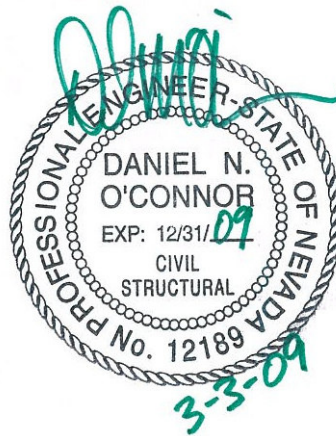
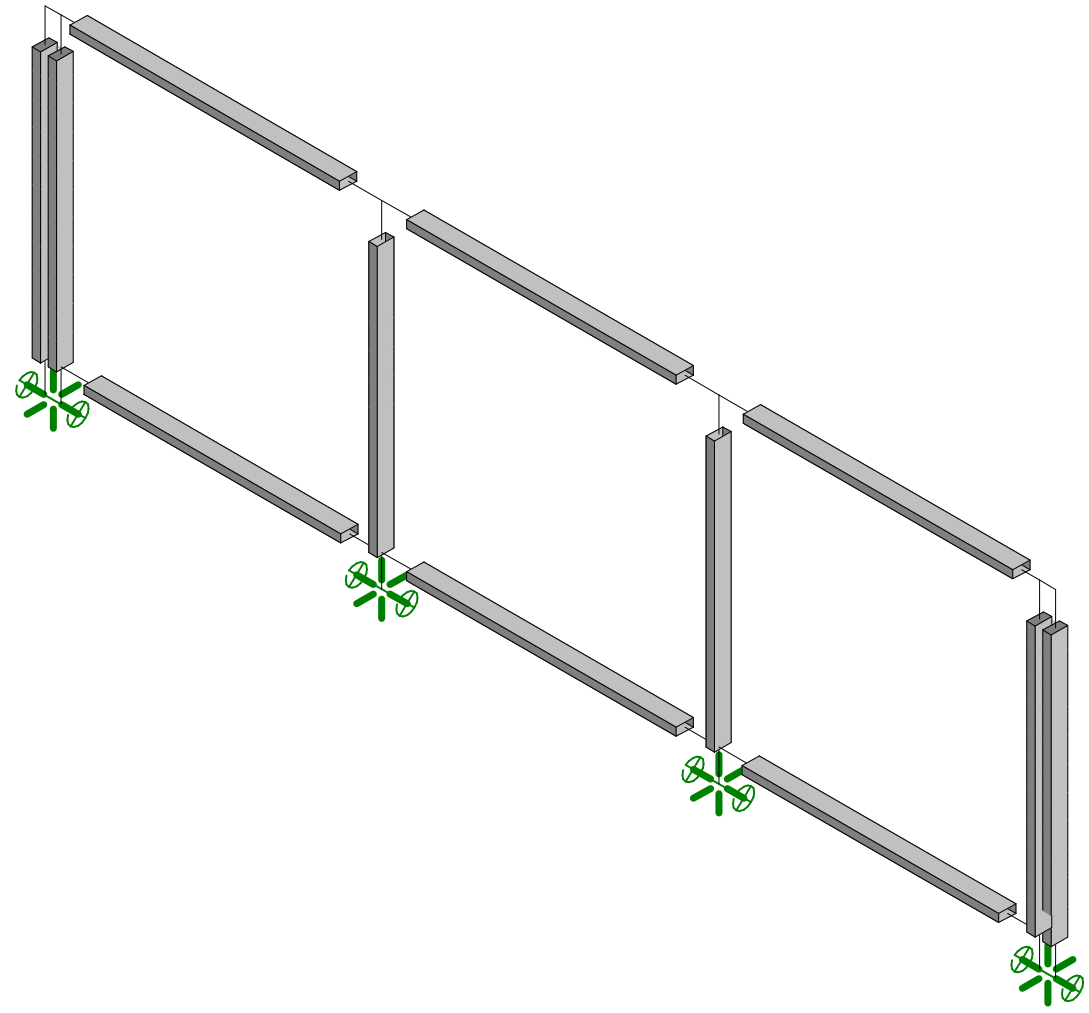
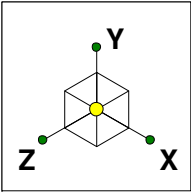


D3a—2" x 1" RECT. TUBE x 42-1/2" HIGH RAIL WITH BOTTOM RAIL

Building Code:	2006 International Building Code 2007 California Building Code AISC Steel Construction Manual, 13th ed—ASD
Material:	Carbon Steel, A500, Grade B, Fy = 42 ksi Carbon Steel, A36, Fy = 36 ksi (Flat Bar) Stainless Steel, A554, Grade MT-304 or MT-316, Fy = 30 ksi
Height:	42.5"
Anchor Post:	Carbon Steel: Double 2"x1" Flat Bar (A36) Stainless Steel: Double 2"x1" Flat Bar
Intermediate Posts:	Carbon Steel: HSS 2x1x1/8 Tube Stainless Steel: 2"x1"x0.120" Tube
Top Rail:	Carbon Steel: HSS 2x1x1/8 Tube Stainless Steel: 2"x1"x0.120" Tube
Bottom Rail:	Carbon Steel: HSS 2x1x1/8 Tube Stainless Steel: 2"x1"x0.120" Tube
Number of Cables:	11
Cable Spacing:	3.08"
Cable Prestress:	325 lbs



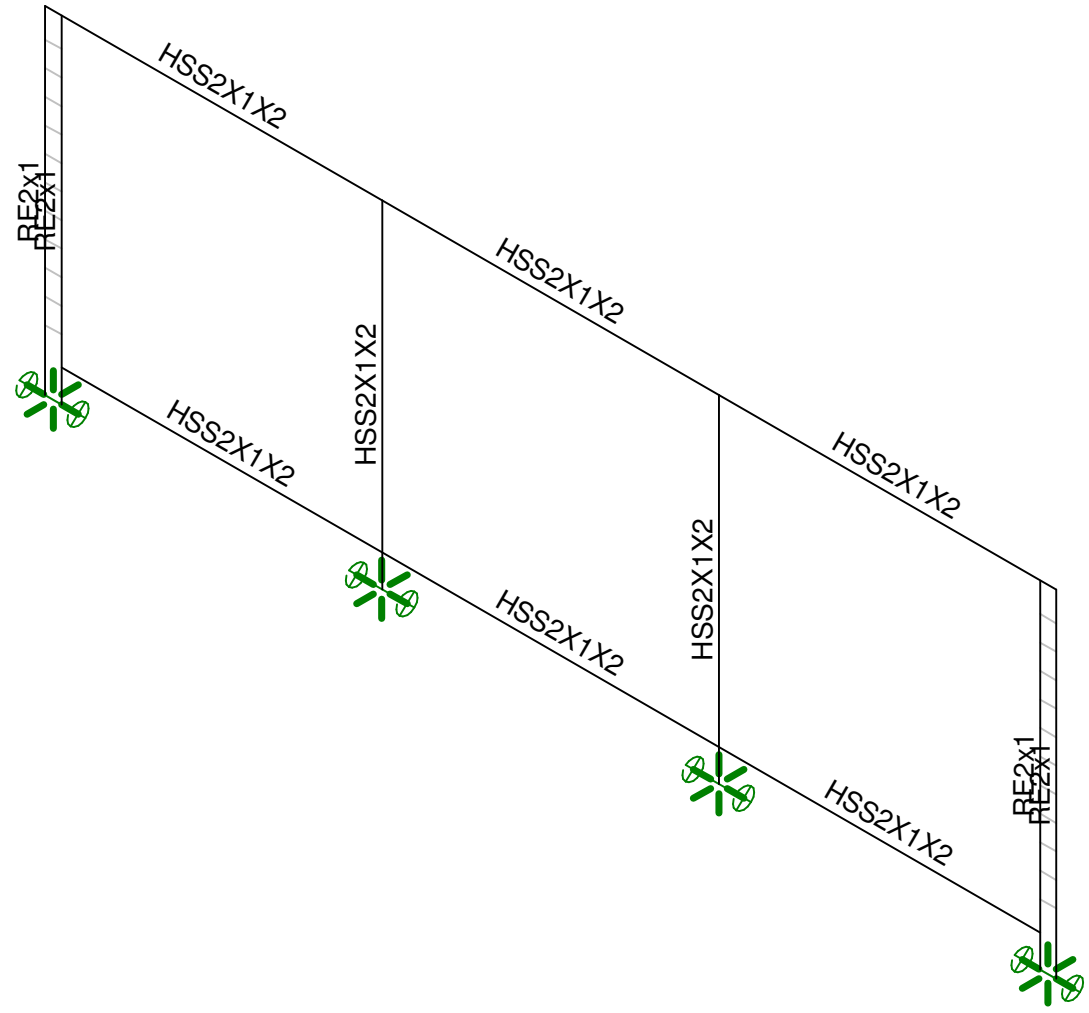
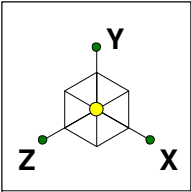
Disclaimer: Analysis and Structural Certification DOES NOT include base plates or anchorage to supporting structure. Where required by the Local Building Official, these shall be reviewed and designed by the project Structural Engineer of Record.



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D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

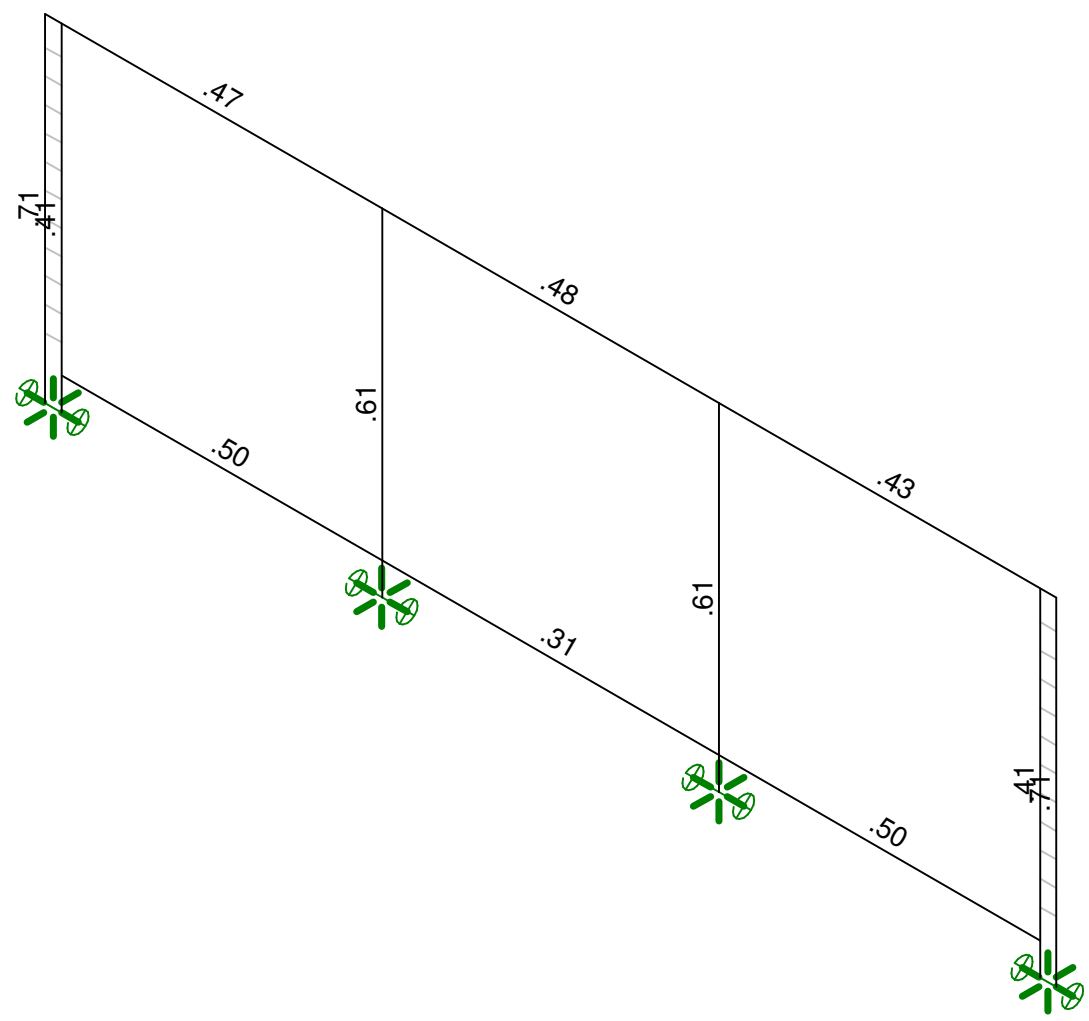
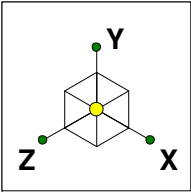
Mar 3, 2009 at 10:01 AM
D3a-2x1.R3D



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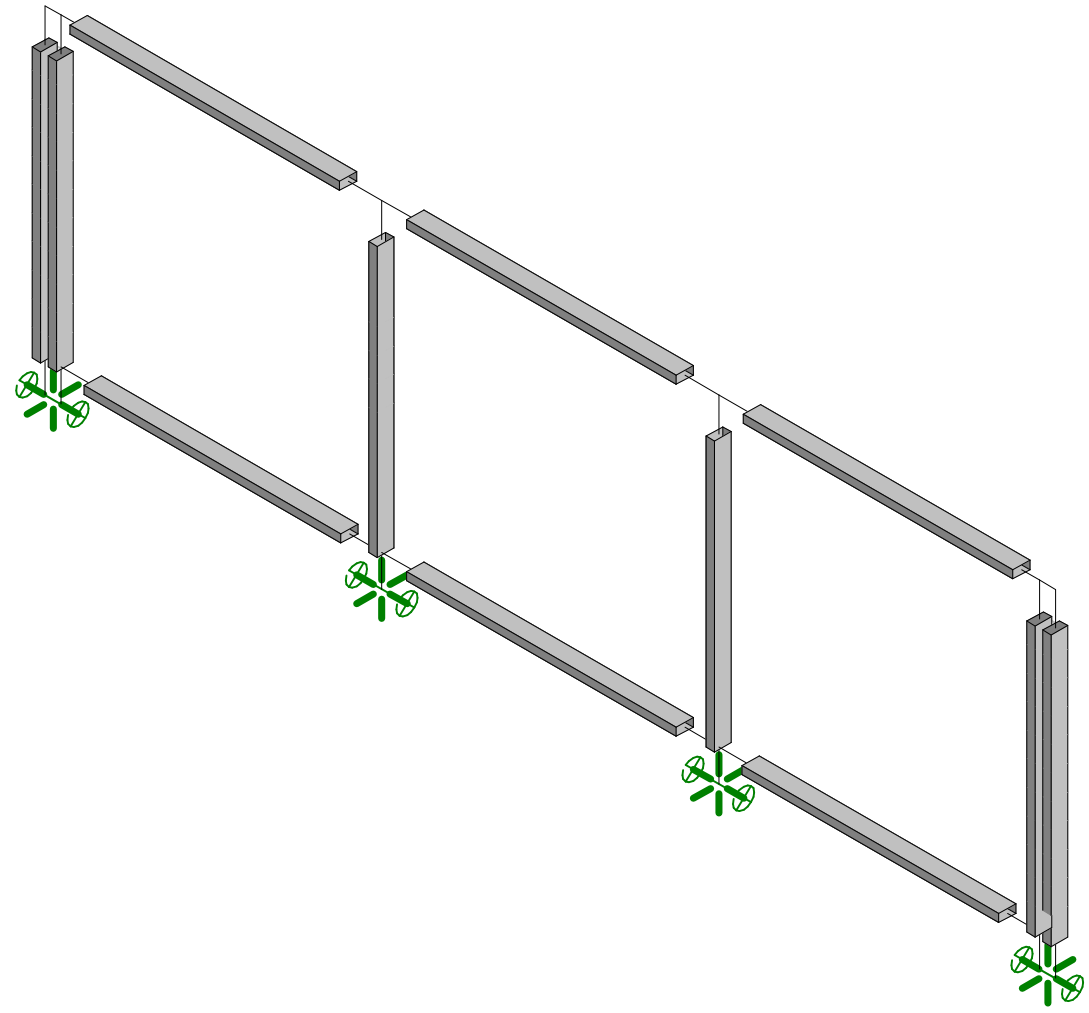
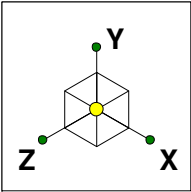
D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

Mar 3, 2009 at 10:02 AM
D3a-2x1.R3D



Member Code Checks Displayed
Solution: Envelope

Ferrari Shields & Associates	D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL	
Dan O'Connor		Mar 3, 2009 at 10:02 AM
08196		D3a-2x1.R3D



Ferrari Shields & Associates

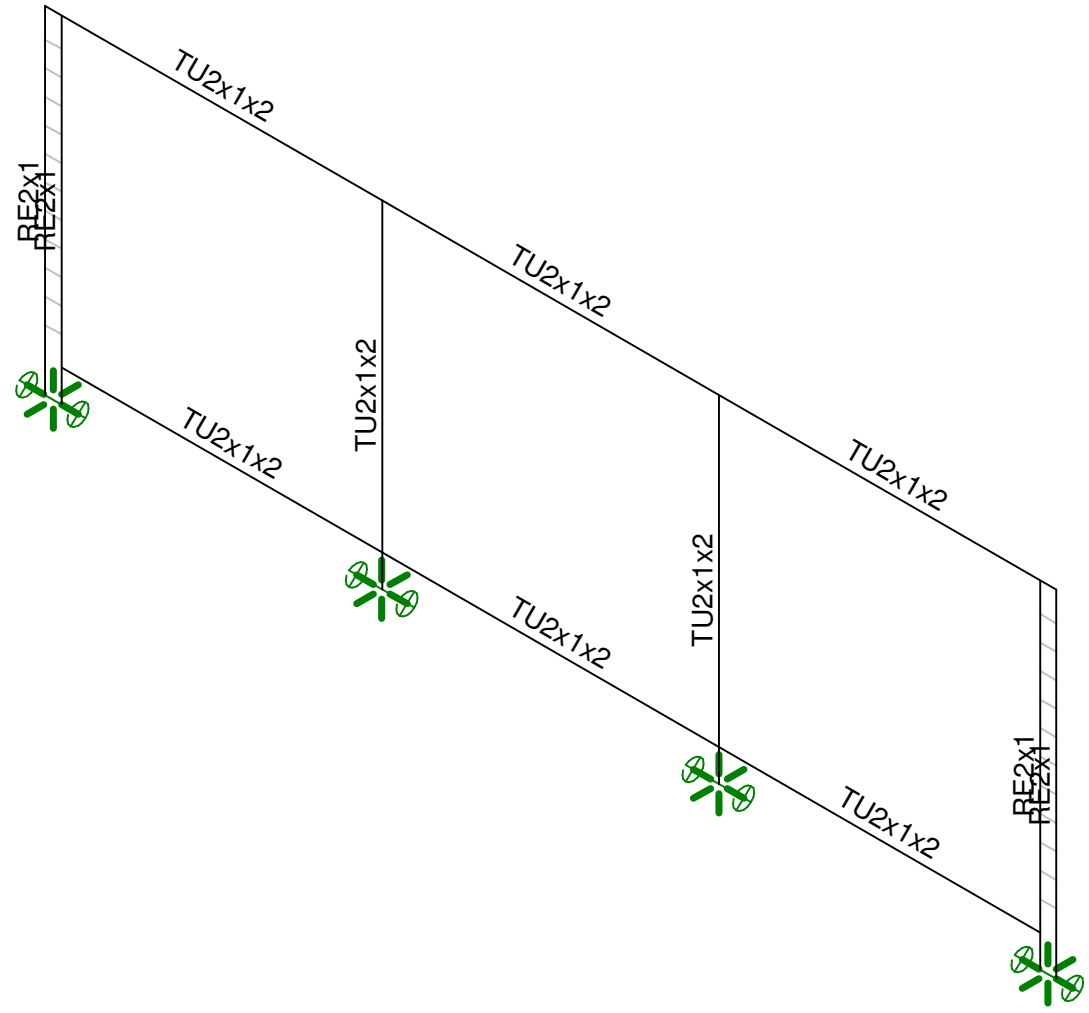
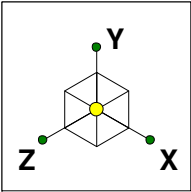
Dan O'Connor

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D3a (SS) - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

Mar 3, 2009 at 10:07 AM

D3a-2x1-ss.R3D

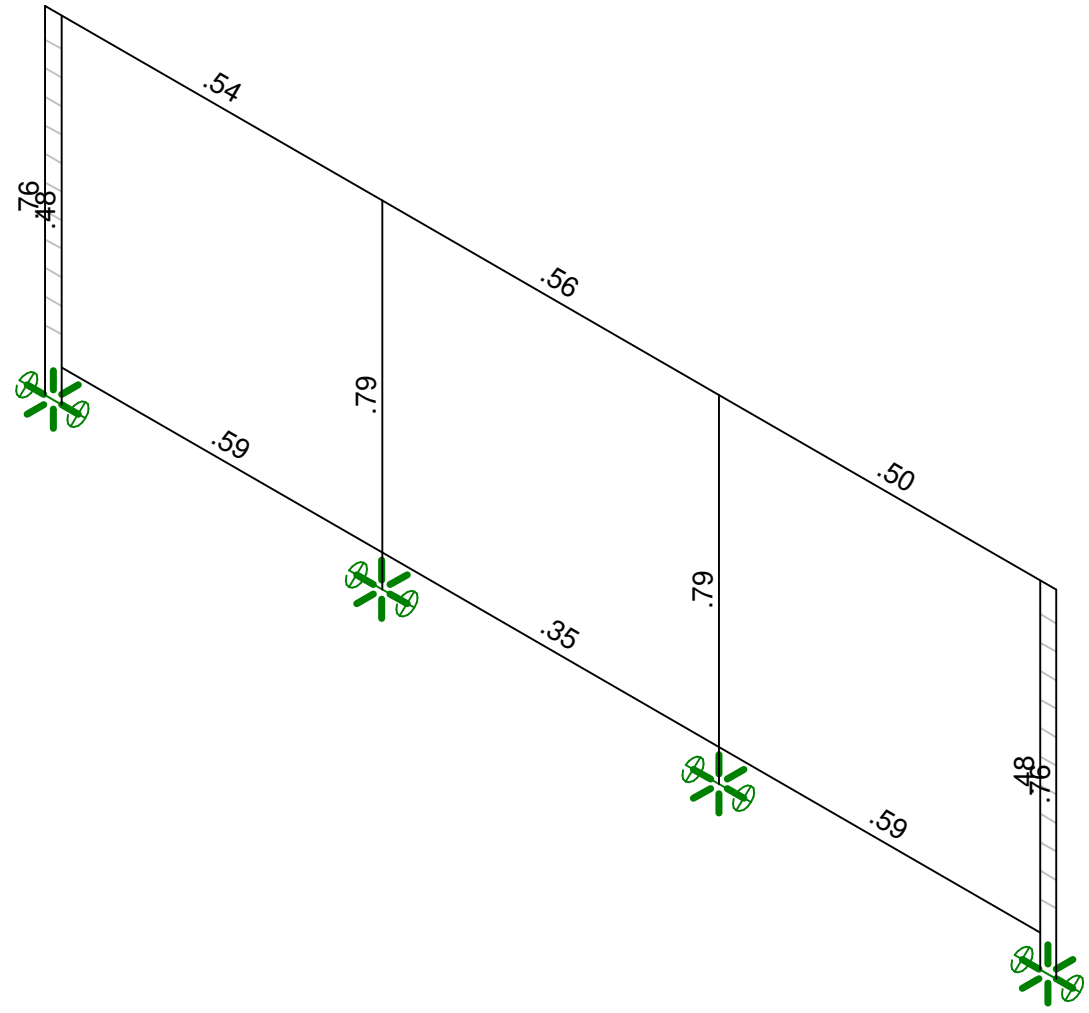
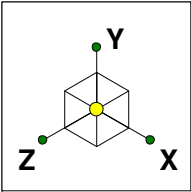


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D3a (SS) - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

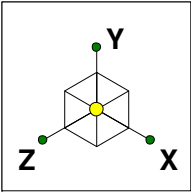
Mar 3, 2009 at 10:07 AM

D3a-2x1-ss.R3D



Member Code Checks Displayed
Solution: Envelope

Ferrari Shields & Associates	D3a (SS) - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL	
Dan O'Connor		Mar 3, 2009 at 10:08 AM
08196		D3a-2x1-ss.R3D



325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb

391.5



-143

143



-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb

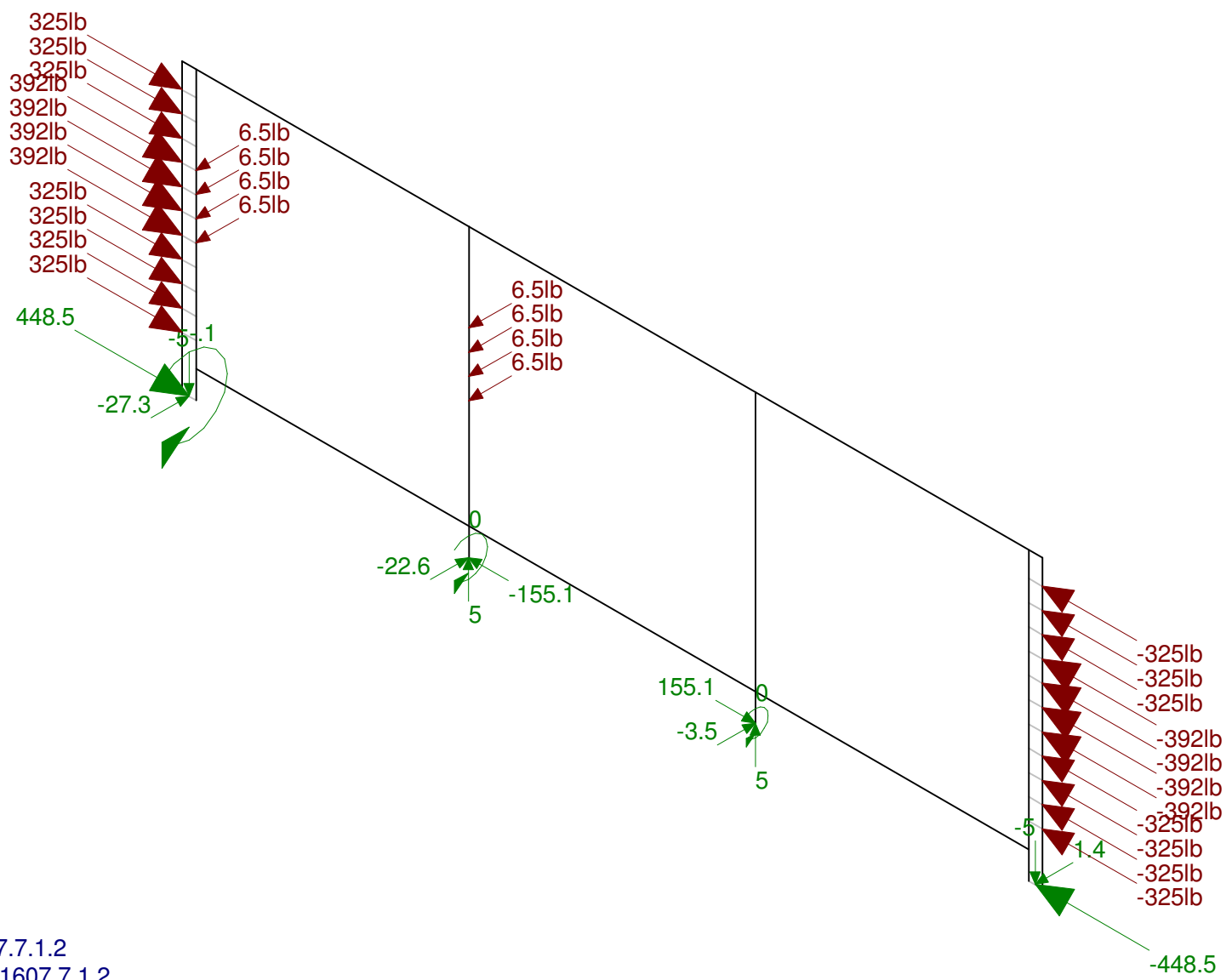
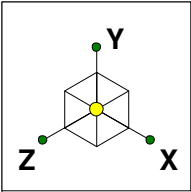
-391.5

Loads: LC 1, Cable Prestress
Results for LC 1, Cable Prestress
Reaction units are lb and k-ft

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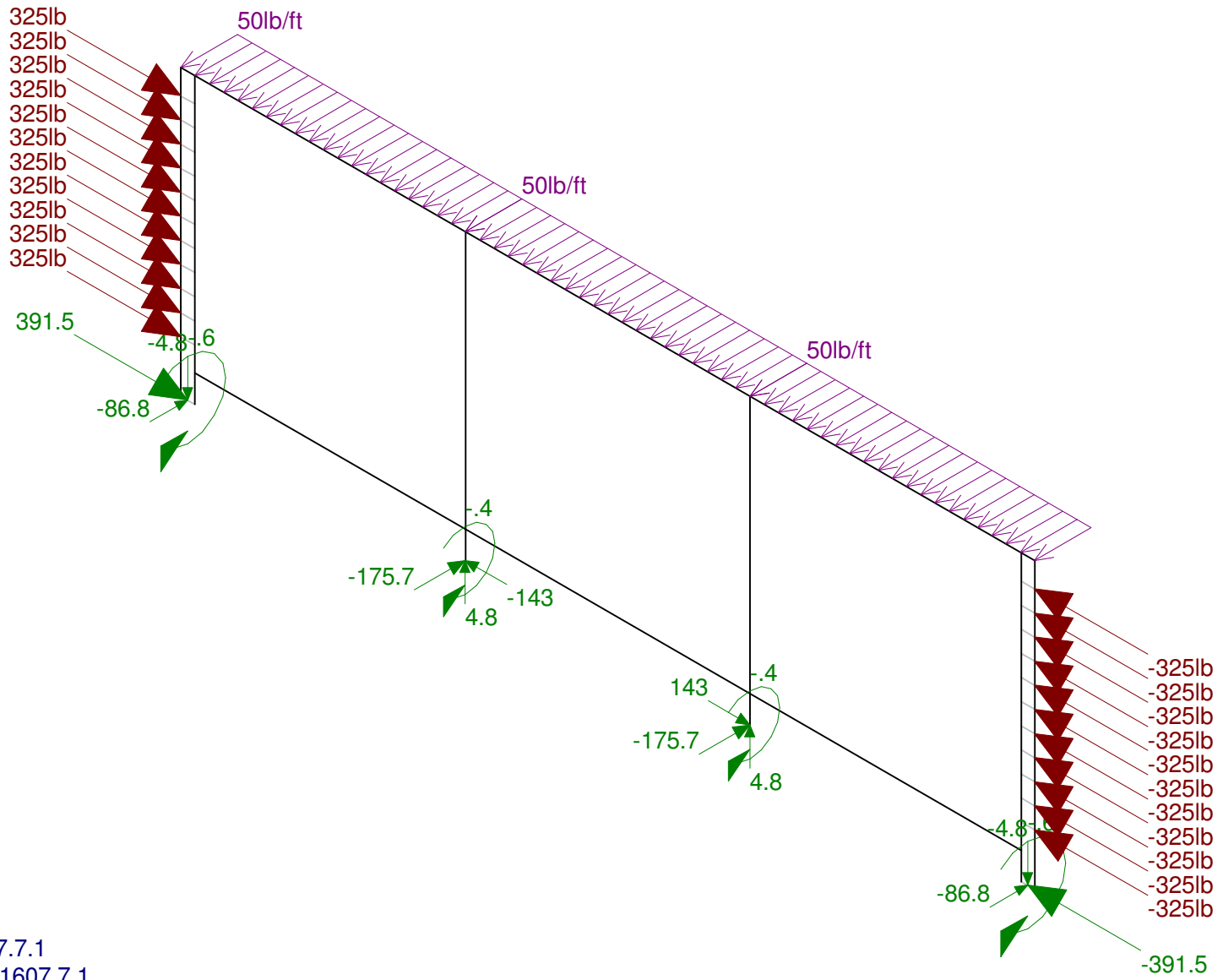
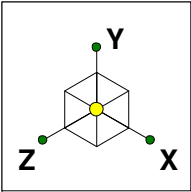
D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

Mar 3, 2009 at 11:11 AM
D3a-2x1.R3D



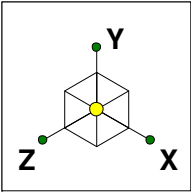
Loads: LC 2, 1607.7.1.2
 Results for LC 2, 1607.7.1.2
 Reaction units are lb and k-ft

Ferrari Shields & Associates	D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL	
Dan O'Connor		Mar 3, 2009 at 11:12 AM
08196		D3a-2x1.R3D



Loads: LC 3, 1607.7.1
 Results for LC 3, 1607.7.1
 Reaction units are lb and k-ft

Ferrari Shields & Associates	D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL	
Dan O'Connor		Mar 3, 2009 at 11:12 AM
08196		D3a-2x1.R3D



325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb

391.5
-4.8
-33.2
-.3

200lb

-124.4
-143
4.8
-.3

143
-57
4.8
-.2

-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb

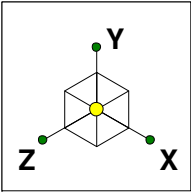
-4.8
14.6
-391.5

Loads: LC 4, 1607.7.1.1 (1)
Results for LC 4, 1607.7.1.1 (1)
Reaction units are lb and k-ft

Ferrari Shields & Associates
Dan O'Connor
08196

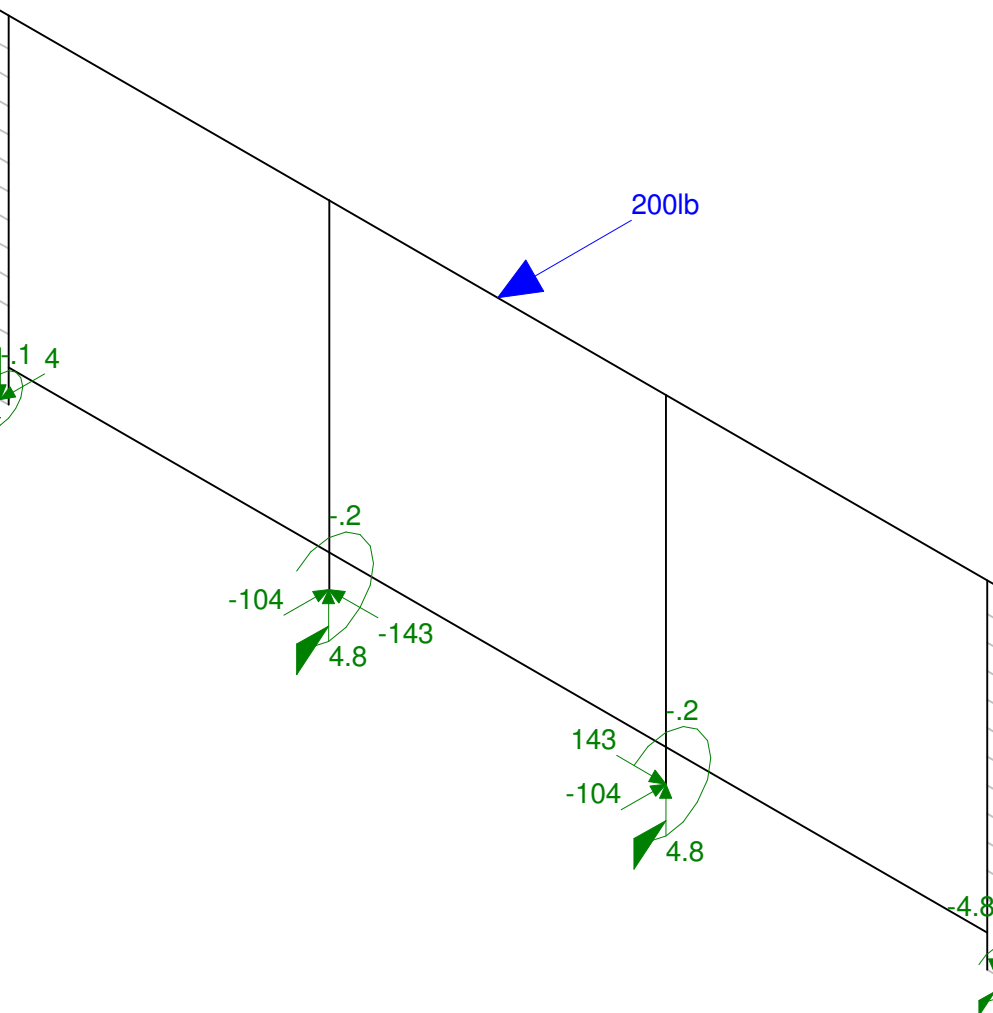
D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

Mar 3, 2009 at 11:12 AM
D3a-2x1.R3D

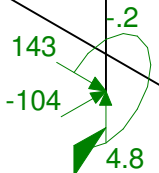
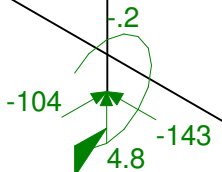


325lb
325lb
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325lb
325lb
325lb
325lb
325lb
325lb
325lb

391.5



200lb



-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb

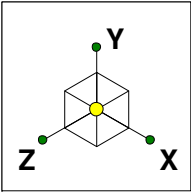
-391.5

Loads: LC 5, 1607.7.1.1 (2)
Results for LC 5, 1607.7.1.1 (2)
Reaction units are lb and k-ft

Ferrari Shields & Associates
Dan O'Connor
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D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

Mar 3, 2009 at 11:13 AM
D3a-2x1.R3D



325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb
325lb

405.4

-19

-200lb

119 -180.7

180.6

119

-19

-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb
-325lb

-405.3

Loads: LC 6, 1607.7.1.1 (3)
Results for LC 6, 1607.7.1.1 (3)
Reaction units are lb and k-ft

Ferrari Shields & Associates
Dan O'Connor
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D3a - 2" x 1" RECT TUBE x 42-1/2" HIGH RAIL W/ BOTTOM RAIL

Mar 3, 2009 at 11:13 AM
D3a-2x1.R3D

Global

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation	Yes
Include Warping	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Vertical Axis	Y

Hot Rolled Steel Code	AISC : ASD 13th
Cold Formed Steel Code	AISI 01: ASD
Wood Code	NDS 2005: ASD
Wood Temperature	< 100F
Concrete Code	ACI 2005
Masonry Code	MSJC 05/IBC 06 ASD

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	PCA Load Contour
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections	Yes
Bad Framing Warnings	No
Unused Force Warnings	Yes

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]	Yield[ksi]
1	A500Gr42	29000	11154	.3	.65	.49	42
2	A36	29000	11154	.3	.65	.49	36

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	RAIL	HSS2X1X2	Beam	Tube	A500Gr42	Typical	.609	.092	.28	.238
2	EPOST	RE2x1	Column	Tube	A36	Typical	2	.167	.667	.457
3	IPOST	HSS2X1X2	Column	Tube	A500Gr42	Typical	.609	.092	.28	.238

General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]
1	GEN_RIGID	1e+6		.3	.65	0

General Section Sets

	Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	LINK		Beam	GEN_RIGID	.25	.005	.005	.01

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area (Mem...	Surface (Pl...
1	Cable Prestress	None				22				
2	1607.7.1.2	None				16				
3	1607.7.1	None						3		
4	1607.7.1.1 (1)	None				1				
5	1607.7.1.1 (2)	None					1			
6	1607.7.1.1 (3)	None					1			

Load Combinations

	Description	Solve	PDelta	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	Cable Prestress	Yes	C		1	1							
2	1607.7.1.2	Yes	C		1	1	2	1					
3	1607.7.1	Yes	C		1	1	3	1					
4	1607.7.1.1 (1)	Yes	C		1	1	4	1					
5	1607.7.1.1 (2)	Yes	C		1	1	5	1					
6	1607.7.1.1 (3)	Yes	C		1	1	6	1					

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2		90	EPOST	Column	Tube	A36	Typical
2	M2	N3	N4		90	IPOST	Column	Tube	A500Gr42	Typical
3	M3	N2	N4		90	RAIL	Beam	Tube	A500Gr42	Typical
4	M4	N4	N8		90	RAIL	Beam	Tube	A500Gr42	Typical
5	M5	N5	N6		90	EPOST	Column	Tube	A36	Typical
6	M6	N7	N8		90	IPOST	Column	Tube	A500Gr42	Typical
7	M7	N8	N6		90	RAIL	Beam	Tube	A500Gr42	Typical
8	M8	N9	N10		90	EPOST	Column	Tube	A36	Typical
9	M9	N11	N12		90	EPOST	Column	Tube	A36	Typical
10	M10	N13	N15			LINK	Beam	None	GEN_RIGID	Default
11	M11	N16	N14			LINK	Beam	None	GEN_RIGID	Default
12	M12	N1	N17			LINK	Beam	None	GEN_RIGID	Default
13	M13	N11	N18			LINK	Beam	None	GEN_RIGID	Default
14	M14	N17	N9			LINK	Beam	None	GEN_RIGID	Default
15	M15	N18	N5			LINK	Beam	None	GEN_RIGID	Default
16	M16	N19	N20		90	RAIL	Beam	Tube	A500Gr42	Typical
17	M17	N20	N22		90	RAIL	Beam	Tube	A500Gr42	Typical
18	M18	N22	N21		90	RAIL	Beam	Tube	A500Gr42	Typical
19	M19	N23	N25			LINK	Beam	None	GEN_RIGID	Default
20	M20	N26	N24			LINK	Beam	None	GEN_RIGID	Default
21	M21	N27	N29			LINK	Beam	None	GEN_RIGID	Default
22	M22	N30	N28			LINK	Beam	None	GEN_RIGID	Default
23	M23	N31	N33			LINK	Beam	None	GEN_RIGID	Default
24	M24	N34	N32			LINK	Beam	None	GEN_RIGID	Default
25	M25	N35	N37			LINK	Beam	None	GEN_RIGID	Default
26	M26	N38	N36			LINK	Beam	None	GEN_RIGID	Default
27	M27	N39	N41			LINK	Beam	None	GEN_RIGID	Default
28	M28	N42	N40			LINK	Beam	None	GEN_RIGID	Default
29	M29	N43	N45			LINK	Beam	None	GEN_RIGID	Default
30	M30	N46	N44			LINK	Beam	None	GEN_RIGID	Default
31	M31	N47	N49			LINK	Beam	None	GEN_RIGID	Default

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
32	M32	N50	N48			LINK	Beam	None	GEN_RIGID	Default
33	M33	N51	N53			LINK	Beam	None	GEN_RIGID	Default
34	M34	N54	N52			LINK	Beam	None	GEN_RIGID	Default
35	M35	N55	N57			LINK	Beam	None	GEN_RIGID	Default
36	M36	N58	N56			LINK	Beam	None	GEN_RIGID	Default
37	M37	N63	N65			LINK	Beam	None	GEN_RIGID	Default
38	M38	N66	N64			LINK	Beam	None	GEN_RIGID	Default

Envelope Joint Reactions

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N3	max	-142.973	1	118.98	6	0	1	0	1	0	1	0	1
2		min	-180.706	6	4.848	4	-175.742	3	-.446	3	0	1	0	1
3	N7	max	180.649	6	118.994	6	0	1	0	1	0	1	0	1
4		min	142.973	1	4.848	4	-175.742	3	-.446	3	0	1	0	1
5	N17	max	448.493	2	-4.848	4	3.987	5	0	1	0	1	0	1
6		min	391.484	1	-18.983	6	-86.758	3	-.57	3	0	1	0	1
7	N18	max	-391.484	1	-4.848	4	14.623	4	0	1	0	1	0	1
8		min	-448.493	2	-18.991	6	-86.758	3	-.57	3	0	1	0	1
9	Totals:	max	0	6	200	6	0	1						
10		min	0	2	0	2	-525	3						

Envelope Member Section Forces

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-ft]	LC	y-y Moment[...]	LC	z-z Moment[...]	LC	
1	M1	1	max	150.4	1	.326	5	-234.883	6	.023	3	.073	2	0	1
2			min	122.042	2	-42.443	3	-244.28	2	0	1	.07	6	-.274	3
3		2	max	3094.87	2	69.092	5	-971.47	1	.034	3	-.129	1	0	1
4			min	2912.108	6	-10.991	2	-1054.785	2	0	1	-.139	2	-.241	3
5		3	max	8661.621	2	49.029	5	-105.449	1	.04	3	-.069	1	0	1
6			min	7810.842	1	-11.656	2	-137.12	2	0	1	-.076	2	-.16	3
7		4	max	7299.526	2	48.314	5	462.882	2	.039	3	-.035	4	0	1
8			min	6609.896	1	-4.101	2	388.434	6	0	1	-.037	2	-.093	3
9		5	max	833.355	2	22.278	5	844.022	2	.038	3	.078	2	0	1
10			min	772.953	4	-.353	2	782.714	4	0	1	.072	4	-.023	3
11	M2	1	max	118.98	6	0	1	-142.978	1	0	1	0	1	0	1
12			min	4.848	4	-175.752	3	-180.821	6	0	1	0	1	-.446	3
13		2	max	93.146	6	0	1	24.81	6	.022	5	-.007	1	0	1
14			min	-24.047	2	-136.513	3	8.317	1	0	2	-.014	6	-.318	3
15		3	max	93.146	6	0	1	24.835	6	.022	5	.007	6	0	2
16			min	-24.047	2	-136.513	3	8.317	1	0	2	0	1	-.199	3
17		4	max	93.146	6	4.756	2	24.61	6	.022	5	.029	6	.005	2
18			min	-24.047	2	-136.513	3	8.317	1	0	2	.007	1	-.079	3
19		5	max	93.146	6	4.756	2	24.61	6	.022	5	.05	6	.041	4
20			min	-24.047	2	-136.513	3	8.317	1	0	2	.015	1	0	1
21	M3	1	max	840.086	2	19.488	5	-770.294	4	0	1	.078	2	0	1
22			min	779.382	4	0	1	-830.203	2	-.023	3	.072	4	-.038	3
23		2	max	1881.134	2	0	1	-7.017	6	0	2	.042	2	.001	2
24			min	1735.939	6	-96.818	3	-24.224	2	-.04	3	.033	6	-.035	5
25		3	max	1881.134	2	0	1	-7.017	6	0	2	.027	6	.058	3
26			min	1735.939	6	-70.823	4	-24.224	2	-.04	3	.019	1	-.006	5
27		4	max	1881.134	2	0	1	-7.017	6	0	2	.021	6	.109	4

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-ft]	LC	y-y Moment[...]	LC	z-z Moment[...]	LC	
28		min	1735.939	6	-70.823	4	-24.224	2	-.04	3	0	2	0	1	
29	5	max	1881.134	2	34.432	3	-7.017	6	0	2	.015	6	.171	4	
30		min	1735.939	6	-70.823	4	-24.224	2	-.04	3	-.022	2	0	1	
31	M4	1	max	1890.218	2	53.974	4	0	.015	4	.065	6	.164	4	
32		min	1750.845	4	-100	5	-99.989	6	0	1	-.006	2	0	1	
33	2	max	1890.218	2	53.974	4	0	1	.015	4	-.005	1	.117	5	
34		min	1750.845	4	-100	5	-99.989	6	0	1	-.022	6	0	1	
35	3	max	1890.218	2	100	5	100.011	6	.015	4	-.005	1	.204	5	
36		min	1750.845	4	0	1	0	1	0	1	-.11	6	0	1	
37	4	max	1890.218	2	100	5	100.011	6	.015	4	-.005	1	.117	5	
38		min	1750.845	4	0	1	0	1	0	1	-.022	6	0	2	
39	5	max	1890.218	2	100	5	100.011	6	.015	4	.065	6	.054	3	
40		min	1750.845	4	0	1	0	1	0	1	-.006	2	-.025	4	
41	M5	1	max	150.4	1	5.687	4	244.28	2	0	1	-.07	6	0	2
42		min	122.042	2	-42.443	3	234.878	6	-.023	3	-.073	2	-.274	3	
43	2	max	3094.87	2	69.092	5	1054.785	2	0	1	.139	2	0	1	
44		min	2912.094	6	0	1	971.47	1	-.034	3	.129	1	-.241	3	
45	3	max	8661.621	2	49.029	5	137.12	2	0	1	.076	2	0	1	
46		min	7810.842	1	0	1	105.449	1	-.04	3	.069	1	-.16	3	
47	4	max	7299.526	2	48.314	5	-388.433	6	0	1	.037	2	0	1	
48		min	6609.896	1	0	1	-462.882	2	-.039	3	.035	4	-.093	3	
49	5	max	833.355	2	22.278	5	-782.714	4	0	1	-.072	4	0	1	
50		min	772.953	4	0	1	-844.022	2	-.038	3	-.078	2	-.023	3	
51	M6	1	max	118.994	6	0	1	180.765	6	0	1	0	1	0	1
52		min	4.848	4	-175.752	3	142.978	1	0	1	0	1	-.446	3	
53	2	max	93.162	6	0	1	-8.317	1	0	1	.014	6	0	1	
54		min	-24.047	2	-136.513	3	-24.739	6	-.022	5	.007	1	-.318	3	
55	3	max	93.162	6	0	1	-8.317	1	0	1	0	1	0	1	
56		min	-24.047	2	-136.513	3	-24.739	6	-.022	5	-.007	6	-.199	3	
57	4	max	93.162	6	0	1	-8.317	1	0	1	-.007	1	0	1	
58		min	-24.047	2	-136.513	3	-24.739	6	-.022	5	-.029	6	-.079	3	
59	5	max	93.162	6	0	1	-8.317	1	0	1	-.015	1	.04	3	
60		min	-24.047	2	-136.513	3	-24.739	6	-.022	5	-.051	6	0	1	
61	M7	1	max	1881.134	2	32.647	5	24.224	2	.04	3	.015	6	.075	3
62		min	1735.942	6	-34.432	3	7.023	6	0	1	-.022	2	-.005	4	
63	2	max	1881.134	2	32.647	5	24.224	2	.04	3	.021	6	.086	3	
64		min	1735.942	6	0	1	7.023	6	0	1	0	2	-.013	4	
65	3	max	1881.134	2	53.068	3	24.224	2	.04	3	.027	6	.058	3	
66		min	1735.942	6	0	1	7.023	6	0	1	.019	1	-.022	4	
67	4	max	1881.134	2	96.818	3	24.224	2	.04	3	.042	2	0	1	
68		min	1735.942	6	0	1	7.023	6	0	1	.033	6	-.035	5	
69	5	max	840.086	2	0	1	830.203	2	.023	3	.078	2	0	1	
70		min	779.382	4	-19.488	5	770.294	4	0	1	.072	4	-.038	3	
71	M8	1	max	-127.02	2	3.588	5	692.29	2	0	1	-.046	1	0	1
72		min	-155.247	1	-44.671	3	627.484	1	-.023	3	-.053	2	-.295	3	
73	2	max	-2901.684	4	0	1	-546.022	1	.044	3	-.113	1	0	1	
74		min	-3070.823	2	-201.731	3	-593.692	2	0	1	-.121	2	-.224	3	
75	3	max	-7788.871	1	0	1	-105.35	1	.04	3	-.069	1	0	1	
76		min	-8637.574	2	-190.82	3	-137.082	2	0	1	-.076	2	-.167	3	
77	4	max	-6587.925	1	0	1	461.984	2	.039	3	-.035	4	0	1	
78		min	-7275.479	2	-190.073	3	387.921	6	0	1	-.037	2	-.079	3	
79	5	max	-750.983	4	0	1	1041.048	2	.049	3	.119	2	0	2	
80		min	-811.835	6	-134.287	3	939.289	6	0	1	.101	6	-.017	3	

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-ft]	LC	y-y Moment[...]	LC	z-z Moment[...]	LC
81	M9	1	max	-127.02	2	8.918	4	-627.484	1	.023	3	.053	2	0	1
82			min	-155.247	1	-44.671	3	-692.29	2	0	1	.046	1	-.295	3
83		2	max	-2901.684	4	0	1	593.692	2	0	1	.121	2	0	1
84			min	-3070.823	2	-201.731	3	546.022	1	-.044	3	.113	1	-.224	3
85		3	max	-7788.871	1	0	1	137.082	2	0	1	.076	2	0	1
86			min	-8637.574	2	-190.82	3	105.35	1	-.04	3	.069	1	-.167	3
87		4	max	-6587.925	1	0	1	-387.92	6	0	1	.037	2	0	1
88			min	-7275.479	2	-190.073	3	-461.984	2	-.039	3	.035	4	-.079	3
89		5	max	-750.983	4	0	1	-939.29	6	0	1	-.101	6	0	1
90			min	-811.832	6	-134.287	3	-1041.048	2	-.049	3	-.119	2	-.017	3
91	M16	1	max	2410.359	2	39.386	3	29.218	2	0	2	-.056	6	.099	3
92			min	2223.955	1	0	1	25.989	6	-.005	5	-.061	2	0	1
93		2	max	2410.359	2	39.386	3	29.218	2	0	2	-.034	6	.066	3
94			min	2223.955	1	0	1	25.989	6	-.005	5	-.037	2	0	1
95		3	max	2410.359	2	39.386	3	29.218	2	0	2	-.012	1	.033	3
96			min	2223.955	1	0	1	25.989	6	-.005	5	-.013	2	0	1
97		4	max	2410.359	2	39.386	3	29.218	2	0	2	.012	2	.002	4
98			min	2223.955	1	0	1	25.989	6	-.005	5	.009	6	-.003	5
99		5	max	2410.359	2	39.386	3	29.218	2	0	2	.036	2	0	1
100			min	2223.955	1	0	1	25.989	6	-.005	5	.031	6	-.033	3
101	M17	1	max	2246.196	2	0	1	0	1	.004	4	-.002	6	0	1
102			min	2039.001	6	-5.166	4	-.007	6	0	1	-.003	2	-.014	4
103		2	max	2246.196	2	0	1	0	1	.004	4	-.002	6	0	1
104			min	2039.001	6	-5.166	4	-.007	6	0	1	-.003	2	-.012	3
105		3	max	2246.196	2	0	1	0	1	.004	4	-.002	6	0	1
106			min	2039.001	6	-5.166	4	-.007	6	0	1	-.003	2	-.012	3
107		4	max	2246.196	2	0	1	0	1	.004	4	-.002	6	0	1
108			min	2039.001	6	-5.166	4	-.007	6	0	1	-.003	2	-.012	3
109		5	max	2246.196	2	0	1	0	1	.004	4	-.002	6	.004	4
110			min	2039.001	6	-5.166	4	-.007	6	0	1	-.003	2	-.012	3
111	M18	1	max	2410.359	2	0	1	-26.002	6	.005	5	.036	2	0	1
112			min	2223.955	1	-39.386	3	-29.218	2	0	1	.031	6	-.033	3
113		2	max	2410.359	2	0	1	-26.002	6	.005	5	.012	2	0	3
114			min	2223.955	1	-39.386	3	-29.218	2	0	1	.009	6	-.003	5
115		3	max	2410.359	2	0	1	-26.002	6	.005	5	-.012	1	.033	3
116			min	2223.955	1	-39.386	3	-29.218	2	0	1	-.013	2	0	1
117		4	max	2410.359	2	0	1	-26.002	6	.005	5	-.034	6	.066	3
118			min	2223.955	1	-39.386	3	-29.218	2	0	1	-.037	2	0	1
119		5	max	2410.359	2	0	1	-26.002	6	.005	5	-.056	6	.099	3
120			min	2223.955	1	-39.386	3	-29.218	2	0	1	-.061	2	0	1

Envelope AISC 13th ASD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om... Cb	Eqn
1	M1	RE2x1	.713	22.75	3	.078	7.875	z	3	14201.058	43113.772	.898	1.796	1... H1-1a
2	M2	HSS2X1X2	.607	3.938	3	.079	0	z	6	7484.295	15307.164	.468	.768	1... H1-1b
3	M3	HSS2X1X2	.468	42	4	.410	0	z	3	7484.423	15307.164	.468	.768	2... H1-1a
4	M4	HSS2X1X2	.480	21	5	.047	0	z	4	7484.423	15307.164	.468	.768	1... H1-1a
5	M5	RE2x1	.713	22.75	3	.078	7.875	z	3	14201.058	43113.772	.898	1.796	1... H1-1a
6	M6	HSS2X1X2	.607	3.938	3	.079	0	z	6	7484.295	15307.164	.468	.768	1... H1-1b
7	M7	HSS2X1X2	.435	39.813	3	.410	40.25	z	3	7484.423	15307.164	.468	.768	1... H1-1a
8	M8	RE2x1	.406	7.438	3	.152	4.375	z	3	14201.058	43113.772	.898	1.796	1... H1-1b

Envelope AISC 13th ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om... Cb	Eqn	
9	M9	RE2x1	.406	7.438	3	.152	4.375	z	3	14201.058	43113.772	.898	1.796	1... H1-1b
10	M16	HSS2X1X2	.500	0	3	.029	0	z	5	7999.22	15307.164	.468	.768	2... H1-1a
11	M17	HSS2X1X2	.307	0	2	.011	0	z	4	7484.423	15307.164	.468	.768	2... H1-1a
12	M18	HSS2X1X2	.500	40	3	.029	0	z	5	7999.22	15307.164	.468	.768	2... H1-1a

Global

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation	Yes
Include Warping	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Vertical Axis	Y

Hot Rolled Steel Code	AISC : ASD 13th
Cold Formed Steel Code	AISI 01: ASD
Wood Code	NDS 2005: ASD
Wood Temperature	< 100F
Concrete Code	ACI 2005
Masonry Code	MSJC 05/IBC 06 ASD

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	PCA Load Contour
Parame Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections	Yes
Bad Framing Warnings	No
Unused Force Warnings	Yes

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]	Yield[ksi]
1	LDX2101	28000	11154	.3	.65	.49	60
2	SS316	28000	11154	.3	.65	.49	30

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	RAIL	TU2x1x2	Beam	Tube	SS316	Typical	.662	.102	.321	.238
2	EPOST	RE2x1	Column	Tube	SS316	Typical	2	.167	.667	.457
3	IPOST	TU2x1x2	Column	Tube	SS316	Typical	.662	.102	.321	.238

General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E5 F)	Density[k/ft^3]
1	GEN_RIGID	1e+6		.3	.65	0

General Section Sets

	Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	LINK		Beam	GEN_RIGID	.25	.005	.005	.01

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area (Mem...	Surface (Pl...
1	Cable Prestress	None				22				
2	1607.7.1.2	None				16				
3	1607.7.1	None						3		
4	1607.7.1.1 (1)	None				1				
5	1607.7.1.1 (2)	None					1			
6	1607.7.1.1 (3)	None					1			

Load Combinations

	Description	Solve	PDelta	SR...	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	Cable Prestress	Yes	C		1	1							
2	1607.7.1.2	Yes	C		1	1	2	1					
3	1607.7.1	Yes	C		1	1	3	1					
4	1607.7.1.1 (1)	Yes	C		1	1	4	1					
5	1607.7.1.1 (2)	Yes	C		1	1	5	1					
6	1607.7.1.1 (3)	Yes	C		1	1	6	1					

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2		90	EPOST	Column	Tube	SS316	Typical
2	M2	N3	N4		90	IPOST	Column	Tube	SS316	Typical
3	M3	N2	N4		90	RAIL	Beam	Tube	SS316	Typical
4	M4	N4	N8		90	RAIL	Beam	Tube	SS316	Typical
5	M5	N5	N6		90	EPOST	Column	Tube	SS316	Typical
6	M6	N7	N8		90	IPOST	Column	Tube	SS316	Typical
7	M7	N8	N6		90	RAIL	Beam	Tube	SS316	Typical
8	M8	N9	N10		90	EPOST	Column	Tube	SS316	Typical
9	M9	N11	N12		90	EPOST	Column	Tube	SS316	Typical
10	M10	N13	N15			LINK	Beam	None	GEN_RIGID	Default
11	M11	N16	N14			LINK	Beam	None	GEN_RIGID	Default
12	M12	N1	N17			LINK	Beam	None	GEN_RIGID	Default
13	M13	N11	N18			LINK	Beam	None	GEN_RIGID	Default
14	M14	N17	N9			LINK	Beam	None	GEN_RIGID	Default
15	M15	N18	N5			LINK	Beam	None	GEN_RIGID	Default
16	M16	N19	N20		90	RAIL	Beam	Tube	SS316	Typical
17	M17	N20	N22		90	RAIL	Beam	Tube	SS316	Typical
18	M18	N22	N21		90	RAIL	Beam	Tube	SS316	Typical
19	M19	N23	N25			LINK	Beam	None	GEN_RIGID	Default
20	M20	N26	N24			LINK	Beam	None	GEN_RIGID	Default
21	M21	N27	N29			LINK	Beam	None	GEN_RIGID	Default
22	M22	N30	N28			LINK	Beam	None	GEN_RIGID	Default
23	M23	N31	N33			LINK	Beam	None	GEN_RIGID	Default
24	M24	N34	N32			LINK	Beam	None	GEN_RIGID	Default
25	M25	N35	N37			LINK	Beam	None	GEN_RIGID	Default
26	M26	N38	N36			LINK	Beam	None	GEN_RIGID	Default
27	M27	N39	N41			LINK	Beam	None	GEN_RIGID	Default
28	M28	N42	N40			LINK	Beam	None	GEN_RIGID	Default
29	M29	N43	N45			LINK	Beam	None	GEN_RIGID	Default
30	M30	N46	N44			LINK	Beam	None	GEN_RIGID	Default
31	M31	N47	N49			LINK	Beam	None	GEN_RIGID	Default

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
32	M32	N50	N48			LINK	Beam	None	GEN_RIGID	Default
33	M33	N51	N53			LINK	Beam	None	GEN_RIGID	Default
34	M34	N54	N52			LINK	Beam	None	GEN_RIGID	Default
35	M35	N55	N57			LINK	Beam	None	GEN_RIGID	Default
36	M36	N58	N56			LINK	Beam	None	GEN_RIGID	Default
37	M37	N63	N65			LINK	Beam	None	GEN_RIGID	Default
38	M38	N66	N64			LINK	Beam	None	GEN_RIGID	Default

Envelope Joint Reactions

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N3	max	-151.872	1	118.919	6	0	1	0	1	0	1	0	1
2		min	-190.115	2	4.814	4	-174.627	3	-0.457	3	0	1	0	1
3	N7	max	189.617	6	118.932	6	0	1	0	1	0	1	0	1
4		min	138.041	2	1.592	2	-174.627	3	-0.457	3	0	1	0	1
5	N17	max	534.176	2	-4.814	4	2.746	5	0	1	0	1	0	1
6		min	462.136	1	-18.922	6	-87.873	3	-0.558	3	0	1	0	1
7	N18	max	-462.136	1	3.109	2	14.054	4	0	2	0	1	0	1
8		min	-509.702	2	-18.929	6	-87.873	3	-0.558	3	0	1	0	1
9	Totals:	max	0	6	200	6	0	1						
10		min	-27.6	2	0	4	-525	3						

Envelope Member Section Forces

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-ft]	LC	y-y Moment[...]	LC	z-z Moment[...]	LC	
1	M1	1	max	48.457	1	.149	5	-211.193	2	.021	3	.065	1	0	1
2			min	-22.898	2	-42.335	3	-215.147	1	0	1	.064	2	-269	3
3		2	max	2907.025	2	64.752	5	-980.446	1	.031	3	-.129	1	0	1
4			min	2786.425	6	-11.314	2	-1069.071	2	0	1	-.138	2	-236	3
5		3	max	8546.165	2	45.676	5	-109.174	1	.037	3	-.067	1	0	1
6			min	7721.986	1	-11.9	2	-144.811	2	0	1	-.074	2	-.156	3
7		4	max	7247.171	2	45.007	5	455.64	2	.036	3	-.035	4	0	1
8			min	6551.647	1	-4.456	2	384.853	6	0	1	-.037	2	-.089	3
9		5	max	870.514	2	21.471	5	844.759	2	.036	3	.082	2	0	1
10			min	788.993	4	-.661	3	777.057	4	0	1	.075	4	-.021	3
11	M2	1	max	118.919	6	0	1	-151.877	1	0	1	0	1	0	1
12			min	4.814	4	-174.637	3	-190.127	2	0	1	0	1	-.457	3
13		2	max	91.374	6	0	1	25.426	6	.02	5	-.005	2	0	1
14			min	-23.71	4	-138.459	3	6.07	2	0	2	-.015	6	-.328	3
15		3	max	91.374	6	0	1	25.449	6	.02	5	.007	6	0	2
16			min	-23.71	4	-138.459	3	6.07	2	0	2	0	2	-.207	3
17		4	max	91.374	6	4.481	2	25.239	6	.02	5	.03	6	.004	2
18			min	-23.71	4	-138.459	3	6.07	2	0	2	.005	2	-.085	3
19		5	max	91.374	6	4.481	2	25.239	6	.02	5	.052	6	.038	4
20			min	-23.71	4	-138.459	3	6.07	2	0	2	.011	2	0	1
21	M3	1	max	840.952	2	19.059	5	-786.28	4	0	1	.082	2	0	1
22			min	773.597	4	-.603	3	-867.642	2	-.021	3	.075	4	-.036	3
23		2	max	1869.646	2	0	1	-8.793	6	0	2	.041	4	.001	2
24			min	1728.535	6	-93.117	3	-23.862	4	-.036	3	.036	6	-.033	5
25		3	max	1869.646	2	0	1	-8.793	6	0	2	.029	6	.06	3
26			min	1728.535	6	-68.987	4	-23.862	4	-.036	3	.021	1	-.005	5
27		4	max	1869.646	2	0	1	-8.793	6	0	2	.021	6	.109	4

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-ft]	LC	y-y Moment[...]	LC	z-z Moment[...]	LC	
28		min	1728.535	6	-68.987	4	-23.862	4	-.036	3	0	4	0	1	
29	5	max	1869.646	2	38.133	3	-8.793	6	0	2	.013	6	.17	4	
30		min	1728.535	6	-68.987	4	-23.862	4	-.036	3	-.021	4	0	1	
31	M4	1	max	1875.716	2	53.814	4	1.163	.014	4	.065	6	.164	4	
32		min	1744.035	4	-100	5	-99.99	6	0	1	-.008	2	0	1	
33	2	max	1875.716	2	53.814	4	1.163	2	.014	4	-.006	1	.117	5	
34		min	1744.035	4	-100	5	-99.99	6	0	1	-.023	6	0	1	
35	3	max	1875.716	2	100	5	100.01	6	.014	4	-.006	1	.205	5	
36		min	1744.035	4	0	1	0	1	0	1	-.11	6	0	1	
37	4	max	1875.716	2	100	5	100.01	6	.014	4	-.005	2	.117	5	
38		min	1744.035	4	0	1	0	1	0	1	-.023	6	0	2	
39	5	max	1875.716	2	100	5	100.01	6	.014	4	.065	6	.051	3	
40		min	1744.035	4	0	1	0	1	0	1	-.006	4	-.025	4	
41	M5	1	max	49.661	2	5.675	4	230.364	2	0	1	-.064	6	0	2
42		min	28.706	6	-42.335	3	213.465	6	-.021	3	-.07	2	-.269	3	
43	2	max	2993.689	2	64.752	5	1051.262	2	0	1	.138	2	0	1	
44		min	2786.414	6	0	1	980.446	1	-.031	3	.129	1	-.236	3	
45	3	max	8497.659	2	45.676	5	134.212	2	0	1	.074	2	0	1	
46		min	7721.986	1	0	1	109.174	1	-.037	3	.067	1	-.156	3	
47	4	max	7154.729	2	45.007	5	-384.852	6	0	1	.036	2	0	1	
48		min	6551.647	1	0	1	-455.062	2	-.036	3	.035	4	-.089	3	
49	5	max	836.734	6	21.471	5	-777.057	4	0	1	-.075	4	0	1	
50		min	788.993	4	-.661	3	-824.669	2	-.036	3	-.08	2	-.021	3	
51	M6	1	max	118.932	6	0	1	189.731	6	0	1	0	1	0	1
52		min	1.592	2	-174.637	3	138.042	2	0	1	0	1	-.457	3	
53	2	max	91.388	6	0	1	-8.926	1	0	1	.015	6	0	1	
54		min	-28.015	2	-138.459	3	-25.359	6	-.02	5	.008	1	-.328	3	
55	3	max	91.388	6	0	1	-8.926	1	0	1	0	1	0	1	
56		min	-28.015	2	-138.459	3	-25.359	6	-.02	5	-.007	6	-.207	3	
57	4	max	91.388	6	0	1	-8.926	1	0	1	-.008	1	0	1	
58		min	-28.015	2	-138.459	3	-25.359	6	-.02	5	-.03	6	-.085	3	
59	5	max	91.388	6	0	1	-8.926	1	0	1	-.016	1	.036	3	
60		min	-28.015	2	-138.459	3	-25.359	6	-.02	5	-.052	6	0	1	
61	M7	1	max	1862.37	2	31.298	5	29.375	.036	3	.013	6	.069	3	
62		min	1728.538	6	-38.133	3	8.798	6	0	1	-.028	2	-.006	4	
63	2	max	1862.37	2	31.298	5	29.375	2	.036	3	.021	6	.084	3	
64		min	1728.538	6	0	1	8.798	6	0	1	-.002	2	-.014	4	
65	3	max	1862.37	2	49.367	3	29.375	2	.036	3	.029	6	.06	3	
66		min	1728.538	6	0	1	8.798	6	0	1	.021	1	-.022	4	
67	4	max	1862.37	2	93.117	3	29.375	2	.036	3	.05	2	0	1	
68		min	1728.538	6	0	1	8.798	6	0	1	.036	6	-.033	5	
69	5	max	820.39	2	.603	3	833.937	6	.021	3	.08	2	0	1	
70		min	773.597	4	-19.059	5	786.28	4	0	1	.075	4	-.036	3	
71	M8	1	max	9.971	2	2.573	5	745.334	2	0	1	-.057	1	0	1
72		min	-53.271	1	-45.651	3	677.105	1	-.022	3	-.067	2	-.289	3	
73	2	max	-2774.419	4	0	1	-544.185	1	.041	3	-.111	1	0	1	
74		min	-2884.52	2	-190.299	3	-591.622	2	0	1	-.119	2	-.22	3	
75	3	max	-7698.277	1	0	1	-109.072	1	.037	3	-.067	1	0	1	
76		min	-8523.66	2	-181.633	3	-144.765	2	0	1	-.074	2	-.162	3	
77	4	max	-6527.937	1	0	1	454.792	2	.036	3	-.035	4	0	1	
78		min	-7224.666	2	-181.033	3	384.34	6	0	1	-.037	2	-.077	3	
79	5	max	-765.283	4	0	1	1028.694	2	.045	3	.12	2	0	2	
80		min	-848.009	2	-129.587	3	938.469	6	0	1	.106	6	-.014	3	

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-ft]	LC	y-y Moment[...]	LC	z-z Moment[...]	LC
81	M9	1	max	-46.552	2	8.374	4	-677.105	1	.022	3	.062	2	0	1
82			min	-53.271	1	-45.651	3	-739.891	2	0	1	.057	1	-.289	3
83		2	max	-2774.419	4	0	1	586.782	2	0	1	.119	2	0	2
84			min	-2964.512	2	-190.299	3	544.185	1	-.041	3	.111	1	-.22	3
85		3	max	-7698.277	1	0	1	134.163	2	0	1	.074	2	0	1
86			min	-8468.482	2	-181.633	3	109.072	1	-.037	3	.067	1	-.162	3
87		4	max	-6527.937	1	0	1	-384.34	6	0	1	.036	2	0	1
88			min	-7125.552	2	-181.033	3	-454.158	2	-.036	3	.035	4	-.077	3
89		5	max	-765.283	4	0	1	-938.47	6	0	1	-.106	6	0	1
90			min	-828.112	6	-129.587	3	-1041.979	2	-.045	3	-.127	2	-.014	3
91	M16	1	max	2507.53	2	36.333	3	35.661	2	0	2	-.059	6	.091	3
92			min	2302.026	1	0	1	27.708	6	-.005	5	-.073	2	0	1
93		2	max	2507.53	2	36.333	3	35.661	2	0	2	-.036	6	.061	3
94			min	2302.026	1	0	1	27.708	6	-.005	5	-.044	2	0	1
95		3	max	2507.53	2	36.333	3	35.661	2	0	2	-.013	1	.031	3
96			min	2302.026	1	0	1	27.708	6	-.005	5	-.014	2	0	1
97		4	max	2507.53	2	36.333	3	35.661	2	0	2	.016	2	.002	4
98			min	2302.026	1	0	1	27.708	6	-.005	5	.01	6	-.003	5
99		5	max	2507.53	2	36.333	3	35.661	2	0	2	.045	2	0	1
100			min	2302.026	1	0	1	27.708	6	-.005	5	.033	6	-.03	3
101	M17	1	max	2311.345	2	0	1	3.539	2	.003	4	-.002	6	0	1
102			min	2107.501	6	-4.816	4	-.006	6	0	1	-.009	2	-.013	4
103		2	max	2311.345	2	0	1	3.539	2	.003	4	-.002	6	0	1
104			min	2107.501	6	-4.816	4	-.006	6	0	1	-.006	2	-.011	3
105		3	max	2311.345	2	0	1	3.539	2	.003	4	-.002	6	0	1
106			min	2107.501	6	-4.816	4	-.006	6	0	1	-.003	2	-.011	3
107		4	max	2311.345	2	0	1	3.539	2	.003	4	0	2	0	1
108			min	2107.501	6	-4.816	4	-.006	6	0	1	-.003	4	-.011	3
109		5	max	2311.345	2	0	1	3.539	2	.003	4	.003	2	.003	4
110			min	2107.501	6	-4.816	4	-.006	6	0	1	-.003	4	-.011	3
111	M18	1	max	2462.732	2	0	1	-26.24	2	.005	5	.035	4	0	1
112			min	2302.026	1	-36.333	3	-28.694	4	0	1	.031	2	-.03	3
113		2	max	2462.732	2	0	1	-26.24	2	.005	5	.011	4	0	3
114			min	2302.026	1	-36.333	3	-28.694	4	0	1	.009	2	-.003	5
115		3	max	2462.732	2	0	1	-26.24	2	.005	5	-.013	1	.031	3
116			min	2302.026	1	-36.333	3	-28.694	4	0	1	-.013	6	0	1
117		4	max	2462.732	2	0	1	-26.24	2	.005	5	-.035	2	.061	3
118			min	2302.026	1	-36.333	3	-28.694	4	0	1	-.037	4	0	1
119		5	max	2462.732	2	0	1	-26.24	2	.005	5	-.057	2	.091	3
120			min	2302.026	1	-36.333	3	-28.694	4	0	1	-.06	4	0	1

Envelope AISC 13th ASD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om...	Cb	Eqn
1	M1	RE2x1	.756	22.75	3	.090	7.875	z	3	13711.366	35928.144	.749	1.497	1...	H1-1a
2	M2	TU2x1x2	.786	3.938	3	.115	0	z	2	7068.688	11892.216	.368	.615	1...	H1-1b
3	M3	TU2x1x2	.542	42	4	.568	0	z	3	7068.776	11892.216	.368	.615	2...	H1-1a
4	M4	TU2x1x2	.556	21	5	.062	0	z	4	7068.776	11892.216	.368	.615	1...	H1-1a
5	M5	RE2x1	.756	22.75	3	.090	7.875	z	3	13711.366	35928.144	.749	1.497	1...	H1-1a
6	M6	TU2x1x2	.786	3.938	3	.115	0	z	6	7068.688	11892.216	.368	.615	1...	H1-1b
7	M7	TU2x1x2	.500	39.813	3	.568	40.25	z	3	7068.776	11892.216	.368	.615	1...	H1-1a
8	M8	RE2x1	.480	7.438	3	.176	4.375	z	3	13711.366	35928.144	.749	1.497	1...	H1-1b

Envelope AISC 13th ASD Steel Code Checks (Continued)

Member	Shape	Code Check	Loc[in]	LC	Shear ...	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om... Cb	Eqn	
9	M9	RE2x1	.480	7.438	3	.176	4.375	z	3	13711.366	35928.144	.749	1.497	1... H1-1b
10	M16	TU2x1x2	.588	0	3	.039	0	z	5	7419.045	11892.216	.368	.615	2... H1-1a
11	M17	TU2x1x2	.351	0	2	.014	0	z	4	7068.776	11892.216	.368	.615	1... H1-1a
12	M18	TU2x1x2	.588	40	3	.039	0	z	5	7419.045	11892.216	.368	.615	2... H1-1a

***** End of Calculations *****