum_6351-T6	DR1_7
30	30	31	32	90	5x10	None	None	Alum_6351-T6	DR1_7
31	31	32	33	90	5x10	None	None	Alum_6351-T6	DR1_7
32	32	33	34	90	5x10	None	None	Alum_6351-T6	DR1_7
33	33	34	35	90	5x10	None	None	Alum_6351-T6	DR1_7
34	34	35	36	90	5x10splice	None	None	Alum_6351-T6	DR1_7
35	35	36	37	90	5x10	None	None	Alum_6351-T6	DR1_7
36	36	37	38	90	5x10	None	None	Alum_6351-T6	DR1_7
37	37	38	39	90	5x10	None	None	Alum_6351-T6	DR1_7
38	38	39	40	90	5x10	None	None	Alum_6351-T6	DR1_7
39	39	40	41	90	5x10	None	None	Alum_6351-T6	DR1_7
40	40	41	42		5x10	None	None	Alum_6351-T6	DR1_7
41	Arch3	43	44		5x10	None	None	Alum_6351-T6	DR1_7
42	42	44	45	90	5x10	None	None	Alum_6351-T6	DR1_7
43	43	45	46	90	5x10	None	None	Alum_6351-T6	DR1_7
44	44	46	47	90	5x10	None	None	Alum_6351-T6	DR1_7
45	45	47	48	90	5x10	None	None	Alum_6351-T6	DR1_7
46	46	48	49	90	5x10	None	None	Alum_6351-T6	DR1_7
47	47	49	50	90	5x10splice	None	None	Alum_6351-T6	DR1_7
48	48	50	51	90	5x10	None	None	Alum_6351-T6	DR1_7
49	49	51	52	90	5x10	None	None	Alum_6351-T6	DR1_7
50	50	52	53	90	5x10	None	None	Alum_6351-T6	DR1_7
51	51	53	54	90	5x10	None	None	Alum_6351-T6	DR1_7
52	52	54	55	90	5x10	None	None	Alum_6351-T6	DR1_7
53	53	55	56	90	5x10	None	None	Alum_6351-T6	DR1_7
54	54	56	57	90	5x10splice	None	None	Alum_6351-T6	DR1_7
55	55	57	58	90	5x10	None	None	Alum_6351-T6	DR1_7
56	56	58	59	90	5x10	None	None	Alum_6351-T6	DR1_7
57	57	59	60	90	5x10	None	None	Alum_6351-T6	DR1_7
58	58	60	61	90	5x10	None	None	Alum_6351-T6	DR1_7
59	59	61	62	90	5x10	None	None	Alum_6351-T6	DR1_7
60	60	62	63		5x10	None	None	Alum_6351-T6	DR1_7
61	61	64	8	90	5x10VERT	None	None	Alum_6351-T6	DR1_7
62	62	65	14	90	5x10VERT	None	None	Alum_6351-T6	DR1_7
63	Arch4	66	67		5x10	None	None	Alum_6351-T6	DR1_7
64	64	67	68	90	5x10	None	None	Alum_6351-T6	DR1_7
65	65	68	69	90	5x10	None	None	Alum_6351-T6	DR1_7
66	66	69	70	90	5x10	None	None	Alum_6351-T6	DR1_7

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
67	67	70	71	90	5x10	None	None	Alum_6351-T6	DR1_7
68	68	71	72	90	5x10	None	None	Alum_6351-T6	DR1_7
69	69	72	73	90	5x10splice	None	None	Alum_6351-T6	DR1_7
70	70	73	74	90	5x10	None	None	Alum_6351-T6	DR1_7
71	71	74	75	90	5x10	None	None	Alum_6351-T6	DR1_7
72	72	75	76	90	5x10	None	None	Alum_6351-T6	DR1_7
73	73	76	77	90	5x10	None	None	Alum_6351-T6	DR1_7
74	74	77	78	90	5x10	None	None	Alum_6351-T6	DR1_7
75	75	78	79	90	5x10	None	None	Alum_6351-T6	DR1_7
76	76	79	80	90	5x10splice	None	None	Alum_6351-T6	DR1_7
77	77	80	81	90	5x10	None	None	Alum_6351-T6	DR1_7
78	78	81	82	90	5x10	None	None	Alum_6351-T6	DR1_7
79	79	82	83	90	5x10	None	None	Alum_6351-T6	DR1_7
80	80	83	84	90	5x10	None	None	Alum_6351-T6	DR1_7
81	81	84	85	90	5x10	None	None	Alum_6351-T6	DR1_7
82	82	85	86		5x10	None	None	Alum_6351-T6	DR1_7
83	Arch5	87	88		5x10	None	None	Alum_6351-T6	DR1_7
84	84	88	89	90	5x10	None	None	Alum_6351-T6	DR1_7
85	85	89	90	90	5x10	None	None	Alum_6351-T6	DR1_7
86	86	90	91	90	5x10	None	None	Alum_6351-T6	DR1_7
87	87	91	92	90	5x10	None	None	Alum_6351-T6	DR1_7
88	88	92	93	90	5x10	None	None	Alum_6351-T6	DR1_7
89	89	93	94	90	5x10splice	None	None	Alum_6351-T6	DR1_7
90	90	94	95	90	5x10	None	None	Alum_6351-T6	DR1_7
91	91	95	96	90	5x10	None	None	Alum_6351-T6	DR1_7
92	92	96	97	90	5x10	None	None	Alum_6351-T6	DR1_7
93	93	97	98	90	5x10	None	None	Alum_6351-T6	DR1_7
94	94	98	99	90	5x10	None	None	Alum_6351-T6	DR1_7
95	95	99	100	90	5x10	None	None	Alum_6351-T6	DR1_7
96	96	100	101	90	5x10splice	None	None	Alum_6351-T6	DR1_7
97	97	101	102	90	5x10	None	None	Alum_6351-T6	DR1_7
98	98	102	103	90	5x10	None	None	Alum_6351-T6	DR1_7
99	99	103	104	90	5x10	None	None	Alum_6351-T6	DR1_7
100	100	104	105	90	5x10	None	None	Alum_6351-T6	DR1_7
101	101	105	106	90	5x10	None	None	Alum_6351-T6	DR1_7
102	102	106	107		5x10	None	None	Alum_6351-T6	DR1_7
103	Arch6	108	109		5x10	None	None	Alum_6351-T6	DR1_7
104	104	109	110	90	5x10	None	None	Alum_6351-T6	DR1_7
105	105	110	111	90	5x10	None	None	Alum_6351-T6	DR1_7
106	106	111	112	90	5x10	None	None	Alum_6351-T6	DR1_7
107	107	112	113	90	5x10	None	None	Alum_6351-T6	DR1_7
108	108	113	114	90	5x10	None	None	Alum_6351-T6	DR1_7
109	109	114	115	90	5x10splice	None	None	Alum_6351-T6	DR1_7
110	110	115	116	90	5x10	None	None	Alum_6351-T6	DR1_7
111	111	116	117	90	5x10	None	None	Alum_6351-T6	DR1_7
112	112	117	118	90	5x10	None	None	Alum_6351-T6	DR1_7
113	113	118	119	90	5x10	None	None	Alum_6351-T6	DR1_7
114	114	119	120	90	5x10	None	None	Alum_6351-T6	DR1_7
115	115	120	121	90	5x10	None	None	Alum_6351-T6	DR1_7
116	116	121	122	90	5x10splice	None	None	Alum_6351-T6	DR1_7
117	117	122	123	90	5x10	None	None	Alum_6351-T6	DR1_7
118	118	123	124	90	5x10	None	None	Alum_6351-T6	DR1_7
119	119	124	125	90	5x10	None	None	Alum_6351-T6	DR1_7
120	120	125	126	90	5x10	None	None	Alum_6351-T6	DR1_7
121	121	126	127	90	5x10	None	None	Alum_6351-T6	DR1_7

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
122	122	127	128		5x10	None	None	Alum_6351-T6	DR1_7
123	123	10	31		purlin	None	None	Alum_6351-T6	DR1_8
124	124	31	52		purlin	None	None	Alum_6351-T6	DR1_8
125	125	75	96		purlin	None	None	Alum_6351-T6	DR1_8
126	126	96	117		purlin	None	None	Alum_6351-T6	DR1_8
127	127	37	58		purlin	None	None	Alum_6351-T6	DR1_8
128	128	81	102		purlin	None	None	Alum_6351-T6	DR1_8
129	129	12	33		purlin	None	None	Alum_6351-T6	DR1_8
130	130	33	54		purlin	None	None	Alum_6351-T6	DR1_8
131	131	77	98		purlin	None	None	Alum_6351-T6	DR1_8
132	132	98	119		purlin	None	None	Alum_6351-T6	DR1_8
133	133	54	77		purlin	None	None	Alum_6351-T6	DR1_8
134	134	52	75		purlin	None	None	Alum_6351-T6	DR1_8
135	135	122	101		purlin	None	None	Alum_6351-T6	DR1_8
136	136	114	93		purlin	None	None	Alum_6351-T6	DR1_8
137	137	129	131		purlin	None	None	Alum_6351-T6	DR1_8
138	138	131	133		purlin	None	None	Alum_6351-T6	DR1_8
139	139	133	135		purlin	None	None	Alum_6351-T6	DR1_8
140	140	135	137		purlin	None	None	Alum_6351-T6	DR1_8
141	141	137	139		purlin	None	None	Alum_6351-T6	DR1_8
142	142	130	132		purlin	None	None	Alum_6351-T6	DR1_8
143	143	132	134		purlin	None	None	Alum_6351-T6	DR1_8
144	144	134	136		purlin	None	None	Alum_6351-T6	DR1_8
145	145	136	138		purlin	None	None	Alum_6351-T6	DR1_8
146	146	138	140		purlin	None	None	Alum_6351-T6	DR1_8
147	147	93	72		purlin	None	None	Alum_6351-T6	DR1_8
148	148	72	49		purlin	None	None	Alum_6351-T6	DR1_8
149	149	49	28		purlin	None	None	Alum_6351-T6	DR1_8
150	150	28	7		purlin	None	None	Alum_6351-T6	DR1_8
151	151	101	80		purlin	None	None	Alum_6351-T6	DR1_8
152	152	80	57		purlin	None	None	Alum_6351-T6	DR1_8
153	153	57	36		purlin	None	None	Alum_6351-T6	DR1_8
154	154	36	15		purlin	None	None	Alum_6351-T6	DR1_8
155	155	92	71		purlin	None	None	Alum_6351-T6	DR1_8
156	156	48	27		purlin	None	None	Alum_6351-T6	DR1_8
157	157	133	107		cable	None	None	gen_Steel	DR1_1
158	158	131	86		cable	None	None	gen_Steel	DR1_1
159	159	81	131		cable	None	None	gen_Steel	DR1_1
160	160	133	102		cable	None	None	gen_Steel	DR1_1
161	161	102	80		cable	None	None	gen_Steel	DR1_1
162	162	81	101		cable	None	None	gen_Steel	DR1_1
163	163	137	63		cable	None	None	gen_Steel	DR1_1
164	164	135	42		cable	None	None	gen_Steel	DR1_1
165	165	37	135		cable	None	None	gen_Steel	DR1_1
166	166	137	58		cable	None	None	gen_Steel	DR1_1
167	167	58	36		cable	None	None	gen_Steel	DR1_1
168	168	37	57		cable	None	None	gen_Steel	DR1_1
169	169	132	66		cable	None	None	gen_Steel	DR1_1
170	170	87	134		cable	None	None	gen_Steel	DR1_1
171	171	134	92		cable	None	None	gen_Steel	DR1_1
172	172	92	72		cable	None	None	gen_Steel	DR1_1
173	173	132	71		cable	None	None	gen_Steel	DR1_1
174	174	71	93		cable	None	None	gen_Steel	DR1_1
175	175	22	136		cable	None	None	gen_Steel	DR1_1
176	176	136	27		cable	None	None	gen_Steel	DR1_1

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
177	177	27	49		cable	None	None	gen_Steel	DR1_1
178	178	28	48		cable	None	None	gen_Steel	DR1_1
179	179	48	138		cable	None	None	gen_Steel	DR1_1
180	180	138	43		cable	None	None	gen_Steel	DR1_1
181	181	44	23		purlin	None	None	Alum_6351-T6	DR1_8
182	182	88	67		purlin	None	None	Alum_6351-T6	DR1_8
183	183	41	62		purlin	None	None	Alum_6351-T6	DR1_8
184	184	85	106		purlin	None	None	Alum_6351-T6	DR1_8

Load Combinations

	Description	Solve	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	Self+Dead	Yes	1	1	2	2.2												
2	S+D+SL1/2	Yes	1	1	2	2.2	3	12										
3	S+D+SLfull	Yes	1	1	2	2.2	3	12	4	12								
4	0.6S+0.6D+presIP+presW0	Yes	1	0.6	2	1.32					5	2.033	6	15.2				
5	0.6S+0.6D+presIP+presW30	Yes	1	0.6	2	1.32					5	3.1	7	15.2				
6	0.6S+0.6D+presIP+presW60	Yes	1	0.6	2	1.32					5	1.239	8	15.2				
7	0.6S+0.6D+presIP+presW90	Yes	1	0.6	2	1.32					5	1.045	9	15.2				
8	S+D+0.7baseshearEX+15%EZ	Yes	1	1	2	2.2					10	0.233	11	0.513	1	0.035	2	0.077
9	S+D+0.7baseshearEY+15%3EZ	Yes	1	1	2	2.2					12	0.233	13	0.513	1	0.035	2	0.077
10	0.6S+0.6D+0.7baseshearEX-15%EZ	Yes	1	0.6	2	1.32					10	0.233	11	0.513	1	-0.035	2	-0.077
11	0.6S+0.6D+0.7baseshearEY-15%EZ	Yes	1	0.6	2	1.32					12	0.233	13	0.513	1	-0.035	2	-0.077
12	uncombined, unfactored																	
13	dead load		1	1	2	2.2												
14	full snow						3	12	4	12								
15	wind 0										5	3.388	6	25.4				
16	wind 30										5	5.166	7	25.4				
17	wind 60										5	2.066	8	25.4				
18	wind 90										5	1.742	9	25.4				
19	EQx + Eh										10	0.333	11	0.733	1	0.05	2	0.11
20	EQy +Eh										12	0.333	13	0.733	1	0.05	2	0.11
21	EQx - Eh										10	0.333	11	0.733	1	0.05	2	-0.11
22	EQy - Eh										12	0.333	13	0.733	1	0.05	2	-0.11

Envelope Node Reactions

	Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
0	1	max	1.458	3	0.028	9	3.346	3	0	11	0	11	0	11
1		min	-0.619	7	-0.001	6	-0.892	4	0	1	0	1	0	1
2	21	max	-0.008	10	0.028	9	3.346	3	0	11	0	11	0	11
3		min	-1.458	3	-0.003	6	-0.892	4	0	1	0	1	0	1
4	22	max	2.598	3	0.039	9	6.121	3	0	11	0	11	0	11
5		min	-0.959	7	-0.303	6	-0.787	5	0	1	0	1	0	1
6	42	max	0.51	6	0.04	9	6.121	3	0	11	0	11	0	11
7		min	-2.598	3	-0.265	6	-0.858	5	0	1	0	1	0	1
8	43	max	2.599	3	0.964	7	6.121	3	0	11	0	11	0	11
9		min	-1.991	7	0	3	-1.129	5	0	1	0	1	0	1
10	63	max	0.541	6	0.855	11	6.121	3	0	11	0	11	0	11
11		min	-2.599	3	0	3	-1.184	7	0	1	0	1	0	1
12	64	max	0	11	1.802	7	0	11	0	11	0	11	0	11
13		min	0	1	0	3	0	1	0	1	0	1	0	1
14	65	max	0	11	1.806	7	0	11	0	11	0	11	0	11
15		min	0	1	0	8	0	1	0	1	0	1	0	1
16	66	max	2.599	3	0.039	9	6.121	3	0	11	0	11	0	11

Envelope Node Reactions (Continued)

	Node Label			X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
17			min	-0.885	7	-0.103	6	-2.5	6	0	1	0	1	0	1
18	86		max	1.001	5	0.04	9	6.121	3	0	11	0	11	0	11
19			min	-2.599	3	-0.406	5	-2.63	6	0	1	0	1	0	1
20	87		max	2.598	3	1.089	7	6.121	3	0	11	0	11	0	11
21			min	-2.065	7	0	10	-2.318	6	0	1	0	1	0	1
22	107		max	1.257	5	0.957	7	6.121	3	0	11	0	11	0	11
23			min	-2.598	3	0	3	-2.246	6	0	1	0	1	0	1
24	108		max	1.35	3	0.028	9	3.174	3	0	11	0	11	0	11
25			min	-0.685	7	0	10	-0.995	4	0	1	0	1	0	1
26	128		max	0.927	5	0.03	9	3.174	3	0	11	0	11	0	11
27			min	-1.35	3	-0.002	6	-1.027	6	0	1	0	1	0	1
28	Totals:		max	3.87	8	7.248	7	62.008	3						
29			min	-14.714	7	-0.058	6	-11.646	5						

Envelope Member Section Forces

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
0	Arch1	1	max	3.346	3	0.001	6	1.458	3	0	11	0	11	0	11
1			min	-0.892	4	-0.028	9	-0.619	7	0	1	0	1	0	1
2		2	max	3.319	3	0.001	6	1.458	3	0	11	1.458	3	0.026	7
3			min	-0.908	4	-0.026	7	-0.593	7	0	1	-0.606	7	-0.001	6
4		3	max	3.293	3	0.001	6	1.458	3	0	11	2.916	3	0.051	7
5			min	-0.924	4	-0.026	7	-0.568	7	0	1	-1.186	7	-0.002	6
6		4	max	3.266	3	0.001	6	1.458	3	0	11	4.374	3	0.077	7
7			min	-0.94	4	-0.026	7	-0.542	7	0	1	-1.741	7	-0.003	6
8		5	max	3.24	3	0.001	6	1.458	3	0	11	5.832	3	0.103	7
9			min	-0.955	4	-0.026	7	-0.516	7	0	1	-2.27	7	-0.004	6
10	2	1	max	3.417	3	0.001	6	0.972	3	0.015	7	5.832	3	0.102	7
11			min	-0.956	4	-0.026	7	-0.499	7	-0.001	6	-2.27	7	-0.004	6
12		2	max	3.403	3	0.001	6	0.974	3	0.015	7	6.369	3	0.116	7
13			min	-0.965	4	-0.026	7	-0.483	7	-0.001	6	-2.541	7	-0.005	6
14		3	max	3.388	3	0.002	11	0.976	3	0.015	7	6.906	3	0.13	7
15			min	-0.973	4	-0.026	7	-0.467	7	-0.001	6	-2.803	7	-0.005	6
16		4	max	3.374	3	0.006	11	0.978	3	0.015	7	7.444	3	0.144	7
17			min	-0.982	4	-0.026	7	-0.452	7	-0.001	6	-3.056	7	-0.006	6
18		5	max	3.36	3	0.009	11	0.981	3	0.015	7	7.984	3	0.158	7
19			min	-0.991	4	-0.026	7	-0.435	7	-0.001	6	-3.3	7	-0.006	6
20	3	1	max	3.499	3	0.009	11	0.233	4	0.062	7	7.984	3	0.147	7
21			min	-0.965	4	-0.026	7	-0.358	7	-0.002	6	-3.3	7	-0.006	6
22		2	max	3.434	3	0.012	11	0.198	4	0.062	7	7.952	3	0.163	7
23			min	-0.974	4	-0.026	7	-0.337	7	-0.002	6	-3.514	7	-0.006	6
24		3	max	3.37	3	0.016	11	0.161	4	0.062	7	7.939	3	0.178	7
25			min	-0.983	4	-0.026	7	-0.315	7	-0.002	6	-3.715	7	-0.007	6
26		4	max	3.305	3	0.02	11	0.14	8	0.062	7	7.945	3	0.194	7
27			min	-0.992	4	-0.026	7	-0.293	7	-0.002	6	-3.902	7	-0.008	6
28		5	max	3.24	3	0.023	11	0.144	8	0.062	7	7.97	3	0.21	7
29			min	-1	4	-0.026	7	-0.27	7	-0.002	6	-4.075	7	-0.008	6
30	4	1	max	3.125	3	0.023	11	0.363	4	0.118	7	7.97	3	0.184	7
31			min	-0.936	4	-0.026	7	-0.876	2	-0.005	6	-4.075	7	-0.007	6
32		2	max	3.07	3	0.027	11	0.324	4	0.118	7	7.438	3	0.2	7
33			min	-0.944	4	-0.026	7	-0.826	2	-0.005	6	-4.17	7	-0.011	11
34		3	max	3.015	3	0.375	7	0.297	4	0.118	7	6.937	3	0.217	7
35			min	-0.963	4	0	10	-0.776	2	-0.005	6	-4.255	7	-0.029	11
36		4	max	2.94	3	0.375	7	0.261	4	0.118	7	6.478	3	0.004	6
37			min	-0.97	4	-0.019	6	-0.709	2	-0.005	6	-4.313	7	-0.061	11
38		5	max	2.885	3	0.375	7	0.224	4	0.118	7	6.052	3	0.015	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
39			min	-0.978	4	-0.019	6	-0.659	2	-0.005	6	-4.357	7	-0.261	7
40	5	1	max	2.726	3	0.375	7	0.393	4	0.07	7	6.052	3	0.016	6
41			min	-0.923	4	-0.019	6	-1.142	3	-0.002	6	-4.357	7	-0.278	7
42		2	max	2.677	3	0.375	7	0.356	4	0.07	7	5.294	3	0.029	6
43			min	-0.93	4	-0.019	6	-1.079	3	-0.002	6	-4.335	7	-0.534	7
44		3	max	2.629	3	0.375	7	0.32	4	0.07	7	4.579	3	0.042	6
45			min	-0.936	4	-0.019	6	-1.016	3	-0.002	6	-4.299	7	-0.79	7
46		4	max	2.58	3	0.375	7	0.284	4	0.07	7	3.907	3	0.054	6
47			min	-0.943	4	-0.019	6	-0.953	3	-0.002	6	-4.251	7	-1.046	7
48		5	max	2.531	3	0.375	7	0.249	4	0.07	7	3.277	3	0.067	6
49			min	-0.95	4	-0.019	6	-0.89	3	-0.002	6	-4.193	7	-1.303	7
50	6	1	max	2.44	3	0.375	7	0.334	4	0.004	6	3.277	3	0.067	6
51			min	-0.923	4	-0.019	6	-1.117	3	-0.048	7	-4.193	7	-1.304	7
52		2	max	2.363	3	0.375	7	0.278	5	0.004	6	2.565	4	0.09	6
53			min	-0.933	4	-0.019	6	-0.997	3	-0.048	7	-4.011	7	-1.763	7
54		3	max	2.287	3	0.375	7	0.239	5	0.004	6	2.858	4	0.113	6
55			min	-0.944	4	-0.019	6	-0.876	3	-0.048	7	-3.802	7	-2.222	7
56		4	max	2.21	3	0.375	7	0.198	7	0.004	6	3.071	4	0.136	6
57			min	-0.954	4	-0.019	6	-0.756	3	-0.048	7	-3.57	7	-2.681	7
58		5	max	2.134	3	0.375	7	0.212	7	0.004	6	3.201	4	0.159	6
59			min	-0.965	4	-0.019	6	-0.636	3	-0.048	7	-3.364	2	-3.141	7
60	7	1	max	2.128	3	0.094	6	0.218	7	0.003	5	3.2	4	0.159	6
61			min	-0.975	4	-1.346	7	-0.582	3	-0.003	11	-3.367	2	-3.141	7
62		2	max	2.051	3	0.094	6	0.228	7	0.003	5	3.245	4	0.046	6
63			min	-0.985	4	-1.346	7	-0.466	3	-0.003	11	-3.79	2	-1.53	7
64		3	max	1.975	3	0.094	6	0.235	7	0.003	5	3.206	4	0.08	7
65			min	-0.996	4	-1.346	7	-0.349	3	-0.003	11	-4.074	2	-0.447	9
66		4	max	1.898	3	0.094	6	0.237	7	0.003	5	3.082	4	1.691	7
67			min	-1.006	4	-1.346	7	-0.233	3	-0.003	11	-4.219	2	-0.34	9
68		5	max	1.822	3	0.094	6	0.237	7	0.003	5	2.87	4	3.301	7
69			min	-1.016	4	-1.346	7	-0.214	4	-0.003	11	-4.224	2	-0.292	6
70	8	1	max	1.727	3	0.474	7	0.347	7	0	10	2.87	4	3.22	7
71			min	-1.077	4	-0.058	9	-0.087	4	-0.02	11	-4.224	2	-0.287	6
72		2	max	1.657	3	0.474	7	0.341	7	0	10	2.725	4	2.668	7
73			min	-1.087	4	-0.051	9	-0.163	4	-0.02	11	-3.971	2	-0.24	6
74		3	max	1.587	3	0.474	7	0.391	2	0	10	2.488	4	2.115	7
75			min	-1.096	4	-0.044	9	-0.245	4	-0.02	11	-3.583	2	-0.193	6
76		4	max	1.516	3	0.474	7	0.507	2	0	10	2.152	4	1.563	7
77			min	-1.106	4	-0.04	6	-0.333	4	-0.02	11	-3.059	2	-0.146	6
78		5	max	1.446	3	0.474	7	0.624	2	0	10	1.709	4	1.011	7
79			min	-1.115	4	-0.04	6	-0.428	4	-0.02	11	-2.4	2	-0.099	6
80	9	1	max	1.444	3	0.474	7	0.628	2	0.001	6	1.709	4	1.011	7
81			min	-1.113	4	-0.04	6	-0.434	4	-0.02	11	-2.4	2	-0.099	6
82		2	max	1.412	3	0.474	7	0.68	2	0.001	6	1.471	4	0.764	7
83			min	-1.117	4	-0.04	6	-0.479	4	-0.02	11	-2.059	2	-0.078	6
84		3	max	1.38	3	0.474	7	0.732	2	0.001	6	1.209	4	0.517	7
85			min	-1.122	4	-0.04	6	-0.525	4	-0.02	11	-1.691	2	-0.057	6
86		4	max	1.348	3	0.474	7	0.784	2	0.001	6	0.923	4	0.269	7
87			min	-1.126	4	-0.04	6	-0.572	4	-0.02	11	-1.296	2	-0.036	6
88		5	max	1.317	3	0.474	7	0.835	2	0.001	6	0.612	4	0.022	7
89			min	-1.13	4	-0.04	6	-0.62	4	-0.02	11	-0.873	2	-0.025	5
90	10	1	max	1.317	3	0.023	7	0.845	2	0	6	0.612	4	0.022	7
91			min	-1.151	4	-0.026	5	-0.582	4	-0.02	11	-0.87	2	-0.025	5
92		2	max	1.302	3	0.023	7	0.87	2	0	6	0.467	4	0.017	7
93			min	-1.153	4	-0.026	5	-0.605	4	-0.02	11	-0.661	2	-0.019	5

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
94		3	max	1.288	3	0.023	7	0.894	2	0	6	0.317	4	0.011	7
95			min	-1.155	4	-0.026	5	-0.629	4	-0.02	11	-0.447	2	-0.013	5
96		4	max	1.274	3	0.023	7	0.919	2	0	6	0.161	4	0.006	7
97			min	-1.157	4	-0.026	5	-0.652	4	-0.02	11	-0.226	2	-0.006	5
98		5	max	1.259	3	0.023	7	0.943	2	0	6	0	11	0	11
99			min	-1.159	4	-0.026	5	-0.676	4	-0.02	11	0	1	0	1
100	11	1	max	1.259	3	0.023	7	0.701	5	0	6	0	11	0.017	11
101			min	-1.159	4	-0.026	5	-0.735	3	-0.01	11	0	1	0	6
102		2	max	1.274	3	0.023	7	0.682	5	0	6	0.168	5	0.014	11
103			min	-1.157	4	-0.026	5	-0.71	3	-0.01	11	-0.176	3	0	4
104		3	max	1.288	3	0.023	7	0.665	7	0	6	0.332	5	0.015	5
105			min	-1.155	4	-0.026	5	-0.686	3	-0.01	11	-0.345	3	-0.001	4
106		4	max	1.302	3	0.023	7	0.654	7	0	6	0.491	5	0.022	5
107			min	-1.153	4	-0.026	5	-0.661	3	-0.01	11	-0.509	3	-0.006	7
108		5	max	1.317	3	0.023	7	0.643	7	0	6	0.647	7	0.028	5
109			min	-1.151	4	-0.026	5	-0.637	3	-0.01	11	-0.667	3	-0.011	7
110	12	1	max	1.317	3	0.029	6	0.66	7	0	6	0.66	7	0.028	5
111			min	-1.13	4	-0.482	7	-0.642	3	-0.01	11	-0.666	3	-0.011	7
112		2	max	1.348	3	0.029	6	0.637	7	0	6	0.999	7	0.24	7
113			min	-1.126	4	-0.482	7	-0.59	3	-0.01	11	-0.987	3	-0.006	9
114		3	max	1.38	3	0.029	6	0.614	7	0	6	1.325	7	0.491	7
115			min	-1.122	4	-0.482	7	-0.538	3	-0.01	11	-1.281	3	-0.017	9
116		4	max	1.412	3	0.029	6	0.591	7	0	6	1.639	7	0.743	7
117			min	-1.117	4	-0.482	7	-0.487	3	-0.01	11	-1.549	3	-0.031	6
118		5	max	1.444	3	0.029	6	0.568	7	0	6	1.942	7	0.994	7
119			min	-1.113	4	-0.482	7	-0.435	3	-0.01	11	-1.789	3	-0.047	6
120	13	1	max	1.446	3	0.029	6	0.567	7	0.001	6	1.942	7	0.994	7
121			min	-1.115	4	-0.482	7	-0.426	3	-0.013	7	-1.789	3	-0.047	6
122		2	max	1.516	3	0.036	9	0.515	7	0.001	6	2.572	7	1.555	7
123			min	-1.106	4	-0.482	7	-0.31	3	-0.013	7	-2.218	3	-0.081	9
124		3	max	1.587	3	0.042	9	0.462	7	0.001	6	3.141	7	2.116	7
125			min	-1.096	4	-0.482	7	-0.194	3	-0.013	7	-2.511	3	-0.127	9
126		4	max	1.657	3	0.049	9	0.41	7	0.001	6	3.649	7	2.678	7
127			min	-1.087	4	-0.482	7	-0.161	8	-0.013	7	-2.669	3	-0.18	9
128		5	max	1.727	3	0.056	9	0.356	7	0.001	6	4.096	7	3.239	7
129			min	-1.077	4	-0.482	7	-0.13	8	-0.013	7	-2.691	3	-0.242	9
130	14	1	max	1.822	3	1.339	7	0.446	7	0.003	5	4.096	7	3.309	7
131			min	-1.016	4	-0.102	6	-0.018	10	0	4	-2.691	3	-0.255	9
132		2	max	1.898	3	1.339	7	0.39	7	0.003	5	4.596	7	1.706	7
133			min	-1.006	4	-0.102	6	0.001	10	0	4	-2.482	3	-0.349	9
134		3	max	1.975	3	1.339	7	0.349	3	0.003	5	5.029	7	0.156	5
135			min	-0.996	4	-0.102	6	0.02	10	0	4	-2.134	3	-0.451	9
136		4	max	2.051	3	1.339	7	0.466	3	0.003	5	5.393	7	0.178	6
137			min	-0.985	4	-0.102	6	-0.003	4	0	4	-1.904	8	-1.5	7
138		5	max	2.128	3	1.339	7	0.582	3	0.003	5	5.688	7	0.3	6
139			min	-0.975	4	-0.102	6	-0.072	4	0	4	-1.743	8	-3.103	7
140	15	1	max	2.134	3	0.036	6	0.636	3	0.047	7	5.691	7	0.3	6
141			min	-0.965	4	-0.371	7	-0.072	4	-0.004	6	-1.743	8	-3.102	7
142		2	max	2.21	3	0.036	6	0.756	3	0.047	7	5.936	7	0.256	6
143			min	-0.954	4	-0.371	7	-0.141	4	-0.004	6	-1.517	10	-2.648	7
144		3	max	2.287	3	0.036	6	0.876	3	0.047	7	6.106	7	0.212	6
145			min	-0.944	4	-0.371	7	-0.207	4	-0.004	6	-1.388	10	-2.195	7
146		4	max	2.363	3	0.036	6	0.997	3	0.047	7	6.199	7	0.168	6
147			min	-0.933	4	-0.371	7	-0.272	4	-0.004	6	-1.235	10	-1.741	7
148		5	max	2.44	3	0.036	6	1.117	3	0.047	7	6.214	7	0.124	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
149			min	-0.923	4	-0.371	7	-0.334	4	-0.004	6	-1.058	10	-1.287	7
150	16	1	max	2.531	3	0.036	6	0.89	3	0.007	6	6.214	7	0.124	6
151			min	-0.95	4	-0.371	7	-0.249	4	-0.07	7	-1.058	10	-1.286	7
152		2	max	2.58	3	0.036	6	0.953	3	0.007	6	6.182	7	0.099	6
153			min	-0.943	4	-0.371	7	-0.284	4	-0.07	7	-0.963	10	-1.033	7
154		3	max	2.629	3	0.036	6	1.016	3	0.007	6	6.125	7	0.075	6
155			min	-0.936	4	-0.371	7	-0.32	4	-0.07	7	-0.861	10	-0.78	7
156		4	max	2.677	3	0.036	6	1.079	3	0.007	6	6.043	7	0.05	6
157			min	-0.93	4	-0.371	7	-0.356	4	-0.07	7	-0.751	10	-0.527	7
158		5	max	2.726	3	0.036	6	1.142	3	0.007	6	6.052	3	0.026	6
159			min	-0.923	4	-0.371	7	-0.393	4	-0.07	7	-0.635	10	-0.274	7
160	17	1	max	2.885	3	0.036	6	0.644	3	0.012	6	6.052	3	0.024	6
161			min	-0.978	4	-0.371	7	-0.257	5	-0.118	7	-0.635	10	-0.257	7
162		2	max	2.94	3	0.036	6	0.693	3	0.012	6	6.478	3	0.001	6
163			min	-0.97	4	-0.371	7	-0.293	5	-0.118	7	-0.548	10	-0.06	11
164		3	max	3.015	3	0.036	6	0.761	3	0.012	6	6.937	3	0.215	7
165			min	-0.963	4	-0.371	7	-0.329	5	-0.118	7	-0.455	10	-0.03	11
166		4	max	3.07	3	0.026	7	0.811	3	0.012	6	7.438	3	0.199	7
167			min	-0.944	4	-0.027	11	-0.353	5	-0.118	7	-0.346	10	-0.02	6
168		5	max	3.125	3	0.026	7	0.861	3	0.012	6	7.97	3	0.183	7
169			min	-0.936	4	-0.023	11	-0.387	5	-0.118	7	-0.232	10	-0.018	6
170	18	1	max	3.24	3	0.026	7	0.094	10	0.006	6	7.97	3	0.209	7
171			min	-1	4	-0.023	11	-0.347	7	-0.061	7	-0.232	10	-0.021	6
172		2	max	3.305	3	0.026	7	0.101	10	0.006	6	7.945	3	0.193	7
173			min	-0.992	4	-0.02	11	-0.386	7	-0.061	7	-0.172	10	-0.019	6
174		3	max	3.37	3	0.026	7	0.108	10	0.006	6	7.939	3	0.177	7
175			min	-0.983	4	-0.016	11	-0.425	7	-0.061	7	-0.108	10	-0.018	6
176		4	max	3.434	3	0.026	7	0.116	10	0.006	6	7.952	3	0.161	7
177			min	-0.974	4	-0.013	11	-0.462	7	-0.061	7	-0.039	10	-0.016	6
178		5	max	3.499	3	0.026	7	0.123	10	0.006	6	7.984	3	0.146	7
179			min	-0.965	4	-0.009	11	-0.5	7	-0.061	7	0.035	10	-0.015	6
180	19	1	max	3.36	3	0.026	7	0.066	4	0.001	6	7.984	3	0.157	7
181			min	-0.991	4	-0.009	11	-0.981	3	-0.015	7	0.035	10	-0.016	6
182		2	max	3.374	3	0.026	7	0.032	4	0.001	6	7.444	3	0.143	7
183			min	-0.982	4	-0.006	11	-0.978	3	-0.015	7	0.042	10	-0.014	6
184		3	max	3.388	3	0.026	7	0.019	10	0.001	6	6.906	3	0.129	7
185			min	-0.973	4	-0.003	6	-0.976	3	-0.015	7	0.051	10	-0.013	6
186		4	max	3.403	3	0.026	7	0.024	10	0.001	6	6.369	3	0.115	7
187			min	-0.965	4	-0.003	6	-0.974	3	-0.015	7	0.063	10	-0.012	6
188		5	max	3.417	3	0.026	7	0.028	10	0.001	6	5.832	3	0.101	7
189			min	-0.956	4	-0.003	6	-0.972	3	-0.015	7	0.078	10	-0.01	6
190	20	1	max	3.24	3	0.026	7	0.074	4	0	11	5.832	3	0.102	7
191			min	-0.955	4	-0.003	6	-1.458	3	0	1	0.078	10	-0.01	6
192		2	max	3.266	3	0.026	7	0.015	4	0	11	4.374	3	0.077	7
193			min	-0.94	4	-0.003	6	-1.458	3	0	1	0.049	10	-0.008	6
194		3	max	3.293	3	0.026	7	-0.019	10	0	11	2.916	3	0.051	7
195			min	-0.924	4	-0.003	6	-1.458	3	0	1	0.027	10	-0.005	6
196		4	max	3.319	3	0.026	7	-0.014	10	0	11	1.458	3	0.026	7
197			min	-0.908	4	-0.003	6	-1.458	3	0	1	0.011	10	-0.003	6
198		5	max	3.346	3	0.028	9	-0.008	10	0	11	0	11	0	11
199			min	-0.892	4	-0.003	6	-1.458	3	0	1	0	1	0	1
200	Arch2	1	max	6.115	3	0.004	7	2.598	3	0	11	0	6	0	11
201			min	-0.746	5	-0.038	9	-0.933	7	0	6	0	1	0	6
202		2	max	6.072	3	0.004	7	2.598	3	0	11	2.598	3	0.033	9
203			min	-0.772	5	-0.028	9	-0.862	7	0	6	-0.898	7	-0.004	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
204		3	max	6.029	3	0.004	7	2.598	3	0	11	5.197	3	0.056	9
205			min	-0.798	5	-0.018	9	-0.791	7	0	6	-1.724	7	-0.008	7
206		4	max	5.986	3	0.004	7	2.598	3	0	11	7.795	3	0.068	9
207			min	-0.824	5	-0.008	9	-0.72	7	0	6	-2.48	7	-0.012	7
208		5	max	5.943	3	0.004	7	2.598	3	0	11	10.394	3	0.071	9
209			min	-0.849	5	-0.001	6	-0.649	7	0	6	-3.165	7	-0.017	7
210	22	1	max	6.231	3	0.01	11	1.712	3	0.01	9	10.394	3	0.07	9
211			min	-0.928	5	0	10	-0.756	7	-0.002	7	-3.174	7	-0.016	7
212		2	max	6.208	3	0.015	11	1.715	3	0.01	9	11.337	3	0.063	9
213			min	-0.942	5	0	10	-0.715	7	-0.002	7	-3.579	7	-0.02	7
214		3	max	6.184	3	0.021	11	1.718	3	0.01	9	12.283	3	0.053	9
215			min	-0.956	5	0	10	-0.674	7	-0.002	7	-3.961	7	-0.023	7
216		4	max	6.161	3	0.026	11	1.722	3	0.01	9	13.231	3	0.04	9
217			min	-0.97	5	0	10	-0.633	7	-0.002	7	-4.321	7	-0.026	7
218		5	max	6.137	3	0.032	11	1.725	3	0.01	9	14.18	3	0.024	9
219			min	-0.984	5	0	10	-0.593	7	-0.002	7	-4.659	7	-0.029	7
220	23	1	max	6.373	3	0.032	11	0.219	4	0.017	9	14.18	3	0.02	9
221			min	-1.067	5	0	10	-0.751	7	-0.011	7	-4.659	7	-0.027	7
222		2	max	6.249	3	0.038	11	0.19	4	0.017	9	14.083	3	0.002	6
223			min	-1.081	5	0	10	-0.702	7	-0.011	7	-5.106	7	-0.031	7
224		3	max	6.125	3	0.044	11	0.161	4	0.017	9	14.023	3	0.001	6
225			min	-1.096	5	0	10	-0.652	7	-0.011	7	-5.523	7	-0.035	7
226		4	max	6.001	3	0.051	11	0.151	10	0.017	9	14	3	0.001	6
227			min	-1.11	5	0	10	-0.603	7	-0.011	7	-5.91	7	-0.057	11
228		5	max	5.878	3	0.057	11	0.152	8	0.017	9	14.013	3	0	6
229			min	-1.124	5	0	10	-0.554	7	-0.011	7	-6.267	7	-0.09	11
230	24	1	max	5.653	3	0.057	11	0.257	4	0.001	6	14.013	3	0	10
231			min	-1.126	5	0	10	-1.641	2	-0.023	7	-6.267	7	-0.091	11
232		2	max	5.548	3	0.063	11	0.23	4	0.001	6	13.018	3	0	10
233			min	-1.138	5	0	10	-1.545	2	-0.023	7	-6.653	7	-0.129	11
234		3	max	5.442	3	0.069	11	0.261	5	0.001	6	12.084	3	0	10
235			min	-1.364	5	-0.019	5	-1.45	2	-0.023	7	-7.007	7	-0.171	11
236		4	max	5.289	3	0	4	0.247	5	0.001	6	11.237	3	0	6
237			min	-1.376	5	-0.088	11	-1.311	2	-0.023	7	-7.12	7	-0.113	11
238		5	max	5.184	3	0	4	0.231	5	0.001	6	10.451	3	0.013	7
239			min	-1.389	5	-0.081	11	-1.216	2	-0.023	7	-7.209	7	-0.06	9
240	25	1	max	4.893	3	0	4	0.472	5	0.001	6	10.451	3	0.017	7
241			min	-1.326	5	-0.081	11	-2.081	3	-0.02	7	-7.209	7	-0.057	9
242		2	max	4.8	3	0	4	0.456	5	0.001	6	9.072	3	0.047	7
243			min	-1.337	5	-0.074	11	-1.96	3	-0.02	7	-7.221	7	-0.004	9
244		3	max	4.707	3	0	4	0.437	5	0.001	6	7.775	3	0.078	7
245			min	-1.348	5	-0.068	11	-1.84	3	-0.02	7	-7.205	7	-0.001	4
246		4	max	4.614	3	0	4	0.417	5	0.001	6	6.56	3	0.109	7
247			min	-1.358	5	-0.061	11	-1.72	3	-0.02	7	-7.164	7	-0.001	4
248		5	max	4.521	3	0	4	0.395	5	0.001	6	5.428	3	0.14	7
249			min	-1.369	5	-0.054	11	-1.599	3	-0.02	7	-7.1	7	-0.001	4
250	26	1	max	4.337	3	0.264	7	0.537	5	0.002	5	5.428	3	0.141	7
251			min	-1.343	5	0	10	-1.973	3	-0.008	11	-7.099	7	-0.001	4
252		2	max	4.19	3	0.264	7	0.495	5	0.002	5	3.154	3	0.001	6
253			min	-1.36	5	0	10	-1.742	3	-0.008	11	-6.806	7	-0.182	7
254		3	max	4.043	3	0.264	7	0.449	5	0.002	5	3.11	4	0	10
255			min	-1.377	5	0	10	-1.512	3	-0.008	11	-6.455	7	-0.504	7
256		4	max	3.897	3	0.264	7	0.398	5	0.002	5	3.22	4	0	10
257			min	-1.394	5	0	10	-1.282	3	-0.008	11	-6.052	7	-0.827	7
258		5	max	3.75	3	0.264	7	0.385	7	0.002	5	3.26	4	0	10

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
259			min	-1.411	5	0	10	-1.052	3	-0.008	11	-6.658	2	-1.15	7
260	27	1	max	3.733	3	0	10	0.394	7	0.009	7	3.262	4	0	10
261			min	-1.513	5	-0.134	11	-0.948	3	0	1	-6.655	2	-1.15	7
262		2	max	3.586	3	0	10	0.424	7	0.009	7	3.257	4	0	10
263			min	-1.53	5	-0.122	11	-0.725	3	0	1	-7.248	2	-1.031	7
264		3	max	3.44	3	0	10	0.45	7	0.009	7	3.185	4	0	10
265			min	-1.547	5	-0.11	11	-0.502	3	0	1	-7.574	2	-0.913	7
266		4	max	3.293	3	0	10	0.471	7	0.009	7	3.044	4	0	10
267			min	-1.564	5	-0.099	7	-0.279	3	0	1	-7.633	2	-0.794	7
268		5	max	3.146	3	0	10	0.487	7	0.009	7	2.834	4	0	10
269			min	-1.581	5	-0.099	7	-0.204	4	0	1	-7.425	2	-0.676	7
270	28	1	max	3.142	3	0	10	0.545	7	0.002	6	2.834	4	0	10
271			min	-1.576	5	-0.099	7	-0.182	8	-0.016	7	-7.425	2	-0.676	7
272		2	max	3.008	3	0	10	0.549	7	0.002	6	2.597	4	0	10
273			min	-1.592	5	-0.099	7	-0.232	4	-0.016	7	-7.04	2	-0.56	7
274		3	max	2.873	3	0	10	0.664	2	0.002	6	2.293	4	0	10
275			min	-1.607	5	-0.099	7	-0.29	4	-0.016	7	-6.395	2	-0.445	7
276		4	max	2.739	3	0	10	0.887	2	0.002	6	2.019	5	0	10
277			min	-1.623	5	-0.099	7	-0.351	4	-0.016	7	-5.492	2	-0.33	7
278		5	max	2.605	3	0	10	1.109	2	0.002	6	1.725	5	0	10
279			min	-1.638	5	-0.099	7	-0.413	4	-0.016	7	-4.329	2	-0.214	7
280	29	1	max	2.6	3	0	10	1.116	2	0.002	6	1.725	5	0	10
281			min	-1.636	5	-0.099	7	-0.418	4	-0.015	7	-4.329	2	-0.215	7
282		2	max	2.539	3	0	10	1.216	2	0.002	6	1.528	5	0	10
283			min	-1.643	5	-0.099	7	-0.446	4	-0.015	7	-3.72	2	-0.163	7
284		3	max	2.479	3	0	10	1.315	2	0.002	6	1.29	5	0	10
285			min	-1.65	5	-0.099	7	-0.498	5	-0.015	7	-3.06	2	-0.111	7
286		4	max	2.418	3	0	10	1.414	2	0.002	6	1.008	5	0	10
287			min	-1.657	5	-0.099	7	-0.583	5	-0.015	7	-2.348	2	-0.06	7
288		5	max	2.357	3	0	10	1.513	2	0.002	6	0.68	5	0	10
289			min	-1.665	5	-0.099	7	-0.674	5	-0.015	7	-1.584	2	-0.015	5
290	30	1	max	2.354	3	0	10	1.539	2	0.002	6	0.68	5	0	10
291			min	-1.695	5	-0.016	5	-0.61	5	-0.015	7	-1.588	2	-0.015	5
292		2	max	2.326	3	0	10	1.586	2	0.002	6	0.527	5	0	10
293			min	-1.698	5	-0.016	5	-0.654	5	-0.015	7	-1.208	2	-0.011	5
294		3	max	2.299	3	0	10	1.633	2	0.002	6	0.362	5	0	10
295			min	-1.701	5	-0.016	5	-0.699	5	-0.015	7	-0.817	2	-0.008	5
296		4	max	2.272	3	0	10	1.68	2	0.002	6	0.187	5	0	10
297			min	-1.704	5	-0.016	5	-0.744	5	-0.015	7	-0.414	2	-0.004	5
298		5	max	2.244	3	0	10	1.727	2	0.002	6	0	11	0	11
299			min	-1.707	5	-0.016	5	-0.791	5	-0.015	7	0	1	0	1
300	31	1	max	2.244	3	0	10	1.531	7	0.001	6	0	11	0.013	7
301			min	-1.529	5	-0.016	5	-1.309	3	-0.008	7	0	1	-0.001	6
302		2	max	2.272	3	0	10	1.51	7	0.001	6	0.37	7	0.015	7
303			min	-1.526	5	-0.016	5	-1.262	3	-0.008	7	-0.313	3	0	6
304		3	max	2.299	3	0.002	9	1.489	7	0.001	6	0.734	7	0.017	7
305			min	-1.523	5	-0.016	5	-1.216	3	-0.008	7	-0.614	3	0	10
306		4	max	2.326	3	0.004	9	1.468	7	0.001	6	1.093	7	0.019	7
307			min	-1.52	5	-0.016	5	-1.169	3	-0.008	7	-0.904	3	0	10
308		5	max	2.354	3	0.006	9	1.447	7	0.001	6	1.448	7	0.021	7
309			min	-1.517	5	-0.016	5	-1.122	3	-0.008	7	-1.182	3	0	10
310	32	1	max	2.357	3	0.098	7	1.485	7	0.001	6	1.423	7	0.021	7
311			min	-1.48	5	-0.015	6	-1.126	3	-0.007	7	-1.184	3	0	10
312		2	max	2.418	3	0.098	7	1.44	7	0.001	6	2.186	7	0.017	5
313			min	-1.473	5	-0.015	6	-1.027	3	-0.007	7	-1.745	3	-0.03	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
314		3	max	2.479	3	0.098	7	1.395	7	0.001	6	2.926	7	0.02	6
315			min	-1.466	5	-0.015	6	-0.928	3	-0.007	7	-2.255	3	-0.081	7
316		4	max	2.539	3	0.098	7	1.35	7	0.001	6	3.642	7	0.028	6
317			min	-1.459	5	-0.015	6	-0.829	3	-0.007	7	-2.714	3	-0.132	7
318		5	max	2.6	3	0.098	7	1.305	7	0.001	6	4.335	7	0.036	6
319			min	-1.452	5	-0.015	6	-0.729	3	-0.007	7	-3.12	3	-0.182	7
320	33	1	max	2.605	3	0.098	7	1.302	7	0.001	6	4.335	7	0.036	6
321			min	-1.456	5	-0.015	6	-0.714	3	-0.006	7	-3.12	3	-0.182	7
322		2	max	2.739	3	0.098	7	1.201	7	0.001	6	5.794	7	0.054	6
323			min	-1.44	5	-0.015	6	-0.491	3	-0.006	7	-3.822	3	-0.296	7
324		3	max	2.873	3	0.098	7	1.099	7	0.001	6	7.134	7	0.071	6
325			min	-1.425	5	-0.015	6	-0.269	3	-0.006	7	-4.265	3	-0.41	7
326		4	max	3.008	3	0.098	7	0.996	7	0.001	6	8.355	7	0.089	6
327			min	-1.409	5	-0.015	6	-0.189	6	-0.006	7	-4.449	3	-0.523	7
328		5	max	3.142	3	0.098	7	0.893	7	0.001	6	9.456	7	0.107	6
329			min	-1.393	5	-0.015	6	-0.219	6	-0.006	7	-4.373	3	-0.637	7
330	34	1	max	3.146	3	0.098	7	0.908	7	0.005	6	9.456	7	0.107	6
331			min	-1.388	5	-0.015	6	-0.202	6	-0.03	7	-4.373	3	-0.636	7
332		2	max	3.293	3	0.099	11	0.799	7	0.005	6	10.478	7	0.125	6
333			min	-1.372	5	-0.015	6	-0.22	6	-0.03	7	-4.173	3	-0.753	7
334		3	max	3.44	3	0.111	11	0.688	7	0.005	6	11.368	7	0.143	6
335			min	-1.355	5	-0.015	6	-0.236	6	-0.03	7	-3.706	3	-0.87	7
336		4	max	3.586	3	0.123	11	0.725	3	0.005	6	12.124	7	0.161	6
337			min	-1.338	5	-0.015	6	-0.248	6	-0.03	7	-2.972	3	-0.986	7
338		5	max	3.733	3	0.135	11	0.948	3	0.005	6	12.743	7	0.179	6
339			min	-1.321	5	-0.015	6	-0.257	6	-0.03	7	-2.373	8	-1.103	7
340	35	1	max	3.75	3	0.043	6	1.052	3	0.002	6	12.733	7	0.179	6
341			min	-1.2	5	-0.264	7	-0.233	6	-0.014	7	-2.373	8	-1.103	7
342		2	max	3.897	3	0.043	6	1.282	3	0.002	6	13.253	7	0.127	6
343			min	-1.183	5	-0.264	7	-0.265	5	-0.014	7	-2.172	8	-0.78	7
344		3	max	4.043	3	0.043	6	1.512	3	0.002	6	13.624	7	0.075	6
345			min	-1.166	5	-0.264	7	-0.346	5	-0.014	7	-2.025	10	-0.457	7
346		4	max	4.19	3	0.043	6	1.742	3	0.002	6	13.843	7	0.023	6
347			min	-1.149	5	-0.264	7	-0.424	5	-0.014	7	-1.925	6	-0.134	7
348		5	max	4.337	3	0.043	6	1.973	3	0.002	6	13.909	7	0.189	7
349			min	-1.132	5	-0.264	7	-0.5	5	-0.014	7	-2.22	6	-0.029	6
350	36	1	max	4.521	3	0.062	11	1.599	3	0.011	11	13.907	7	0.189	7
351			min	-1.077	5	-0.008	6	-0.373	5	-0.001	6	-2.219	6	-0.029	6
352		2	max	4.614	3	0.068	11	1.72	3	0.011	11	13.878	7	0.153	7
353			min	-1.066	5	-0.008	6	-0.414	5	-0.001	6	-2.347	6	-0.024	6
354		3	max	4.707	3	0.075	11	1.84	3	0.011	11	13.798	7	0.118	7
355			min	-1.056	5	-0.008	6	-0.454	5	-0.001	6	-2.47	6	-0.019	6
356		4	max	4.8	3	0.082	11	1.96	3	0.011	11	13.669	7	0.082	7
357			min	-1.045	5	-0.008	6	-0.492	5	-0.001	6	-2.587	6	-0.013	6
358		5	max	4.893	3	0.089	11	2.081	3	0.011	11	13.488	7	0.046	7
359			min	-1.034	5	-0.008	6	-0.527	5	-0.001	6	-2.694	6	-0.039	9
360	37	1	max	5.184	3	0.089	11	1.186	3	0.011	7	13.488	7	0.045	7
361			min	-1.111	5	-0.008	6	-0.411	7	-0.002	6	-2.694	6	-0.041	9
362		2	max	5.289	3	0.095	11	1.281	3	0.011	7	13.203	7	0.011	7
363			min	-1.098	5	-0.008	6	-0.483	7	-0.002	6	-2.746	6	-0.099	11
364		3	max	5.442	3	0.053	7	1.42	3	0.011	7	12.884	7	0.002	6
365			min	-1.086	5	-0.068	11	-0.557	7	-0.002	6	-2.787	6	-0.162	11
366		4	max	5.548	3	0	5	1.515	3	0.011	7	13.018	3	0.002	6
367			min	-0.976	5	-0.062	11	-0.366	5	-0.002	6	-2.767	6	-0.12	11
368		5	max	5.653	3	0	5	1.61	3	0.011	7	14.013	3	0.002	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
369			min	-0.964	5	-0.056	11	-0.427	7	-0.002	6	-2.731	6	-0.083	11
370	38	1	max	5.878	3	0	5	0.152	10	0.006	7	14.013	3	0.002	6
371			min	-1.036	5	-0.056	11	-0.725	7	-0.02	9	-2.731	6	-0.081	11
372		2	max	6.001	3	0	5	0.167	8	0.006	7	14	3	0.003	6
373			min	-1.021	5	-0.049	11	-0.801	7	-0.02	9	-2.643	6	-0.048	11
374		3	max	6.125	3	0	5	0.185	8	0.006	7	14.023	3	0.003	6
375			min	-1.007	5	-0.043	11	-0.873	7	-0.02	9	-2.54	6	-0.02	11
376		4	max	6.249	3	0	5	0.207	6	0.006	7	14.083	3	0.005	9
377			min	-0.993	5	-0.037	11	-0.944	7	-0.02	9	-2.42	6	-0.015	7
378		5	max	6.373	3	0	5	0.233	6	0.006	7	14.18	3	0.026	9
379			min	-0.978	5	-0.031	11	-1.011	7	-0.02	9	-2.284	6	-0.014	7
380	39	1	max	6.137	3	0	5	0.262	6	0.001	7	14.18	3	0.031	9
381			min	-0.998	5	-0.031	11	-1.725	3	-0.011	9	-2.284	6	-0.015	7
382		2	max	6.161	3	0	5	0.282	6	0.001	7	13.231	3	0.046	9
383			min	-0.984	5	-0.025	11	-1.722	3	-0.011	9	-2.134	6	-0.013	7
384		3	max	6.184	3	0	5	0.302	6	0.001	7	12.283	3	0.059	9
385			min	-0.97	5	-0.02	11	-1.718	3	-0.011	9	-1.974	6	-0.011	7
386		4	max	6.208	3	0	5	0.322	6	0.001	7	11.337	3	0.068	9
387			min	-0.956	5	-0.014	11	-1.715	3	-0.011	9	-1.802	6	-0.01	7
388		5	max	6.231	3	0	5	0.342	6	0.001	7	10.394	3	0.075	9
389			min	-0.942	5	-0.009	11	-1.712	3	-0.011	9	-1.619	6	-0.008	7
390	40	1	max	5.943	3	0.001	6	0.338	6	0	6	10.394	3	0.075	9
391			min	-0.919	5	-0.002	7	-2.598	3	0	5	-1.618	6	-0.008	7
392		2	max	5.986	3	0.009	9	0.371	6	0	6	7.795	3	0.072	9
393			min	-0.893	5	-0.002	7	-2.598	3	0	5	-1.263	6	-0.006	7
394		3	max	6.029	3	0.019	9	0.405	6	0	6	5.197	3	0.058	9
395			min	-0.868	5	-0.002	7	-2.598	3	0	5	-0.875	6	-0.004	7
396		4	max	6.072	3	0.029	9	0.438	6	0	6	2.598	3	0.034	9
397			min	-0.842	5	-0.002	7	-2.598	3	0	5	-0.454	6	-0.002	7
398		5	max	6.115	3	0.039	9	0.471	6	0	6	0	6	0	5
399			min	-0.816	5	-0.002	7	-2.598	3	0	5	0	5	0	6
400	Arch3	1	max	6.115	3	0.007	7	2.599	3	0	7	0	7	0	7
401			min	-0.927	5	-0.036	9	-1.846	7	0	9	0	9	0	9
402		2	max	6.072	3	0.007	7	2.599	3	0	7	2.599	3	0.031	9
403			min	-0.953	5	-0.026	9	-1.776	7	0	9	-1.811	7	-0.007	7
404		3	max	6.029	3	0.007	7	2.599	3	0	7	5.198	3	0.053	9
405			min	-0.979	5	-0.016	9	-1.707	7	0	9	-3.553	7	-0.013	7
406		4	max	5.986	3	0.007	7	2.599	3	0	7	7.796	3	0.064	9
407			min	-1.005	5	-0.006	9	-1.638	7	0	9	-5.225	7	-0.02	7
408		5	max	5.943	3	0.007	7	2.599	3	0	7	10.395	3	0.066	9
409			min	-1.03	5	0	10	-1.568	7	0	9	-6.828	7	-0.026	7
410	42	1	max	6.231	3	0.009	11	1.712	3	0.01	9	10.395	3	0.065	9
411			min	-1.103	5	-0.001	6	-1.475	7	-0.004	7	-6.819	7	-0.026	7
412		2	max	6.208	3	0.014	11	1.715	3	0.01	9	11.339	3	0.059	9
413			min	-1.117	5	-0.001	6	-1.435	7	-0.004	7	-7.62	7	-0.028	7
414		3	max	6.184	3	0.02	11	1.719	3	0.01	9	12.285	3	0.049	9
415			min	-1.131	5	-0.001	6	-1.394	7	-0.004	7	-8.399	7	-0.031	7
416		4	max	6.161	3	0.025	11	1.722	3	0.01	9	13.233	3	0.037	9
417			min	-1.145	5	-0.001	6	-1.352	7	-0.004	7	-9.156	7	-0.034	7
418		5	max	6.137	3	0.031	11	1.726	3	0.01	9	14.182	3	0.022	9
419			min	-1.159	5	-0.001	6	-1.31	7	-0.004	7	-9.889	7	-0.036	7
420	43	1	max	6.373	3	0.031	11	0.199	4	0.016	9	14.182	3	0.018	9
421			min	-1.221	5	-0.001	6	-1.01	7	-0.014	7	-9.889	7	-0.034	7
422		2	max	6.249	3	0.037	11	0.176	4	0.016	9	14.086	3	0.002	6
423			min	-1.235	5	-0.001	6	-0.958	7	-0.014	7	-10.495	7	-0.036	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
424		3	max	6.125	3	0.043	11	0.151	4	0.016	9	14.026	3	0.003	6
425			min	-1.249	5	-0.001	6	-0.906	7	-0.014	7	-11.07	7	-0.039	7
426		4	max	6.001	3	0.049	11	0.151	10	0.016	9	14.003	3	0.004	6
427			min	-1.264	5	-0.001	6	-0.853	7	-0.014	7	-11.612	7	-0.056	11
428		5	max	5.878	3	0.055	11	0.152	8	0.016	9	14.016	3	0.004	6
429			min	-1.278	5	-0.001	6	-0.8	7	-0.014	7	-12.121	7	-0.088	11
430	44	1	max	5.653	3	0.055	11	0.28	5	0.001	6	14.016	3	0.004	6
431			min	-1.393	7	-0.001	6	-1.641	2	-0.027	7	-12.121	7	-0.089	11
432		2	max	5.548	3	0.062	11	0.265	5	0.001	6	13.021	3	0.005	6
433			min	-1.405	7	-0.001	6	-1.545	2	-0.027	7	-12.373	7	-0.126	11
434		3	max	5.442	3	0.068	11	0.297	5	0.001	6	12.086	3	0.006	6
435			min	-1.417	7	-0.016	5	-1.45	2	-0.027	7	-12.589	7	-0.167	11
436		4	max	5.289	3	0.002	6	0.278	5	0.001	6	11.239	3	0.005	6
437			min	-1.351	5	-0.088	11	-1.311	2	-0.026	7	-12.695	7	-0.109	11
438		5	max	5.184	3	0.002	6	0.257	5	0.001	6	10.454	3	0.022	7
439			min	-1.364	5	-0.082	11	-1.216	2	-0.026	7	-12.774	7	-0.056	9
440	45	1	max	4.894	3	0.002	6	0.494	5	0.002	6	10.454	3	0.026	7
441			min	-1.297	5	-0.082	11	-2.081	3	-0.022	7	-12.774	7	-0.053	9
442		2	max	4.8	3	0.002	6	0.472	5	0.002	6	9.075	3	0.062	7
443			min	-1.308	5	-0.075	11	-1.96	3	-0.022	7	-12.671	7	0	4
444		3	max	4.707	3	0.002	6	0.448	5	0.002	6	7.778	3	0.097	7
445			min	-1.318	5	-0.068	11	-1.84	3	-0.022	7	-12.536	7	-0.001	4
446		4	max	4.614	3	0.002	6	0.422	5	0.002	6	6.563	3	0.133	7
447			min	-1.329	5	-0.061	11	-1.719	3	-0.022	7	-12.372	7	-0.001	4
448		5	max	4.521	3	0.002	6	0.394	5	0.002	6	5.43	3	0.169	7
449			min	-1.34	5	-0.054	11	-1.599	3	-0.022	7	-12.181	7	-0.001	6
450	46	1	max	4.337	3	0.276	7	0.533	5	0.002	5	5.43	3	0.17	7
451			min	-1.233	5	0	1	-1.972	3	-0.008	11	-12.183	7	-0.001	6
452		2	max	4.19	3	0.276	7	0.495	7	0.002	5	3.157	3	0	8
453			min	-1.25	5	0	1	-1.742	3	-0.008	11	-11.614	7	-0.167	7
454		3	max	4.044	3	0.276	7	0.552	7	0.002	5	2.798	4	0	8
455			min	-1.267	5	0	1	-1.512	3	-0.008	11	-10.972	7	-0.505	7
456		4	max	3.897	3	0.276	7	0.603	7	0.002	5	2.897	4	0	8
457			min	-1.283	5	0	1	-1.282	3	-0.008	11	-10.265	7	-0.842	7
458		5	max	3.751	3	0.276	7	0.65	7	0.002	5	2.934	4	0	8
459			min	-1.3	5	0	1	-1.051	3	-0.008	11	-9.498	7	-1.18	7
460	47	1	max	3.733	3	0	8	0.668	7	0.01	7	2.933	4	0	8
461			min	-1.324	5	-0.134	11	-0.947	3	0	1	-9.51	7	-1.18	7
462		2	max	3.587	3	0	8	0.709	7	0.01	7	2.933	4	0	8
463			min	-1.341	5	-0.122	11	-0.725	3	0	1	-8.685	7	-1.058	7
464		3	max	3.44	3	0	8	0.747	7	0.01	7	2.872	4	0	8
465			min	-1.358	5	-0.11	11	-0.502	3	0	1	-7.813	7	-0.936	7
466		4	max	3.293	3	0	8	0.782	7	0.01	7	2.75	4	0	10
467			min	-1.375	5	-0.102	7	-0.279	3	0	1	-7.638	2	-0.814	7
468		5	max	3.147	3	0	8	0.812	7	0.01	7	2.567	4	0	10
469			min	-1.392	5	-0.102	7	-0.178	4	0	1	-7.43	2	-0.693	7
470	48	1	max	3.142	3	0	8	0.846	7	0.002	6	2.567	4	0	10
471			min	-1.389	5	-0.102	7	-0.182	8	-0.016	7	-7.43	2	-0.692	7
472		2	max	3.008	3	0	8	0.862	7	0.002	6	2.426	5	0	10
473			min	-1.405	5	-0.102	7	-0.203	4	-0.016	7	-7.044	2	-0.574	7
474		3	max	2.874	3	0	8	0.853	7	0.002	6	2.381	5	0	10
475			min	-1.42	5	-0.102	7	-0.257	4	-0.016	7	-6.4	2	-0.455	7
476		4	max	2.739	3	0	8	0.887	2	0.002	6	2.2	5	0	10
477			min	-1.436	5	-0.102	7	-0.314	4	-0.016	7	-5.496	2	-0.336	7
478		5	max	2.605	3	0	8	1.109	2	0.002	6	1.856	5	0	10

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
479			min	-1.451	5	-0.102	7	-0.375	4	-0.016	7	-4.333	2	-0.218	7
480	49	1	max	2.601	3	0	8	1.116	2	0.002	6	1.856	5	0	10
481			min	-1.449	5	-0.102	7	-0.382	5	-0.015	7	-4.333	2	-0.218	7
482		2	max	2.54	3	0	8	1.216	2	0.002	6	1.638	5	0	10
483			min	-1.456	5	-0.102	7	-0.457	5	-0.015	7	-3.724	2	-0.165	7
484		3	max	2.479	3	0	8	1.315	2	0.002	6	1.378	5	0	10
485			min	-1.463	5	-0.102	7	-0.537	5	-0.015	7	-3.064	2	-0.112	7
486		4	max	2.418	3	0	8	1.414	2	0.002	6	1.076	5	0	10
487			min	-1.47	5	-0.102	7	-0.622	5	-0.015	7	-2.352	2	-0.059	7
488		5	max	2.357	3	0	8	1.513	2	0.002	6	0.728	5	0	10
489			min	-1.477	5	-0.102	7	-0.712	5	-0.015	7	-1.588	2	-0.015	5
490	50	1	max	2.354	3	0	10	1.539	2	0.002	6	0.72	5	0	10
491			min	-1.508	5	-0.015	5	-0.653	5	-0.015	7	-1.588	2	-0.015	5
492		2	max	2.327	3	0	10	1.586	2	0.002	6	0.557	5	0	10
493			min	-1.511	5	-0.015	5	-0.696	5	-0.015	7	-1.208	2	-0.011	5
494		3	max	2.299	3	0	10	1.633	2	0.002	6	0.382	5	0	10
495			min	-1.515	5	-0.015	5	-0.74	5	-0.015	7	-0.817	2	-0.007	5
496		4	max	2.272	3	0	10	1.68	2	0.002	6	0.197	5	0	10
497			min	-1.518	5	-0.015	5	-0.785	5	-0.015	7	-0.414	2	-0.004	5
498		5	max	2.245	3	0	10	1.727	2	0.002	6	0	11	0	11
499			min	-1.521	5	-0.015	5	-0.831	5	-0.015	7	0	1	0	1
500	51	1	max	2.245	3	0	10	1.15	7	0.001	6	0	11	0.013	7
501			min	-1.472	5	-0.015	5	-1.309	3	-0.007	7	0	1	-0.001	6
502		2	max	2.272	3	0.001	9	1.134	7	0.001	6	0.278	7	0.014	7
503			min	-1.469	5	-0.015	5	-1.263	3	-0.007	7	-0.313	3	0	6
504		3	max	2.299	3	0.003	9	1.117	7	0.001	6	0.551	7	0.015	7
505			min	-1.466	5	-0.015	5	-1.216	3	-0.007	7	-0.614	3	0	10
506		4	max	2.327	3	0.005	9	1.1	7	0.001	6	0.821	7	0.017	7
507			min	-1.463	5	-0.015	5	-1.169	3	-0.007	7	-0.904	3	0	10
508		5	max	2.354	3	0.008	9	1.084	7	0.001	6	1.086	7	0.018	7
509			min	-1.46	5	-0.015	5	-1.122	3	-0.007	7	-1.182	3	0	10
510	52	1	max	2.357	3	0.1	7	1.109	7	0.001	6	1.108	7	0.018	7
511			min	-1.427	5	-0.015	6	-1.127	3	-0.007	7	-1.182	3	0	10
512		2	max	2.418	3	0.1	7	1.073	7	0.001	6	1.677	7	0.017	5
513			min	-1.42	5	-0.015	6	-1.027	3	-0.007	7	-1.744	3	-0.034	7
514		3	max	2.479	3	0.1	7	1.036	7	0.001	6	2.227	7	0.02	6
515			min	-1.413	5	-0.015	6	-0.928	3	-0.007	7	-2.254	3	-0.086	7
516		4	max	2.54	3	0.1	7	0.998	7	0.001	6	2.758	7	0.028	6
517			min	-1.406	5	-0.015	6	-0.829	3	-0.007	7	-2.713	3	-0.138	7
518		5	max	2.601	3	0.1	7	0.961	7	0.001	6	3.269	7	0.036	6
519			min	-1.399	5	-0.015	6	-0.73	3	-0.007	7	-3.12	3	-0.19	7
520	53	1	max	2.605	3	0.1	7	0.961	7	0.001	6	3.269	7	0.036	6
521			min	-1.402	5	-0.015	6	-0.714	3	-0.006	7	-3.12	3	-0.19	7
522		2	max	2.739	3	0.1	7	0.876	7	0.001	6	4.34	7	0.054	6
523			min	-1.386	5	-0.015	6	-0.491	3	-0.006	7	-3.822	3	-0.306	7
524		3	max	2.874	3	0.1	7	0.789	7	0.001	6	5.31	7	0.072	6
525			min	-1.371	5	-0.015	6	-0.269	3	-0.006	7	-4.265	3	-0.423	7
526		4	max	3.008	3	0.1	7	0.7	7	0.001	6	6.177	7	0.09	6
527			min	-1.355	5	-0.015	6	-0.223	6	-0.006	7	-4.449	3	-0.539	7
528		5	max	3.142	3	0.1	7	0.609	7	0.001	6	6.939	7	0.108	6
529			min	-1.339	5	-0.015	6	-0.256	6	-0.006	7	-4.373	3	-0.655	7
530	54	1	max	3.147	3	0.1	7	0.601	7	0.005	6	6.939	7	0.108	6
531			min	-1.341	5	-0.015	6	-0.237	6	-0.031	7	-4.373	3	-0.654	7
532		2	max	3.293	3	0.1	7	0.505	7	0.005	6	7.601	7	0.126	6
533			min	-1.324	5	-0.015	6	-0.256	6	-0.031	7	-4.173	3	-0.774	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
534		3	max	3.44	3	0.111	11	0.502	3	0.005	6	8.147	7	0.145	6
535			min	-1.307	5	-0.015	6	-0.271	6	-0.031	7	-3.707	3	-0.893	7
536		4	max	3.587	3	0.123	11	0.725	3	0.005	6	8.572	7	0.163	6
537			min	-1.29	5	-0.015	6	-0.282	6	-0.031	7	-2.973	3	-1.013	7
538		5	max	3.733	3	0.135	11	0.947	3	0.005	6	8.874	7	0.182	6
539			min	-1.273	5	-0.015	6	-0.314	5	-0.031	7	-2.374	8	-1.132	7
540	55	1	max	3.751	3	0.044	6	1.051	3	0.002	6	8.886	7	0.182	6
541			min	-1.249	5	-0.276	7	-0.303	5	-0.014	7	-2.374	8	-1.132	7
542		2	max	3.897	3	0.044	6	1.282	3	0.002	6	9.105	7	0.128	6
543			min	-1.232	5	-0.276	7	-0.373	5	-0.014	7	-2.173	8	-0.794	7
544		3	max	4.044	3	0.044	6	1.512	3	0.002	6	9.188	7	0.074	6
545			min	-1.215	5	-0.276	7	-0.439	5	-0.014	7	-2.025	10	-0.456	7
546		4	max	4.19	3	0.044	6	1.742	3	0.002	6	9.131	7	0.02	6
547			min	-1.198	5	-0.276	7	-0.502	5	-0.014	7	-2.299	6	-0.118	7
548		5	max	4.337	3	0.044	6	1.972	3	0.002	6	8.93	7	0.221	7
549			min	-1.181	5	-0.276	7	-0.562	5	-0.014	7	-2.599	6	-0.034	6
550	56	1	max	4.521	3	0.062	11	1.599	3	0.011	11	8.932	7	0.221	7
551			min	-1.312	5	-0.01	6	-0.426	5	-0.001	6	-2.6	6	-0.034	6
552		2	max	4.614	3	0.069	11	1.719	3	0.011	11	8.78	7	0.179	7
553			min	-1.301	5	-0.01	6	-0.458	5	-0.001	6	-2.727	6	-0.027	6
554		3	max	4.707	3	0.075	11	1.84	3	0.011	11	8.579	7	0.137	7
555			min	-1.291	5	-0.01	6	-0.488	5	-0.001	6	-2.846	6	-0.02	6
556		4	max	4.8	3	0.082	11	1.96	3	0.011	11	9.075	3	0.096	7
557			min	-1.28	5	-0.01	6	-0.515	5	-0.001	6	-2.952	6	-0.014	6
558		5	max	4.894	3	0.089	11	2.081	3	0.011	11	10.454	3	0.054	7
559			min	-1.269	5	-0.01	6	-0.54	5	-0.001	6	-3.043	6	-0.036	9
560	57	1	max	5.184	3	0.089	11	1.185	3	0.015	7	10.454	3	0.052	7
561			min	-1.344	5	-0.01	6	-0.441	7	-0.002	6	-3.043	6	-0.037	9
562		2	max	5.289	3	0.095	11	1.281	3	0.015	7	11.239	3	0.013	7
563			min	-1.332	5	-0.01	6	-0.512	7	-0.002	6	-3.085	6	-0.096	11
564		3	max	5.442	3	0.061	7	1.419	3	0.015	7	12.086	3	0.006	6
565			min	-1.332	5	-0.067	11	-0.584	7	-0.002	6	-3.118	6	-0.158	11
566		4	max	5.548	3	0.001	6	1.515	3	0.015	7	13.021	3	0.005	6
567			min	-1.32	5	-0.061	11	-0.599	7	-0.002	6	-3.053	6	-0.118	11
568		5	max	5.653	3	0.001	6	1.61	3	0.015	7	14.016	3	0.004	6
569			min	-1.307	5	-0.054	11	-0.673	7	-0.002	6	-2.966	6	-0.081	11
570	58	1	max	5.878	3	0.001	6	0.156	6	0.008	7	14.016	3	0.005	6
571			min	-1.347	5	-0.054	11	-0.53	7	-0.018	9	-2.966	6	-0.079	11
572		2	max	6.001	3	0.001	6	0.192	6	0.008	7	14.003	3	0.004	6
573			min	-1.333	5	-0.048	11	-0.603	7	-0.018	9	-2.859	6	-0.048	11
574		3	max	6.125	3	0.001	6	0.227	6	0.008	7	14.026	3	0.004	6
575			min	-1.319	5	-0.042	11	-0.672	7	-0.018	9	-2.73	6	-0.022	7
576		4	max	6.249	3	0.001	6	0.263	6	0.008	7	14.086	3	0.004	9
577			min	-1.304	5	-0.036	11	-0.736	7	-0.018	9	-2.578	6	-0.021	7
578		5	max	6.373	3	0.001	6	0.299	6	0.008	7	14.182	3	0.024	9
579			min	-1.29	5	-0.03	11	-0.795	7	-0.018	9	-2.405	6	-0.019	7
580	59	1	max	6.137	3	0.001	6	0.365	5	0.002	7	14.182	3	0.029	9
581			min	-1.237	5	-0.03	11	-1.726	3	-0.01	9	-2.405	6	-0.021	7
582		2	max	6.161	3	0.001	6	0.345	5	0.002	7	13.233	3	0.043	9
583			min	-1.223	5	-0.024	11	-1.722	3	-0.01	9	-2.255	6	-0.019	7
584		3	max	6.184	3	0.001	6	0.325	5	0.002	7	12.285	3	0.055	9
585			min	-1.209	5	-0.019	11	-1.719	3	-0.01	9	-2.089	6	-0.018	7
586		4	max	6.208	3	0.001	6	0.343	6	0.002	7	11.339	3	0.064	9
587			min	-1.195	5	-0.013	11	-1.715	3	-0.01	9	-1.907	6	-0.016	7
588		5	max	6.231	3	0.001	6	0.371	6	0.002	7	10.395	3	0.069	9

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
589			min	-1.181	5	-0.007	11	-1.712	3	-0.01	9	-1.71	6	-0.015	7
590	60	1	max	5.943	3	0	6	0.455	5	0	9	10.395	3	0.07	9
591			min	-1.111	5	-0.004	7	-2.599	3	0	5	-1.711	6	-0.015	7
592		2	max	5.986	3	0.007	9	0.416	5	0	9	7.796	3	0.068	9
593			min	-1.085	5	-0.004	7	-2.599	3	0	5	-1.354	6	-0.011	7
594		3	max	6.029	3	0.018	9	0.428	6	0	9	5.198	3	0.055	9
595			min	-1.059	5	-0.004	7	-2.599	3	0	5	-0.949	6	-0.007	7
596		4	max	6.072	3	0.028	9	0.475	6	0	9	2.599	3	0.033	9
597			min	-1.034	5	-0.004	7	-2.599	3	0	5	-0.498	6	-0.004	7
598		5	max	6.115	3	0.038	9	0.521	6	0	9	0	5	0	5
599			min	-1.008	5	-0.004	7	-2.599	3	0	5	0	9	0	9
600	61	1	max	0	11	0	11	1.802	7	0	11	0	11	0	11
601			min	0	1	0	1	0	1	0	1	0	1	0	1
602		2	max	-0.024	11	0	11	0.896	7	0	11	5.808	7	0.022	8
603			min	-0.044	8	-0.01	8	-0.022	6	0	1	0	1	0	1
604		3	max	-0.049	11	0	11	0	10	0	11	7.719	7	0.086	8
605			min	-0.089	8	-0.02	8	-0.06	5	0	1	-0.064	6	0	1
606		4	max	-0.073	11	0	11	0	10	0	11	5.732	7	0.194	10
607			min	-0.133	8	-0.03	8	-0.914	7	0	1	-0.234	6	0	1
608		5	max	-0.097	11	0	11	0.135	6	0	11	0.011	6	0.345	10
609			min	-0.178	8	-0.04	8	-1.82	7	0	1	-0.153	7	0	1
610	62	1	max	0	11	0	11	1.806	7	0	11	0	11	0	11
611			min	0	1	0	1	0	1	0	1	0	1	0	1
612		2	max	-0.024	11	0	11	0.899	7	0	11	5.822	7	0.022	10
613			min	-0.044	8	-0.01	8	-0.021	6	0	1	0	1	0	1
614		3	max	-0.049	11	0	11	0.001	11	0	11	7.741	7	0.086	10
615			min	-0.089	8	-0.02	8	-0.06	5	0	1	-0.051	6	0	1
616		4	max	-0.073	11	0	11	0	10	0	11	5.756	7	0.194	10
617			min	-0.133	8	-0.03	8	-0.914	7	0	1	-0.226	6	0	1
618		5	max	-0.097	11	0	11	0.131	6	0	11	0.025	11	0.345	10
619			min	-0.178	8	-0.04	8	-1.821	7	0	1	-0.131	7	0	1
620	Arch4	1	max	6.115	3	0.004	7	2.599	3	0	11	0	6	0	11
621			min	-2.439	6	-0.038	9	-0.874	7	0	6	0	1	0	6
622		2	max	6.072	3	0.004	7	2.599	3	0	11	2.599	3	0.033	9
623			min	-2.465	6	-0.028	9	-0.804	7	0	6	-0.839	7	-0.004	7
624		3	max	6.029	3	0.004	7	2.599	3	0	11	5.198	3	0.056	9
625			min	-2.491	6	-0.018	9	-0.735	7	0	6	-1.609	7	-0.008	7
626		4	max	5.986	3	0.004	7	2.599	3	0	11	7.796	3	0.069	9
627			min	-2.516	6	-0.008	9	-0.665	7	0	6	-2.309	7	-0.013	7
628		5	max	5.943	3	0.004	7	2.599	3	0	11	10.395	3	0.072	9
629			min	-2.542	6	0	6	-0.596	7	0	6	-2.94	7	-0.017	7
630	64	1	max	6.231	3	0.01	11	1.712	3	0.01	9	10.395	3	0.071	9
631			min	-2.599	6	0	1	-0.737	7	-0.002	7	-2.948	7	-0.017	7
632		2	max	6.208	3	0.016	11	1.715	3	0.01	9	11.339	3	0.064	9
633			min	-2.613	6	0	1	-0.697	7	-0.002	7	-3.343	7	-0.02	7
634		3	max	6.184	3	0.021	11	1.719	3	0.01	9	12.285	3	0.054	9
635			min	-2.627	6	0	1	-0.656	7	-0.002	7	-3.716	7	-0.023	7
636		4	max	6.161	3	0.027	11	1.722	3	0.01	9	13.233	3	0.041	9
637			min	-2.642	6	0	1	-0.615	7	-0.002	7	-4.066	7	-0.026	7
638		5	max	6.137	3	0.032	11	1.726	3	0.01	9	14.182	3	0.025	9
639			min	-2.656	6	0	1	-0.573	7	-0.002	7	-4.393	7	-0.029	7
640	65	1	max	6.373	3	0.032	11	0.702	6	0.017	9	14.182	3	0.02	9
641			min	-2.563	6	0	1	-0.805	7	-0.011	7	-4.393	7	-0.027	7
642		2	max	6.249	3	0.038	11	0.671	6	0.017	9	14.086	3	0	6
643			min	-2.577	6	0	1	-0.753	7	-0.011	7	-4.873	7	-0.03	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
644		3	max	6.125	3	0.045	11	0.625	6	0.017	9	14.026	3	0	8
645			min	-2.591	6	0	1	-0.701	7	-0.011	7	-5.32	7	-0.034	7
646		4	max	6.001	3	0.051	11	0.564	6	0.017	9	14.003	3	0	8
647			min	-2.606	6	0	1	-0.648	7	-0.011	7	-5.736	7	-0.057	11
648		5	max	5.878	3	0.057	11	0.487	6	0.017	9	14.016	3	0	8
649			min	-2.62	6	0	1	-0.595	7	-0.011	7	-6.119	7	-0.09	11
650	66	1	max	5.653	3	0.057	11	1.207	6	0	6	14.016	3	0	8
651			min	-2.376	6	0	1	-1.641	2	-0.022	7	-6.119	7	-0.091	11
652		2	max	5.548	3	0.063	11	1.123	6	0	6	13.021	3	0	8
653			min	-2.388	6	0	1	-1.545	2	-0.022	7	-6.571	7	-0.129	11
654		3	max	5.442	3	0.07	11	1.103	6	0	6	12.086	3	0	8
655			min	-2.506	6	-0.023	5	-1.45	2	-0.022	7	-6.992	7	-0.172	11
656		4	max	5.289	3	0	8	1.012	6	0	6	11.239	3	0.001	6
657			min	-2.518	6	-0.088	11	-1.311	2	-0.022	7	-7.145	7	-0.114	11
658		5	max	5.184	3	0	8	0.918	6	0	6	10.454	3	0.015	5
659			min	-2.531	6	-0.082	11	-1.216	2	-0.022	7	-7.266	7	-0.06	9
660	67	1	max	4.894	3	0	8	1.35	6	0.001	6	10.454	3	0.016	7
661			min	-2.329	6	-0.082	11	-2.081	3	-0.02	7	-7.266	7	-0.058	9
662		2	max	4.8	3	0	8	1.247	6	0.001	6	9.075	3	0.046	7
663			min	-2.34	6	-0.075	11	-1.96	3	-0.02	7	-7.326	7	-0.005	9
664		3	max	4.707	3	0	8	1.141	6	0.001	6	7.778	3	0.076	7
665			min	-2.351	6	-0.068	11	-1.84	3	-0.02	7	-7.355	7	0	10
666		4	max	4.614	3	0	8	1.032	6	0.001	6	6.563	3	0.106	7
667			min	-2.362	6	-0.061	11	-1.719	3	-0.02	7	-7.354	7	0	10
668		5	max	4.521	3	0	8	0.919	6	0.001	6	5.43	3	0.136	7
669			min	-2.372	6	-0.054	11	-1.599	3	-0.02	7	-7.328	7	0	10
670	68	1	max	4.337	3	0.267	7	1.152	6	0.003	5	5.43	3	0.137	7
671			min	-2.306	6	0	10	-1.972	3	-0.008	11	-7.325	7	0	10
672		2	max	4.19	3	0.267	7	0.947	6	0.003	5	6.262	6	0.007	6
673			min	-2.323	6	0	10	-1.742	3	-0.008	11	-7.106	7	-0.19	7
674		3	max	4.044	3	0.267	7	0.741	6	0.003	5	7.295	6	0	10
675			min	-2.34	6	0	10	-1.512	3	-0.008	11	-6.815	7	-0.517	7
676		4	max	3.897	3	0.267	7	0.534	6	0.003	5	8.076	6	0	10
677			min	-2.356	6	0	10	-1.282	3	-0.008	11	-6.457	7	-0.844	7
678		5	max	3.751	3	0.267	7	0.364	7	0.003	5	8.602	6	0	10
679			min	-2.373	6	0	10	-1.051	3	-0.008	11	-6.66	2	-1.171	7
680	69	1	max	3.733	3	0	10	0.376	7	0.01	7	8.607	6	0	10
681			min	-2.423	6	-0.134	11	-0.947	3	0	10	-6.66	2	-1.171	7
682		2	max	3.587	3	0	10	0.417	7	0.01	7	8.869	6	0	10
683			min	-2.439	6	-0.122	11	-0.725	3	0	10	-7.253	2	-1.05	7
684		3	max	3.44	3	0	10	0.455	7	0.01	7	8.886	6	0	10
685			min	-2.456	6	-0.11	11	-0.502	3	0	10	-7.579	2	-0.929	7
686		4	max	3.293	3	0	10	0.49	7	0.01	7	8.658	6	0	8
687			min	-2.473	6	-0.101	7	-0.293	6	0	10	-7.638	2	-0.808	7
688		5	max	3.147	3	0	10	0.52	7	0.01	7	8.185	6	0	8
689			min	-2.49	6	-0.101	7	-0.498	6	0	10	-7.43	2	-0.687	7
690	70	1	max	3.142	3	0	10	0.571	7	0.002	6	8.185	6	0	8
691			min	-2.508	6	-0.101	7	-0.403	6	-0.016	7	-7.43	2	-0.687	7
692		2	max	3.008	3	0	10	0.587	7	0.002	6	7.6	6	0	8
693			min	-2.523	6	-0.101	7	-0.602	6	-0.016	7	-7.044	2	-0.57	7
694		3	max	2.874	3	0	10	0.664	2	0.002	6	6.781	6	0	8
695			min	-2.539	6	-0.101	7	-0.803	6	-0.016	7	-6.4	2	-0.452	7
696		4	max	2.739	3	0	10	0.887	2	0.002	6	5.729	6	0	8
697			min	-2.554	6	-0.101	7	-1.003	6	-0.016	7	-5.496	2	-0.334	7
698		5	max	2.605	3	0	10	1.109	2	0.002	6	4.442	6	0	8

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
699			min	-2.57	6	-0.101	7	-1.205	6	-0.016	7	-4.333	2	-0.216	7
700	71	1	max	2.601	3	0	10	1.116	2	0.002	6	4.442	6	0	8
701			min	-2.562	6	-0.101	7	-1.22	6	-0.015	7	-4.333	2	-0.216	7
702		2	max	2.54	3	0	10	1.216	2	0.002	6	3.782	6	0	8
703			min	-2.569	6	-0.101	7	-1.31	6	-0.015	7	-3.724	2	-0.163	7
704		3	max	2.479	3	0	10	1.315	2	0.002	6	3.075	6	0	8
705			min	-2.576	6	-0.101	7	-1.401	6	-0.015	7	-3.064	2	-0.111	7
706		4	max	2.418	3	0	10	1.414	2	0.002	6	2.32	6	0	8
707			min	-2.583	6	-0.101	7	-1.491	6	-0.015	7	-2.352	2	-0.058	7
708		5	max	2.357	3	0	10	1.513	2	0.002	6	1.519	6	0	8
709			min	-2.59	6	-0.101	7	-1.581	6	-0.015	7	-1.588	2	-0.007	5
710	72	1	max	2.354	3	0	8	1.539	2	0.002	6	1.538	6	0	8
711			min	-2.64	6	-0.011	11	-1.498	6	-0.015	7	-1.588	2	-0.007	5
712		2	max	2.327	3	0	8	1.586	2	0.002	6	1.169	6	0	8
713			min	-2.643	6	-0.009	11	-1.54	6	-0.015	7	-1.208	2	-0.005	5
714		3	max	2.299	3	0	8	1.633	2	0.002	6	0.789	6	0	8
715			min	-2.646	6	-0.007	5	-1.582	6	-0.015	7	-0.817	2	-0.004	5
716		4	max	2.272	3	0	8	1.68	2	0.002	6	0.4	6	0	8
717			min	-2.649	6	-0.007	5	-1.624	6	-0.015	7	-0.414	2	-0.002	5
718		5	max	2.245	3	0	8	1.727	2	0.002	6	0	11	0	11
719			min	-2.652	6	-0.007	5	-1.666	6	-0.015	7	0	1	0	1
720	73	1	max	2.245	3	0	8	1.489	6	0.001	6	0	11	0.013	7
721			min	-2.755	6	-0.007	5	-1.309	3	-0.007	7	0	1	-0.002	6
722		2	max	2.272	3	0.001	9	1.451	6	0.001	6	0.357	6	0.014	7
723			min	-2.752	6	-0.007	5	-1.263	3	-0.007	7	-0.313	3	-0.001	6
724		3	max	2.299	3	0.004	9	1.413	6	0.001	6	0.705	6	0.016	7
725			min	-2.749	6	-0.007	5	-1.216	3	-0.007	7	-0.614	3	0	6
726		4	max	2.327	3	0.006	9	1.374	6	0.001	6	1.044	6	0.017	7
727			min	-2.746	6	-0.007	5	-1.169	3	-0.007	7	-0.904	3	0	1
728		5	max	2.354	3	0.009	9	1.346	7	0.001	6	1.374	6	0.018	7
729			min	-2.743	6	-0.007	5	-1.122	3	-0.007	7	-1.182	3	0	1
730	74	1	max	2.357	3	0.099	7	1.422	6	0.001	6	1.353	6	0.018	7
731			min	-2.697	6	-0.016	6	-1.127	3	-0.007	7	-1.182	3	0	1
732		2	max	2.418	3	0.099	7	1.345	7	0.001	6	2.074	6	0.01	6
733			min	-2.69	6	-0.016	6	-1.027	3	-0.007	7	-1.744	3	-0.033	7
734		3	max	2.479	3	0.099	7	1.308	7	0.001	6	2.751	6	0.018	6
735			min	-2.683	6	-0.016	6	-0.928	3	-0.007	7	-2.254	3	-0.085	7
736		4	max	2.54	3	0.099	7	1.271	7	0.001	6	3.399	7	0.026	6
737			min	-2.676	6	-0.016	6	-0.829	3	-0.007	7	-2.713	3	-0.137	7
738		5	max	2.601	3	0.099	7	1.233	7	0.001	6	4.052	7	0.035	6
739			min	-2.669	6	-0.016	6	-0.73	3	-0.007	7	-3.12	3	-0.189	7
740	75	1	max	2.605	3	0.099	7	1.231	7	0.001	6	4.052	7	0.035	6
741			min	-2.675	6	-0.016	6	-0.714	3	-0.006	7	-3.12	3	-0.189	7
742		2	max	2.739	3	0.099	7	1.146	7	0.001	6	5.437	7	0.054	6
743			min	-2.66	6	-0.016	6	-0.491	3	-0.006	7	-3.822	3	-0.305	7
744		3	max	2.874	3	0.099	7	1.058	7	0.001	6	6.721	7	0.072	6
745			min	-2.644	6	-0.016	6	-0.269	3	-0.006	7	-4.265	3	-0.42	7
746		4	max	3.008	3	0.099	7	0.969	7	0.001	6	7.903	7	0.091	6
747			min	-2.629	6	-0.016	6	-0.164	8	-0.006	7	-4.449	3	-0.536	7
748		5	max	3.142	3	0.099	7	0.878	7	0.001	6	8.979	7	0.11	6
749			min	-2.613	6	-0.016	6	-0.137	5	-0.006	7	-4.373	3	-0.651	7
750	76	1	max	3.147	3	0.099	7	0.888	7	0.005	6	8.979	7	0.11	6
751			min	-2.598	6	-0.016	6	-0.137	10	-0.031	7	-4.373	3	-0.651	7
752		2	max	3.293	3	0.099	7	0.792	7	0.005	6	9.985	7	0.129	6
753			min	-2.581	6	-0.016	6	-0.18	5	-0.031	7	-4.173	3	-0.77	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
754		3	max	3.44	3	0.11	11	0.693	7	0.005	6	10.873	7	0.148	6
755			min	-2.564	6	-0.016	6	-0.293	5	-0.031	7	-3.707	3	-0.888	7
756		4	max	3.587	3	0.122	11	0.725	3	0.005	6	11.641	7	0.167	6
757			min	-2.547	6	-0.016	6	-0.402	5	-0.031	7	-2.973	3	-1.007	7
758		5	max	3.733	3	0.134	11	0.947	3	0.005	6	12.286	7	0.187	6
759			min	-2.53	6	-0.016	6	-0.508	5	-0.031	7	-2.374	8	-1.126	7
760	77	1	max	3.751	3	0.046	6	1.051	3	0.002	6	12.274	7	0.187	6
761			min	-2.507	6	-0.269	7	-0.505	5	-0.014	7	-2.374	8	-1.126	7
762		2	max	3.897	3	0.046	6	1.282	3	0.002	6	12.836	7	0.13	6
763			min	-2.49	6	-0.269	7	-0.61	5	-0.014	7	-2.173	8	-0.797	7
764		3	max	4.044	3	0.046	6	1.512	3	0.002	6	13.263	7	0.074	6
765			min	-2.473	6	-0.269	7	-0.712	5	-0.014	7	-2.025	10	-0.468	7
766		4	max	4.19	3	0.046	6	1.742	3	0.002	6	13.549	7	0.018	6
767			min	-2.456	6	-0.269	7	-0.883	6	-0.014	7	-1.898	10	-0.139	7
768		5	max	4.337	3	0.046	6	1.972	3	0.002	6	13.691	7	0.19	7
769			min	-2.439	6	-0.269	7	-1.071	6	-0.014	7	-2.132	5	-0.039	6
770	78	1	max	4.521	3	0.062	11	1.599	3	0.011	11	13.689	7	0.191	7
771			min	-2.581	6	-0.011	6	-0.82	6	-0.001	6	-2.129	5	-0.039	6
772		2	max	4.614	3	0.069	11	1.719	3	0.011	11	13.697	7	0.155	7
773			min	-2.571	6	-0.011	6	-0.925	6	-0.001	6	-2.643	5	-0.031	6
774		3	max	4.707	3	0.075	11	1.84	3	0.011	11	13.657	7	0.119	7
775			min	-2.56	6	-0.011	6	-1.026	6	-0.001	6	-3.187	5	-0.024	6
776		4	max	4.8	3	0.082	11	1.96	3	0.011	11	13.569	7	0.083	7
777			min	-2.549	6	-0.011	6	-1.124	6	-0.001	6	-3.754	5	-0.017	6
778		5	max	4.894	3	0.089	11	2.081	3	0.011	11	13.432	7	0.047	7
779			min	-2.538	6	-0.011	6	-1.22	6	-0.001	6	-4.336	5	-0.04	9
780	79	1	max	5.184	3	0.089	11	1.185	3	0.011	7	13.432	7	0.045	7
781			min	-2.714	6	-0.011	6	-0.753	6	-0.003	6	-4.336	5	-0.041	9
782		2	max	5.289	3	0.095	11	1.281	3	0.011	7	13.168	7	0.012	7
783			min	-2.701	6	-0.011	6	-0.842	6	-0.003	6	-4.681	5	-0.1	11
784		3	max	5.442	3	0.053	7	1.419	3	0.011	7	12.863	7	0.004	6
785			min	-2.689	6	-0.069	11	-0.928	6	-0.003	6	-5.03	5	-0.162	11
786		4	max	5.548	3	0	6	1.515	3	0.011	7	13.021	3	0.004	6
787			min	-2.608	6	-0.062	11	-0.947	6	-0.003	6	-5.246	5	-0.121	11
788		5	max	5.653	3	0	6	1.61	3	0.011	7	14.016	3	0.004	6
789			min	-2.596	6	-0.056	11	-1.029	6	-0.003	6	-5.456	5	-0.083	11
790	80	1	max	5.878	3	0	6	0.153	10	0.006	7	14.016	3	0.005	6
791			min	-2.781	6	-0.056	11	-0.723	7	-0.02	9	-5.456	5	-0.081	11
792		2	max	6.001	3	0	6	0.167	8	0.006	7	14.003	3	0.004	6
793			min	-2.767	6	-0.05	11	-0.797	7	-0.02	9	-5.375	5	-0.048	11
794		3	max	6.125	3	0	6	0.185	8	0.006	7	14.026	3	0.004	6
795			min	-2.752	6	-0.043	11	-0.866	7	-0.02	9	-5.282	5	-0.02	11
796		4	max	6.249	3	0	6	0.202	8	0.006	7	14.086	3	0.005	9
797			min	-2.738	6	-0.037	11	-0.93	7	-0.02	9	-5.178	5	-0.015	7
798		5	max	6.373	3	0	6	0.22	8	0.006	7	14.182	3	0.026	9
799			min	-2.724	6	-0.031	11	-0.989	7	-0.02	9	-5.063	5	-0.014	7
800	81	1	max	6.137	3	0	6	0.632	5	0.001	7	14.182	3	0.031	9
801			min	-2.759	6	-0.031	11	-1.726	3	-0.011	9	-5.063	5	-0.015	7
802		2	max	6.161	3	0	6	0.645	5	0.001	7	13.233	3	0.047	9
803			min	-2.745	6	-0.026	11	-1.722	3	-0.011	9	-4.711	5	-0.013	7
804		3	max	6.184	3	0	6	0.657	5	0.001	7	12.285	3	0.059	9
805			min	-2.731	6	-0.02	11	-1.719	3	-0.011	9	-4.353	5	-0.012	7
806		4	max	6.208	3	0	6	0.67	5	0.001	7	11.339	3	0.069	9
807			min	-2.717	6	-0.015	11	-1.715	3	-0.011	9	-3.987	5	-0.01	7
808		5	max	6.231	3	0	6	0.682	5	0.001	7	10.395	3	0.075	9

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
809			min	-2.703	6	-0.009	11	-1.712	3	-0.011	9	-3.615	5	-0.008	7
810	82	1	max	5.943	3	0.002	5	0.864	5	0	5	10.395	3	0.076	9
811			min	-2.642	6	-0.002	7	-2.599	3	0	1	-3.608	5	-0.008	7
812		2	max	5.986	3	0.009	9	0.883	5	0	5	7.796	3	0.072	9
813			min	-2.616	6	-0.002	7	-2.599	3	0	1	-2.735	5	-0.006	7
814		3	max	6.029	3	0.019	9	0.902	5	0	5	5.198	3	0.058	9
815			min	-2.59	6	-0.002	7	-2.599	3	0	1	-1.842	5	-0.004	7
816		4	max	6.072	3	0.029	9	0.921	5	0	5	2.599	3	0.034	9
817			min	-2.564	6	-0.002	7	-2.599	3	0	1	-0.93	5	-0.002	7
818		5	max	6.115	3	0.039	9	0.94	5	0	5	0	5	0	11
819			min	-2.539	6	-0.002	7	-2.599	3	0	1	0	1	0	5
820	Arch5	1	max	6.115	3	0.006	7	2.598	3	0	7	0	7	0	7
821			min	-2.236	6	-0.036	9	-1.901	7	0	5	0	5	0	5
822		2	max	6.072	3	0.006	7	2.598	3	0	7	2.598	3	0.031	9
823			min	-2.262	6	-0.026	9	-1.83	7	0	5	-1.866	7	-0.006	7
824		3	max	6.029	3	0.006	7	2.598	3	0	7	5.197	3	0.053	9
825			min	-2.288	6	-0.016	9	-1.76	7	0	5	-3.661	7	-0.012	7
826		4	max	5.986	3	0.006	7	2.598	3	0	7	7.795	3	0.064	9
827			min	-2.314	6	-0.006	9	-1.689	7	0	5	-5.385	7	-0.018	7
828		5	max	5.943	3	0.006	7	2.598	3	0	7	10.394	3	0.065	9
829			min	-2.339	6	0	1	-1.618	7	0	5	-7.038	7	-0.024	7
830	84	1	max	6.231	3	0.008	11	1.712	3	0.009	9	10.394	3	0.065	9
831			min	-2.364	6	-0.001	6	-1.492	7	-0.003	7	-7.029	7	-0.023	7
832		2	max	6.208	3	0.014	11	1.715	3	0.009	9	11.337	3	0.059	9
833			min	-2.378	6	-0.001	6	-1.451	7	-0.003	7	-7.84	7	-0.026	7
834		3	max	6.184	3	0.019	11	1.718	3	0.009	9	12.283	3	0.05	9
835			min	-2.392	6	-0.001	6	-1.41	7	-0.003	7	-8.628	7	-0.028	7
836		4	max	6.161	3	0.025	11	1.722	3	0.009	9	13.23	3	0.038	9
837			min	-2.407	6	-0.001	6	-1.37	7	-0.003	7	-9.394	7	-0.031	7
838		5	max	6.137	3	0.03	11	1.725	3	0.009	9	14.18	3	0.022	9
839			min	-2.421	6	-0.001	6	-1.329	7	-0.003	7	-10.137	7	-0.033	7
840	85	1	max	6.373	3	0.03	11	0.643	6	0.016	9	14.18	3	0.019	9
841			min	-2.335	6	-0.001	6	-0.961	7	-0.013	7	-10.137	7	-0.031	7
842		2	max	6.249	3	0.036	11	0.585	6	0.016	9	14.083	3	0	6
843			min	-2.35	6	-0.001	6	-0.912	7	-0.013	7	-10.714	7	-0.034	7
844		3	max	6.125	3	0.043	11	0.524	6	0.016	9	14.023	3	0.001	6
845			min	-2.364	6	-0.001	6	-0.863	7	-0.013	7	-11.261	7	-0.037	7
846		4	max	6.001	3	0.049	11	0.459	6	0.016	9	14	3	0.001	6
847			min	-2.378	6	-0.001	6	-0.813	7	-0.013	7	-11.777	7	-0.055	11
848		5	max	5.878	3	0.055	11	0.39	6	0.016	9	14.013	3	0.001	6
849			min	-2.393	6	-0.001	6	-0.765	7	-0.013	7	-12.263	7	-0.087	11
850	86	1	max	5.653	3	0.055	11	1.05	6	0	6	14.013	3	0.001	6
851			min	-2.185	6	-0.001	6	-1.641	2	-0.025	7	-12.263	7	-0.087	11
852		2	max	5.547	3	0.061	11	0.98	6	0	6	13.017	3	0.002	6
853			min	-2.197	6	-0.001	6	-1.545	2	-0.025	7	-12.455	7	-0.124	11
854		3	max	5.442	3	0.068	11	0.965	6	0	6	12.084	3	0.002	6
855			min	-2.281	6	-0.025	5	-1.45	2	-0.025	7	-12.615	7	-0.165	11
856		4	max	5.289	3	0	8	0.886	6	0	6	11.237	3	0.004	6
857			min	-2.293	6	-0.086	11	-1.311	2	-0.024	7	-12.68	7	-0.109	11
858		5	max	5.183	3	0	8	0.804	6	0	6	10.451	3	0.018	7
859			min	-2.306	6	-0.08	11	-1.216	2	-0.024	7	-12.729	7	-0.056	9
860	87	1	max	4.893	3	0	8	1.198	6	0.001	6	10.451	3	0.022	7
861			min	-2.128	6	-0.08	11	-2.081	3	-0.021	7	-12.729	7	-0.054	9
862		2	max	4.8	3	0	8	1.108	6	0.001	6	9.072	3	0.055	7
863			min	-2.139	6	-0.073	11	-1.96	3	-0.021	7	-12.577	7	-0.002	9

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
864		3	max	4.707	3	0	8	1.013	6	0.001	6	7.775	3	0.087	7
865			min	-2.149	6	-0.066	11	-1.84	3	-0.021	7	-12.397	7	0	1
866		4	max	4.614	3	0	8	0.913	6	0.001	6	6.56	3	0.12	7
867			min	-2.16	6	-0.059	11	-1.72	3	-0.021	7	-12.192	7	0	1
868		5	max	4.521	3	0	8	0.809	6	0.001	6	6.172	6	0.152	7
869			min	-2.171	6	-0.052	11	-1.599	3	-0.021	7	-11.964	7	0	1
870	88	1	max	4.337	3	0.273	7	1.022	6	0.003	5	6.172	6	0.154	7
871			min	-2.075	6	0	1	-1.973	3	-0.008	11	-11.967	7	0	1
872		2	max	4.19	3	0.273	7	0.831	6	0.003	5	7.306	6	0.004	6
873			min	-2.092	6	0	1	-1.742	3	-0.008	11	-11.324	7	-0.18	7
874		3	max	4.043	3	0.273	7	0.638	6	0.003	5	8.206	6	0	8
875			min	-2.109	6	0	1	-1.512	3	-0.008	11	-10.624	7	-0.514	7
876		4	max	3.897	3	0.273	7	0.635	7	0.003	5	8.867	6	0	8
877			min	-2.126	6	0	1	-1.282	3	-0.008	11	-9.872	7	-0.847	7
878		5	max	3.75	3	0.273	7	0.671	7	0.003	5	9.287	6	0	8
879			min	-2.143	6	0	1	-1.052	3	-0.008	11	-9.072	7	-1.181	7
880	89	1	max	3.733	3	0	8	0.686	7	0.01	7	9.29	6	0	8
881			min	-2.166	6	-0.134	11	-0.948	3	0	10	-9.082	7	-1.181	7
882		2	max	3.586	3	0	8	0.716	7	0.01	7	9.463	6	0	8
883			min	-2.183	6	-0.122	11	-0.725	3	0	10	-8.242	7	-1.059	7
884		3	max	3.44	3	0	8	0.742	7	0.01	7	9.402	6	0	8
885			min	-2.199	6	-0.11	11	-0.502	3	0	10	-7.574	2	-0.937	7
886		4	max	3.293	3	0	8	0.763	7	0.01	7	9.102	6	0	8
887			min	-2.216	6	-0.102	7	-0.35	6	0	10	-7.633	2	-0.815	7
888		5	max	3.146	3	0	8	0.779	7	0.01	7	8.564	6	0	8
889			min	-2.233	6	-0.102	7	-0.551	6	0	10	-7.425	2	-0.692	7
890	90	1	max	3.142	3	0	8	0.82	7	0.002	6	8.564	6	0	8
891			min	-2.253	6	-0.102	7	-0.465	6	-0.016	7	-7.425	2	-0.692	7
892		2	max	3.008	3	0	8	0.823	7	0.002	6	7.908	6	0	8
893			min	-2.268	6	-0.102	7	-0.661	6	-0.016	7	-7.04	2	-0.573	7
894		3	max	2.873	3	0	8	0.805	7	0.002	6	7.023	6	0	8
895			min	-2.284	6	-0.102	7	-0.857	6	-0.016	7	-6.395	2	-0.454	7
896		4	max	2.739	3	0	8	0.887	2	0.002	6	5.91	6	0	8
897			min	-2.299	6	-0.102	7	-1.053	6	-0.016	7	-5.492	2	-0.336	7
898		5	max	2.605	3	0	8	1.109	2	0.002	6	4.568	6	0	8
899			min	-2.315	6	-0.102	7	-1.249	6	-0.016	7	-4.329	2	-0.217	7
900	91	1	max	2.6	3	0	8	1.116	2	0.002	6	4.568	6	0	8
901			min	-2.307	6	-0.102	7	-1.263	6	-0.015	7	-4.329	2	-0.217	7
902		2	max	2.539	3	0	8	1.216	2	0.002	6	3.886	6	0	8
903			min	-2.314	6	-0.102	7	-1.351	6	-0.015	7	-3.72	2	-0.163	7
904		3	max	2.479	3	0	8	1.315	2	0.002	6	3.158	6	0	8
905			min	-2.321	6	-0.102	7	-1.439	6	-0.015	7	-3.06	2	-0.11	7
906		4	max	2.418	3	0	8	1.414	2	0.002	6	2.384	6	0	8
907			min	-2.328	6	-0.102	7	-1.527	6	-0.015	7	-2.348	2	-0.057	7
908		5	max	2.357	3	0	8	1.513	2	0.002	6	1.565	6	0	8
909			min	-2.335	6	-0.102	7	-1.615	6	-0.015	7	-1.584	2	-0.005	5
910	92	1	max	2.354	3	0	8	1.539	2	0.002	6	1.574	6	0	8
911			min	-2.386	6	-0.01	11	-1.537	6	-0.015	7	-1.588	2	-0.005	5
912		2	max	2.326	3	0	8	1.586	2	0.002	6	1.195	6	0	8
913			min	-2.389	6	-0.008	11	-1.578	6	-0.015	7	-1.208	2	-0.004	5
914		3	max	2.299	3	0	8	1.633	2	0.002	6	0.807	6	0	8
915			min	-2.392	6	-0.005	5	-1.618	6	-0.015	7	-0.817	2	-0.003	5
916		4	max	2.272	3	0	8	1.68	2	0.002	6	0.408	6	0	8
917			min	-2.395	6	-0.005	5	-1.659	6	-0.015	7	-0.414	2	-0.001	5
918		5	max	2.244	3	0	8	1.726	2	0.002	6	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
919			min	-2.398	6	-0.005	5	-1.7	6	-0.015	7	0	1	0	1
920	93	1	max	2.244	3	0	8	1.268	7	0.001	6	0	11	0.013	7
921			min	-2.66	6	-0.005	5	-1.309	3	-0.007	7	0	1	-0.002	6
922		2	max	2.272	3	0.002	9	1.247	7	0.001	6	0.306	7	0.014	7
923			min	-2.657	6	-0.005	5	-1.262	3	-0.007	7	-0.313	3	-0.001	6
924		3	max	2.299	3	0.005	9	1.226	7	0.001	6	0.606	7	0.015	7
925			min	-2.654	6	-0.005	5	-1.216	3	-0.007	7	-0.614	3	-0.001	6
926		4	max	2.326	3	0.007	9	1.205	7	0.001	6	0.902	7	0.015	7
927			min	-2.651	6	-0.005	5	-1.169	3	-0.007	7	-0.904	3	0	6
928		5	max	2.354	3	0.009	9	1.184	7	0.001	6	1.193	7	0.016	7
929			min	-2.648	6	-0.005	5	-1.122	3	-0.007	7	-1.182	3	0	1
930	94	1	max	2.357	3	0.1	7	1.213	7	0.001	6	1.198	7	0.016	7
931			min	-2.607	6	-0.016	6	-1.126	3	-0.007	7	-1.184	3	0	1
932		2	max	2.418	3	0.1	7	1.168	7	0.001	6	1.82	7	0.009	6
933			min	-2.6	6	-0.016	6	-1.027	3	-0.007	7	-1.745	3	-0.036	7
934		3	max	2.479	3	0.1	7	1.123	7	0.001	6	2.418	7	0.017	6
935			min	-2.593	6	-0.016	6	-0.928	3	-0.007	7	-2.256	3	-0.088	7
936		4	max	2.539	3	0.1	7	1.078	7	0.001	6	2.992	7	0.026	6
937			min	-2.586	6	-0.016	6	-0.829	3	-0.007	7	-2.714	3	-0.14	7
938		5	max	2.6	3	0.1	7	1.033	7	0.001	6	3.543	7	0.034	6
939			min	-2.579	6	-0.016	6	-0.729	3	-0.007	7	-3.12	3	-0.192	7
940	95	1	max	2.605	3	0.1	7	1.033	7	0.001	6	3.543	7	0.034	6
941			min	-2.584	6	-0.016	6	-0.714	3	-0.006	7	-3.12	3	-0.192	7
942		2	max	2.739	3	0.1	7	0.932	7	0.001	6	4.688	7	0.053	6
943			min	-2.568	6	-0.016	6	-0.491	3	-0.006	7	-3.822	3	-0.309	7
944		3	max	2.873	3	0.1	7	0.83	7	0.001	6	5.714	7	0.072	6
945			min	-2.553	6	-0.016	6	-0.269	3	-0.006	7	-4.265	3	-0.425	7
946		4	max	3.008	3	0.1	7	0.727	7	0.001	6	6.622	7	0.091	6
947			min	-2.537	6	-0.016	6	-0.335	5	-0.006	7	-4.449	3	-0.542	7
948		5	max	3.142	3	0.1	7	0.623	7	0.001	6	7.409	7	0.11	6
949			min	-2.522	6	-0.016	6	-0.398	5	-0.006	7	-4.373	3	-0.658	7
950	96	1	max	3.146	3	0.1	7	0.621	7	0.005	6	7.409	7	0.11	6
951			min	-2.509	6	-0.016	6	-0.327	5	-0.031	7	-4.373	3	-0.657	7
952		2	max	3.293	3	0.1	7	0.513	7	0.005	6	8.087	7	0.129	6
953			min	-2.492	6	-0.016	6	-0.379	5	-0.031	7	-4.173	3	-0.777	7
954		3	max	3.44	3	0.11	11	0.502	3	0.005	6	8.635	7	0.148	6
955			min	-2.475	6	-0.016	6	-0.427	5	-0.031	7	-3.706	3	-0.897	7
956		4	max	3.586	3	0.122	11	0.725	3	0.005	6	9.048	7	0.168	6
957			min	-2.458	6	-0.016	6	-0.473	5	-0.031	7	-2.972	3	-1.016	7
958		5	max	3.733	3	0.134	11	0.948	3	0.005	6	9.324	7	0.187	6
959			min	-2.441	6	-0.016	6	-0.515	5	-0.031	7	-2.519	5	-1.136	7
960	97	1	max	3.75	3	0.046	6	1.052	3	0.002	6	9.332	7	0.187	6
961			min	-2.349	6	-0.275	7	-0.512	5	-0.014	7	-2.517	5	-1.136	7
962		2	max	3.897	3	0.046	6	1.282	3	0.002	6	9.51	7	0.131	6
963			min	-2.333	6	-0.275	7	-0.552	5	-0.014	7	-3.169	5	-0.8	7
964		3	max	4.043	3	0.046	6	1.512	3	0.002	6	9.538	7	0.074	6
965			min	-2.316	6	-0.275	7	-0.589	5	-0.014	7	-3.867	5	-0.463	7
966		4	max	4.19	3	0.046	6	1.742	3	0.002	6	9.415	7	0.017	6
967			min	-2.299	6	-0.275	7	-0.704	6	-0.014	7	-4.61	5	-0.126	7
968		5	max	4.337	3	0.046	6	1.973	3	0.002	6	9.138	7	0.21	7
969			min	-2.282	6	-0.275	7	-0.868	6	-0.014	7	-5.393	5	-0.039	6
970	98	1	max	4.521	3	0.06	11	1.599	3	0.011	11	9.14	7	0.211	7
971			min	-2.312	6	-0.011	6	-0.638	6	-0.002	5	-5.396	5	-0.039	6
972		2	max	4.614	3	0.067	11	1.72	3	0.011	11	8.951	7	0.171	7
973			min	-2.301	6	-0.011	6	-0.731	6	-0.002	5	-5.73	5	-0.032	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
974		3	max	4.707	3	0.074	11	1.84	3	0.011	11	8.712	7	0.131	7
975			min	-2.29	6	-0.011	6	-0.823	6	-0.002	5	-6.073	5	-0.024	6
976		4	max	4.8	3	0.08	11	1.96	3	0.011	11	9.072	3	0.092	7
977			min	-2.279	6	-0.011	6	-0.915	6	-0.002	5	-6.422	5	-0.016	6
978		5	max	4.893	3	0.087	11	2.081	3	0.011	11	10.451	3	0.052	7
979			min	-2.269	6	-0.011	6	-1.007	6	-0.002	5	-6.774	5	-0.036	9
980	99	1	max	5.183	3	0.087	11	1.186	3	0.014	7	10.451	3	0.05	7
981			min	-2.41	6	-0.011	6	-0.591	6	-0.003	6	-6.774	5	-0.037	9
982		2	max	5.289	3	0.094	11	1.281	3	0.014	7	11.237	3	0.013	7
983			min	-2.398	6	-0.011	6	-0.678	6	-0.003	6	-6.913	5	-0.095	11
984		3	max	5.442	3	0.058	7	1.42	3	0.014	7	12.084	3	0.01	5
985			min	-2.386	6	-0.067	11	-0.764	6	-0.003	6	-7.053	5	-0.156	11
986		4	max	5.547	3	0.002	5	1.515	3	0.014	7	13.017	3	0.009	5
987			min	-2.259	6	-0.06	11	-0.777	6	-0.003	6	-7.091	5	-0.116	11
988		5	max	5.653	3	0.002	5	1.61	3	0.014	7	14.013	3	0.008	5
989			min	-2.247	6	-0.054	11	-0.862	6	-0.003	6	-7.123	5	-0.08	11
990	100	1	max	5.878	3	0.002	5	0.358	5	0.007	7	14.013	3	0.008	5
991			min	-2.399	6	-0.054	11	-0.512	7	-0.018	9	-7.123	5	-0.078	11
992		2	max	6.001	3	0.002	5	0.367	5	0.007	7	14	3	0.007	5
993			min	-2.385	6	-0.048	11	-0.588	7	-0.018	9	-6.899	5	-0.046	11
994		3	max	6.125	3	0.002	5	0.38	5	0.007	7	14.023	3	0.005	5
995			min	-2.37	6	-0.041	11	-0.661	7	-0.018	9	-6.669	5	-0.02	7
996		4	max	6.249	3	0.002	5	0.396	5	0.007	7	14.083	3	0.005	9
997			min	-2.356	6	-0.035	11	-0.731	7	-0.018	9	-6.43	5	-0.019	7
998		5	max	6.373	3	0.002	5	0.415	5	0.007	7	14.18	3	0.025	9
999			min	-2.342	6	-0.029	11	-0.799	7	-0.018	9	-6.181	5	-0.017	7
1000	101	1	max	6.137	3	0.002	5	0.789	5	0.002	7	14.18	3	0.029	9
1001			min	-2.381	6	-0.029	11	-1.725	3	-0.01	9	-6.181	5	-0.019	7
1002		2	max	6.161	3	0.002	5	0.804	5	0.002	7	13.23	3	0.044	9
1003			min	-2.367	6	-0.024	11	-1.722	3	-0.01	9	-5.742	5	-0.017	7
1004		3	max	6.184	3	0.002	5	0.822	5	0.002	7	12.283	3	0.055	9
1005			min	-2.353	6	-0.018	11	-1.718	3	-0.01	9	-5.294	5	-0.016	7
1006		4	max	6.208	3	0.002	5	0.843	5	0.002	7	11.337	3	0.064	9
1007			min	-2.339	6	-0.013	11	-1.715	3	-0.01	9	-4.836	5	-0.014	7
1008		5	max	6.231	3	0.002	5	0.866	5	0.002	7	10.394	3	0.069	9
1009			min	-2.325	6	-0.007	11	-1.712	3	-0.01	9	-4.365	5	-0.013	7
1010	102	1	max	5.943	3	0	6	1.013	5	0	9	10.394	3	0.07	9
1011			min	-2.28	6	-0.003	7	-2.598	3	0	5	-4.372	5	-0.013	7
1012		2	max	5.986	3	0.007	9	1.053	5	0	9	7.795	3	0.067	9
1013			min	-2.254	6	-0.003	7	-2.598	3	0	5	-3.339	5	-0.01	7
1014		3	max	6.029	3	0.017	9	1.093	5	0	9	5.197	3	0.055	9
1015			min	-2.228	6	-0.003	7	-2.598	3	0	5	-2.266	5	-0.007	7
1016		4	max	6.072	3	0.027	9	1.133	5	0	9	2.598	3	0.032	9
1017			min	-2.203	6	-0.003	7	-2.598	3	0	5	-1.153	5	-0.003	7
1018		5	max	6.115	3	0.037	9	1.173	5	0	9	0	5	0	5
1019			min	-2.177	6	-0.003	7	-2.598	3	0	5	0	9	0	9
1020	Arch6	1	max	3.174	3	0	10	1.35	3	0	11	0	11	0	11
1021			min	-0.995	4	-0.028	9	-0.685	7	0	1	0	1	0	1
1022		2	max	3.147	3	0	10	1.35	3	0	11	1.35	3	0.025	9
1023			min	-1.011	4	-0.022	9	-0.659	7	0	1	-0.672	7	0	10
1024		3	max	3.121	3	0	10	1.35	3	0	11	2.699	3	0.044	9
1025			min	-1.027	4	-0.016	9	-0.633	7	0	1	-1.318	7	0	10
1026		4	max	3.094	3	0	10	1.35	3	0	11	4.049	3	0.057	9
1027			min	-1.043	4	-0.01	9	-0.608	7	0	1	-1.938	7	0	10
1028		5	max	3.068	3	0	10	1.35	3	0	11	5.399	3	0.065	9

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1029			min	-1.059	4	-0.008	7	-0.582	7	0	1	-2.533	7	0	10
1030	104	1	max	3.231	3	0	10	0.89	3	0.009	9	5.399	3	0.064	9
1031			min	-1.068	4	-0.008	7	-0.549	7	0	10	-2.533	7	0	10
1032		2	max	3.217	3	0	10	0.892	3	0.009	9	5.889	3	0.065	9
1033			min	-1.076	4	-0.008	7	-0.533	7	0	10	-2.831	7	0	10
1034		3	max	3.203	3	0.002	11	0.894	3	0.009	9	6.381	3	0.065	9
1035			min	-1.085	4	-0.008	7	-0.518	7	0	10	-3.121	7	0	10
1036		4	max	3.188	3	0.005	11	0.896	3	0.009	9	6.874	3	0.063	9
1037			min	-1.094	4	-0.008	7	-0.502	7	0	10	-3.401	7	0	10
1038		5	max	3.174	3	0.009	11	0.898	3	0.009	9	7.368	3	0.059	9
1039			min	-1.102	4	-0.008	7	-0.486	7	0	10	-3.673	7	0	10
1040	105	1	max	3.297	3	0.009	11	0.606	5	0.027	9	7.368	3	0.054	9
1041			min	-1.086	4	-0.008	7	-0.372	7	0	10	-3.673	7	0	10
1042		2	max	3.232	3	0.012	11	0.566	5	0.027	9	7.322	3	0.049	7
1043			min	-1.095	4	-0.008	7	-0.351	7	0	10	-3.896	7	0	10
1044		3	max	3.168	3	0.016	11	0.524	5	0.027	9	7.295	3	0.054	7
1045			min	-1.104	4	-0.008	7	-0.329	7	0	10	-4.106	7	0	10
1046		4	max	3.103	3	0.02	11	0.48	5	0.027	9	7.287	3	0.059	7
1047			min	-1.113	4	-0.008	7	-0.307	7	0	10	-4.302	7	0	10
1048		5	max	3.039	3	0.023	11	0.434	5	0.027	9	7.298	3	0.063	7
1049			min	-1.122	4	-0.008	7	-0.285	7	0	10	-4.484	7	0	10
1050	106	1	max	2.924	3	0.023	11	0.588	5	0.036	7	7.298	3	0.056	7
1051			min	-1.056	4	-0.008	7	-0.841	2	0	10	-4.484	7	0	10
1052		2	max	2.869	3	0.027	11	0.542	5	0.036	7	6.787	3	0.061	7
1053			min	-1.064	4	-0.008	7	-0.791	2	0	10	-4.566	7	-0.01	11
1054		3	max	2.814	3	0.11	7	0.506	5	0.036	7	6.309	3	0.066	7
1055			min	-1.083	4	0	1	-0.742	2	0	10	-4.64	7	-0.029	11
1056		4	max	2.739	3	0.11	7	0.462	6	0.036	7	5.872	3	0.002	5
1057			min	-1.091	4	0	10	-0.674	2	0	10	-4.685	7	-0.057	11
1058		5	max	2.684	3	0.11	7	0.42	6	0.036	7	5.856	5	0.001	6
1059			min	-1.098	4	0	10	-0.624	2	0	10	-4.716	7	-0.088	11
1060	107	1	max	2.535	3	0.11	7	0.568	6	0.022	7	5.856	5	0	6
1061			min	-1.038	4	0	10	-1.072	3	0	10	-4.716	7	-0.092	11
1062		2	max	2.486	3	0.11	7	0.521	6	0.022	7	6.178	5	0	10
1063			min	-1.044	4	0	10	-1.009	3	0	10	-4.665	7	-0.154	7
1064		3	max	2.438	3	0.11	7	0.472	6	0.022	7	6.465	5	0	10
1065			min	-1.051	4	0	10	-0.947	3	0	10	-4.602	7	-0.229	7
1066		4	max	2.389	3	0.11	7	0.421	6	0.022	7	6.719	5	0	10
1067			min	-1.058	4	0	10	-0.884	3	0	10	-4.526	7	-0.304	7
1068		5	max	2.34	3	0.11	7	0.367	6	0.022	7	6.94	5	0	10
1069			min	-1.064	4	0	10	-0.821	3	0	10	-4.439	7	-0.379	7
1070	108	1	max	2.256	3	0.11	7	0.44	6	0.001	6	6.94	5	0	10
1071			min	-1.033	4	0	10	-1.03	3	-0.012	7	-4.439	7	-0.379	7
1072		2	max	2.18	3	0.11	7	0.342	6	0.001	6	7.298	5	0	10
1073			min	-1.044	4	0	10	-0.91	3	-0.012	7	-4.194	7	-0.513	7
1074		3	max	2.103	3	0.11	7	0.259	4	0.001	6	7.543	5	0	10
1075			min	-1.054	4	0	10	-0.79	3	-0.012	7	-3.922	7	-0.647	7
1076		4	max	2.026	3	0.11	7	0.25	7	0.001	6	7.671	5	0	10
1077			min	-1.065	4	0	10	-0.669	3	-0.012	7	-3.626	7	-0.781	7
1078		5	max	1.95	3	0.11	7	0.264	7	0.001	6	7.677	5	0	10
1079			min	-1.075	4	0	10	-0.549	3	-0.012	7	-3.332	2	-0.916	7
1080	109	1	max	1.943	3	0	6	0.268	7	0.003	5	7.679	5	0	10
1081			min	-1.086	4	-0.09	9	-0.498	3	0	11	-3.336	2	-0.916	7
1082		2	max	1.866	3	0	6	0.278	7	0.003	5	7.571	5	0	10
1083			min	-1.096	4	-0.083	9	-0.382	3	0	11	-3.659	2	-0.822	7

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1084		3	max	1.79	3	0	6	0.285	7	0.003	5	7.337	5	0	8
1085			min	-1.107	4	-0.078	7	-0.265	3	0	11	-3.842	2	-0.728	7
1086		4	max	1.713	3	0	6	0.287	7	0.003	5	6.974	5	0	8
1087			min	-1.117	4	-0.078	7	-0.359	5	0	11	-3.886	2	-0.634	7
1088		5	max	1.637	3	0	6	0.287	7	0.003	5	6.477	5	0	8
1089			min	-1.127	4	-0.078	7	-0.473	5	0	11	-3.791	2	-0.54	7
1090	110	1	max	1.634	3	0	6	0.313	7	0.001	6	6.477	5	0	8
1091			min	-1.133	4	-0.078	7	-0.453	5	-0.02	7	-3.791	2	-0.54	7
1092		2	max	1.564	3	0	6	0.307	7	0.001	6	5.884	5	0	8
1093			min	-1.142	4	-0.078	7	-0.566	5	-0.02	7	-3.603	2	-0.448	7
1094		3	max	1.494	3	0	6	0.335	2	0.001	6	5.157	5	0	8
1095			min	-1.152	4	-0.078	7	-0.682	5	-0.02	7	-3.281	2	-0.357	7
1096		4	max	1.424	3	0	6	0.451	2	0.001	6	4.294	5	0	8
1097			min	-1.162	4	-0.078	7	-0.799	5	-0.02	7	-2.822	2	-0.265	7
1098		5	max	1.353	3	0	6	0.567	2	0.001	6	3.293	5	0	8
1099			min	-1.171	4	-0.078	7	-0.919	5	-0.02	7	-2.229	2	-0.174	7
1100	111	1	max	1.351	3	0	6	0.571	2	0.001	6	3.293	5	0	8
1101			min	-1.168	4	-0.078	7	-0.923	5	-0.019	7	-2.229	2	-0.174	7
1102		2	max	1.319	3	0	6	0.623	2	0.001	6	2.798	5	0	8
1103			min	-1.173	4	-0.078	7	-0.977	5	-0.019	7	-1.917	2	-0.133	7
1104		3	max	1.288	3	0	6	0.675	2	0.001	6	2.273	5	0	8
1105			min	-1.177	4	-0.078	7	-1.032	5	-0.019	7	-1.578	2	-0.092	7
1106		4	max	1.256	3	0	6	0.727	2	0.001	6	1.72	5	0	8
1107			min	-1.181	4	-0.078	7	-1.088	5	-0.019	7	-1.213	2	-0.051	7
1108		5	max	1.224	3	0	6	0.779	2	0.001	6	1.138	5	0	8
1109			min	-1.186	4	-0.078	7	-1.144	5	-0.019	7	-0.82	2	-0.031	5
1110	112	1	max	1.223	3	0	8	0.791	2	0.001	6	1.139	5	0	8
1111			min	-1.208	4	-0.032	5	-1.118	5	-0.019	7	-0.817	2	-0.031	5
1112		2	max	1.209	3	0	8	0.815	2	0.001	6	0.864	5	0	8
1113			min	-1.209	4	-0.032	5	-1.144	5	-0.019	7	-0.621	2	-0.024	5
1114		3	max	1.194	3	0	8	0.84	2	0.001	6	0.582	5	0	8
1115			min	-1.211	4	-0.032	5	-1.171	5	-0.019	7	-0.42	2	-0.016	5
1116		4	max	1.18	3	0	8	0.864	2	0.001	6	0.294	5	0	8
1117			min	-1.213	4	-0.032	5	-1.197	5	-0.019	7	-0.213	2	-0.008	5
1118		5	max	1.166	3	0	8	0.889	2	0.001	6	0	11	0	11
1119			min	-1.215	4	-0.032	5	-1.224	5	-0.019	7	0	1	0	1
1120	113	1	max	1.166	3	0	8	0.72	7	0	6	0	11	0.016	7
1121			min	-1.369	5	-0.032	5	-0.68	3	-0.009	7	0	1	-0.001	6
1122		2	max	1.18	3	0	8	0.709	7	0	6	0.174	7	0.019	7
1123			min	-1.367	5	-0.032	5	-0.656	3	-0.009	7	-0.162	3	0	1
1124		3	max	1.194	3	0	8	0.698	7	0	6	0.345	7	0.021	7
1125			min	-1.365	5	-0.032	5	-0.631	3	-0.009	7	-0.319	3	0	1
1126		4	max	1.209	3	0	8	0.687	7	0	6	0.513	7	0.028	5
1127			min	-1.363	5	-0.032	5	-0.607	3	-0.009	7	-0.469	3	0	1
1128		5	max	1.223	3	0.001	9	0.676	7	0	6	0.679	7	0.035	5
1129			min	-1.361	5	-0.032	5	-0.582	3	-0.009	7	-0.614	3	0	1
1130	114	1	max	1.224	3	0.077	7	0.695	7	0.001	6	0.682	7	0.035	5
1131			min	-1.355	5	-0.011	6	-0.585	3	-0.009	7	-0.612	3	0	1
1132		2	max	1.256	3	0.077	7	0.671	7	0.001	6	1.039	7	0.035	5
1133			min	-1.351	5	-0.011	6	-0.534	3	-0.009	7	-0.904	3	-0.014	7
1134		3	max	1.288	3	0.077	7	0.648	7	0.001	6	1.383	7	0.035	5
1135			min	-1.347	5	-0.011	6	-0.482	3	-0.009	7	-1.169	3	-0.054	7
1136		4	max	1.319	3	0.077	7	0.625	7	0.001	6	1.715	7	0.034	5
1137			min	-1.342	5	-0.011	6	-0.43	3	-0.009	7	-1.407	3	-0.094	7
1138		5	max	1.351	3	0.077	7	0.602	7	0.001	6	2.035	7	0.034	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1139			min	-1.338	5	-0.011	6	-0.378	3	-0.009	7	-1.618	3	-0.134	7
1140	115	1	max	1.353	3	0.077	7	0.601	7	0	6	2.035	7	0.034	6
1141			min	-1.337	5	-0.011	6	-0.37	3	-0.008	7	-1.618	3	-0.134	7
1142		2	max	1.424	3	0.077	7	0.549	7	0	6	2.705	7	0.047	6
1143			min	-1.327	5	-0.011	6	-0.275	5	-0.008	7	-1.981	3	-0.223	7
1144		3	max	1.494	3	0.077	7	0.496	7	0	6	3.314	7	0.06	6
1145			min	-1.318	5	-0.011	6	-0.319	5	-0.008	7	-2.209	3	-0.312	7
1146		4	max	1.564	3	0.077	7	0.444	7	0	6	3.862	7	0.072	6
1147			min	-1.308	5	-0.011	6	-0.354	5	-0.008	7	-2.301	3	-0.401	7
1148		5	max	1.634	3	0.077	7	0.39	7	0	6	4.348	7	0.085	6
1149			min	-1.298	5	-0.011	6	-0.379	5	-0.008	7	-2.258	3	-0.491	7
1150	116	1	max	1.637	3	0.077	7	0.396	7	0.004	6	4.348	7	0.085	6
1151			min	-1.312	5	-0.011	6	-0.329	5	-0.027	7	-2.258	3	-0.49	7
1152		2	max	1.713	3	0.077	7	0.34	7	0.004	6	4.788	7	0.098	6
1153			min	-1.302	5	-0.011	6	-0.348	5	-0.027	7	-2.281	5	-0.582	7
1154		3	max	1.79	3	0.077	7	0.283	7	0.004	6	5.161	7	0.111	6
1155			min	-1.291	5	-0.011	6	-0.364	5	-0.027	7	-2.707	5	-0.673	7
1156		4	max	1.866	3	0.083	9	0.382	3	0.004	6	5.465	7	0.124	6
1157			min	-1.281	5	-0.011	6	-0.376	5	-0.027	7	-3.15	5	-0.765	7
1158		5	max	1.943	3	0.09	9	0.498	3	0.004	6	5.7	7	0.137	6
1159			min	-1.27	5	-0.011	6	-0.384	5	-0.027	7	-3.604	5	-0.857	7
1160	117	1	max	1.95	3	0.017	6	0.549	3	0.002	6	5.698	7	0.137	6
1161			min	-1.256	5	-0.106	7	-0.389	5	-0.014	7	-3.606	5	-0.857	7
1162		2	max	2.026	3	0.017	6	0.669	3	0.002	6	5.88	7	0.116	6
1163			min	-1.245	5	-0.106	7	-0.394	5	-0.014	7	-4.085	5	-0.727	7
1164		3	max	2.103	3	0.017	6	0.79	3	0.002	6	5.987	7	0.096	6
1165			min	-1.235	5	-0.106	7	-0.395	5	-0.014	7	-4.568	5	-0.598	7
1166		4	max	2.18	3	0.017	6	0.91	3	0.002	6	6.017	7	0.075	6
1167			min	-1.224	5	-0.106	7	-0.394	5	-0.014	7	-5.051	5	-0.468	7
1168		5	max	2.256	3	0.017	6	1.03	3	0.002	6	5.968	7	0.055	6
1169			min	-1.214	5	-0.106	7	-0.39	6	-0.014	7	-5.53	5	-0.339	7
1170	118	1	max	2.34	3	0.017	6	0.821	3	0.007	6	5.968	7	0.054	6
1171			min	-1.244	5	-0.106	7	-0.291	4	-0.045	7	-5.53	5	-0.336	7
1172		2	max	2.389	3	0.017	6	0.884	3	0.007	6	5.908	7	0.043	6
1173			min	-1.238	5	-0.106	7	-0.326	4	-0.045	7	-5.718	5	-0.264	7
1174		3	max	2.438	3	0.017	6	0.947	3	0.007	6	5.823	7	0.031	6
1175			min	-1.231	5	-0.106	7	-0.362	4	-0.045	7	-5.902	5	-0.192	7
1176		4	max	2.486	3	0.017	6	1.009	3	0.007	6	5.712	7	0.02	6
1177			min	-1.224	5	-0.106	7	-0.398	4	-0.045	7	-6.081	5	-0.119	7
1178		5	max	2.535	3	0.017	6	1.072	3	0.007	6	5.575	7	0.008	6
1179			min	-1.218	5	-0.106	7	-0.435	4	-0.045	7	-6.254	5	-0.074	9
1180	119	1	max	2.684	3	0.017	6	0.609	3	0.008	6	5.575	7	0.007	6
1181			min	-1.242	5	-0.106	7	-0.245	4	-0.053	7	-6.254	5	-0.068	9
1182		2	max	2.739	3	0.017	6	0.658	3	0.008	6	5.872	3	0.029	7
1183			min	-1.235	5	-0.106	7	-0.281	4	-0.053	7	-6.269	5	-0.038	9
1184		3	max	2.814	3	0.017	6	0.726	3	0.008	6	6.309	3	0.096	7
1185			min	-1.227	5	-0.106	7	-0.318	4	-0.053	7	-6.279	5	-0.015	6
1186		4	max	2.869	3	0.011	7	0.776	3	0.008	6	6.787	3	0.089	7
1187			min	-1.208	5	-0.025	11	-0.345	4	-0.053	7	-6.272	5	-0.013	6
1188		5	max	2.924	3	0.011	7	0.826	3	0.008	6	7.298	3	0.082	7
1189			min	-1.2	5	-0.021	11	-0.384	4	-0.053	7	-6.256	5	-0.012	6
1190	120	1	max	3.039	3	0.011	7	0.371	5	0.004	6	7.298	3	0.093	7
1191			min	-1.23	6	-0.021	11	-0.333	7	-0.032	9	-6.256	5	-0.014	6
1192		2	max	3.103	3	0.011	7	0.384	5	0.004	6	7.287	3	0.086	7
1193			min	-1.221	6	-0.017	11	-0.372	7	-0.032	9	-6.024	5	-0.013	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1194		3	max	3.168	3	0.011	7	0.397	5	0.004	6	7.295	3	0.079	7
1195			min	-1.212	6	-0.014	11	-0.41	7	-0.032	9	-5.783	5	-0.012	6
1196		4	max	3.232	3	0.011	7	0.41	5	0.004	6	7.322	3	0.072	7
1197			min	-1.204	6	-0.01	11	-0.448	7	-0.032	9	-5.535	5	-0.011	6
1198		5	max	3.297	3	0.011	7	0.422	5	0.004	6	7.368	3	0.067	9
1199			min	-1.195	6	-0.006	11	-0.485	7	-0.032	9	-5.279	5	-0.01	6
1200	121	1	max	3.174	3	0.011	7	0.734	5	0.001	6	7.368	3	0.073	9
1201			min	-1.163	6	-0.006	11	-0.898	3	-0.011	9	-5.279	5	-0.011	6
1202		2	max	3.188	3	0.011	7	0.742	5	0.001	6	6.874	3	0.076	9
1203			min	-1.154	6	-0.003	11	-0.896	3	-0.011	9	-4.872	5	-0.01	6
1204		3	max	3.203	3	0.011	7	0.75	5	0.001	6	6.381	3	0.077	9
1205			min	-1.146	6	-0.002	6	-0.894	3	-0.011	9	-4.461	5	-0.009	6
1206		4	max	3.217	3	0.011	7	0.757	5	0.001	6	5.889	3	0.076	9
1207			min	-1.137	6	-0.002	6	-0.892	3	-0.011	9	-4.046	5	-0.008	6
1208		5	max	3.231	3	0.011	7	0.764	5	0.001	6	5.399	3	0.073	9
1209			min	-1.128	6	-0.002	6	-0.89	3	-0.011	9	-3.627	5	-0.007	6
1210	122	1	max	3.068	3	0.011	7	0.886	5	0	11	5.399	3	0.074	9
1211			min	-1.091	6	-0.002	6	-1.35	3	0	1	-3.627	5	-0.007	6
1212		2	max	3.094	3	0.013	9	0.897	5	0	11	4.049	3	0.064	9
1213			min	-1.075	6	-0.002	6	-1.35	3	0	1	-2.736	5	-0.005	6
1214		3	max	3.121	3	0.018	9	0.907	5	0	11	2.699	3	0.049	9
1215			min	-1.059	6	-0.002	6	-1.35	3	0	1	-1.834	5	-0.003	6
1216		4	max	3.147	3	0.024	9	0.917	5	0	11	1.35	3	0.027	9
1217			min	-1.043	6	-0.002	6	-1.35	3	0	1	-0.922	5	-0.002	6
1218		5	max	3.174	3	0.03	9	0.927	5	0	11	0	11	0	11
1219			min	-1.027	6	-0.002	6	-1.35	3	0	1	0	1	0	1
1220	123	1	max	0.025	6	0.028	8	0.006	10	0.004	2	0	11	0	11
1221			min	-0.451	7	0.015	11	0	1	-0.003	9	0	1	0	1
1222		2	max	0.025	6	0.014	8	0.003	10	0.004	2	0.018	10	-0.043	11
1223			min	-0.451	7	0.008	11	0	1	-0.003	9	0	1	-0.078	8
1224		3	max	0.025	6	0	11	0	11	0.004	2	0.023	10	-0.057	11
1225			min	-0.451	7	0	1	0	1	-0.003	9	0	1	-0.104	8
1226		4	max	0.025	6	-0.008	10	0	11	0.004	2	0.018	10	-0.043	11
1227			min	-0.451	7	-0.014	9	-0.003	8	-0.003	9	0	1	-0.078	8
1228		5	max	0.025	6	-0.015	10	0	11	0.004	2	0	11	0	11
1229			min	-0.451	7	-0.028	9	-0.006	8	-0.003	9	0	1	0	1
1230	124	1	max	0.02	6	0.028	8	0.006	10	0.011	7	0	11	0	11
1231			min	-0.36	7	0.015	11	0	1	-0.002	6	0	1	0	1
1232		2	max	0.02	6	0.014	8	0.003	10	0.011	7	0.018	10	-0.043	11
1233			min	-0.36	7	0.008	11	0	1	-0.002	6	0	1	-0.078	8
1234		3	max	0.02	6	0	11	0	11	0.011	7	0.023	10	-0.057	11
1235			min	-0.36	7	0	1	0	1	-0.002	6	0	1	-0.104	8
1236		4	max	0.02	6	-0.008	10	0	11	0.011	7	0.018	10	-0.043	11
1237			min	-0.36	7	-0.014	9	-0.003	8	-0.002	6	0	1	-0.078	8
1238		5	max	0.02	6	-0.015	10	0	11	0.011	7	0	11	0	11
1239			min	-0.36	7	-0.028	9	-0.006	8	-0.002	6	0	1	0	1
1240	125	1	max	0.013	6	0.028	8	0.006	10	0.009	7	0	11	0	11
1241			min	-0.167	7	0.015	11	0	1	-0.002	5	0	1	0	1
1242		2	max	0.013	6	0.014	8	0.003	10	0.009	7	0.018	10	-0.043	11
1243			min	-0.167	7	0.008	11	0	1	-0.002	5	0	1	-0.078	8
1244		3	max	0.013	6	0	11	0	11	0.009	7	0.023	10	-0.057	11
1245			min	-0.167	7	0	1	0	1	-0.002	5	0	1	-0.104	8
1246		4	max	0.013	6	-0.008	10	0	11	0.009	7	0.018	10	-0.043	11
1247			min	-0.167	7	-0.014	9	-0.003	8	-0.002	5	0	1	-0.078	8
1248		5	max	0.013	6	-0.015	10	0	11	0.009	7	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1249			min	-0.167	7	-0.028	9	-0.006	8	-0.002	5	0	1	0	1
1250	126	1	max	0.013	6	0.028	8	0.006	10	0.007	6	0	11	0	11
1251			min	-0.069	7	0.015	11	0	1	-0.011	7	0	1	0	1
1252		2	max	0.013	6	0.014	8	0.003	10	0.007	6	0.018	10	-0.043	11
1253			min	-0.069	7	0.008	11	0	1	-0.011	7	0	1	-0.078	8
1254		3	max	0.013	6	0	11	0	11	0.007	6	0.023	10	-0.057	11
1255			min	-0.069	7	0	1	0	1	-0.011	7	0	1	-0.104	8
1256		4	max	0.013	6	-0.008	10	0	11	0.007	6	0.018	10	-0.043	11
1257			min	-0.069	7	-0.014	9	-0.003	8	-0.011	7	0	1	-0.078	8
1258		5	max	0.013	6	-0.015	10	0	11	0.007	6	0	11	0	11
1259			min	-0.069	7	-0.028	9	-0.006	8	-0.011	7	0	1	0	1
1260	127	1	max	1.324	7	0.028	9	0.006	10	0.001	5	0	11	0	11
1261			min	0	1	0.015	10	0	1	-0.002	7	0	1	0	1
1262		2	max	1.324	7	0.014	9	0.003	10	0.001	5	0.018	10	-0.043	11
1263			min	0	1	0.008	10	0	1	-0.002	7	0	1	-0.078	8
1264		3	max	1.324	7	0	11	0	11	0.001	5	0.023	10	-0.057	11
1265			min	0	1	0	1	0	1	-0.002	7	0	1	-0.104	8
1266		4	max	1.324	7	-0.008	11	0	11	0.001	5	0.018	10	-0.043	11
1267			min	0	1	-0.014	8	-0.003	8	-0.002	7	0	1	-0.078	8
1268		5	max	1.324	7	-0.015	11	0	11	0.001	5	0	11	0	11
1269			min	0	1	-0.028	8	-0.006	8	-0.002	7	0	1	0	1
1270	128	1	max	1.379	7	0.028	9	0.006	10	0.003	5	0	11	0	11
1271			min	0	1	0.015	10	0	1	-0.002	7	0	1	0	1
1272		2	max	1.379	7	0.014	9	0.003	10	0.003	5	0.018	10	-0.043	11
1273			min	0	1	0.008	10	0	1	-0.002	7	0	1	-0.078	8
1274		3	max	1.379	7	0	11	0	11	0.003	5	0.023	10	-0.057	11
1275			min	0	1	0	1	0	1	-0.002	7	0	1	-0.104	8
1276		4	max	1.379	7	-0.008	11	0	11	0.003	5	0.018	10	-0.043	11
1277			min	0	1	-0.014	8	-0.003	8	-0.002	7	0	1	-0.078	8
1278		5	max	1.379	7	-0.015	11	0	11	0.003	5	0	11	0	11
1279			min	0	1	-0.028	8	-0.006	8	-0.002	7	0	1	0	1
1280	129	1	max	0.044	6	0.028	9	0.006	10	0.014	7	0	11	0	11
1281			min	-0.505	7	0.015	10	0	1	-0.006	6	0	1	0	1
1282		2	max	0.044	6	0.014	9	0.003	10	0.014	7	0.018	10	-0.043	10
1283			min	-0.505	7	0.008	10	0	1	-0.006	6	0	1	-0.078	9
1284		3	max	0.044	6	0	11	0	11	0.014	7	0.023	10	-0.057	10
1285			min	-0.505	7	0	1	0	1	-0.006	6	0	1	-0.104	9
1286		4	max	0.044	6	-0.008	11	0	11	0.014	7	0.018	10	-0.043	10
1287			min	-0.505	7	-0.014	8	-0.003	8	-0.006	6	0	1	-0.078	9
1288		5	max	0.044	6	-0.015	11	0	11	0.014	7	0	11	0	11
1289			min	-0.505	7	-0.028	8	-0.006	8	-0.006	6	0	1	0	1
1290	130	1	max	0.035	6	0.028	8	0.006	10	0	6	0	11	0	11
1291			min	-0.399	7	0.015	11	0	1	-0.011	7	0	1	0	1
1292		2	max	0.035	6	0.014	8	0.003	10	0	6	0.018	10	-0.043	11
1293			min	-0.399	7	0.008	11	0	1	-0.011	7	0	1	-0.078	8
1294		3	max	0.035	6	0	11	0	11	0	6	0.023	10	-0.057	11
1295			min	-0.399	7	0	1	0	1	-0.011	7	0	1	-0.104	8
1296		4	max	0.035	6	-0.008	10	0	11	0	6	0.018	10	-0.043	11
1297			min	-0.399	7	-0.014	9	-0.003	8	-0.011	7	0	1	-0.078	8
1298		5	max	0.035	6	-0.015	10	0	11	0	6	0	11	0	11
1299			min	-0.399	7	-0.028	9	-0.006	8	-0.011	7	0	1	0	1
1300	131	1	max	0.012	6	0.028	8	0.006	10	0	4	0	11	0	11
1301			min	-0.19	7	0.015	11	0	1	-0.009	7	0	1	0	1
1302		2	max	0.012	6	0.014	8	0.003	10	0	4	0.018	10	-0.043	11
1303			min	-0.19	7	0.008	11	0	1	-0.009	7	0	1	-0.078	8

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1304		3	max	0.012	6	0	11	0	11	0	4	0.023	10	-0.057	11
1305			min	-0.19	7	0	1	0	1	-0.009	7	0	1	-0.104	8
1306		4	max	0.012	6	-0.008	10	0	11	0	4	0.018	10	-0.043	11
1307			min	-0.19	7	-0.014	9	-0.003	8	-0.009	7	0	1	-0.078	8
1308		5	max	0.012	6	-0.015	10	0	11	0	4	0	11	0	11
1309			min	-0.19	7	-0.028	9	-0.006	8	-0.009	7	0	1	0	1
1310	132	1	max	0	8	0.028	9	0.006	10	0.003	11	0	11	0	11
1311			min	-0.086	7	0.015	10	0	1	-0.01	6	0	1	0	1
1312		2	max	0	8	0.014	9	0.003	10	0.003	11	0.018	10	-0.043	10
1313			min	-0.086	7	0.008	10	0	1	-0.01	6	0	1	-0.078	9
1314		3	max	0	8	0	11	0	11	0.003	11	0.023	10	-0.057	10
1315			min	-0.086	7	0	1	0	1	-0.01	6	0	1	-0.104	9
1316		4	max	0	8	-0.008	11	0	11	0.003	11	0.018	10	-0.043	10
1317			min	-0.086	7	-0.014	8	-0.003	8	-0.01	6	0	1	-0.078	9
1318		5	max	0	8	-0.015	11	0	11	0.003	11	0	11	0	11
1319			min	-0.086	7	-0.028	8	-0.006	8	-0.01	6	0	1	0	1
1320	133	1	max	0.025	6	0.028	9	0.006	10	0.019	6	0	11	0	11
1321			min	-0.294	7	0.015	10	0	1	0	5	0	1	0	1
1322		2	max	0.025	6	0.014	9	0.003	10	0.019	6	0.018	10	-0.043	10
1323			min	-0.294	7	0.008	10	0	1	0	5	0	1	-0.078	9
1324		3	max	0.025	6	0	11	0	11	0.019	6	0.023	10	-0.057	10
1325			min	-0.294	7	0	1	0	1	0	5	0	1	-0.104	9
1326		4	max	0.025	6	-0.008	11	0	11	0.019	6	0.018	10	-0.043	10
1327			min	-0.294	7	-0.014	8	-0.003	8	0	5	0	1	-0.078	9
1328		5	max	0.025	6	-0.015	11	0	11	0.019	6	0	11	0	11
1329			min	-0.294	7	-0.028	8	-0.006	8	0	5	0	1	0	1
1330	134	1	max	0.015	6	0.028	8	0.006	10	0	8	0	11	0	11
1331			min	-0.263	7	0.015	11	0	1	-0.021	6	0	1	0	1
1332		2	max	0.015	6	0.014	8	0.003	10	0	8	0.018	10	-0.043	11
1333			min	-0.263	7	0.008	11	0	1	-0.021	6	0	1	-0.078	8
1334		3	max	0.015	6	0	11	0	11	0	8	0.023	10	-0.057	11
1335			min	-0.263	7	0	1	0	1	-0.021	6	0	1	-0.104	8
1336		4	max	0.015	6	-0.008	10	0	11	0	8	0.018	10	-0.043	11
1337			min	-0.263	7	-0.014	9	-0.003	8	-0.021	6	0	1	-0.078	8
1338		5	max	0.015	6	-0.015	10	0	11	0	8	0	11	0	11
1339			min	-0.263	7	-0.028	9	-0.006	8	-0.021	6	0	1	0	1
1340	135	1	max	0.185	9	0.028	8	0	11	0.002	7	0	11	0	11
1341			min	-0.028	6	0.015	11	-0.006	10	-0.005	3	0	1	0	1
1342		2	max	0.188	9	0.014	8	0	11	0.002	7	0	11	-0.043	11
1343			min	-0.028	6	0.008	11	-0.003	10	-0.005	3	-0.018	10	-0.078	8
1344		3	max	0.191	9	0	11	0	11	0.002	7	0	11	-0.057	11
1345			min	-0.028	6	0	1	0	1	-0.005	3	-0.023	10	-0.104	8
1346		4	max	0.195	9	-0.008	10	0.003	8	0.002	7	0	11	-0.043	11
1347			min	-0.028	6	-0.014	9	0	1	-0.005	3	-0.018	10	-0.078	8
1348		5	max	0.198	9	-0.015	10	0.006	8	0.002	7	0	11	0	11
1349			min	-0.028	6	-0.028	9	0	1	-0.005	3	0	1	0	1
1350	136	1	max	0.188	7	0.028	9	0	11	0.005	3	0	11	0	11
1351			min	0	10	0.015	10	-0.006	8	-0.004	7	0	1	0	1
1352		2	max	0.189	9	0.014	9	0	11	0.005	3	0	11	-0.043	11
1353			min	0	10	0.008	10	-0.003	8	-0.004	7	-0.018	8	-0.078	8
1354		3	max	0.192	9	0	11	0	11	0.005	3	0	11	-0.057	11
1355			min	0	10	0	1	0	1	-0.004	7	-0.023	8	-0.104	8
1356		4	max	0.195	9	-0.008	11	0.003	10	0.005	3	0	11	-0.043	11
1357			min	0	10	-0.014	8	0	1	-0.004	7	-0.018	8	-0.078	8
1358		5	max	0.198	9	-0.015	11	0.006	10	0.005	3	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1359			min	0	10	-0.028	8	0	1	-0.004	7	0	1	0	1
1360	137	1	max	0.019	6	0.028	8	0	11	0.008	7	0	11	0	11
1361			min	-0.117	7	0.015	11	-0.006	10	-0.002	8	0	1	0	1
1362		2	max	0.019	6	0.014	8	0	11	0.008	7	0	11	-0.043	11
1363			min	-0.117	7	0.008	11	-0.003	10	-0.002	8	-0.018	8	-0.078	8
1364		3	max	0.019	6	0	11	0	11	0.008	7	0	11	-0.057	11
1365			min	-0.117	7	0	1	0	1	-0.002	8	-0.023	8	-0.104	8
1366		4	max	0.019	6	-0.008	10	0.003	8	0.008	7	0	11	-0.043	11
1367			min	-0.117	7	-0.014	9	0	1	-0.002	8	-0.018	10	-0.078	8
1368		5	max	0.019	6	-0.015	10	0.006	8	0.008	7	0	11	0	11
1369			min	-0.117	7	-0.028	9	0	1	-0.002	8	0	1	0	1
1370	138	1	max	1	7	0.028	9	0	11	0.005	5	0	11	0	11
1371			min	0	1	0.015	11	-0.006	8	0	4	0	1	0	1
1372		2	max	1	7	0.014	9	0	11	0.005	5	0	11	-0.043	11
1373			min	0	1	0.008	11	-0.003	8	0	4	-0.018	8	-0.078	8
1374		3	max	1	7	0	11	0	11	0.005	5	0	11	-0.057	11
1375			min	0	1	0	1	0	1	0	4	-0.023	8	-0.104	8
1376		4	max	1	7	-0.008	10	0.003	10	0.005	5	0	11	-0.043	11
1377			min	0	1	-0.014	8	0	1	0	4	-0.018	8	-0.078	8
1378		5	max	1	7	-0.015	10	0.006	10	0.005	5	0	11	0	11
1379			min	0	1	-0.028	8	0	1	0	4	0	1	0	1
1380	139	1	max	0.096	7	0.028	9	0	11	0.004	5	0	11	0	11
1381			min	-0.22	5	0.015	10	-0.006	8	-0.007	6	0	1	0	1
1382		2	max	0.096	7	0.014	9	0	11	0.004	5	0	11	-0.043	11
1383			min	-0.22	5	0.008	10	-0.003	8	-0.007	6	-0.018	8	-0.078	8
1384		3	max	0.096	7	0	11	0	11	0.004	5	0	11	-0.057	11
1385			min	-0.22	5	0	1	0	1	-0.007	6	-0.023	8	-0.104	8
1386		4	max	0.096	7	-0.008	11	0.003	10	0.004	5	0	11	-0.043	11
1387			min	-0.22	5	-0.014	8	0	1	-0.007	6	-0.018	8	-0.078	8
1388		5	max	0.096	7	-0.015	11	0.006	10	0.004	5	0	11	0	11
1389			min	-0.22	5	-0.028	8	0	1	-0.007	6	0	1	0	1
1390	140	1	max	1.167	7	0.028	9	0	11	0.003	5	0	11	0	11
1391			min	0	1	0.015	11	-0.006	8	0	2	0	1	0	1
1392		2	max	1.167	7	0.014	9	0	11	0.003	5	0	11	-0.043	11
1393			min	0	1	0.008	11	-0.003	8	0	2	-0.018	8	-0.078	8
1394		3	max	1.167	7	0	11	0	11	0.003	5	0	11	-0.057	11
1395			min	0	1	0	1	0	1	0	2	-0.023	8	-0.104	8
1396		4	max	1.167	7	-0.008	10	0.003	10	0.003	5	0	11	-0.043	11
1397			min	0	1	-0.014	8	0	1	0	2	-0.018	8	-0.078	8
1398		5	max	1.167	7	-0.015	10	0.006	10	0.003	5	0	11	0	11
1399			min	0	1	-0.028	8	0	1	0	2	0	1	0	1
1400	141	1	max	0.396	7	0.028	9	0	11	0.003	6	0	11	0	11
1401			min	-0.038	6	0.015	10	-0.006	8	-0.01	7	0	1	0	1
1402		2	max	0.396	7	0.014	9	0	11	0.003	6	0	11	-0.043	11
1403			min	-0.038	6	0.008	10	-0.003	8	-0.01	7	-0.018	8	-0.078	8
1404		3	max	0.396	7	0	11	0	11	0.003	6	0	11	-0.057	11
1405			min	-0.038	6	0	1	0	1	-0.01	7	-0.023	8	-0.104	8
1406		4	max	0.396	7	-0.008	11	0.003	10	0.003	6	0	11	-0.043	11
1407			min	-0.038	6	-0.014	8	0	1	-0.01	7	-0.018	8	-0.078	8
1408		5	max	0.396	7	-0.015	11	0.006	10	0.003	6	0	11	0	11
1409			min	-0.038	6	-0.028	8	0	1	-0.01	7	0	1	0	1
1410	142	1	max	0	10	0.028	8	0	11	0.009	7	0	11	0	11
1411			min	-0.117	7	0.015	11	-0.006	8	-0.002	10	0	1	0	1
1412		2	max	0	10	0.014	8	0	11	0.009	7	0	11	-0.043	11
1413			min	-0.117	7	0.008	11	-0.003	8	-0.002	10	-0.018	8	-0.078	8

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1414		3	max	0	10	0	11	0	11	0.009	7	0	11	-0.057	11
1415			min	-0.117	7	0	1	0	1	-0.002	10	-0.023	8	-0.104	8
1416		4	max	0	10	-0.008	10	0.003	10	0.009	7	0	11	-0.043	11
1417			min	-0.117	7	-0.014	9	0	1	-0.002	10	-0.018	8	-0.078	8
1418		5	max	0	11	-0.015	10	0.006	10	0.009	7	0	11	0	11
1419			min	-0.117	7	-0.028	9	0	1	-0.002	10	0	1	0	1
1420	143	1	max	1.041	7	0.028	9	0	11	0.004	5	0	11	0	11
1421			min	0	1	0.015	10	-0.006	8	-0.002	7	0	1	0	1
1422		2	max	1.041	7	0.014	9	0	11	0.004	5	0	11	-0.043	11
1423			min	0	1	0.008	10	-0.003	8	-0.002	7	-0.018	8	-0.078	8
1424		3	max	1.041	7	0	11	0	11	0.004	5	0	11	-0.057	11
1425			min	0	1	0	1	0	1	-0.002	7	-0.023	8	-0.104	8
1426		4	max	1.041	7	-0.008	11	0.003	10	0.004	5	0	11	-0.043	11
1427			min	0	1	-0.014	8	0	1	-0.002	7	-0.018	8	-0.078	8
1428		5	max	1.041	7	-0.015	11	0.006	10	0.004	5	0	11	0	11
1429			min	0	1	-0.028	8	0	1	-0.002	7	0	1	0	1
1430	144	1	max	0.296	5	0.028	9	0	11	0.009	6	0	11	0	11
1431			min	-0.043	9	0.015	10	-0.006	8	0	8	0	1	0	1
1432		2	max	0.296	5	0.014	9	0	11	0.009	6	0	11	-0.043	11
1433			min	-0.04	9	0.008	10	-0.003	8	0	8	-0.018	8	-0.078	8
1434		3	max	0.296	5	0	11	0	11	0.009	6	0	11	-0.057	11
1435			min	-0.037	9	0	1	0	1	0	8	-0.023	8	-0.104	8
1436		4	max	0.296	5	-0.008	11	0.003	10	0.009	6	0	11	-0.043	11
1437			min	-0.034	9	-0.014	8	0	1	0	8	-0.018	8	-0.078	8
1438		5	max	0.296	5	-0.015	11	0.006	10	0.009	6	0	11	0	11
1439			min	-0.03	9	-0.028	8	0	1	0	8	0	1	0	1
1440	145	1	max	1.32	7	0.028	9	0	11	0.002	5	0	11	0	11
1441			min	0	1	0.015	10	-0.006	8	-0.003	7	0	1	0	1
1442		2	max	1.32	7	0.014	9	0	11	0.002	5	0	11	-0.043	11
1443			min	0	1	0.008	10	-0.003	8	-0.003	7	-0.018	8	-0.078	8
1444		3	max	1.32	7	0	11	0	11	0.002	5	0	11	-0.057	11
1445			min	0	1	0	1	0	1	-0.003	7	-0.023	8	-0.104	8
1446		4	max	1.32	7	-0.008	11	0.003	10	0.002	5	0	11	-0.043	11
1447			min	0	1	-0.014	8	0	1	-0.003	7	-0.018	8	-0.078	8
1448		5	max	1.32	7	-0.015	11	0.006	10	0.002	5	0	11	0	11
1449			min	0	1	-0.028	8	0	1	-0.003	7	0	1	0	1
1450	146	1	max	0.401	7	0.028	9	0	11	0.001	10	0	11	0	11
1451			min	-0.02	6	0.015	10	-0.006	10	-0.007	7	0	1	0	1
1452		2	max	0.401	7	0.014	9	0	11	0.001	10	0	11	-0.043	11
1453			min	-0.02	6	0.008	10	-0.003	10	-0.007	7	-0.018	10	-0.078	8
1454		3	max	0.401	7	0	11	0	11	0.001	10	0	11	-0.057	11
1455			min	-0.02	6	0	1	0	1	-0.007	7	-0.023	10	-0.104	8
1456		4	max	0.401	7	-0.008	11	0.003	8	0.001	10	0	11	-0.043	11
1457			min	-0.02	6	-0.014	8	0	1	-0.007	7	-0.018	10	-0.078	8
1458		5	max	0.401	7	-0.015	11	0.006	8	0.001	10	0	11	0	11
1459			min	-0.02	6	-0.028	8	0	1	-0.007	7	0	1	0	1
1460	147	1	max	0.564	11	0.028	9	0	11	0.006	7	0	11	0	11
1461			min	0	10	0.015	10	-0.006	8	-0.001	6	0	1	0	1
1462		2	max	0.567	11	0.014	9	0	11	0.006	7	0	11	-0.043	10
1463			min	0	10	0.008	10	-0.003	8	-0.001	6	-0.018	8	-0.078	9
1464		3	max	0.57	11	0	11	0	11	0.006	7	0	11	-0.057	10
1465			min	0	10	0	1	0	1	-0.001	6	-0.023	8	-0.104	9
1466		4	max	0.573	11	-0.008	11	0.003	10	0.006	7	0	11	-0.043	10
1467			min	0	10	-0.014	8	0	1	-0.001	6	-0.018	8	-0.078	9
1468		5	max	0.576	11	-0.015	11	0.006	10	0.006	7	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1469			min	0	10	-0.028	8	0	1	-0.001	6	0	1	0	1
1470	148	1	max	0	8	0.028	9	0	11	0	10	0	11	0	11
1471			min	-0.728	7	0.015	10	-0.006	8	-0.006	7	0	1	0	1
1472		2	max	0	8	0.014	9	0	11	0	10	0	11	-0.043	10
1473			min	-0.728	7	0.008	10	-0.003	8	-0.006	7	-0.018	8	-0.078	9
1474		3	max	0	8	0	11	0	11	0	10	0	11	-0.057	10
1475			min	-0.728	7	0	1	0	1	-0.006	7	-0.023	8	-0.104	9
1476		4	max	0	8	-0.008	11	0.003	10	0	10	0	11	-0.043	10
1477			min	-0.728	7	-0.014	8	0	1	-0.006	7	-0.018	8	-0.078	9
1478		5	max	0.001	9	-0.015	11	0.006	10	0	10	0	11	0	11
1479			min	-0.728	7	-0.028	8	0	1	-0.006	7	0	1	0	1
1480	149	1	max	0.369	11	0.028	9	0	11	0.006	7	0	11	0	11
1481			min	-0.351	7	0.015	10	-0.006	8	-0.001	6	0	1	0	1
1482		2	max	0.372	11	0.014	9	0	11	0.006	7	0	11	-0.043	10
1483			min	-0.351	7	0.008	10	-0.003	8	-0.001	6	-0.018	8	-0.078	9
1484		3	max	0.375	11	0	11	0	11	0.006	7	0	11	-0.057	10
1485			min	-0.351	7	0	1	0	1	-0.001	6	-0.023	8	-0.104	9
1486		4	max	0.379	11	-0.008	11	0.003	10	0.006	7	0	11	-0.043	10
1487			min	-0.351	7	-0.014	8	0	1	-0.001	6	-0.018	8	-0.078	9
1488		5	max	0.382	11	-0.015	11	0.006	10	0.006	7	0	11	0	11
1489			min	-0.351	7	-0.028	8	0	1	-0.001	6	0	1	0	1
1490	150	1	max	0.113	6	0.028	9	0	11	0.003	6	0	11	0	11
1491			min	-1.721	7	0.015	10	-0.006	8	-0.005	3	0	1	0	1
1492		2	max	0.113	6	0.014	9	0	11	0.003	6	0	11	-0.043	10
1493			min	-1.721	7	0.008	10	-0.003	8	-0.005	3	-0.018	8	-0.078	9
1494		3	max	0.113	6	0	11	0	11	0.003	6	0	11	-0.057	10
1495			min	-1.721	7	0	1	0	1	-0.005	3	-0.023	8	-0.104	9
1496		4	max	0.113	6	-0.008	11	0.003	10	0.003	6	0	11	-0.043	10
1497			min	-1.721	7	-0.014	8	0	1	-0.005	3	-0.018	8	-0.078	9
1498		5	max	0.113	6	-0.015	11	0.006	10	0.003	6	0	11	0	11
1499			min	-1.721	7	-0.028	8	0	1	-0.005	3	0	1	0	1
1500	151	1	max	0.57	11	0.028	9	0	11	0.001	6	0	11	0	11
1501			min	0	10	0.015	10	-0.006	8	-0.006	7	0	1	0	1
1502		2	max	0.573	11	0.014	9	0	11	0.001	6	0	11	-0.043	10
1503			min	0	10	0.008	10	-0.003	8	-0.006	7	-0.018	8	-0.078	9
1504		3	max	0.577	11	0	11	0	11	0.001	6	0	11	-0.057	10
1505			min	0	10	0	1	0	1	-0.006	7	-0.023	8	-0.104	9
1506		4	max	0.58	11	-0.008	11	0.003	10	0.001	6	0	11	-0.043	10
1507			min	0	10	-0.014	8	0	1	-0.006	7	-0.018	8	-0.078	9
1508		5	max	0.583	11	-0.015	11	0.006	10	0.001	6	0	11	0	11
1509			min	0	10	-0.028	8	0	1	-0.006	7	0	1	0	1
1510	152	1	max	0.064	5	0.028	9	0	11	0.006	7	0	11	0	11
1511			min	-0.786	7	0.015	10	-0.006	8	0	1	0	1	0	1
1512		2	max	0.064	5	0.014	9	0	11	0.006	7	0	11	-0.043	10
1513			min	-0.786	7	0.008	10	-0.003	8	0	1	-0.018	8	-0.078	8
1514		3	max	0.064	5	0	11	0	11	0.006	7	0	11	-0.057	10
1515			min	-0.786	7	0	1	0	1	0	1	-0.023	8	-0.104	8
1516		4	max	0.064	5	-0.008	11	0.003	10	0.006	7	0	11	-0.043	10
1517			min	-0.786	7	-0.014	8	0	1	0	1	-0.018	8	-0.078	8
1518		5	max	0.064	5	-0.015	11	0.006	10	0.006	7	0	11	0	11
1519			min	-0.786	7	-0.028	8	0	1	0	1	0	1	0	1
1520	153	1	max	0.378	11	0.028	9	0	11	0	6	0	11	0	11
1521			min	-0.41	7	0.015	10	-0.006	8	-0.006	7	0	1	0	1
1522		2	max	0.381	11	0.014	9	0	11	0	6	0	11	-0.043	10
1523			min	-0.41	7	0.008	10	-0.003	8	-0.006	7	-0.018	8	-0.078	9

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1524		3	max	0.384	11	0	11	0	11	0	6	0	11	-0.057	10
1525			min	-0.41	7	0	1	0	1	-0.006	7	-0.023	8	-0.104	9
1526		4	max	0.387	11	-0.008	11	0.003	10	0	6	0	11	-0.043	10
1527			min	-0.41	7	-0.014	8	0	1	-0.006	7	-0.018	8	-0.078	9
1528		5	max	0.39	11	-0.015	11	0.006	10	0	6	0	11	0	11
1529			min	-0.41	7	-0.028	8	0	1	-0.006	7	0	1	0	1
1530	154	1	max	0.138	6	0.028	9	0	11	0.005	3	0	11	0	11
1531			min	-1.71	7	0.015	10	-0.006	8	-0.003	6	0	1	0	1
1532		2	max	0.138	6	0.014	9	0	11	0.005	3	0	11	-0.043	10
1533			min	-1.71	7	0.008	10	-0.003	8	-0.003	6	-0.018	8	-0.078	8
1534		3	max	0.138	6	0	11	0	11	0.005	3	0	11	-0.057	10
1535			min	-1.71	7	0	1	0	1	-0.003	6	-0.023	8	-0.104	8
1536		4	max	0.138	6	-0.008	11	0.003	10	0.005	3	0	11	-0.043	10
1537			min	-1.71	7	-0.014	8	0	1	-0.003	6	-0.018	8	-0.078	8
1538		5	max	0.138	6	-0.015	11	0.006	10	0.005	3	0	11	0	11
1539			min	-1.71	7	-0.028	8	0	1	-0.003	6	0	1	0	1
1540	155	1	max	1.339	7	0.028	9	0	11	0.003	5	0	11	0	11
1541			min	0	10	0.015	10	-0.006	8	0	6	0	1	0	1
1542		2	max	1.339	7	0.014	9	0	11	0.003	5	0	11	-0.043	10
1543			min	0	10	0.008	10	-0.003	8	0	6	-0.018	8	-0.078	9
1544		3	max	1.339	7	0	11	0	11	0.003	5	0	11	-0.057	10
1545			min	0	10	0	1	0	1	0	6	-0.023	8	-0.104	9
1546		4	max	1.339	7	-0.008	11	0.003	10	0.003	5	0	11	-0.043	10
1547			min	0	10	-0.014	8	0	1	0	6	-0.018	8	-0.078	9
1548		5	max	1.339	7	-0.015	11	0.006	10	0.003	5	0	11	0	11
1549			min	0	10	-0.028	8	0	1	0	6	0	1	0	1
1550	156	1	max	1.404	7	0.028	9	0	11	0.002	7	0	11	0	11
1551			min	0	10	0.015	10	-0.006	8	0	4	0	1	0	1
1552		2	max	1.404	7	0.014	9	0	11	0.002	7	0	11	-0.043	10
1553			min	0	10	0.008	10	-0.003	8	0	4	-0.018	8	-0.078	9
1554		3	max	1.404	7	0	11	0	11	0.002	7	0	11	-0.057	10
1555			min	0	10	0	1	0	1	0	4	-0.023	8	-0.104	9
1556		4	max	1.404	7	-0.008	11	0.003	10	0.002	7	0	11	-0.043	10
1557			min	0	10	-0.014	8	0	1	0	4	-0.018	8	-0.078	9
1558		5	max	1.404	7	-0.015	11	0.006	10	0.002	7	0	11	0	11
1559			min	0	10	-0.028	8	0	1	0	4	0	1	0	1
1560	157	1	max	0	8	0.006	9	0.001	10	0	5	0	11	0	11
1561			min	-1.143	7	0	1	0	9	0	9	0	1	0	1
1562		2	max	0	8	0.003	9	0.001	10	0	5	0.005	10	0	8
1563			min	-1.142	7	0	1	0	9	0	9	-0.001	9	-0.02	9
1564		3	max	0	8	0	11	0	11	0	5	0.006	10	0	8
1565			min	-1.141	7	0	1	0	1	0	9	-0.001	9	-0.027	9
1566		4	max	0	8	0	8	0	11	0	5	0.005	10	0	8
1567			min	-1.14	7	-0.003	9	-0.001	10	0	9	-0.001	9	-0.02	9
1568		5	max	0	8	0	8	0	11	0	5	0	11	0	11
1569			min	-1.139	7	-0.006	9	-0.001	10	0	9	0	1	0	1
1570	158	1	max	0	11	0.003	6	0	11	0	11	0	11	0	11
1571			min	-0.486	5	0	1	-0.001	10	0	5	0	1	0	1
1572		2	max	0	11	0.002	6	0	11	0	11	0	11	0	11
1573			min	-0.485	5	0	1	-0.001	10	0	5	-0.005	10	-0.01	6
1574		3	max	0	11	0	11	0	11	0	11	0	11	0	11
1575			min	-0.484	5	0	1	0	1	0	5	-0.006	10	-0.014	6
1576		4	max	0	11	0	11	0.001	10	0	11	0	11	0	11
1577			min	-0.483	5	-0.002	5	0	1	0	5	-0.005	10	-0.01	6
1578		5	max	0	11	0	11	0.001	10	0	11	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1579			min	-0.482	5	-0.003	5	0	1	0	5	0	1	0	1
1580	159	1	max	0	8	0.005	9	0.001	10	0	10	0	11	0	11
1581			min	-1.094	7	0	1	0	11	0	7	0	1	0	1
1582		2	max	0	8	0.003	9	0.001	10	0	10	0.003	10	0	8
1583			min	-1.094	7	0	1	0	11	0	7	-0.001	11	-0.016	9
1584		3	max	0	8	0	11	0	11	0	10	0.005	10	0	8
1585			min	-1.094	7	0	1	0	1	0	7	-0.001	11	-0.021	9
1586		4	max	0	8	0	8	0	9	0	10	0.003	10	0	8
1587			min	-1.094	7	-0.003	9	-0.001	10	0	7	-0.001	11	-0.016	9
1588		5	max	0	8	0	8	0	9	0	10	0	11	0	11
1589			min	-1.093	7	-0.005	9	-0.001	10	0	7	0	1	0	1
1590	160	1	max	0	11	0.003	5	0.001	10	0	6	0	11	0	11
1591			min	-0.101	6	0	1	0	1	0	10	0	1	0	1
1592		2	max	0	11	0.002	5	0.001	10	0	6	0.003	10	0	11
1593			min	-0.101	6	0	1	0	1	0	10	0	1	-0.009	5
1594		3	max	0	11	0	11	0	11	0	6	0.005	10	0	11
1595			min	-0.101	6	0	1	0	1	0	10	0	1	-0.012	5
1596		4	max	0	11	0	11	0	11	0	6	0.003	10	0	11
1597			min	-0.101	6	-0.002	6	-0.001	10	0	10	0	1	-0.009	5
1598		5	max	0	11	0	11	0	11	0	6	0	11	0	11
1599			min	-0.102	6	-0.003	6	-0.001	10	0	10	0	1	0	1
1600	161	1	max	0	10	0.006	9	0	9	0	10	0	11	0	11
1601			min	-1.8	7	0	1	0	1	0	7	0	1	0	1
1602		2	max	0	10	0.003	9	0	9	0	10	0.001	9	0	10
1603			min	-1.8	7	0	1	0	1	0	7	0	1	-0.016	9
1604		3	max	0	10	0	11	0	11	0	10	0.001	9	0	10
1605			min	-1.801	7	0	1	0	1	0	7	0	1	-0.022	9
1606		4	max	0	10	0	10	0	10	0	10	0.001	9	0	10
1607			min	-1.801	7	-0.003	9	0	11	0	7	0	1	-0.016	9
1608		5	max	0	10	0	10	0	10	0	10	0	11	0	11
1609			min	-1.801	7	-0.006	9	0	11	0	7	0	1	0	1
1610	162	1	max	0	11	0.003	5	0	11	0	6	0	11	0	11
1611			min	-0.222	6	0	1	0	1	0	5	0	1	0	1
1612		2	max	0	11	0.002	5	0	11	0	6	0	11	0	11
1613			min	-0.223	6	0	1	0	1	0	5	0	1	-0.009	5
1614		3	max	0	11	0	11	0	11	0	6	0	11	0	11
1615			min	-0.223	6	0	1	0	1	0	5	0	1	-0.012	5
1616		4	max	0	11	0	11	0	11	0	6	0	11	0	11
1617			min	-0.223	6	-0.002	6	0	1	0	5	0	1	-0.009	5
1618		5	max	0	11	0	11	0	11	0	6	0	11	0	11
1619			min	-0.223	6	-0.003	6	0	1	0	5	0	1	0	1
1620	163	1	max	0	8	0.006	9	0.001	10	0	5	0	11	0	11
1621			min	-0.983	7	0	1	0	9	0	9	0	1	0	1
1622		2	max	0	8	0.003	9	0.001	10	0	5	0.005	10	0	8
1623			min	-0.982	7	0	1	0	9	0	9	-0.001	9	-0.02	9
1624		3	max	0	8	0	11	0	11	0	5	0.006	10	0	8
1625			min	-0.981	7	0	1	0	1	0	9	-0.001	9	-0.027	9
1626		4	max	0	8	0	8	0	11	0	5	0.005	10	0	8
1627			min	-0.98	7	-0.003	9	-0.001	10	0	9	-0.001	9	-0.02	9
1628		5	max	0	8	0	8	0	11	0	5	0	11	0	11
1629			min	-0.979	7	-0.006	9	-0.001	10	0	9	0	1	0	1
1630	164	1	max	0	11	0.003	5	0	11	0	5	0	11	0	11
1631			min	-0.317	6	0	1	-0.001	10	0	6	0	1	0	1
1632		2	max	0	11	0.002	5	0	11	0	5	0	11	0	11
1633			min	-0.316	6	0	1	-0.001	10	0	6	-0.005	10	-0.01	5

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1634		3	max	0	11	0	11	0	11	0	5	0	11	0	11
1635			min	-0.315	6	0	1	0	1	0	6	-0.006	10	-0.014	5
1636		4	max	0	11	0	11	0.001	10	0	5	0	11	0	11
1637			min	-0.314	6	-0.002	6	0	1	0	6	-0.005	10	-0.01	5
1638		5	max	0	11	0	11	0.001	10	0	5	0	11	0	11
1639			min	-0.313	6	-0.003	6	0	1	0	6	0	1	0	1
1640	165	1	max	0	8	0.005	9	0.001	10	0	5	0	11	0	11
1641			min	-1.043	7	0	1	0	9	0	7	0	1	0	1
1642		2	max	0	8	0.003	9	0.001	10	0	5	0.003	10	0	8
1643			min	-1.043	7	0	1	0	9	0	7	-0.001	9	-0.016	9
1644		3	max	0	8	0	11	0	11	0	5	0.005	10	0	8
1645			min	-1.042	7	0	1	0	1	0	7	-0.001	9	-0.021	9
1646		4	max	0	8	0	8	0	11	0	5	0.003	10	0	8
1647			min	-1.042	7	-0.003	9	-0.001	10	0	7	-0.001	9	-0.016	9
1648		5	max	0	8	0	8	0	11	0	5	0	11	0	11
1649			min	-1.042	7	-0.005	9	-0.001	10	0	7	0	1	0	1
1650	166	1	max	0	11	0.003	4	0.001	10	0	4	0	11	0	11
1651			min	-0.094	6	0	1	0	1	0	6	0	1	0	1
1652		2	max	0	11	0.002	4	0.001	10	0	4	0.003	10	0	11
1653			min	-0.094	6	0	1	0	1	0	6	0	1	-0.009	4
1654		3	max	0	11	0	11	0	11	0	4	0.005	10	0	11
1655			min	-0.094	6	0	1	0	1	0	6	0	1	-0.012	4
1656		4	max	0	11	0	11	0	11	0	4	0.003	10	0	11
1657			min	-0.095	6	-0.002	6	-0.001	10	0	6	0	1	-0.009	4
1658		5	max	0	11	0	11	0	11	0	4	0	11	0	11
1659			min	-0.095	6	-0.003	6	-0.001	10	0	6	0	1	0	1
1660	167	1	max	0	10	0.006	9	0	11	0	10	0	11	0	11
1661			min	-1.747	7	0	1	0	1	0	7	0	1	0	1
1662		2	max	0	10	0.003	9	0	11	0	10	0.001	11	0	10
1663			min	-1.747	7	0	1	0	1	0	7	0	1	-0.016	9
1664		3	max	0	10	0	11	0	11	0	10	0.001	11	0	10
1665			min	-1.748	7	0	1	0	1	0	7	0	1	-0.022	9
1666		4	max	0	10	0	10	0	10	0	10	0.001	11	0	10
1667			min	-1.748	7	-0.003	9	0	9	0	7	0	1	-0.016	9
1668		5	max	0	10	0	10	0	10	0	10	0	11	0	11
1669			min	-1.748	7	-0.006	9	0	9	0	7	0	1	0	1
1670	168	1	max	0	11	0.003	6	0	11	0	4	0	11	0	11
1671			min	-0.205	6	0	1	0	1	0	6	0	1	0	1
1672		2	max	0	11	0.002	6	0	11	0	4	0	11	0	11
1673			min	-0.205	6	0	1	0	1	0	6	0	1	-0.009	6
1674		3	max	0	11	0	11	0	11	0	4	0	11	0	11
1675			min	-0.205	6	0	1	0	1	0	6	0	1	-0.012	6
1676		4	max	0	11	0	11	0	11	0	4	0	11	0	11
1677			min	-0.206	6	-0.002	4	0	1	0	6	0	1	-0.009	6
1678		5	max	0	11	0	11	0	11	0	4	0	11	0	11
1679			min	-0.206	6	-0.003	4	0	1	0	6	0	1	0	1
1680	169	1	max	0	11	0.003	7	0	11	0	6	0	11	0	11
1681			min	-0.124	6	0	1	0	1	0	1	0	1	0	1
1682		2	max	0	11	0.002	7	0	11	0	6	0	11	0	11
1683			min	-0.123	6	0	1	0	1	0	1	0	1	-0.01	7
1684		3	max	0	11	0	11	0	11	0	6	0	11	0	11
1685			min	-0.123	6	0	1	0	1	0	1	0	1	-0.014	7
1686		4	max	0	11	0	11	0	11	0	6	0	11	0	11
1687			min	-0.122	6	-0.002	6	0	1	0	1	0	1	-0.01	7
1688		5	max	0	11	0	11	0	11	0	6	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1689			min	-0.121	6	-0.003	6	0	1	0	1	0	1	0	1
1690	170	1	max	0	10	0.006	9	0	10	0	5	0	11	0	11
1691			min	-1.298	7	0	1	0	9	0	7	0	1	0	1
1692		2	max	0	10	0.003	9	0	10	0	5	0	10	0	10
1693			min	-1.299	7	0	1	0	9	0	7	-0.001	9	-0.02	9
1694		3	max	0	10	0	11	0	11	0	5	0	10	0	10
1695			min	-1.3	7	0	1	0	1	0	7	-0.001	9	-0.027	9
1696		4	max	0	10	0	10	0	11	0	5	0	10	0	10
1697			min	-1.301	7	-0.003	9	0	1	0	7	-0.001	9	-0.02	9
1698		5	max	0	10	0	10	0	11	0	5	0	11	0	11
1699			min	-1.302	7	-0.006	9	0	1	0	7	0	1	0	1
1700	171	1	max	0	11	0	11	0	11	0	11	0	11	0	11
1701			min	0	1	0	1	0	1	0	1	0	1	0	1
1702		2	max	0	11	0	11	0	11	0	11	0	11	0	11
1703			min	0	1	0	1	0	1	0	1	0	1	0	1
1704		3	max	0	11	0	11	0	11	0	11	0	11	0	11
1705			min	0	1	0	1	0	1	0	1	0	1	0	1
1706		4	max	0	11	0	11	0	11	0	11	0	11	0	11
1707			min	0	1	0	1	0	1	0	1	0	1	0	1
1708		5	max	0	11	0	11	0	11	0	11	0	11	0	11
1709			min	0	1	0	1	0	1	0	1	0	1	0	1
1710	172	1	max	0	10	0.006	9	0	10	0	5	0	11	0	11
1711			min	-1.745	7	0	1	0	11	0	7	0	1	0	1
1712		2	max	0	10	0.003	9	0	10	0	5	0	10	0	10
1713			min	-1.745	7	0	1	0	11	0	7	-0.001	11	-0.016	9
1714		3	max	0	10	0	11	0	11	0	5	0	10	0	10
1715			min	-1.746	7	0	1	0	1	0	7	-0.001	11	-0.022	9
1716		4	max	0	10	0	10	0	9	0	5	0	10	0	10
1717			min	-1.746	7	-0.003	9	0	1	0	7	-0.001	11	-0.016	9
1718		5	max	0	10	0	10	0	9	0	5	0	11	0	11
1719			min	-1.746	7	-0.006	9	0	1	0	7	0	1	0	1
1720	173	1	max	0	10	0.005	9	0	10	0	5	0	11	0	11
1721			min	-1.063	7	0	1	0	9	0	7	0	1	0	1
1722		2	max	0	10	0.003	9	0	10	0	5	0	10	0	10
1723			min	-1.064	7	0	1	0	9	0	7	-0.001	9	-0.016	9
1724		3	max	0	10	0	11	0	11	0	5	0	10	0	10
1725			min	-1.064	7	0	1	0	1	0	7	-0.001	9	-0.021	9
1726		4	max	0	10	0	10	0	11	0	5	0	10	0	10
1727			min	-1.064	7	-0.003	9	0	1	0	7	-0.001	9	-0.016	9
1728		5	max	0	10	0	10	0	11	0	5	0	11	0	11
1729			min	-1.064	7	-0.005	9	0	1	0	7	0	1	0	1
1730	174	1	max	0	11	0	11	0	11	0	11	0	11	0	11
1731			min	0	1	0	1	0	1	0	1	0	1	0	1
1732		2	max	0	11	0	11	0	11	0	11	0	11	0	11
1733			min	0	1	0	1	0	1	0	1	0	1	0	1
1734		3	max	0	11	0	11	0	11	0	11	0	11	0	11
1735			min	0	1	0	1	0	1	0	1	0	1	0	1
1736		4	max	0	11	0	11	0	11	0	11	0	11	0	11
1737			min	0	1	0	1	0	1	0	1	0	1	0	1
1738		5	max	0	11	0	11	0	11	0	11	0	11	0	11
1739			min	0	1	0	1	0	1	0	1	0	1	0	1
1740	175	1	max	0	11	0.003	6	0	11	0	6	0	11	0	11
1741			min	-0.359	6	0	1	0	1	0	1	0	1	0	1
1742		2	max	0	11	0.002	6	0	11	0	6	0	11	0	11
1743			min	-0.36	6	0	1	0	1	0	1	0	1	-0.01	6

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1744		3	max	0	11	0	11	0	11	0	6	0	11	0	11
1745			min	-0.361	6	0	1	0	1	0	1	0	1	-0.014	6
1746		4	max	0	11	0	11	0	11	0	6	0	11	0	11
1747			min	-0.362	6	-0.002	7	0	1	0	1	0	1	-0.01	6
1748		5	max	0	11	0	11	0	11	0	6	0	11	0	11
1749			min	-0.363	6	-0.003	7	0	1	0	1	0	1	0	1
1750	176	1	max	0	10	0.005	9	0	10	0	9	0	11	0	11
1751			min	-1.133	7	0	1	0	9	0	7	0	1	0	1
1752		2	max	0	10	0.003	9	0	10	0	9	0	10	0	10
1753			min	-1.134	7	0	1	0	9	0	7	-0.001	9	-0.016	9
1754		3	max	0	10	0	11	0	11	0	9	0	10	0	10
1755			min	-1.134	7	0	1	0	1	0	7	-0.001	9	-0.021	9
1756		4	max	0	10	0	10	0	11	0	9	0	10	0	10
1757			min	-1.134	7	-0.003	9	0	1	0	7	-0.001	9	-0.016	9
1758		5	max	0	10	0	10	0	11	0	9	0	11	0	11
1759			min	-1.134	7	-0.005	9	0	1	0	7	0	1	0	1
1760	177	1	max	0	11	0.003	6	0	11	0	6	0	11	0	11
1761			min	-0.173	6	0	1	0	1	0	4	0	1	0	1
1762		2	max	0	11	0.002	6	0	11	0	6	0	11	0	11
1763			min	-0.173	6	0	1	0	1	0	4	0	1	-0.009	6
1764		3	max	0	11	0	11	0	11	0	6	0	11	0	11
1765			min	-0.173	6	0	1	0	1	0	4	0	1	-0.012	6
1766		4	max	0	11	0	11	0	11	0	6	0	11	0	11
1767			min	-0.174	6	-0.002	4	0	1	0	4	0	1	-0.009	6
1768		5	max	0	11	0	11	0	11	0	6	0	11	0	11
1769			min	-0.174	6	-0.003	4	0	1	0	4	0	1	0	1
1770	178	1	max	0	10	0.006	9	0	9	0	4	0	11	0	11
1771			min	-1.823	7	0	1	0	1	0	7	0	1	0	1
1772		2	max	0	10	0.003	9	0	9	0	4	0.001	9	0	10
1773			min	-1.823	7	0	1	0	1	0	7	0	1	-0.016	9
1774		3	max	0	10	0	11	0	11	0	4	0.001	9	0	10
1775			min	-1.823	7	0	1	0	1	0	7	0	1	-0.022	9
1776		4	max	0	10	0	10	0	10	0	4	0.001	9	0	10
1777			min	-1.822	7	-0.003	9	0	11	0	7	0	1	-0.016	9
1778		5	max	0	10	0	10	0	10	0	4	0	11	0	11
1779			min	-1.822	7	-0.006	9	0	11	0	7	0	1	0	1
1780	179	1	max	0	11	0.003	4	0	11	0	6	0	11	0	11
1781			min	-0.177	6	0	1	0	1	0	4	0	1	0	1
1782		2	max	0	11	0.002	4	0	11	0	6	0	11	0	11
1783			min	-0.177	6	0	1	0	1	0	4	0	1	-0.009	4
1784		3	max	0	11	0	11	0	11	0	6	0	11	0	11
1785			min	-0.177	6	0	1	0	1	0	4	0	1	-0.012	4
1786		4	max	0	11	0	11	0	11	0	6	0	11	0	11
1787			min	-0.176	6	-0.002	6	0	1	0	4	0	1	-0.009	4
1788		5	max	0	11	0	11	0	11	0	6	0	11	0	11
1789			min	-0.176	6	-0.003	6	0	1	0	4	0	1	0	1
1790	180	1	max	0	10	0.006	9	0	11	0	9	0	11	0	11
1791			min	-1.155	7	0	1	0	1	0	7	0	1	0	1
1792		2	max	0	10	0.003	9	0	11	0	9	0.001	11	0	10
1793			min	-1.154	7	0	1	0	1	0	7	0	1	-0.02	9
1794		3	max	0	10	0	11	0	11	0	9	0.001	11	0	10
1795			min	-1.153	7	0	1	0	1	0	7	0	1	-0.027	9
1796		4	max	0	10	0	10	0	10	0	9	0.001	11	0	10
1797			min	-1.152	7	-0.003	9	0	9	0	7	0	1	-0.02	9
1798		5	max	0	10	0	10	0	10	0	9	0	11	0	11

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1799			min	-1.151	7	-0.006	9	0	9	0	7	0	1	0	1
1800	181	1	max	0.002	5	0.028	9	0	11	0.002	6	0	11	0	11
1801			min	-0.005	9	0.015	10	-0.006	8	-0.009	7	0	1	0	1
1802		2	max	0.002	5	0.014	9	0	11	0.002	6	0	11	-0.043	11
1803			min	-0.002	9	0.008	10	-0.003	8	-0.009	7	-0.018	8	-0.078	8
1804		3	max	0.002	5	0	11	0	11	0.002	6	0	11	-0.057	11
1805			min	0	10	0	1	0	1	-0.009	7	-0.023	8	-0.104	8
1806		4	max	0.005	11	-0.008	11	0.003	10	0.002	6	0	11	-0.043	11
1807			min	0	10	-0.014	8	0	1	-0.009	7	-0.018	8	-0.078	8
1808		5	max	0.008	11	-0.015	11	0.006	10	0.002	6	0	11	0	11
1809			min	0	10	-0.028	8	0	1	-0.009	7	0	1	0	1
1810	182	1	max	0.001	7	0.028	9	0	11	0.004	5	0	11	0	11
1811			min	-0.004	9	0.015	10	-0.006	8	-0.009	7	0	1	0	1
1812		2	max	0.001	7	0.014	9	0	11	0.004	5	0	11	-0.043	10
1813			min	-0.001	9	0.008	10	-0.003	8	-0.009	7	-0.018	8	-0.078	8
1814		3	max	0.002	11	0	11	0	11	0.004	5	0	11	-0.057	10
1815			min	0	10	0	1	0	1	-0.009	7	-0.023	8	-0.104	8
1816		4	max	0.005	11	-0.008	11	0.003	10	0.004	5	0	11	-0.043	10
1817			min	0	10	-0.014	8	0	1	-0.009	7	-0.018	8	-0.078	8
1818		5	max	0.008	11	-0.015	11	0.006	10	0.004	5	0	11	0	11
1819			min	0	10	-0.028	8	0	1	-0.009	7	0	1	0	1
1820	183	1	max	0.008	11	0.028	9	0.006	10	0.009	7	0	11	0	11
1821			min	0	5	0.015	10	0	1	0	2	0	1	0	1
1822		2	max	0.004	11	0.014	9	0.003	10	0.009	7	0.018	10	-0.043	11
1823			min	0	5	0.008	10	0	1	0	2	0	1	-0.078	8
1824		3	max	0.001	11	0	11	0	11	0.009	7	0.023	10	-0.057	11
1825			min	0	5	0	1	0	1	0	2	0	1	-0.104	8
1826		4	max	0.001	6	-0.008	11	0	11	0.009	7	0.018	10	-0.043	11
1827			min	-0.002	9	-0.014	8	-0.003	8	0	2	0	1	-0.078	8
1828		5	max	0.001	6	-0.015	11	0	11	0.009	7	0	11	0	11
1829			min	-0.005	9	-0.028	8	-0.006	8	0	2	0	1	0	1
1830	184	1	max	0.008	11	0.028	9	0.006	10	0.008	7	0	11	0	11
1831			min	0	1	0.015	11	0	1	0	8	0	1	0	1
1832		2	max	0.005	11	0.014	9	0.003	10	0.008	7	0.018	10	-0.043	11
1833			min	0	1	0.008	11	0	1	0	8	0	1	-0.078	8
1834		3	max	0.003	5	0	11	0	11	0.008	7	0.023	10	-0.057	11
1835			min	0	1	0	1	0	1	0	8	0	1	-0.104	8
1836		4	max	0.003	5	-0.008	10	0	11	0.008	7	0.018	10	-0.043	11
1837			min	-0.001	9	-0.014	8	-0.003	8	0	8	0	1	-0.078	8
1838		5	max	0.003	5	-0.015	10	0	11	0.008	7	0	11	0	11
1839			min	-0.004	9	-0.028	8	-0.006	8	0	8	0	1	0	1

Arch Forces Unity Check		
5x10		
Tension (-)		
LC	7	
Member	45	
Mt	12.181	K-ft
Pt	1.276	K
Ma	50.35	K-ft
Pta	186.35	K
IR	0.25	**OK**
Compression (+)		
LC	7	
Member	35	
Mc	13.909	K-ft
Pc	0.316	K
Ma	50.35	K-ft
Pca	187.07	K
IR	0.28	**OK**
Splice (double channel)		
LC	7	
Member	34	
Axial	0.306	K
V	0.098	K
M	12.743	K-ft
Pallow	193.14	K
Vallow	59.74	K
Mallow	45.68	K-ft
IR	0.28	**OK**

Spreader Forces Unity Check		
4x4		
Tension (-)		
LC	7	
Member	150	
Pt	1.721	K
Pta	13.13	K
IR	0.13	**OK**
Compression (+)		
LC	7	
Member	156	
Pc	1.404	K
Pca	8.69	K
IR	0.16	**OK**

Cable Forces Unity Check		
1/2"		
Tension (-)		
LC	7	
Member	178	
Pt	1.822	K
Pta	19.5	K
IR	0.09	**OK**

End Wall Forces Unity Check		
5x10		
Tension (-)		
LC	7	
Member	62	
Mt	0.153	K-ft
Pt	0.103	K
Ma	50.35	K-ft
Pta	186.35	K
IR	0.00	**OK**
Compression (+)		
LC	7	
Member	61	
Mc	7.741	K-ft
Pc	0	K
Ma	50.35	K-ft
Pca	187.07	K
IR	0.15	**OK**

Pins, Manta Ray anchors, & ballast calcs

Listed reactions are computed worst case at each boundary (ASD)
Pin shear, anchor uplift, and ballast weight must be determined using ultimate loads
Since forces are wind driven, multiply ASD reactions by 1.6
Manta Ray anchors to be proof loaded to the ultimate uplift force 1.25SF **(ASD SF =1.6x1.25=2)**

(2) 3ft pins V_{ult} = 4.313 kip
(2) 5ft pins V_{ult} = 7.29 kip
Manta Ray MR3 T_{ult} = 8.0 kip
Manta Ray MR2 T_{ult} = 15.1 kip

Ballast calc

Ballast (ultimate) = (2 * combined ASD shear vectors - PinV)/.4 + uplift *2
+Fz is a downward force that reduces ballast
Shear resistance is based on friction coeff = 0.4

pair of pins V_{ult} = 7.29 kip
pins provided yes

	ASD reactions (kip)				Anchoring (kip)	
Node	FX	FY	FZ		pin shear check	Manta Ray proof load
Combo	**1**	**DL**				
1	0.45	0.00	1.08	0.00	pass	-
21	-0.45	0.00	1.08	0.00	pass	-
22	0.58	0.00	1.59	0.00	pass	-
42	-0.58	0.00	1.59	0.00	pass	-
43	0.58	0.00	1.59	0.00	pass	-
63	-0.58	0.00	1.59	0.00	pass	-
64	0.00	0.00	0.00	0.00	pass	-
65	0.00	0.00	0.00	0.00	pass	-
66	0.58	0.00	1.59	0.00	pass	-
86	-0.58	0.00	1.59	0.00	pass	-
87	0.57	0.00	1.59	0.00	pass	-
107	-0.57	0.00	1.59	0.00	pass	-
108	0.34	0.00	0.91	0.00	pass	-
128	-0.34	0.00	0.91	0.00	pass	-
Combo	**2**	**DL + 1/2 snow**				
1	0.95	0.00	2.81	0.00	pass	-
21	-0.95	0.00	1.62	0.00	pass	-
22	1.59	0.00	5.05	0.00	pass	-
42	-1.59	0.00	2.67	0.00	pass	-
43	1.59	0.00	5.05	0.00	pass	-
63	-1.59	0.00	2.67	0.00	pass	-
64	0.00	0.00	0.00	0.00	pass	-
65	0.00	0.00	0.00	0.00	pass	-
66	1.59	0.00	5.05	0.00	pass	-
86	-1.59	0.00	2.67	0.00	pass	-
87	1.59	0.00	5.05	0.00	pass	-
107	-1.59	0.00	2.67	0.00	pass	-
108	0.84	0.00	2.64	0.00	pass	-
128	-0.84	0.00	1.45	0.00	pass	-
Combo	**3**	**DL + full snow**		#VALUE!		
1	1.46	0.00	3.35	0.00	pass	-
21	-1.46	0.00	3.35	0.00	pass	-
22	2.60	0.00	6.12	-3.10	pass	-
42	-2.60	0.00	6.12	-3.10	pass	-
43	2.60	0.00	6.12	-3.11	pass	-

Listed reactions are computed worst case at each boundary (ASD)
Pin shear, anchor uplift, and ballast weight must be determined using ultimate loads
Since forces are wind driven, multiply ASD reactions by 1.6
Manta Ray anchors to be proof loaded to the ultimate uplift force 1.25SF **(ASD SF =1.6x1.25=2)**

(2) 3ft pins V_{ult} = 4.313 kip
(2) 5ft pins V_{ult} = 7.29 kip
Manta Ray MR3 T_{ult} = 8.0 kip
Manta Ray MR2 T_{ult} = 15.1 kip

Ballast calc

Ballast (ultimate) = (2 * combined ASD shear vectors - PinV)/.4 + uplift *2
+Fz is a downward force that reduces ballast
Shear resistance is based on friction coeff = 0.4

pair of pins V_{ult} = 7.29 kip
pins provided yes

	ASD reactions (kip)				Anchoring (kip)	
Node	FX	FY	FZ		pin shear check	Manta Ray proof load
63	-2.60	0.00	6.12	-3.11	pass	-
64	0.00	0.00	0.00	0.00	pass	-
65	0.00	0.00	0.00	0.00	pass	-
66	2.60	0.00	6.12	-3.11	pass	-
86	-2.60	0.00	6.12	-3.11	pass	-
87	2.60	0.00	6.12	-3.10	pass	-
107	-2.60	0.00	6.12	-3.10	pass	-
108	1.35	0.00	3.17	0.00	pass	-
128	-1.35	0.00	3.17	0.00	pass	-
Combo	**4**	**0*W**				
1	0.16	0.00	-0.89	0.00	pass	1.78
21	-0.16	0.00	-0.89	0.00	pass	1.78
22	0.34	0.00	-0.39	0.00	pass	0.78
42	-0.32	0.00	-0.40	0.00	pass	0.80
43	0.28	0.02	-0.32	0.00	pass	0.64
63	-0.27	0.02	-0.33	0.00	pass	0.65
64	0.00	0.28	0.00	0.00	pass	-
65	0.00	0.29	0.00	0.00	pass	-
66	0.31	0.00	-0.26	0.00	pass	0.52
86	-0.30	0.00	-0.27	0.00	pass	0.53
87	0.31	0.03	-0.45	0.00	pass	0.90
107	-0.29	0.03	-0.46	0.00	pass	0.92
108	0.10	0.00	-1.00	0.00	pass	1.99
128	-0.10	0.00	-1.00	0.00	pass	1.99
Combo	**5**	**30*W**				
1	-0.16	0.01	-0.68	0.00	pass	1.36
21	-0.31	0.00	-0.75	0.00	pass	1.49
22	-0.37	-0.07	-0.79	0.00	pass	1.57
42	-0.07	-0.07	-0.86	0.00	pass	1.72
43	-0.38	0.33	-1.13	0.00	pass	2.26
63	0.32	0.12	-1.08	0.00	pass	2.16
64	0.00	0.53	0.00	0.00	pass	-
65	0.00	0.54	0.00	0.00	pass	-
66	0.23	0.00	-0.99	0.00	pass	1.99
86	1.00	-0.41	-1.32	0.00	pass	2.65
87	0.25	0.13	-1.47	0.00	pass	2.94
107	1.26	0.56	-1.16	0.00	pass	2.32
108	0.68	0.00	-0.70	0.00	pass	1.40
128	0.93	0.00	-0.71	0.00	pass	1.42

Listed reactions are computed worst case at each boundary (ASD)
Pin shear, anchor uplift, and ballast weight must be determined using ultimate loads
Since forces are wind driven, multiply ASD reactions by 1.6
Manta Ray anchors to be proof loaded to the ultimate uplift force 1.25SF **(ASD SF =1.6x1.25=2)**

(2) 3ft pins V_{ult} = 4.313 kip
(2) 5ft pins V_{ult} = 7.29 kip
Manta Ray MR3 T_{ult} = 8.0 kip
Manta Ray MR2 T_{ult} = 15.1 kip

Ballast calc

Ballast (ultimate) = (2 * combined ASD shear vectors - PinV)/.4 + uplift *2
+Fz is a downward force that reduces ballast
Shear resistance is based on friction coeff = 0.4

pair of pins V_{ult} = 7.29 kip
pins provided yes

	ASD reactions (kip)				Anchoring (kip)	
Node	FX	FY	FZ		pin shear check	Manta Ray proof load
Combo	**6**	**60*W**				
1	-0.41	0.00	0.13	0.00	pass	-
21	-0.17	0.00	0.03	0.00	pass	-
22	-0.78	-0.30	0.05	0.00	pass	-
42	0.51	-0.27	0.01	0.00	pass	-
43	-0.53	0.18	0.32	0.00	pass	-
63	0.54	0.13	0.32	0.00	pass	-
64	0.00	0.10	0.00	0.00	pass	-
65	0.00	0.11	0.00	0.00	pass	-
66	-0.64	-0.10	-2.50	0.00	pass	5.00
86	0.23	-0.15	-2.63	0.00	pass	5.26
87	0.08	0.14	-2.32	0.00	pass	4.64
107	0.07	0.12	-2.25	0.00	pass	4.49
108	0.34	0.00	-0.95	0.00	pass	1.90
128	0.25	0.00	-1.03	0.00	pass	2.05
Combo	**7**	**90*W**				
1	-0.62	0.03	-0.02	0.00	pass	0.04
21	-0.88	0.03	-0.10	0.00	pass	0.20
22	-0.96	-0.18	0.80	0.00	pass	-
42	-2.02	0.00	0.61	-0.80	pass	-
43	-1.99	0.96	-1.01	-1.56	pass	2.02
63	-0.89	0.82	-1.18	0.00	pass	2.37
64	0.00	1.80	0.00	0.00	pass	-
65	0.00	1.81	0.00	0.00	pass	-
66	-0.89	-0.08	1.09	0.00	pass	-
86	-1.97	0.00	0.88	-0.61	pass	-
87	-2.07	1.09	-1.30	-2.05	pass	2.61
107	-0.94	0.96	-1.45	0.00	pass	2.90
108	-0.69	0.01	-0.12	0.00	pass	0.25
128	-0.81	0.01	-0.21	0.00	pass	0.41
Combo	**8**	**EX + seismic effect**				
1	0.71	0.00	1.26	0.00	pass	-
21	-0.22	0.00	0.98	0.00	pass	-
22	0.97	0.00	1.88	0.00	pass	-
42	-0.22	0.00	1.42	0.00	pass	-
43	0.97	0.00	1.88	0.00	pass	-
63	-0.22	0.00	1.42	0.00	pass	-
64	0.00	0.00	0.00	0.00	pass	-
65	0.00	0.00	0.00	0.00	pass	-

Greatest proof load at typ. int. arches
Greatest proof load at 1st int. arches
Greatest proof load at end arches

Listed reactions are computed worst case at each boundary (ASD)
Pin shear, anchor uplift, and ballast weight must be determined using ultimate loads
Since forces are wind driven, multiply ASD reactions by 1.6
Manta Ray anchors to be proof loaded to the ultimate uplift force 1.25SF **(ASD SF =1.6x1.25=2)**

(2) 3ft pins V_{ult} = 4.313 kip
(2) 5ft pins V_{ult} = 7.29 kip
Manta Ray MR3 T_{ult} = 8.0 kip
Manta Ray MR2 T_{ult} = 15.1 kip

Ballast calc

Ballast (ultimate) = (2 * combined ASD shear vectors - PinV)/.4 + uplift *2
+Fz is a downward force that reduces ballast
Shear resistance is based on friction coeff = 0.4

pair of pins V_{ult} = 7.29 kip
pins provided yes

	ASD reactions (kip)				Anchoring (kip)	
Node	FX	FY	FZ		pin shear check	Manta Ray proof load
66	0.97	0.00	1.88	0.00	pass	-
86	-0.22	0.00	1.42	0.00	pass	-
87	0.97	0.00	1.88	0.00	pass	-
107	-0.22	0.00	1.42	0.00	pass	-
108	0.55	0.00	1.07	0.00	pass	-
128	-0.15	0.00	0.82	0.00	pass	-
Combo	**9**	**EY + seismic effect**				
1	0.46	0.03	1.12	0.00	pass	-
21	-0.46	0.03	1.12	0.00	pass	-
22	0.94	0.04	2.42	0.00	pass	-
42	-0.94	0.04	2.42	0.00	pass	-
43	0.25	0.86	0.88	0.00	pass	-
63	-0.25	0.86	0.88	0.00	pass	-
64	0.00	0.02	0.00	0.00	pass	-
65	0.00	0.02	0.00	0.00	pass	-
66	0.95	0.04	2.46	0.00	pass	-
86	-0.95	0.04	2.45	0.00	pass	-
87	0.24	0.92	0.84	0.00	pass	-
107	-0.24	0.92	0.85	0.00	pass	-
108	0.35	0.03	0.94	0.00	pass	-
128	-0.35	0.03	0.94	0.00	pass	-
Combo	**10**	**EX - seismic effect**				
1	0.50	0.00	0.76	0.00	pass	-
21	-0.01	0.00	0.47	0.00	pass	-
22	0.70	0.00	1.13	0.00	pass	-
42	0.05	-0.02	0.67	0.00	pass	-
43	0.70	0.00	1.13	0.00	pass	-
63	0.05	0.02	0.68	0.00	pass	-
64	0.00	0.00	0.00	0.00	pass	-
65	0.00	0.00	0.00	0.00	pass	-
66	0.70	0.00	1.13	0.00	pass	-
86	0.05	-0.02	0.68	0.00	pass	-
87	0.70	0.00	1.13	0.00	pass	-
107	0.05	0.02	0.67	0.00	pass	-
108	0.40	0.00	0.64	0.00	pass	-
128	0.01	0.00	0.39	0.00	pass	-
Combo	**11**	**EY - seismic effect**				
1	0.25	0.03	0.61	0.00	pass	-
21	-0.25	0.03	0.61	0.00	pass	-

Listed reactions are computed worst case at each boundary (ASD)
Pin shear, anchor uplift, and ballast weight must be determined using ultimate loads
Since forces are wind driven, multiply ASD reactions by 1.6
Manta Ray anchors to be proof loaded to the ultimate uplift force 1.25SF **(ASD SF =1.6x1.25=2)**

(2) 3ft pins V_{ult} = 4.313 kip
(2) 5ft pins V_{ult} = 7.29 kip
Manta Ray MR3 T_{ult} = 8.0 kip
Manta Ray MR2 T_{ult} = 15.1 kip

Ballast calc

Ballast (ultimate) = (2 * combined ASD shear vectors - PinV)/.4 + uplift *2
+Fz is a downward force that reduces ballast
Shear resistance is based on friction coeff = 0.4

pair of pins V_{ult} = 7.29 kip
pins provided yes

	ASD reactions (kip)				Anchoring (kip)	
Node	FX	FY	FZ		pin shear check	Manta Ray proof load
22	0.67	0.04	1.67	0.00	pass	-
42	-0.67	0.04	1.67	0.00	pass	-
43	-0.02	0.86	0.13	0.00	pass	-
63	0.02	0.86	0.14	0.00	pass	-
64	0.00	0.02	0.00	0.00	pass	-
65	0.00	0.02	0.00	0.00	pass	-
66	0.68	0.04	1.71	0.00	pass	-
86	-0.68	0.04	1.70	0.00	pass	-
87	-0.03	0.92	0.09	0.00	pass	-
107	0.03	0.92	0.10	0.00	pass	-
108	0.19	0.03	0.52	0.00	pass	-
128	-0.19	0.03	0.52	0.00	pass	-