May 19, 2022

Melanie A. Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Regarding: Notice of Exempt Modification – AT&T Site CT2113 / FA# 10034975
Address: 219 Nells Rock Rd (a/k/a 161 Nells Rock Rd), Shelton, CT 06484

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC ("AT&T") currently maintains a wireless telecommunications facility on an existing +/- 163' Self Support Tower at the above-referenced address, latitude 41.3041861, longitude -73.1183050. Said Self Support Tower is operated by AT&T.

AT&T desires to modify its existing telecommunications facility by swapping nine (9) antennae, swapping six (6) remote radio units, adding one (1) surge arrestors and accompanying feedlines, and mount modifications as more particularly detailed and described on the enclosed Construction Drawings prepared by Hudson Design Group, LLC, last revised May 10, 2022 and Mount Analysis prepared by Hudson Design Group, LLC, dated March 7, 2022. The centerline height of the existing antennas is and will remain at 165 feet. This modification may include B2, B5, B17, B14, B29, B30, B66, & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned off at various times.

Please accept this letter as notification pursuant to R.C.S.A §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the following individuals: The Honorable Mark A. Lauretti, Mayor of the City of Shelton, as elected official. Josh Oneill, Zoning Enforcement Officer and Alexander Rosetti, City Planner of the City of Shelton, and AT&T as tower operator/property owner. We reached out to both the Building and Zoning Departments for the City of Shelton who conducted a search and could not locate the original tower approval.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Specifically:

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require an extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*

5. The proposed modifications will not cause an ineligible change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. *Please see the structural analysis dated May 2, 2022, and prepared by GPD Engineering and Architecture Professional Corporation, enclosed herewith.*

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Evan Renwick

Evan Renwick
Site Acquisition Specialist
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
erenwick@clinellc.com

Enclosures: Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Notice Delivery Confirmations

cc: The Honorable Mark A. Lauretti, Mayor of City of Shelton, as elected official
Josh Oneill, Zoning Enforcement, City of Shelton
Alexander Rosetti, City Planner, City of Shelton
AT&T Towers, as tower operator/property owner.

EXHIBIT 4

March 7, 2022

Centerline Communications
750 West Center Street, Suite #301
West Bridgewater, MA 02379

RE:		
	Site Number:	CT2113
	FA Number:	10034975
	PACE Number:	MRCTB054859
	PT Number:	2051A11LT1
	Site Name:	SHELTON EAST CENTRAL
	Site Address:	219 Nells Rock Road Shelton, CT 06484

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Centerline Communications to perform a mount analysis on the existing AT&T antenna/RRH mount to determine its capability of supporting the following additional loading:

- (3) 800-10965 Antennas (78.7"x20.0"x6.9"– Wt. = 109 lbs. /each)
- (3) 4478 B14 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each)
- (3) RRUS-32 B2 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (3) RRUS-32 B66A RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (3) RRUS-32 B30 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (3) DC6-48-60-18 Surge Arrestors (31.4"x10.2" Ø – Wt. = 33 lbs.)
- **(3) QD8616-7 Antennas (96.0"x22.0"x9.6" – Wt. = 150 lbs. /each)**
- **(3) AIR6419 Antennas (31.0"x16.1"x7.3" – Wt. = 66 lbs. /each)**
- **(3) AIR6449 Antennas (30.6"x15.9"x10.6" – Wt. = 82 lbs. /each)**
- **(3) 4449 B5/B12 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each)**
- **(1) DC6-48-60-18-8C-EV Surge Arrestor (31.4"x10.2" Ø – Wt. = 33 lbs.)**

*Proposed equipment shown in bold.

No original structural design documents or fabrication drawings were available for the existing mount. HDG's subconsultant, ProVertic LLC, conducted a survey climb and mapping of the existing AT&T antenna mount on November 30, 2021.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code, and AT&T Mount Technical Directive – R16.
- HDG considers this mount to be asymmetrical and has applied wind loads in 30 degree increments all around the mount. Per TIA-222-H and Appendix N of the Connecticut State Building Code, the max basic wind speed for this site is equal to 125 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.0 in. An escalated ice thickness of 1.18 in was used for this analysis.
- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- HDG considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.
- HDG considers this site to have a spectral response acceleration parameter at short periods, S_S, of 0.199 and a spectral response acceleration parameter at a period of 1 second, S_1, of 0.064.
- The mount has been analyzed with load combinations consisting of 500 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 1.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing self supporting tower with steel plates and threaded rods. HDG considers the threaded rods to be the governing connection member.

Based on our evaluation, we have determined that existing mount **IS NOT CAPABLE** of supporting the proposed installation. HDG recommends the following modifications:

- **Install proposed L2-1/2x2x1/4 diagonal steel angles (typ. of 4 per sector, total of 12).**
- **Install proposed L2-1/2x2x1/4 horizontal steel angles (typ. of 4 per gamma sector, total of 4).**
- **Install proposed 2-1/2" std. (2.88" O.D.) pipe mast behind proposed QD8616-7 antenna secured to the modified handrail (typ. of 1 per beta and gamma sector, total of 2).**
- **Secure the proposed pipe masts to the modified handrail with a minimum of three points of connection (typ. of 1 per beta and gamma sector, total of 2).**

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing Alpha Mount Rating	9	LC1	104%	**FAIL**
Modified Alpha Mount Rating	38	LC7	95%	**PASS**
Existing Beta Mount Rating	54	LC4	193%	**FAIL**
Modified Beta Mount Rating	61	LC9	77%	**PASS**
Existing Gamma Mount Rating	38	LC7	163%	**FAIL**
Modified Gamma Mount Rating	9	LC19	95%	**PASS**

Reference Documents:

- Mount mapping report prepared by ProVertic LLC.

This determination was based on the following limitations and assumptions:

1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mount has been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to AT&T's mount must be tightened and re-plumbed prior to the installation of new appurtenances.
6. HDG performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,
Hudson Design Group LLC

Michael Cabral
Vice President

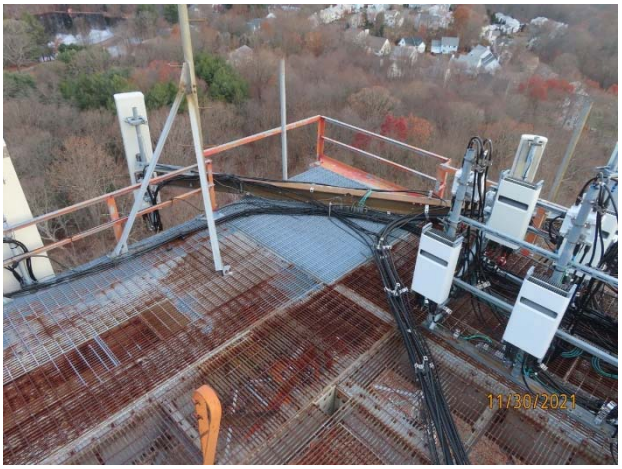
Daniel P. Hamm, PE
Principal

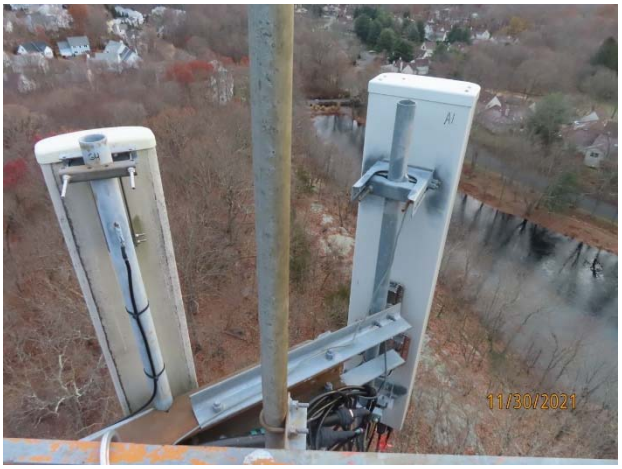
FIELD PHOTOS:

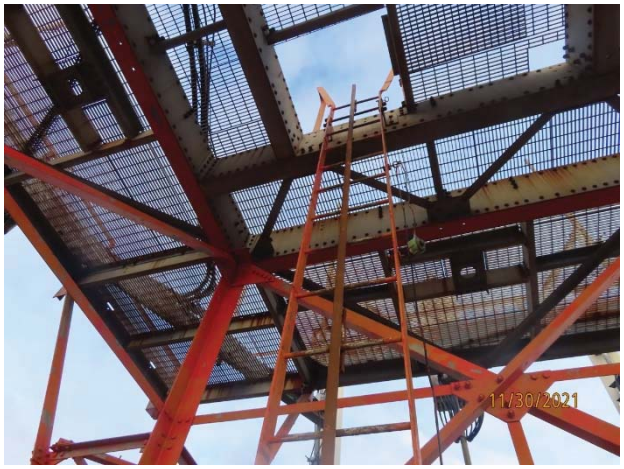





FIELD PHOTOS (CONT.):







HUDSON
Design Group LLC

Wind & Ice
Calculations

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM **Checked By:** MSC

HUDSON Design Group LLC

2.6.5.2 Velocity Pressure Coeff:

$K_z = 2.01\ (z/z_g)^{2/\alpha}$

z=	167	(ft)
z_g=	1200	(ft)
α=	7	
K_z=	**1.144**	

$K_{zmin} \le K_z \le 2.01$

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_c
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.2 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$K_{zt} = [1+(K_c\ K_t/K_h)]^2$ $\quad K_h = e^{(f*z/H)}$

K_{zt}= 1

(If Category 1 then K_{zt}=1.0)

Category= **1**

K_h=	1	
K_c=	0.9	(from Table 2-4)
K_t=	0	(from Table 2-5)
f=	0	(from Table 2-5)
z=	167	
z_s=	456	(Mean elevation of base of structure above sea level)
H=	0	(Ht. of the crest above surrounding terrain)
K_{zt}=	1.00	(from 2.6.6.2.1)
K_e=	0.98	(from 2.6.8)

2.6.10 Design Ice Thickness

Max Ice Thickness = t_i =	1.00	in
Importance Factor = I=	1.00	(from Table 2-3)
K_{iz} =	1.18	(from Sec. 2.6.10)

$t_{iz} = t_i * I * K_{iz} * (K_{zt})^{0.35}$ $\quad t_{iz}$ = 1.18 in

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

G_h = 1.0 Latticed Structures > 600 ft

G_h = 0.85 Latticed Structures 450 ft or less

G_h = 0.85 + 0.15 [h/150 - 3.0] h= ht. of structure

h=	165	G_h=	0.85

2.6.9.2 Guyed Masts G_h= 0.85

2.6.9.3 Pole Structures G_h= 1.1

2.6.9 Appurtenances G_h= 1.0

2.6.9.4 Structures Supported on Other Structures

(Cantilivered tubular or latticed spines, pole, structures on buildings (ht. : width ratio > 5)

G_h=	1.35	**Gh=**	**1.00**

2.6.11.2 Design Wind Force on Appurtenances

$F = q_z * G_h * (EPA)_A$

$q_z = 0.00256 * K_z * K_{zt} * K_s * K_e * K_d * V_{max}^2$

		K_z=	1.144	(from 2.6.5.2)
		K_{zt}=	1.0	(from 2.6.6.2.1)
		K_s=	1.0	(from 2.6.7)
q_z=	**38.27**	K_e=	0.98	(from 2.6.8)
$q_{z\ (ice)}$=	**6.12**	K_d=	0.85	(from Table 2-2)
$q_{z\ (30)}$=	**2.20**	V_{max}=	125	mph (Ultimate Wind Speed)
		$V_{max\ (ice)}$=	50	mph
		V_{30}=	30	mph

Table 2-2

Structure Type	Wind Direction Probability Factor, Kd
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95
Tubular pole structures supporting antennas enclosed within a cylindrical shroud	1.00

Date: 3/9/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

Determine Ca:

Table 2-9

Force Coefficients (Ca) for Appurtenances				
Member Type		**Aspect Ratio ≤ 2.5**	**Aspect Ratio = 7**	**Aspect Ratio ≥ 25**
		Ca	**Ca**	**Ca**
Flat		1.2	1.4	2.0
Square/Rectangular HSS		1.2 - 2.8(r_s) ≥ 0.85	1.4 - 4.0(r_s) ≥ 0.90	2.0 - 6.0(r_s) ≥ 1.25
Round	**C < 39** (Subcritical)	0.7	0.8	1.2
	39 ≤ C ≤ 78 (Transitional)	$4.14/(C^{0.485})$	$3.66/(C^{0.415})$	$46.8/(C^{-1.0})$
	C > 78 (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
(Aspect ratio is independent of the spacing between support points of a linear appurtenance,

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = **1.18** in | **Angle =** **0 (deg)** | **Equivalent Angle =** **180 (deg)**

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
QD8616-7 Antenna	96.0	22.0	9.6	14.67	4.36	1.28	**720**	**131**	**41**
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.93	1.20	**160**	**31**	**9**
AIR6449 Antenna	30.6	15.9	10.6	3.38	1.92	1.20	**155**	**31**	**9**
800-10965 Antenna	78.7	20.0	6.9	10.93	3.94	1.26	**529**	**97**	**30**
4478 B14 RRH	18.1	13.4	8.3	1.68	1.35	1.20	**77**	**16**	**4**
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	2.25	1.20	**105**	**22**	**6**
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	2.25	1.20	**105**	**22**	**6**
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	2.25	1.20	**105**	**22**	**6**
4449 B5/B12 RRH	17.9	13.2	9.4	1.64	1.36	1.20	**75**	**16**	**4**
DC6-48-60-18-8C-EV Surge Arrestor	31.4	10.2	10.2	2.22	3.08	0.70	**60**	**13**	**3**
2" Pipe	2.4	12.0		0.20	0.20	1.20	**9**		
2-1/2" Pipe	2.9	12.0		0.24	0.24	1.20	**11**		
2-1/2x2 Angle	2.5	12.0		0.21	0.21	2.00	**16**		
3-1/2x2 Angle	3.5	12.0		0.29	0.29	2.00	**22**		

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

WIND LOADS

Angle =	30	(deg)	Ice Thickness =	1.18	in.	Equivalent Angle =	210	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs)	Force (lbs)	Force (lbs)
QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	720	367	632
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	160	77	139
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	155	105	143
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	529	223	452
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	77	48	70
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	95
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	95
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	95
4449 B5/B12 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	75	54	70

WIND LOADS WITH ICE:

QD8616-7 Antenna	98.4	24.4	12.0	16.63	8.16	4.04	8.23	1.27	1.44	129	72	115
AIR6419 Antenna	33.5	18.5	9.7	4.29	2.24	1.81	3.47	1.20	1.24	31	17	28
AIR6449 Antenna	33.0	18.3	13.0	4.18	2.96	1.81	2.54	1.20	1.20	31	22	28
800-10965 Antenna	81.1	22.4	9.3	12.58	5.21	3.63	8.76	1.25	1.46	96	47	84
4478 B14 RRH	20.5	15.8	10.7	2.24	1.51	1.30	1.92	1.20	1.20	16	11	15
RRUS-32 B2 RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	20
RRUS-32 B66A RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	20

WIND LOADS AT 30 MPH:

QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	41	21	36
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	9	4	8
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	9	6	8
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	30	13	26
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	4	3	4
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	5
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	5

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

WIND LOADS

Angle = 60 (deg) | Ice Thickness = 1.18 in. | Equivalent Angle = 240 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs)	Force (lbs)	Force (lbs)
QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	720	367	455
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	160	77	98
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	155	105	117
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	529	223	300
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	77	48	55
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	74
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	74
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	74
4449 B5/B12 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	75	54	59

WIND LOADS WITH ICE:

QD8616-7 Antenna	98.4	24.4	12.0	16.63	8.16	4.04	8.23	1.27	1.44	129	72	86
AIR6419 Antenna	33.5	18.5	9.7	4.29	2.24	1.81	3.47	1.20	1.24	31	17	21
AIR6449 Antenna	33.0	18.3	13.0	4.18	2.96	1.81	2.54	1.20	1.20	31	22	24
800-10965 Antenna	81.1	22.4	9.3	12.58	5.21	3.63	8.76	1.25	1.46	96	47	59
4478 B14 RRH	20.5	15.8	10.7	2.24	1.51	1.30	1.92	1.20	1.20	16	11	12
RRUS-32 B2 RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	16
RRUS-32 B66A RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	16

WIND LOADS AT 30 MPH:

QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	41	21	26
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	9	4	6
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	9	6	7
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	30	13	17
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	4	3	3
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	4
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	4

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

WIND LOADS

Angle =	90	(deg)	Ice Thickness =	1.18	in.	Equivalent Angle =	270	(deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs)	Force (lbs)	Force (lbs)
QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	720	367	367
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	160	77	77
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	155	105	105
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	529	223	223
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	77	48	48
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	64
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	64
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	64
4449 B5/B12 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	75	54	54

WIND LOADS WITH ICE:

QD8616-7 Antenna	98.4	24.4	12.0	16.63	8.16	4.04	8.23	1.27	1.44	129	72	72
AIR6419 Antenna	33.5	18.5	9.7	4.29	2.24	1.81	3.47	1.20	1.24	31	17	17
AIR6449 Antenna	33.0	18.3	13.0	4.18	2.96	1.81	2.54	1.20	1.20	31	22	22
800-10965 Antenna	81.1	22.4	9.3	12.58	5.21	3.63	8.76	1.25	1.46	96	47	47
4478 B14 RRH	20.5	15.8	10.7	2.24	1.51	1.30	1.92	1.20	1.20	16	11	11
RRUS-32 B2 RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	14
RRUS-32 B66A RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	14

WIND LOADS AT 30 MPH:

QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	41	21	21
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	9	4	4
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	9	6	6
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	30	13	13
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	4	3	3
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	4
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	4

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

WIND LOADS

Angle = 120 (deg) | Ice Thickness = 1.18 in. | Equivalent Angle = 300 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs)	Force (lbs)	Force (lbs)
QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	720	367	455
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	160	77	98
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	155	105	117
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	529	223	300
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	77	48	55
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	74
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	74
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	74
4449 B5/B12 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	75	54	59

WIND LOADS WITH ICE:

QD8616-7 Antenna	98.4	24.4	12.0	16.63	8.16	4.04	8.23	1.27	1.44	129	72	86
AIR6419 Antenna	33.5	18.5	9.7	4.29	2.24	1.81	3.47	1.20	1.24	31	17	21
AIR6449 Antenna	33.0	18.3	13.0	4.18	2.96	1.81	2.54	1.20	1.20	31	22	24
800-10965 Antenna	81.1	22.4	9.3	12.58	5.21	3.63	8.76	1.25	1.46	96	47	59
4478 B14 RRH	20.5	15.8	10.7	2.24	1.51	1.30	1.92	1.20	1.20	16	11	12
RRUS-32 B2 RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	16
RRUS-32 B66A RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	16

WIND LOADS AT 30 MPH:

QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	41	21	26
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	9	4	6
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	9	6	7
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	30	13	17
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	4	3	3
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	4
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	4

Date: 3/7/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM Checked By: MSC

HUDSON Design Group LLC

WIND LOADS

Angle = 150 (deg)

Ice Thickness = 1.18 in.

Equivalent Angle = 330 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs)	Force (lbs)	Force (lbs)
QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	720	367	632
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	160	77	139
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	155	105	143
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	529	223	452
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	77	48	70
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	95
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	95
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	105	64	95
4449 B5/B12 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	75	54	70

WIND LOADS WITH ICE:

QD8616-7 Antenna	98.4	24.4	12.0	16.63	8.16	4.04	8.23	1.27	1.44	129	72	115
AIR6419 Antenna	33.5	18.5	9.7	4.29	2.24	1.81	3.47	1.20	1.24	31	17	28
AIR6449 Antenna	33.0	18.3	13.0	4.18	2.96	1.81	2.54	1.20	1.20	31	22	28
800-10965 Antenna	81.1	22.4	9.3	12.58	5.21	3.63	8.76	1.25	1.46	96	47	84
4478 B14 RRH	20.5	15.8	10.7	2.24	1.51	1.30	1.92	1.20	1.20	16	11	15
RRUS-32 B2 RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	20
RRUS-32 B66A RRH	29.6	14.5	9.4	2.97	1.92	2.04	3.16	1.20	1.23	22	14	20

WIND LOADS AT 30 MPH:

QD8616-7 Antenna	96.0	22.0	9.6	14.67	6.40	4.36	10.00	1.28	1.50	41	21	36
AIR6419 Antenna	31.1	16.1	7.3	3.48	1.58	1.93	4.26	1.20	1.28	9	4	8
AIR6449 Antenna	30.6	15.9	10.6	3.38	2.25	1.92	2.89	1.20	1.22	9	6	8
800-10965 Antenna	78.7	20.0	6.9	10.93	3.77	3.94	11.41	1.26	1.55	30	13	26
4478 B14 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	4	3	4
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	5
RRUS-32 B66A RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	6	4	5

Date: 3/9/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM **Checked By:** MSC

HUDSON Design Group LLC

ICE WEIGHT CALCULATIONS

Thickness of ice: 1.18 in.
Density of ice: 56 pcf

QD8616-7 Antenna
Weight of ice based on total radial SF area:
Height (in): 96.0
Width (in): 22.0
Depth (in): 9.6
Total weight of ice on object: 290 lbs
Weight of object: 150.0 lbs
Combined weight of ice and object: 440 lbs

AIR6419 Antenna
Weight of ice based on total radial SF area:
Height (in): 31.0
Width (in): 16.1
Depth (in): 7.3
Total weight of ice on object: 70 lbs
Weight of object: 66.0 lbs
Combined weight of ice and object: 136 lbs

AIR6449 Antenna
Weight of ice based on total radial SF area:
Height (in): 30.6
Width (in): 15.9
Depth (in): 10.6
Total weight of ice on object: 75 lbs
Weight of object: 82.0 lbs
Combined weight of ice and object: 157 lbs

800-10965 Antenna
Weight of ice based on total radial SF area:
Height (in): 78.7
Width (in): 20.0
Depth (in): 6.9
Total weight of ice on object: 211 lbs
Weight of object: 109.0 lbs
Combined weight of ice and object: 320 lbs

4478 B14 RRH
Weight of ice based on total radial SF area:
Height (in): 18.1
Width (in): 13.4
Depth (in): 8.3
Total weight of ice on object: 37 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 97 lbs

RRUS-32 B2 RRH
Weight of ice based on total radial SF area:
Height (in): 27.2
Width (in): 12.1
Depth (in): 7.0
Total weight of ice on object: 50 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 110 lbs

RRUS-32 B66A RRH
Weight of ice based on total radial SF area:
Height (in): 27.2
Width (in): 12.1
Depth (in): 7.0
Total weight of ice on object: 50 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 110 lbs

RRUS-32 B30 RRH
Weight of ice based on total radial SF area:
Height (in): 27.2
Width (in): 12.1
Depth (in): 7.0
Total weight of ice on object: 50 lbs
Weight of object: 60.0 lbs
Combined weight of ice and object: 110 lbs

4449 B5/B12 RRH
Weight of ice based on total radial SF area:
Height (in): 17.9
Width (in): 13.2
Depth (in): 9.4
Total weight of ice on object: 37 lbs
Weight of object: 73.0 lbs
Combined weight of ice and object: 110 lbs

DC6-48-60-18-8C-EV Surge Arrestor
Weight of ice based on total radial SF area:
Depth (in): 31.4
Diameter(in): 10.2
Total weight of ice on object: 43 lbs
Weight of object: 33 lbs
Combined weight of ice and object: 76 lbs

L 2-1/2"x2 Angles
Weight of ice based on total radial SF area:
Height (in): 2.5
Width (in): 2
Per foot weight of ice on object: 6 plf

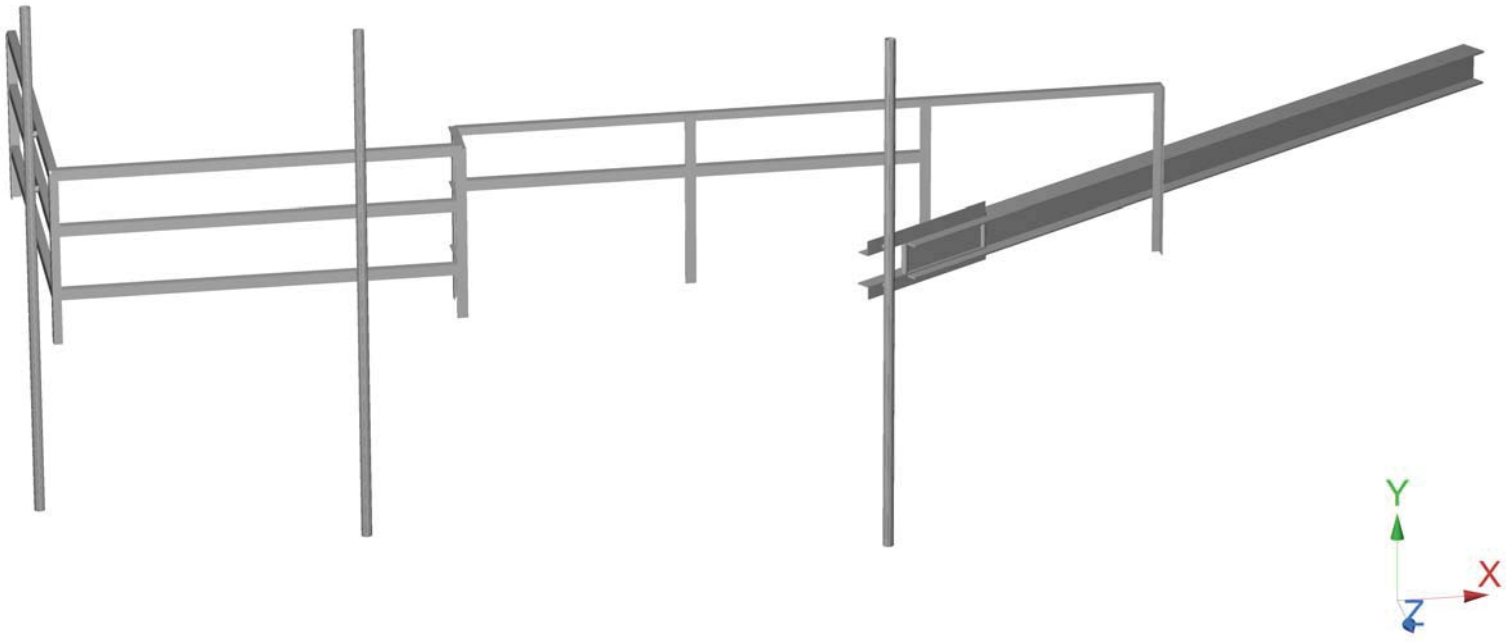
L 3-1/2"x3 Angles
Weight of ice based on total radial SF area:
Height (in): 3.5
Width (in): 3
Per foot weight of ice on object: 8 plf

2" pipe
Per foot weight of ice:
diameter (in): 2.38
Per foot weight of ice on object: 5 plf

2-1/2" pipe
Per foot weight of ice:
diameter (in): 2.88
Per foot weight of ice on object: 6 plf

HUDSON
Design Group LLC

Alpha Mount Calculations
(Existing Conditions)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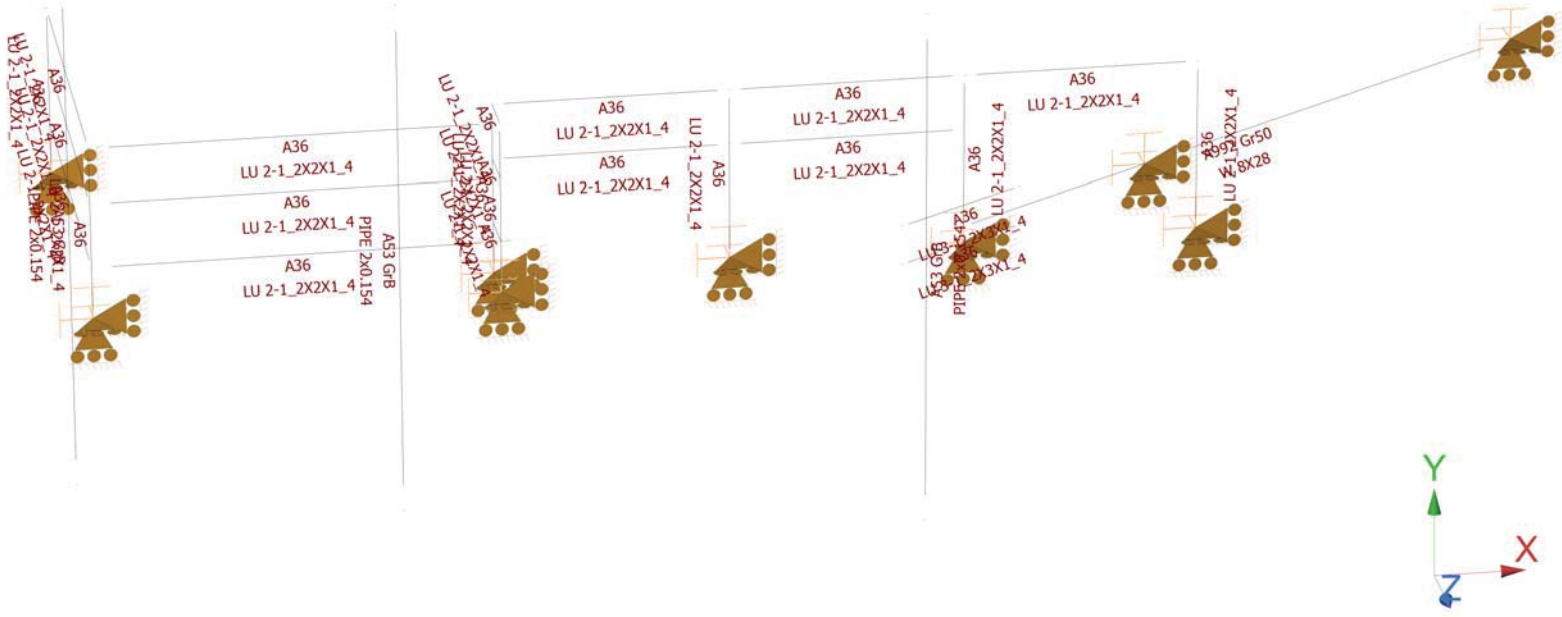
X
Z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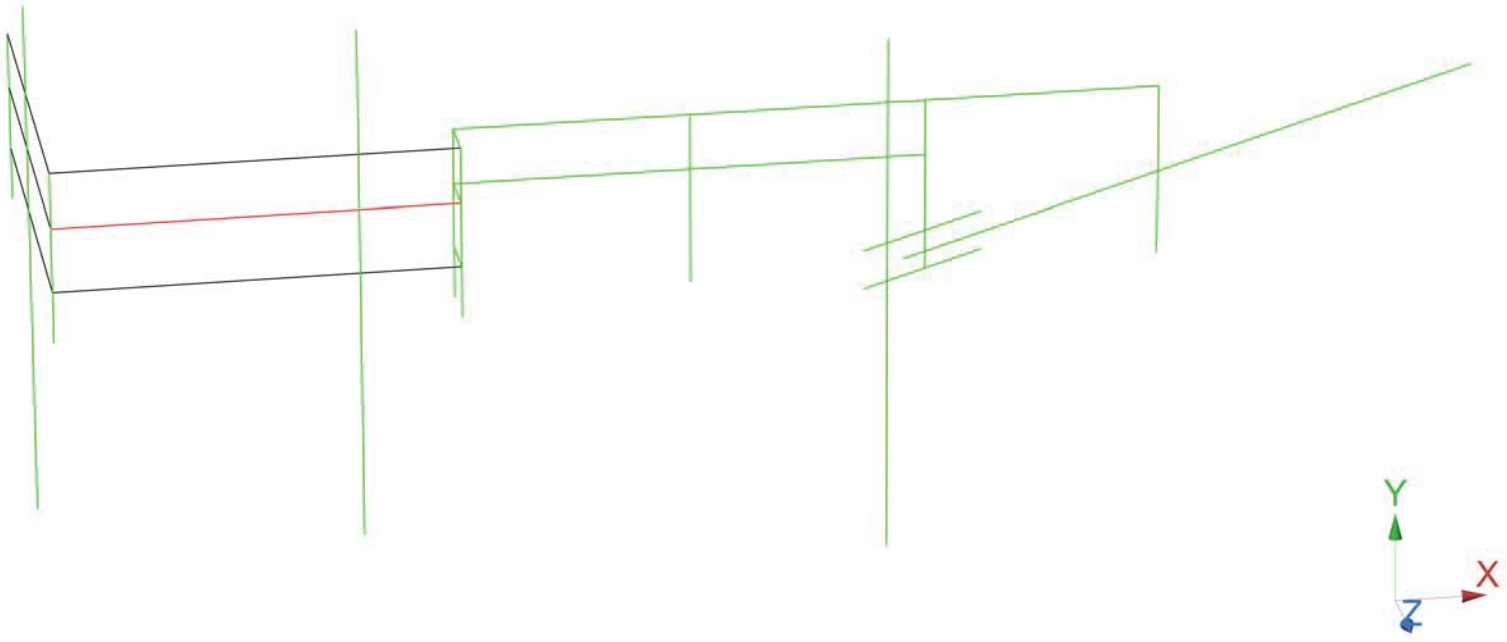
LU 2-1_2X2X1_4
A53 GrB
PIPE 2x0.154
Y
X
Z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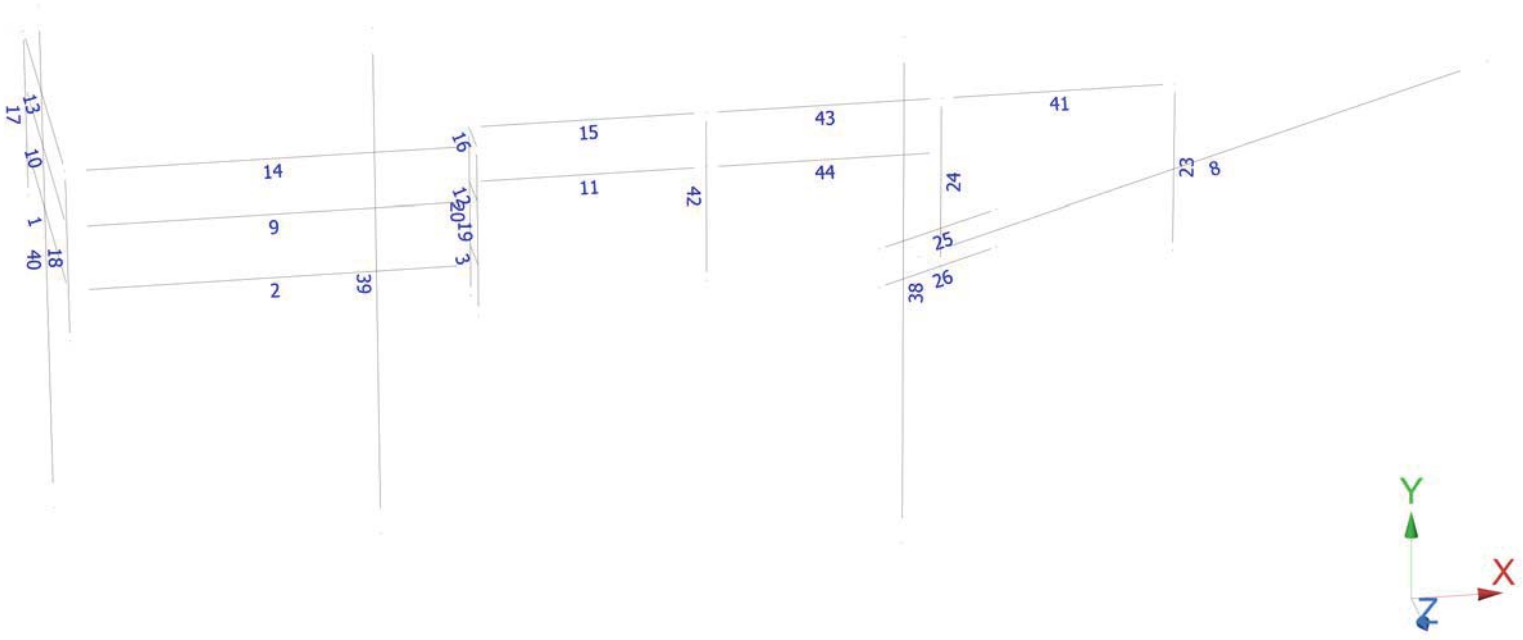

13
17
10
14
16
15
43
41
1
18
40
9
12
20
19
3
11
42
44
24
23
8
25
2
39
38
26
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:07 PM
Units system: English

Load data

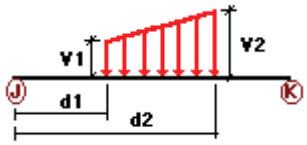
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL

Distributed force on members

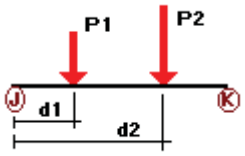


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	2	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	14	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	17	z	-0.016	0.00	0.00	No	0.00	No
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	25	z	-0.022	0.00	0.00	No	0.00	No
	26	z	-0.022	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
W30	1	z	-0.016	0.00	0.00	No	0.00	No
	2	z	-0.016	0.00	0.00	No	0.00	No
	3	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	10	z	-0.016	0.00	0.00	No	0.00	No
	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	12	z	-0.016	0.00	0.00	No	0.00	No
	13	z	-0.016	0.00	0.00	No	0.00	No
	14	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	16	z	-0.016	0.00	0.00	No	0.00	No
	17	z	-0.016	0.00	0.00	No	0.00	No
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	25	z	-0.022	0.00	0.00	No	0.00	No
	26	z	-0.022	0.00	0.00	No	0.00	No
	38	z	-0.009	0.00	0.00	No	0.00	No
	39	z	-0.009	0.00	0.00	No	0.00	No
	40	z	-0.009	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
W60	1	x	-0.016	0.00	0.00	No	0.00	No
	2	x	-0.016	0.00	0.00	No	0.00	No
	3	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.016	0.00	0.00	No	0.00	No
	14	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	17	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No

	25	x	-0.022	0.00	0.00	No	0.00	No
	26	x	-0.022	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
W90	1	x	-0.016	0.00	0.00	No	0.00	No
	3	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.016	0.00	0.00	No	0.00	No
	16	x	-0.016	0.00	0.00	No	0.00	No
	17	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	25	x	-0.022	0.00	0.00	No	0.00	No
	26	x	-0.022	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
W120	1	x	-0.016	0.00	0.00	No	0.00	No
	2	x	-0.016	0.00	0.00	No	0.00	No
	3	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.016	0.00	0.00	No	0.00	No
	14	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	17	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	25	x	-0.022	0.00	0.00	No	0.00	No
	26	x	-0.022	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
W150	1	z	0.016	0.00	0.00	No	0.00	No
	2	z	0.016	0.00	0.00	No	0.00	No
	3	z	0.016	0.00	0.00	No	0.00	No
	9	z	0.016	0.00	0.00	No	0.00	No
	10	z	0.016	0.00	0.00	No	0.00	No
	11	Z	0.016	0.016	0.00	No	100.00	Yes
	12	z	0.016	0.00	0.00	No	0.00	No

	13	z	0.016	0.00	0.00	No	0.00	No
	14	z	0.016	0.00	0.00	No	0.00	No
	15	Z	0.016	0.016	0.00	No	100.00	Yes
	16	z	0.016	0.00	0.00	No	0.00	No
	17	z	0.016	0.00	0.00	No	0.00	No
	18	z	0.016	0.00	0.00	No	0.00	No
	19	z	0.016	0.00	0.00	No	0.00	No
	20	z	0.016	0.00	0.00	No	0.00	No
	23	z	0.016	0.00	0.00	No	0.00	No
	24	z	0.016	0.00	0.00	No	0.00	No
	25	z	0.022	0.00	0.00	No	0.00	No
	26	z	0.022	0.00	0.00	No	0.00	No
	38	z	0.009	0.00	0.00	No	0.00	No
	39	z	0.009	0.00	0.00	No	0.00	No
	40	z	0.009	0.00	0.00	No	0.00	No
	41	Z	0.016	0.016	0.00	No	100.00	Yes
	42	Z	0.016	0.016	0.00	No	100.00	Yes
	43	Z	0.016	0.016	0.00	No	100.00	Yes
	44	Z	0.016	0.016	0.00	No	100.00	Yes
Di	1	y	-0.006	0.00	0.00	No	0.00	No
	2	y	-0.006	0.00	0.00	No	0.00	No
	3	y	-0.006	0.00	0.00	No	0.00	No
	9	y	-0.006	0.00	0.00	No	0.00	No
	10	y	-0.006	0.00	0.00	No	0.00	No
	11	Y	-0.006	-0.006	0.00	No	100.00	Yes
	12	y	-0.006	0.00	0.00	No	0.00	No
	13	y	-0.006	0.00	0.00	No	0.00	No
	14	y	-0.006	0.00	0.00	No	0.00	No
	15	Y	-0.006	-0.006	0.00	No	100.00	Yes
	16	y	-0.006	0.00	0.00	No	0.00	No
	17	y	-0.006	0.00	0.00	No	0.00	No
	18	y	-0.006	0.00	0.00	No	0.00	No
	19	y	-0.006	0.00	0.00	No	0.00	No
	20	y	-0.006	0.00	0.00	No	0.00	No
	23	y	-0.006	0.00	0.00	No	0.00	No
	24	y	-0.006	0.00	0.00	No	0.00	No
	25	y	-0.008	0.00	0.00	No	0.00	No
	26	y	-0.008	0.00	0.00	No	0.00	No
	38	y	-0.005	0.00	0.00	No	0.00	No
	39	y	-0.005	0.00	0.00	No	0.00	No
	40	y	-0.005	0.00	0.00	No	0.00	No
	41	Y	-0.006	-0.006	0.00	No	100.00	Yes
	42	Y	-0.006	-0.006	0.00	No	100.00	Yes
	43	Y	-0.006	-0.006	0.00	No	100.00	Yes
	44	Y	-0.006	-0.006	0.00	No	100.00	Yes

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	38	y	-0.075	1.50	No
		y	-0.075	8.50	No
	39	y	-0.033	2.25	No
		y	-0.033	4.00	No
		y	-0.041	6.00	No
		y	-0.041	7.75	No
	40	y	-0.055	2.25	No
		y	-0.055	7.75	No
Wo	38	z	-0.36	1.50	No
		z	-0.36	8.50	No
	39	z	-0.08	2.25	No
		z	-0.08	4.00	No
		z	-0.078	6.00	No
		z	-0.078	7.75	No
	40	z	-0.265	2.25	No
		z	-0.265	7.75	No
W30	38	3	-0.316	1.50	No
		3	-0.316	8.50	No
	39	3	-0.07	2.25	No
		3	-0.07	4.00	No
		3	-0.072	6.00	No
		3	-0.072	7.75	No
	40	3	-0.227	2.25	No
		3	-0.227	7.75	No
W60	38	3	-0.228	1.50	No
		3	-0.228	8.50	No
	39	3	-0.049	2.25	No
		3	-0.049	4.00	No
		3	-0.059	6.00	No
		3	-0.059	7.75	No
	40	3	-0.15	2.25	No
		3	-0.15	7.75	No
W90	38	x	-0.184	1.50	No
		x	-0.184	8.50	No
	39	x	-0.039	2.25	No
		x	-0.039	4.00	No
		x	-0.053	6.00	No
		x	-0.053	7.75	No
	40	x	-0.112	2.25	No
		x	-0.112	7.75	No
W120	38	2	-0.228	1.50	No
		2	-0.228	8.50	No
	39	2	-0.049	2.25	No
		2	-0.049	4.00	No
		2	-0.059	6.00	No
		2	-0.059	7.75	No
	40	2	-0.15	2.25	No
		2	-0.15	7.75	No
W150	38	2	-0.316	1.50	No
		2	-0.316	8.50	No
	39	2	-0.07	2.25	No
		2	-0.07	4.00	No
		2	-0.072	6.00	No
		2	-0.072	7.75	No
	40	2	-0.227	2.25	No
		2	-0.227	7.75	No
Di	38	y	-0.146	1.50	No
		y	-0.146	8.50	No
	39	y	-0.036	2.25	No
		y	-0.036	4.00	No

		y	-0.038	6.00	No
		y	-0.038	7.75	No
	40	y	-0.106	2.25	No
		y	-0.106	7.75	No
WI0	38	z	-0.066	1.50	No
		z	-0.066	8.50	No
	39	z	-0.016	2.25	No
		z	-0.016	4.00	No
		z	-0.016	6.00	No
		z	-0.016	7.75	No
	40	z	-0.049	2.25	No
		z	-0.049	7.75	No
WI30	38	3	-0.058	1.50	No
		3	-0.058	8.50	No
	39	3	-0.014	2.25	No
		3	-0.014	4.00	No
		3	-0.015	6.00	No
		3	-0.015	7.75	No
	40	3	-0.042	2.25	No
		3	-0.042	7.75	No
WI60	38	3	-0.044	1.50	No
		3	-0.044	8.50	No
	39	3	-0.011	2.25	No
		3	-0.011	4.00	No
		3	-0.013	6.00	No
		3	-0.013	7.75	No
	40	3	-0.03	2.25	No
		3	-0.03	7.75	No
WI90	38	x	-0.037	1.50	No
		x	-0.037	8.50	No
	39	x	-0.009	2.25	No
		x	-0.009	4.00	No
		x	-0.011	6.00	No
		x	-0.011	7.75	No
	40	x	-0.024	2.25	No
		x	-0.024	7.75	No
WI120	38	2	-0.044	1.50	No
		2	-0.044	8.50	No
	39	2	-0.011	2.25	No
		2	-0.011	4.00	No
		2	-0.013	6.00	No
		2	-0.013	7.75	No
	40	2	-0.03	2.25	No
		2	-0.03	7.75	No
WI150	38	2	-0.058	1.50	No
		2	-0.058	8.50	No
	39	2	-0.014	2.25	No
		2	-0.014	4.00	No
		2	-0.015	6.00	No
		2	-0.015	7.75	No
	40	2	-0.042	2.25	No
		2	-0.042	7.75	No
WL0	38	z	-0.021	1.50	No
		z	-0.021	8.50	No
	39	z	-0.005	2.25	No
		z	-0.005	4.00	No
		z	-0.005	6.00	No
		z	-0.005	7.75	No
	40	z	-0.016	2.25	No
		z	-0.016	7.75	No

WL30	38	3	-0.019	1.50	No
		3	-0.019	8.50	No
	39	3	-0.005	2.25	No
		3	-0.005	4.00	No
		3	-0.005	6.00	No
		3	-0.005	7.75	No
	40	3	-0.014	2.25	No
		3	-0.014	7.75	No
WL60	38	3	-0.014	1.50	No
		3	-0.014	8.50	No
	39	3	-0.003	2.25	No
		3	-0.003	4.00	No
		3	-0.004	6.00	No
		3	-0.004	7.75	No
	40	3	-0.009	2.25	No
		3	-0.009	7.75	No
WL90	38	x	-0.011	1.50	No
		x	-0.011	8.50	No
	39	x	-0.003	2.25	No
		x	-0.003	4.00	No
		x	-0.004	6.00	No
		x	-0.004	7.75	No
	40	x	-0.007	2.25	No
		x	-0.007	7.75	No
WL120	38	2	-0.014	1.50	No
		2	-0.014	8.50	No
	39	2	-0.003	2.25	No
		2	-0.003	4.00	No
		2	-0.004	6.00	No
		2	-0.004	7.75	No
	40	2	-0.009	2.25	No
		2	-0.009	7.75	No
WL150	38	2	-0.019	1.50	No
		2	-0.019	8.50	No
	39	2	-0.005	2.25	No
		2	-0.005	4.00	No
		2	-0.005	6.00	No
		2	-0.005	7.75	No
	40	2	-0.014	2.25	No
		2	-0.014	7.75	No
LL1	15	y	-0.25	3.00	No
LL2	41	y	-0.25	0.00	Yes
LL3	14	y	-0.25	0.00	Yes
LLa1	38	y	-0.50	50.00	Yes
LLa2	39	y	-0.50	50.00	Yes
LLa3	40	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00

W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:07 PM
Units system: English

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

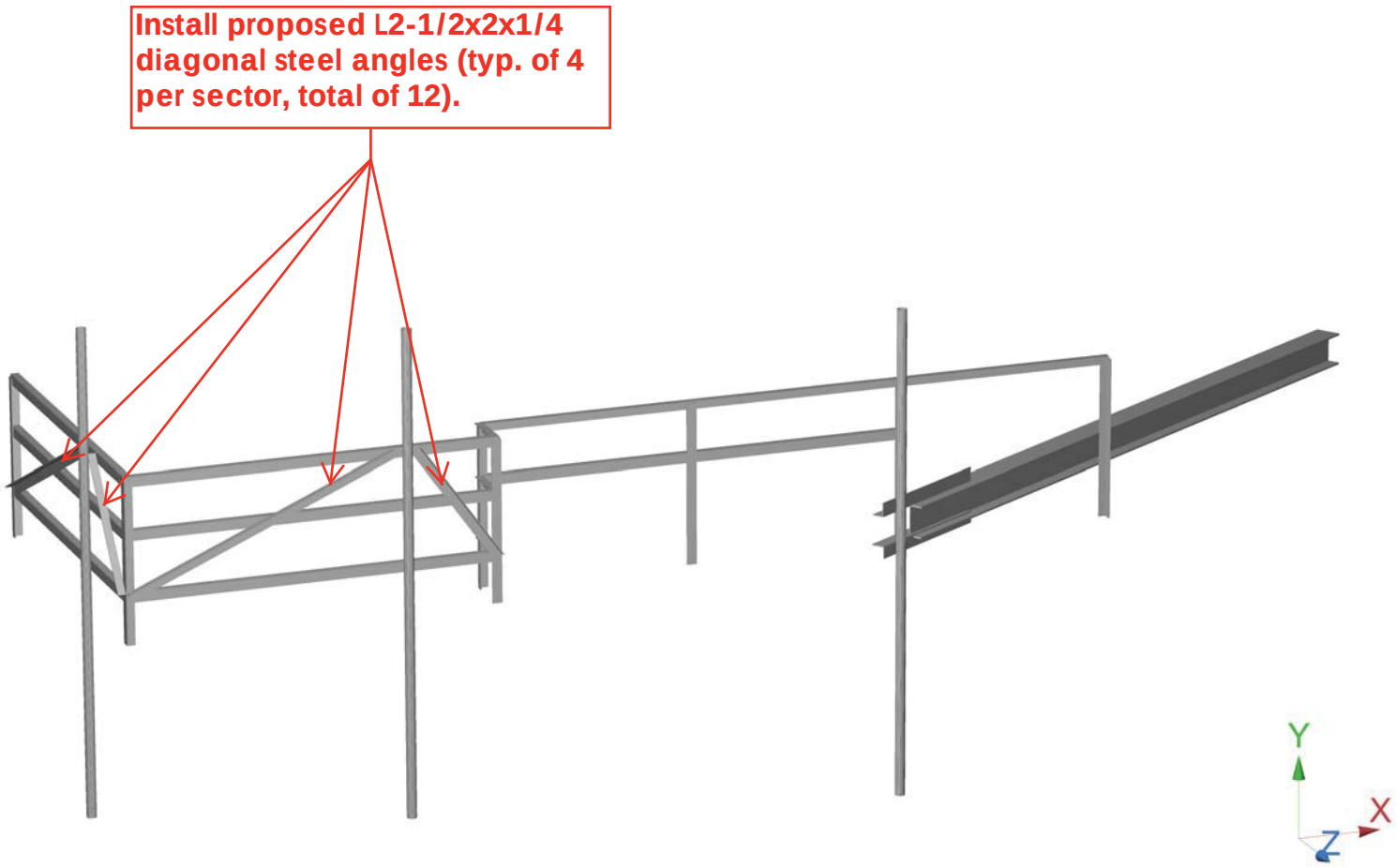
LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

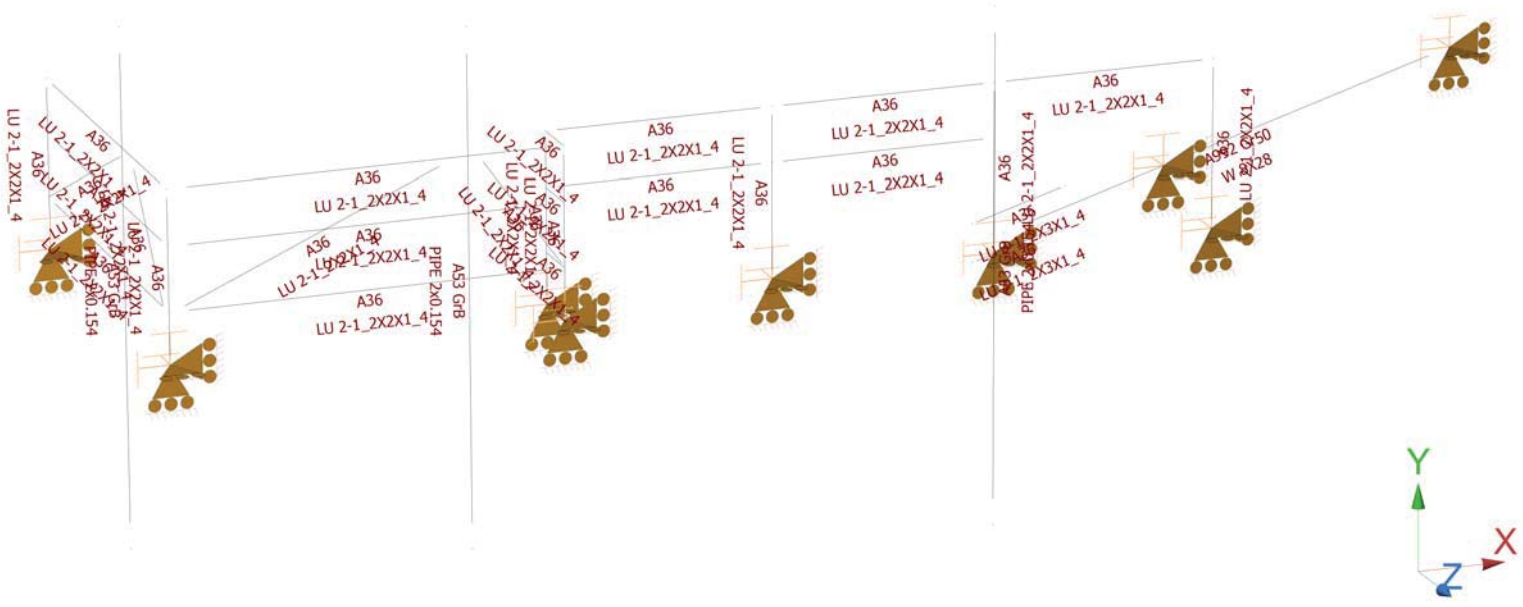
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

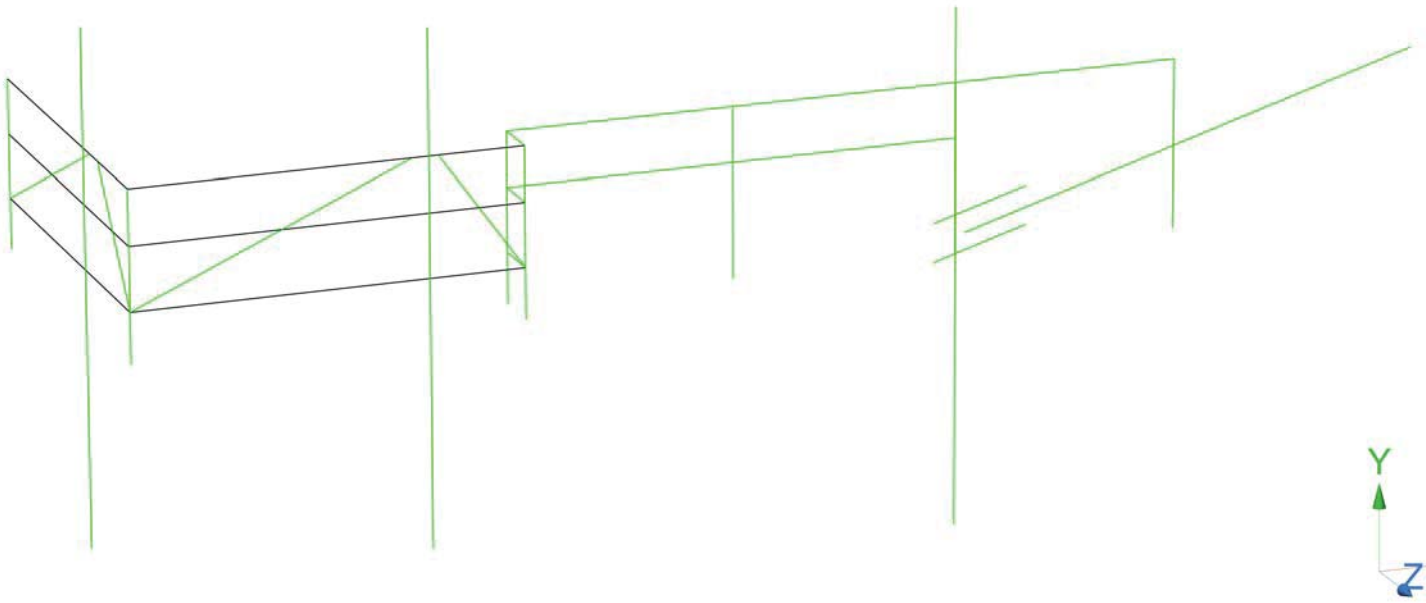
Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	LU 2-1_2X2X1_4	**1**	LC1 at 0.00%	0.19	With warnings	
		2	LC2 at 0.00%	0.19	With warnings	
		3	LC8 at 0.00%	0.32	OK	
		9	LC1 at 100.00%	**1.04**	**N.G.**	
		10	LC8 at 75.00%	0.99	With warnings	
		11	LC2 at 0.00%	0.09	OK	
		12	LC2 at 0.00%	0.91	OK	
		13	LC12 at 75.00%	0.56	With warnings	
		14	LC58 at 75.00%	0.44	With warnings	
		15	LC2 at 100.00%	0.26	OK	
		16	LC2 at 0.00%	0.37	OK	
		17	LC71 at 0.00%	0.43	OK	
		18	LC6 at 33.33%	0.54	OK	
		19	LC8 at 33.33%	0.55	OK	
		20	LC8 at 100.00%	0.33	OK	
		23	LC18 at 100.00%	0.18	OK	
		24	LC6 at 100.00%	0.44	OK	
		41	LC2 at 62.50%	0.07	OK	
		42	LC6 at 100.00%	0.40	OK	
		43	LC18 at 56.25%	0.10	OK	
		44	LC2 at 0.00%	0.06	OK	
	LU 3-1_2X3X1_4	**25**	LC1 at 85.42%	0.20	OK	
		26	LC8 at 66.67%	**0.24**	**OK**	
	PIPE 2x0.154	**38**	LC7 at 50.00%	**0.95**	**OK**	
		39	LC10 at 37.50%	0.39	OK	
		40	LC7 at 37.50%	0.80	OK	
	W 8X28	**8**	LC8 at 33.33%	**0.13**	**OK**	

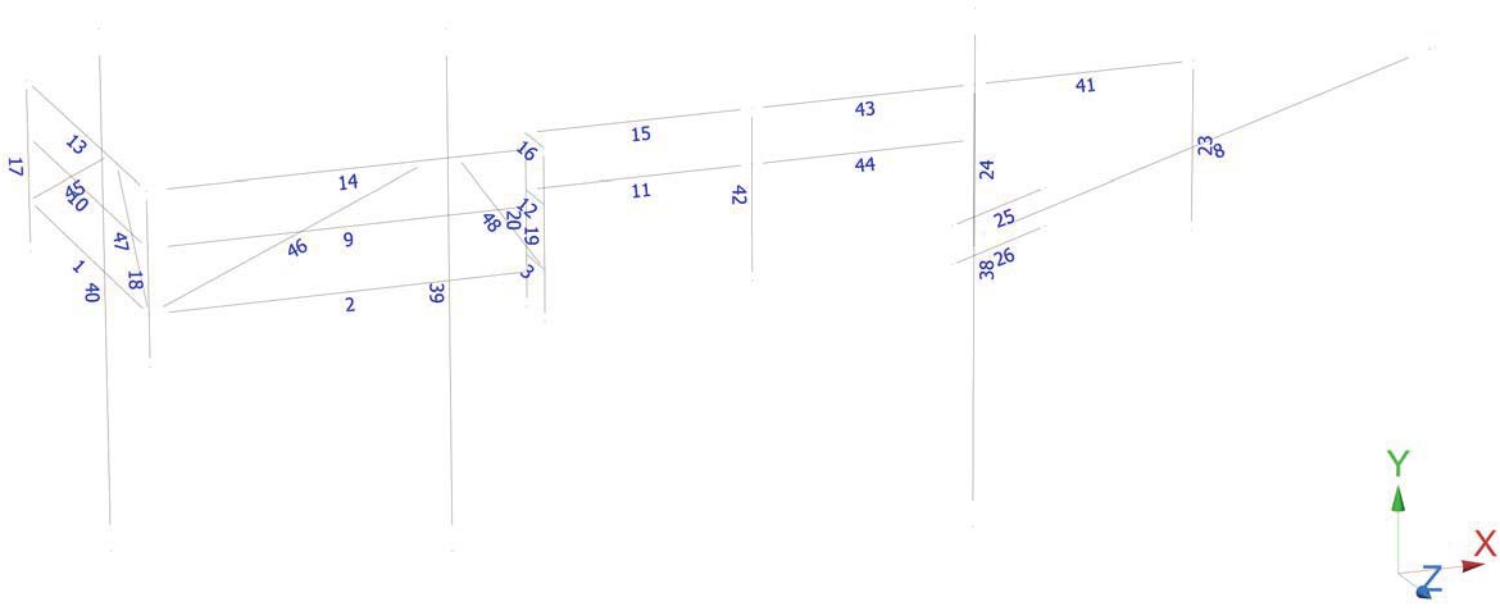
HUDSON
Design Group LLC

Alpha Mount Calculations
(Modified Conditions)


Install proposed L2-1/2x2x1/4 diagonal steel angles (typ. of 4 per sector, total of 12).
Y
X
Z


A36
LU 2-1_2X2X1_4
PIPE 2x0.154
A53 GrB
Y
X
Z


Y
X
Z


17
13
50
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9
2
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26
25
41
23
8
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:11 PM
Units system: English

Load data

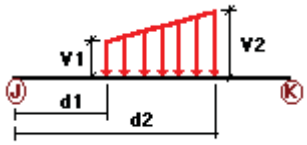
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL

Distributed force on members



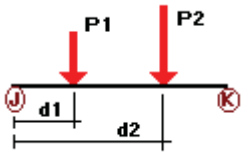
Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	2	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	14	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	17	z	-0.016	0.00	0.00	No	0.00	No
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	25	z	-0.022	0.00	0.00	No	0.00	No
	26	z	-0.022	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
	45	z	-0.016	0.00	0.00	No	0.00	No
	46	z	-0.016	0.00	0.00	No	0.00	No
	47	z	-0.016	0.00	0.00	No	0.00	No
	48	z	-0.016	0.00	0.00	No	0.00	No
W30	1	z	-0.016	0.00	0.00	No	0.00	No
	2	z	-0.016	0.00	0.00	No	0.00	No
	3	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	10	z	-0.016	0.00	0.00	No	0.00	No
	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	12	z	-0.016	0.00	0.00	No	0.00	No
	13	z	-0.016	0.00	0.00	No	0.00	No
	14	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	16	z	-0.016	0.00	0.00	No	0.00	No
	17	z	-0.016	0.00	0.00	No	0.00	No
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	25	z	-0.022	0.00	0.00	No	0.00	No
	26	z	-0.022	0.00	0.00	No	0.00	No
	38	z	-0.009	0.00	0.00	No	0.00	No
	39	z	-0.009	0.00	0.00	No	0.00	No
	40	z	-0.009	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
	45	z	-0.016	0.00	0.00	No	0.00	No
	46	z	-0.016	0.00	0.00	No	0.00	No
	47	z	-0.016	0.00	0.00	No	0.00	No
	48	z	-0.016	0.00	0.00	No	0.00	No
W60	1	x	-0.016	0.00	0.00	No	0.00	No
	2	x	-0.016	0.00	0.00	No	0.00	No
	3	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.016	0.00	0.00	No	0.00	No
	14	x	-0.016	0.00	0.00	No	0.00	No

	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	17	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	25	x	-0.022	0.00	0.00	No	0.00	No
	26	x	-0.022	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	x	-0.016	0.00	0.00	No	0.00	No
	46	x	-0.016	0.00	0.00	No	0.00	No
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
W90	1	x	-0.016	0.00	0.00	No	0.00	No
	3	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.016	0.00	0.00	No	0.00	No
	16	x	-0.016	0.00	0.00	No	0.00	No
	17	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	25	x	-0.022	0.00	0.00	No	0.00	No
	26	x	-0.022	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	x	-0.016	0.00	0.00	No	0.00	No
	46	x	-0.016	0.00	0.00	No	0.00	No
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
W120	1	x	-0.016	0.00	0.00	No	0.00	No
	2	x	-0.016	0.00	0.00	No	0.00	No
	3	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	10	x	-0.016	0.00	0.00	No	0.00	No
	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	13	x	-0.016	0.00	0.00	No	0.00	No
	14	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	17	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No

	25	x	-0.022	0.00	0.00	No	0.00	No
	26	x	-0.022	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	x	-0.016	0.00	0.00	No	0.00	No
	46	x	-0.016	0.00	0.00	No	0.00	No
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
W150	1	z	0.016	0.00	0.00	No	0.00	No
	2	z	0.016	0.00	0.00	No	0.00	No
	3	z	0.016	0.00	0.00	No	0.00	No
	9	z	0.016	0.00	0.00	No	0.00	No
	10	z	0.016	0.00	0.00	No	0.00	No
	11	Z	0.016	0.016	0.00	No	100.00	Yes
	12	z	0.016	0.00	0.00	No	0.00	No
	13	z	0.016	0.00	0.00	No	0.00	No
	14	z	0.016	0.00	0.00	No	0.00	No
	15	Z	0.016	0.016	0.00	No	100.00	Yes
	16	z	0.016	0.00	0.00	No	0.00	No
	17	z	0.016	0.00	0.00	No	0.00	No
	18	z	0.016	0.00	0.00	No	0.00	No
	19	z	0.016	0.00	0.00	No	0.00	No
	20	z	0.016	0.00	0.00	No	0.00	No
	23	z	0.016	0.00	0.00	No	0.00	No
	24	z	0.016	0.00	0.00	No	0.00	No
	25	z	0.022	0.00	0.00	No	0.00	No
	26	z	0.022	0.00	0.00	No	0.00	No
	38	z	0.009	0.00	0.00	No	0.00	No
	39	z	0.009	0.00	0.00	No	0.00	No
	40	z	0.009	0.00	0.00	No	0.00	No
	41	Z	0.016	0.016	0.00	No	100.00	Yes
	42	Z	0.016	0.016	0.00	No	100.00	Yes
	43	Z	0.016	0.016	0.00	No	100.00	Yes
	44	Z	0.016	0.016	0.00	No	100.00	Yes
	45	z	0.016	0.00	0.00	No	0.00	No
	46	z	0.016	0.00	0.00	No	0.00	No
	47	z	0.016	0.00	0.00	No	0.00	No
	48	z	0.016	0.00	0.00	No	0.00	No
Di	1	y	-0.006	0.00	0.00	No	0.00	No
	2	y	-0.006	0.00	0.00	No	0.00	No
	3	y	-0.006	0.00	0.00	No	0.00	No
	9	y	-0.006	0.00	0.00	No	0.00	No
	10	y	-0.006	0.00	0.00	No	0.00	No
	11	Y	-0.006	-0.006	0.00	No	100.00	Yes
	12	y	-0.006	0.00	0.00	No	0.00	No
	13	y	-0.006	0.00	0.00	No	0.00	No
	14	y	-0.006	0.00	0.00	No	0.00	No
	15	Y	-0.006	-0.006	0.00	No	100.00	Yes
	16	y	-0.006	0.00	0.00	No	0.00	No
	17	y	-0.006	0.00	0.00	No	0.00	No
	18	y	-0.006	0.00	0.00	No	0.00	No
	19	y	-0.006	0.00	0.00	No	0.00	No
	20	y	-0.006	0.00	0.00	No	0.00	No
	23	y	-0.006	0.00	0.00	No	0.00	No
	24	y	-0.006	0.00	0.00	No	0.00	No

25	y	-0.008	0.00	0.00	No	0.00	No
26	y	-0.008	0.00	0.00	No	0.00	No
38	y	-0.005	0.00	0.00	No	0.00	No
39	y	-0.005	0.00	0.00	No	0.00	No
40	y	-0.005	0.00	0.00	No	0.00	No
41	Y	-0.006	-0.006	0.00	No	100.00	Yes
42	Y	-0.006	-0.006	0.00	No	100.00	Yes
43	Y	-0.006	-0.006	0.00	No	100.00	Yes
44	Y	-0.006	-0.006	0.00	No	100.00	Yes
45	y	-0.006	0.00	0.00	No	0.00	No
46	y	-0.006	0.00	0.00	No	0.00	No
47	y	-0.006	0.00	0.00	No	0.00	No
48	y	-0.006	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	38	y	-0.075	1.50	No
		y	-0.075	8.50	No
	39	y	-0.033	2.25	No
		y	-0.033	4.00	No
		y	-0.041	6.00	No
		y	-0.041	7.75	No
	40	y	-0.055	2.25	No
		y	-0.055	7.75	No
Wo	38	z	-0.36	1.50	No
		z	-0.36	8.50	No
	39	z	-0.08	2.25	No
		z	-0.08	4.00	No
		z	-0.078	6.00	No
		z	-0.078	7.75	No
	40	z	-0.265	2.25	No
		z	-0.265	7.75	No
W30	38	3	-0.316	1.50	No
		3	-0.316	8.50	No
	39	3	-0.07	2.25	No
		3	-0.07	4.00	No
		3	-0.072	6.00	No
		3	-0.072	7.75	No
	40	3	-0.227	2.25	No
		3	-0.227	7.75	No
W60	38	3	-0.228	1.50	No
		3	-0.228	8.50	No
	39	3	-0.049	2.25	No
		3	-0.049	4.00	No
		3	-0.059	6.00	No
		3	-0.059	7.75	No
	40	3	-0.15	2.25	No
		3	-0.15	7.75	No

W90	38	x	-0.184	1.50	No
		x	-0.184	8.50	No
	39	x	-0.039	2.25	No
		x	-0.039	4.00	No
		x	-0.053	6.00	No
		x	-0.053	7.75	No
	40	x	-0.112	2.25	No
		x	-0.112	7.75	No
W120	38	2	-0.228	1.50	No
		2	-0.228	8.50	No
	39	2	-0.049	2.25	No
		2	-0.049	4.00	No
		2	-0.059	6.00	No
		2	-0.059	7.75	No
	40	2	-0.15	2.25	No
		2	-0.15	7.75	No
W150	38	2	-0.316	1.50	No
		2	-0.316	8.50	No
	39	2	-0.07	2.25	No
		2	-0.07	4.00	No
		2	-0.072	6.00	No
		2	-0.072	7.75	No
	40	2	-0.227	2.25	No
		2	-0.227	7.75	No
Di	38	y	-0.146	1.50	No
		y	-0.146	8.50	No
	39	y	-0.036	2.25	No
		y	-0.036	4.00	No
		y	-0.038	6.00	No
		y	-0.038	7.75	No
	40	y	-0.106	2.25	No
		y	-0.106	7.75	No
WI0	38	z	-0.066	1.50	No
		z	-0.066	8.50	No
	39	z	-0.016	2.25	No
		z	-0.016	4.00	No
		z	-0.016	6.00	No
		z	-0.016	7.75	No
	40	z	-0.049	2.25	No
		z	-0.049	7.75	No
WI30	38	3	-0.058	1.50	No
		3	-0.058	8.50	No
	39	3	-0.014	2.25	No
		3	-0.014	4.00	No
		3	-0.015	6.00	No
		3	-0.015	7.75	No
	40	3	-0.042	2.25	No
		3	-0.042	7.75	No
WI60	38	3	-0.044	1.50	No
		3	-0.044	8.50	No
	39	3	-0.011	2.25	No
		3	-0.011	4.00	No
		3	-0.013	6.00	No
		3	-0.013	7.75	No
	40	3	-0.03	2.25	No
		3	-0.03	7.75	No
WI90	38	x	-0.037	1.50	No
		x	-0.037	8.50	No
	39	x	-0.009	2.25	No
		x	-0.009	4.00	No

		x	-0.011	6.00	No
		x	-0.011	7.75	No
	40	x	-0.024	2.25	No
		x	-0.024	7.75	No
WI120	38	2	-0.044	1.50	No
		2	-0.044	8.50	No
	39	2	-0.011	2.25	No
		2	-0.011	4.00	No
		2	-0.013	6.00	No
		2	-0.013	7.75	No
	40	2	-0.03	2.25	No
		2	-0.03	7.75	No
WI150	38	2	-0.058	1.50	No
		2	-0.058	8.50	No
	39	2	-0.014	2.25	No
		2	-0.014	4.00	No
		2	-0.015	6.00	No
		2	-0.015	7.75	No
	40	2	-0.042	2.25	No
		2	-0.042	7.75	No
WL0	38	z	-0.021	1.50	No
		z	-0.021	8.50	No
	39	z	-0.005	2.25	No
		z	-0.005	4.00	No
		z	-0.005	6.00	No
		z	-0.005	7.75	No
	40	z	-0.016	2.25	No
		z	-0.016	7.75	No
WL30	38	3	-0.019	1.50	No
		3	-0.019	8.50	No
	39	3	-0.005	2.25	No
		3	-0.005	4.00	No
		3	-0.005	6.00	No
		3	-0.005	7.75	No
	40	3	-0.014	2.25	No
		3	-0.014	7.75	No
WL60	38	3	-0.014	1.50	No
		3	-0.014	8.50	No
	39	3	-0.003	2.25	No
		3	-0.003	4.00	No
		3	-0.004	6.00	No
		3	-0.004	7.75	No
	40	3	-0.009	2.25	No
		3	-0.009	7.75	No
WL90	38	x	-0.011	1.50	No
		x	-0.011	8.50	No
	39	x	-0.003	2.25	No
		x	-0.003	4.00	No
		x	-0.004	6.00	No
		x	-0.004	7.75	No
	40	x	-0.007	2.25	No
		x	-0.007	7.75	No
WL120	38	2	-0.014	1.50	No
		2	-0.014	8.50	No
	39	2	-0.003	2.25	No
		2	-0.003	4.00	No
		2	-0.004	6.00	No
		2	-0.004	7.75	No
	40	2	-0.009	2.25	No
		2	-0.009	7.75	No

WL150	38	2	-0.019	1.50	No
		2	-0.019	8.50	No
	39	2	-0.005	2.25	No
		2	-0.005	4.00	No
		2	-0.005	6.00	No
		2	-0.005	7.75	No
	40	2	-0.014	2.25	No
		2	-0.014	7.75	No
LL1	15	y	-0.25	3.00	No
LL2	41	y	-0.25	0.00	Yes
LL3	14	y	-0.25	0.00	Yes
LLa1	38	y	-0.50	50.00	Yes
LLa2	39	y	-0.50	50.00	Yes
LLa3	40	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

RAM® Elements
CONNECT Edition

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Units system: English

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	LU 2-1_2X2X1_4	**1**	LC23 at 100.00%	0.15	With warnings	
		2	LC24 at 0.00%	0.27	With warnings	
		3	LC8 at 0.00%	0.30	OK	
		9	LC19 at 75.00%	0.51	With warnings	
		10	LC8 at 73.44%	**0.58**	**With warnings**	
		11	LC2 at 0.00%	0.09	OK	
		12	LC1 at 0.00%	0.29	OK	
		13	LC12 at 73.44%	0.29	With warnings	
		14	LC17 at 100.00%	0.19	With warnings	
		15	LC37 at 100.00%	0.23	OK	
		16	LC2 at 100.00%	0.17	OK	
		17	LC3 at 100.00%	0.42	OK	
		18	LC9 at 100.00%	0.37	OK	
		19	LC9 at 100.00%	0.46	OK	
		20	LC8 at 100.00%	0.33	OK	
		23	LC1 at 100.00%	0.18	OK	
		24	LC12 at 100.00%	0.45	OK	
		41	LC20 at 62.50%	0.07	OK	
		42	LC12 at 100.00%	0.40	OK	
		43	LC18 at 50.00%	0.09	OK	
		44	LC2 at 50.00%	0.05	OK	
		45	LC10 at 43.75%	0.38	OK	
		46	LC2 at 43.75%	0.31	OK	
		47	LC12 at 53.13%	0.49	OK	
		48	LC2 at 53.13%	0.39	OK	
	LU 3-1_2X3X1_4	**25**	LC1 at 85.42%	0.20	OK	
		26	LC8 at 66.67%	**0.24**	**OK**	
	PIPE 2x0.154	**38**	LC7 at 50.00%	**0.95**	**OK**	
		39	LC4 at 37.50%	0.39	OK	
		40	LC1 at 37.50%	0.80	OK	
	W 8X28	**8**	LC8 at 33.33%	**0.13**	**OK**	

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:12 PM
Units system: English

Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
5	0.00	0.00	-7.5833	0
6	7.5833	0.00	0.00	0
9	7.5833	0.00	-1.00	0
21	19.9167	0.3333	-1.00	0
27	28.3034	0.3333	-6.4464	0
28	15.5137	0.3333	1.8594	0
31	0.00	1.25	0.00	0
32	7.5833	1.25	0.00	0
33	0.00	1.25	-7.5833	0
34	7.5833	1.25	-1.00	0
36	0.00	2.3333	-7.5833	0
37	0.00	2.3333	0.00	0
38	7.5833	2.3333	0.00	0
39	7.5833	2.3333	-1.00	0
40	20.9167	2.3333	-1.00	0
41	0.00	-1.00	-7.5833	0
42	0.00	-1.00	0.00	0
43	7.5833	-1.00	0.00	0
44	7.5833	-1.00	-1.00	0
45	20.9167	-1.00	-1.00	0
46	12.0278	2.3333	-1.00	0
47	16.4722	2.3333	-1.00	0

48	12.0278	-1.00	-1.00	0
49	16.4722	-1.00	-1.00	0
50	16.4722	1.25	-1.00	0
51	17.191	0.75	0.7701	0
52	14.675	0.75	2.404	0
53	17.191	0.00	0.7701	0
54	14.675	0.00	2.404	0
70	5.6667	4.8333	0.20	0
71	5.6667	-5.1667	0.20	0
72	15.1333	4.8333	2.3448	0
73	15.1333	-5.1667	2.3448	0
74	-0.20	4.8333	-2.0833	0
75	-0.20	-5.1667	-2.0833	0
76	12.0278	1.25	-1.00	0
77	5.9167	2.3333	0.00	0
78	5.4167	2.3333	0.00	0
79	0.00	2.3333	-1.8333	0
80	0.00	2.3333	-2.3333	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
21	1	1	1	1	1	1
27	1	1	1	1	1	1
41	1	1	1	1	1	1
42	1	1	1	1	1	1
43	1	1	1	1	1	1
44	1	1	1	1	1	1
45	1	1	1	1	1	1
48	1	1	1	1	1	1
49	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
1	5	1		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
2	1	6		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
3	6	9		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
8	28	27		W 8X28	A992 Gr50	0.00	0.00	0.00
9	31	32		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
10	33	31		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
11	34	76		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
12	32	34		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
13	36	37		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
14	37	38		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
15	46	39		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
16	38	39		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
17	36	41		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
18	37	42		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
19	38	43		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00

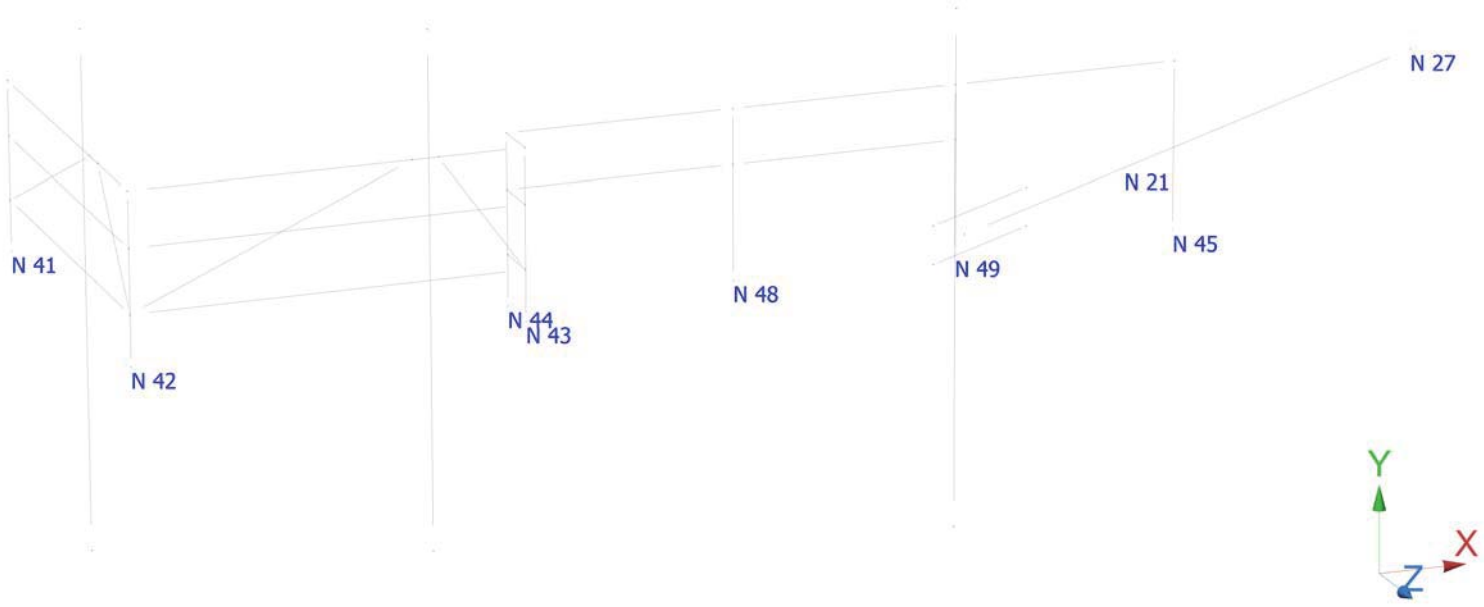
20	39	44	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
23	40	45	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
24	47	49	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
25	51	52	LU 3-1_2X3X1_4	A36	0.00	0.00	0.00
26	53	54	LU 3-1_2X3X1_4	A36	0.00	0.00	0.00
38	72	73	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
39	70	71	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
40	74	75	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
41	40	47	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
42	46	48	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
43	47	46	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
44	76	50	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
45	80	5	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
46	78	1	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
47	1	79	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
48	6	77	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
1	180.00	0	0.00	0.00	0.00
2	180.00	0	0.00	0.00	0.00
3	180.00	0	0.00	0.00	0.00
9	180.00	0	0.00	0.00	0.00
10	180.00	0	0.00	0.00	0.00
11	180.00	0	0.00	0.00	0.00
12	180.00	0	0.00	0.00	0.00
13	180.00	0	0.00	0.00	0.00
14	180.00	0	0.00	0.00	0.00
15	180.00	0	0.00	0.00	0.00
16	180.00	0	0.00	0.00	0.00
18	270.00	0	0.00	0.00	0.00
19	180.00	0	0.00	0.00	0.00
23	90.00	0	0.00	0.00	0.00
24	180.00	0	0.00	0.00	0.00
26	90.00	0	0.00	0.00	0.00
38	315.00	0	0.00	0.00	0.00
39	315.00	0	0.00	0.00	0.00
40	315.00	0	0.00	0.00	0.00
41	180.00	0	0.00	0.00	0.00
42	180.00	0	0.00	0.00	0.00
43	180.00	0	0.00	0.00	0.00
44	180.00	0	0.00	0.00	0.00
45	180.00	0	0.00	0.00	0.00
46	180.00	0	0.00	0.00	0.00
47	180.00	0	0.00	0.00	0.00
48	180.00	0	0.00	0.00	0.00

Rigid end offsets

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
45	-1.00	0.00	0.00	-1.00	0.00	0.00
46	0.00	0.00	1.00	0.00	0.00	1.00
47	-1.00	0.00	0.00	-1.00	0.00	0.00
48	0.00	0.00	1.00	0.00	0.00	1.00

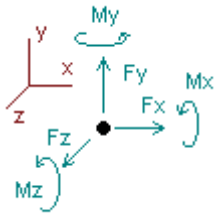

N 27
N 21
N 45
N 41
N 49
N 48
N 44
N 43
N 42
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:13 PM
Units system: English

Analysis result

Reactions



Direction of positive forces and moments

	Forces [Kip]			Moments [Kip*ft]		
Node	**FX**	**FY**	**FZ**	**MX**	**MY**	**MZ**
Condition **LC1=1.2D+Wo**						
41	0.01332	0.21575	0.33399	0.18664	0.00232	-0.02516
21	0.00000	0.61530	0.83070	-1.32591	3.88500	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.44768	0.28024	0.66057	0.44450	-0.00360	-0.25919
43	-0.08403	-0.67560	0.32102	0.19497	0.00188	0.05374
44	-0.21854	0.96568	0.44098	0.25819	-0.00099	0.15638
45	0.03558	0.02894	0.09667	0.23528	0.00201	-0.10514
48	-0.09046	0.03570	0.14750	0.33313	-0.00089	0.24010
49	-0.10355	0.02932	0.15307	0.37970	0.00050	0.28260
SUM	0.00000	1.66251	2.98450	0.55475	3.88623	-1.30329
Condition **LC2=1.2D+W30**						
41	0.08234	0.21005	0.17141	0.09251	0.00672	-0.10341
21	0.44689	0.61530	0.64760	-1.23435	4.50389	-1.18949
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.55459	0.28961	0.67803	0.44388	-0.00718	-0.34141
43	0.25778	-0.70918	0.26725	0.14938	0.00292	-0.15375
44	-0.23389	0.99453	0.50070	0.29072	-0.00044	0.16205
45	0.03705	0.02854	0.09700	0.23634	0.00201	-0.10814
48	-0.07951	0.03940	0.14294	0.32334	-0.00094	0.22334
49	-0.09652	0.02708	0.15231	0.37663	0.00051	0.27181
SUM	0.96874	1.66251	2.65724	0.52668	4.50748	-1.47268
Condition **LC3=1.2D+W60**						
41	0.32492	0.13373	-0.17743	-0.23855	0.00934	-0.55165
21	0.48433	0.61530	0.32244	-1.13174	3.10785	-1.20971
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.50870	0.45901	0.35168	0.24538	-0.00670	-0.33006
43	0.65733	-0.02219	-0.04155	-0.05851	0.00266	-0.42342
44	-0.06050	0.19750	0.24029	0.12489	0.00096	0.02649
45	0.03376	0.02291	0.00079	0.00257	0.00003	-0.02746
48	0.04420	0.05487	-0.00704	-0.01724	-0.00001	-0.04695
49	0.03586	0.03420	-0.00188	-0.00673	0.00005	-0.03569
SUM	2.02860	1.66251	0.68731	-1.23169	3.11420	-2.83214

Condition **LC4=1.2D+W90**

41	0.32802	0.12823	-0.26212	-0.29337	0.00921	-0.56115
21	0.52989	0.61530	0.00000	-0.97052	1.71790	-1.18693
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.40919	0.45905	0.19387	0.13501	-0.00618	-0.27453
43	0.70134	-0.01294	-0.08137	-0.08114	0.00206	-0.43985
44	0.00319	0.19048	0.15734	0.07752	0.00097	-0.02177
45	0.03578	0.02235	0.00090	0.00295	0.00004	-0.03155
48	0.05981	0.05952	-0.00702	-0.01485	-0.00001	-0.06377
49	0.05008	0.03334	-0.00159	-0.00635	0.00011	-0.05306
SUM	2.11729	1.66251	0.00000	-1.30250	1.72410	-2.86628

Condition **LC5=1.2D+W120**

41	0.32572	0.12272	-0.33525	-0.34127	0.00872	-0.56396
21	0.48433	0.61530	-0.32244	-0.80930	0.02318	-1.20971
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.28343	0.46657	0.02422	0.01538	-0.00539	-0.19966
43	0.69431	-0.00636	-0.11218	-0.09462	0.00127	-0.42049
44	0.06930	0.17859	0.06446	0.02545	0.00089	-0.06961
45	0.03728	0.02197	0.00092	0.00302	0.00006	-0.03460
48	0.07215	0.06333	-0.00589	-0.01009	-0.00001	-0.07572
49	0.06208	0.03320	-0.00115	-0.00526	0.00016	-0.06711
SUM	2.02860	1.66251	-0.68731	-1.36845	0.02887	-2.87453

Condition **LC6=1.2D+W150**

41	0.04761	0.04115	-0.36673	-0.21382	0.00250	-0.05412
21	0.44689	0.61530	-0.64760	-0.70668	-1.51437	-1.18949
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.23800	0.40187	-0.52709	-0.35129	0.00010	0.11654
43	0.35088	1.17219	-0.34626	-0.22921	-0.00085	-0.23210
44	0.19788	-0.88379	-0.36681	-0.21987	0.00152	-0.14683
45	-0.03776	0.01681	-0.09635	-0.23423	-0.00207	0.10676
48	0.09774	0.07407	-0.15249	-0.34491	0.00084	-0.25331
49	0.10349	0.05772	-0.15392	-0.38296	-0.00049	-0.28613
SUM	0.96874	1.66251	-2.65724	-2.83472	-1.51283	-2.17236

Condition **LC7=1.2D-Wo**

41	-0.01758	0.04199	-0.28977	-0.17745	-0.00199	0.01391
21	0.00000	0.61530	-0.83070	-0.61513	-3.88500	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.40935	0.39386	-0.70724	-0.46840	0.00357	0.24541
43	0.03508	1.23748	-0.30774	-0.19340	-0.00204	-0.03758
44	0.23459	-0.93997	-0.45138	-0.26854	0.00098	-0.17149
45	-0.03800	0.01670	-0.09658	-0.23496	-0.00206	0.10737
48	0.09317	0.07109	-0.14798	-0.33483	0.00089	-0.24428
49	0.10209	0.05887	-0.15311	-0.37990	-0.00048	-0.28275
SUM	0.00000	1.66251	-2.98450	-2.82437	-3.88612	-2.01603

Condition **LC8=1.2D-W30**

41	-0.08660	0.04769	-0.12720	-0.08332	-0.00639	0.09216
21	-0.44689	0.61530	-0.64760	-0.70668	-4.50389	-1.63638
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.51625	0.38449	-0.72470	-0.46778	0.00716	0.32763
43	-0.30674	1.27107	-0.25397	-0.14780	-0.00308	0.16991
44	0.24993	-0.96883	-0.51110	-0.30107	0.00044	-0.17717
45	-0.03947	0.01710	-0.09691	-0.23601	-0.00205	0.11037

48	0.08223	0.06739	-0.14341	-0.32503	0.00093	-0.22752
49	0.09505	0.06111	-0.15235	-0.37684	-0.00048	-0.27196
SUM	-0.96874	1.66251	-2.65724	-2.79630	-4.50738	-1.84664

Condition **LC9=1.2D-W60**

41	-0.32918	0.12401	0.22164	0.24774	-0.00901	0.54040
21	-0.48433	0.61530	-0.32244	-0.80930	-3.10785	-1.61616
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.47036	0.21509	-0.39836	-0.26927	0.00667	0.31628
43	-0.70628	0.58408	0.05483	0.06009	-0.00283	0.43958
44	0.07654	-0.17179	-0.25070	-0.13525	-0.00096	-0.04160
45	-0.03618	0.02273	-0.00070	-0.00225	-0.00007	0.02968
48	-0.04148	0.05192	0.00657	0.01555	0.00000	0.04277
49	-0.03733	0.05399	0.00184	0.00652	-0.00003	0.03554
SUM	-2.02860	1.66251	-0.68731	-1.03793	-3.11409	-0.48718

Condition **LC10=1.2D-W90**

41	-0.33228	0.12951	0.30633	0.30256	-0.00888	0.54990
21	-0.52989	0.61530	0.00000	-0.97052	-1.71790	-1.63894
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.37085	0.21505	-0.24054	-0.15890	0.00616	0.26075
43	-0.75030	0.57483	0.09465	0.08271	-0.00222	0.45601
44	0.01286	-0.16477	-0.16774	-0.08788	-0.00098	0.00666
45	-0.03820	0.02329	-0.00081	-0.00263	-0.00009	0.03377
48	-0.05710	0.04728	0.00655	0.01316	0.00001	0.05959
49	-0.05154	0.05485	0.00156	0.00614	-0.00009	0.05291
SUM	-2.11729	1.66251	0.00000	-0.96712	-1.72399	-0.45304

Condition **LC11=1.2D-W120**

41	-0.32998	0.13502	0.37946	0.35046	-0.00839	0.55270
21	-0.48433	0.61530	0.32244	-1.13174	-0.02318	-1.61616
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.24509	0.20753	-0.07089	-0.03928	0.00537	0.18589
43	-0.74327	0.56825	0.12546	0.09619	-0.00143	0.43665
44	-0.05325	-0.15289	-0.07487	-0.03581	-0.00090	0.05449
45	-0.03970	0.02366	-0.00083	-0.00270	-0.00010	0.03683
48	-0.06943	0.04347	0.00542	0.00840	0.00000	0.07154
49	-0.06354	0.05499	0.00111	0.00505	-0.00014	0.06696
SUM	-2.02860	1.66251	0.68731	-0.90117	-0.02876	-0.44479

Condition **LC12=1.2D-W150**

41	-0.05187	0.21659	0.41094	0.22301	-0.00216	0.04287
21	-0.44689	0.61530	0.64760	-1.23435	1.51437	-1.63638
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.27633	0.27223	0.48042	0.32739	-0.00013	-0.13032
43	-0.39983	-0.61030	0.35954	0.23078	0.00069	0.24826
44	-0.18184	0.90950	0.35640	0.20951	-0.00153	0.13172
45	0.03534	0.02882	0.09644	0.23455	0.00203	-0.10454
48	-0.09502	0.03272	0.15202	0.34321	-0.00085	0.24914
49	-0.10496	0.03047	0.15389	0.38275	0.00051	0.28598
SUM	-0.96874	1.66251	2.65724	0.56510	1.51294	-1.14696

Condition **LC13=0.9D+Wo**

41	0.01385	0.18353	0.32846	0.18549	0.00228	-0.02375
21	0.00000	0.46148	0.83070	-1.08328	3.88500	-1.05970
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	0.44289	0.19597	0.66640	0.44749	-0.00359	-0.25747
43	-0.07792	-0.74583	0.31936	0.19477	0.00190	0.05172
44	-0.22055	0.96246	0.44228	0.25948	-0.00099	0.15827
45	0.03588	0.02324	0.09666	0.23524	0.00202	-0.10542
48	-0.09080	0.02235	0.14756	0.33335	-0.00089	0.24062
49	-0.10337	0.01829	0.15308	0.37972	0.00049	0.28262
SUM	0.00000	1.24688	2.98450	0.83845	3.88622	-0.88837

Condition **LC14=0.9D+W30**

41	0.08287	0.17783	0.16589	0.09136	0.00668	-0.10201
21	0.44689	0.46148	0.64760	-0.99172	4.50389	-0.83625
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	0.54980	0.20535	0.68386	0.44687	-0.00718	-0.33968
43	0.26390	-0.77942	0.26559	0.14918	0.00294	-0.15577
44	-0.23589	0.99132	0.50200	0.29201	-0.00044	0.16394
45	0.03735	0.02283	0.09699	0.23629	0.00201	-0.10842
48	-0.07985	0.02606	0.14300	0.32355	-0.00093	0.22386
49	-0.09633	0.01605	0.15232	0.37666	0.00050	0.27183
SUM	0.96874	1.24688	2.65724	0.81038	4.50747	-1.05776

Condition **LC15=0.9D+W60**

41	0.32545	0.10152	-0.18296	-0.23970	0.00930	-0.55025
21	0.48433	0.46148	0.32244	-0.88911	3.10785	-0.85647
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	0.50391	0.37475	0.35752	0.24836	-0.00669	-0.32834
43	0.66345	-0.09243	-0.04321	-0.05871	0.00268	-0.42544
44	-0.06250	0.19428	0.24159	0.12619	0.00096	0.02838
45	0.03406	0.01720	0.00078	0.00253	0.00003	-0.02774
48	0.04386	0.04152	-0.00698	-0.01703	0.00000	-0.04643
49	0.03604	0.02318	-0.00187	-0.00670	0.00005	-0.03567
SUM	2.02860	1.24688	0.68731	-0.94798	3.11418	-2.41722

Condition **LC16=0.9D+W90**

41	0.32855	0.09602	-0.26765	-0.29452	0.00917	-0.55974
21	0.52989	0.46148	0.00000	-0.72789	1.71790	-0.83369
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	0.40439	0.37479	0.19970	0.13799	-0.00618	-0.27280
43	0.70746	-0.08317	-0.08303	-0.08133	0.00208	-0.44187
44	0.00118	0.18726	0.15864	0.07882	0.00097	-0.01988
45	0.03608	0.01665	0.00089	0.00291	0.00005	-0.03183
48	0.05947	0.04617	-0.00696	-0.01464	-0.00001	-0.06324
49	0.05026	0.02231	-0.00159	-0.00632	0.00011	-0.05304
SUM	2.11729	1.24688	0.00000	-1.01880	1.72409	-2.45136

Condition **LC17=0.9D+W120**

41	0.32625	0.09051	-0.34078	-0.34242	0.00868	-0.56255
21	0.48433	0.46148	-0.32244	-0.56667	0.02318	-0.85647
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	0.27864	0.38231	0.03005	0.01837	-0.00539	-0.19794
43	0.70043	-0.07660	-0.11384	-0.09482	0.00129	-0.42251
44	0.06729	0.17538	0.06576	0.02675	0.00089	-0.06772
45	0.03759	0.01627	0.00091	0.00298	0.00006	-0.03488

48	0.07181	0.04998	-0.00583	-0.00988	-0.00001	-0.07519
49	0.06226	0.02218	-0.00114	-0.00523	0.00016	-0.06709
SUM	2.02860	1.24688	-0.68731	-1.08475	0.02886	-2.45962

Condition **LC18=0.9D+W150**

41	0.04814	0.00893	-0.37225	-0.21497	0.00245	-0.05271
21	0.44689	0.46148	-0.64760	-0.46405	-1.51437	-0.83625
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	-0.24279	0.31761	-0.52126	-0.34830	0.00011	0.11826
43	0.35700	1.10196	-0.34792	-0.22941	-0.00083	-0.23412
44	0.19588	-0.88700	-0.36551	-0.21858	0.00152	-0.14494
45	-0.03746	0.01111	-0.09636	-0.23427	-0.00207	0.10649
48	0.09740	0.06072	-0.15243	-0.34470	0.00084	-0.25279
49	0.10368	0.04669	-0.15392	-0.38293	-0.00049	-0.28611
SUM	0.96874	1.24688	-2.65724	-2.55102	-1.51285	-1.75745

Condition **LC19=0.9D-Wo**

41	-0.01704	0.00977	-0.29530	-0.17860	-0.00203	0.01531
21	0.00000	0.46148	-0.83070	-0.37250	-3.88500	-1.05970
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	-0.41414	0.30960	-0.70141	-0.46541	0.00358	0.24714
43	0.04120	1.16725	-0.30940	-0.19359	-0.00202	-0.03960
44	0.23258	-0.94318	-0.45008	-0.26725	0.00098	-0.16960
45	-0.03770	0.01099	-0.09659	-0.23500	-0.00205	0.10709
48	0.09283	0.05774	-0.14792	-0.33462	0.00089	-0.24376
49	0.10227	0.04785	-0.15310	-0.37988	-0.00048	-0.28273
SUM	0.00000	1.24688	-2.98450	-2.54067	-3.88614	-1.60112

Condition **LC20=0.9D-W30**

41	-0.08606	0.01547	-0.13273	-0.08447	-0.00643	0.09357
21	-0.44689	0.46148	-0.64760	-0.46405	-4.50389	-1.28315
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	-0.52104	0.30022	-0.71887	-0.46479	0.00716	0.32935
43	-0.30062	1.20084	-0.25563	-0.14800	-0.00306	0.16789
44	0.24793	-0.97204	-0.50980	-0.29978	0.00044	-0.17528
45	-0.03916	0.01140	-0.09692	-0.23605	-0.00204	0.11009
48	0.08189	0.05404	-0.14335	-0.32482	0.00093	-0.22700
49	0.09523	0.05009	-0.15234	-0.37681	-0.00049	-0.27194
SUM	-0.96874	1.24688	-2.65724	-2.51259	-4.50739	-1.43173

Condition **LC21=0.9D-W60**

41	-0.32865	0.09179	0.21611	0.24659	-0.00905	0.54181
21	-0.48433	0.46148	-0.32244	-0.56667	-3.10785	-1.26293
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	-0.47516	0.13083	-0.39252	-0.26629	0.00667	0.31801
43	-0.70016	0.51384	0.05317	0.05989	-0.00281	0.43756
44	0.07453	-0.17500	-0.24939	-0.13395	-0.00096	-0.03971
45	-0.03588	0.01703	-0.00071	-0.00229	-0.00007	0.02941
48	-0.04182	0.03857	0.00663	0.01576	0.00000	0.04330
49	-0.03714	0.04297	0.00185	0.00655	-0.00003	0.03556
SUM	-2.02860	1.24688	-0.68731	-0.75423	-3.11410	-0.07227

Condition **LC22=0.9D-W90**

41	-0.33175	0.09729	0.30081	0.30141	-0.00892	0.55130
21	-0.52989	0.46148	0.00000	-0.72789	-1.71790	-1.28571
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	-0.37564	0.13078	-0.23471	-0.15592	0.00616	0.26247
43	-0.74418	0.50459	0.09299	0.08252	-0.00220	0.45399
44	0.01085	-0.16798	-0.16644	-0.08659	-0.00098	0.00855
45	-0.03790	0.01758	-0.00082	-0.00267	-0.00008	0.03350
48	-0.05744	0.03393	0.00661	0.01337	0.00001	0.06011
49	-0.05136	0.04383	0.00156	0.00616	-0.00009	0.05293
SUM	-2.11729	1.24688	0.00000	-0.68342	-1.72401	-0.03813

Condition **LC23=0.9D-W120**

41	-0.32944	0.10280	0.37394	0.34931	-0.00843	0.55411
21	-0.48433	0.46148	0.32244	-0.88911	-0.02318	-1.26293
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	-0.24988	0.12326	-0.06506	-0.03629	0.00537	0.18761
43	-0.73715	0.49802	0.12380	0.09600	-0.00141	0.43463
44	-0.05526	-0.15610	-0.07357	-0.03452	-0.00089	0.05638
45	-0.03940	0.01796	-0.00084	-0.00274	-0.00009	0.03655
48	-0.06977	0.03012	0.00548	0.00861	0.00000	0.07206
49	-0.06336	0.04397	0.00112	0.00508	-0.00014	0.06698
SUM	-2.02860	1.24688	0.68731	-0.61747	-0.02878	-0.02987

Condition **LC24=0.9D-W150**

41	-0.05134	0.18437	0.40541	0.22186	-0.00221	0.04428
21	-0.44689	0.46148	0.64760	-0.99172	1.51437	-1.28315
27	0.00000	0.12539	0.00000	-0.11382	0.00000	-0.17526
42	0.27154	0.18797	0.48625	0.33038	-0.00012	-0.12859
43	-0.39371	-0.68054	0.35788	0.23059	0.00071	0.24624
44	-0.18384	0.90628	0.35770	0.21081	-0.00153	0.13361
45	0.03564	0.02312	0.09643	0.23451	0.00203	-0.10482
48	-0.09536	0.01937	0.15208	0.34343	-0.00084	0.24966
49	-0.10477	0.01945	0.15389	0.38278	0.00051	0.28600
SUM	-0.96874	1.24688	2.65724	0.84881	1.51293	-0.73204

Condition **LC25=1.2D+Di+WI0**

41	-0.00474	0.27941	0.08811	0.03453	0.00052	-0.01058
21	0.00000	0.95530	0.13200	-2.13738	0.63140	-3.00088
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.08731	0.71078	0.01970	0.02473	-0.00032	-0.04207
43	-0.05490	0.48856	0.02744	0.00963	0.00012	0.01522
44	-0.01153	0.04351	0.02752	0.01230	0.00002	0.00713
45	-0.00410	0.03486	0.00002	0.00008	-0.00006	0.00506
48	-0.00389	0.10625	-0.00064	-0.00274	-0.00001	0.00331
49	-0.00817	0.08600	-0.00016	-0.00042	0.00000	0.00799
SUM	0.00000	2.87185	0.29400	-2.21101	0.63166	-3.24851

Condition **LC26=1.2D+Di+WI30**

41	0.00790	0.27779	0.05155	0.01300	0.00130	-0.02535
21	0.08202	0.95530	0.08202	-2.11239	0.66670	-2.95987
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.09655	0.71238	0.00934	0.01533	-0.00090	-0.05170
43	0.01129	0.48647	0.01294	-0.00141	0.00024	-0.02393
44	-0.00669	0.04521	0.02820	0.01224	0.00011	0.00214
45	-0.00355	0.03470	0.00010	0.00033	-0.00006	0.00395

48	0.00003	0.10740	-0.00146	-0.00425	-0.00002	-0.00188
49	-0.00514	0.08543	-0.00026	-0.00093	0.00001	0.00385
SUM	0.18243	2.87185	0.18243	-2.22983	0.66739	-3.28648

Condition **LC27=1.2D+Di+Wl60**

41	0.00456	0.27756	0.05152	0.01221	0.00105	-0.02216
21	0.06223	0.95530	0.06223	-2.10249	0.50578	-2.96977
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.08412	0.71149	-0.00777	0.00386	-0.00070	-0.04289
43	-0.00259	0.49313	0.01315	-0.00078	0.00016	-0.01535
44	-0.00238	0.03982	0.02085	0.00782	0.00009	-0.00129
45	-0.00342	0.03463	0.00010	0.00033	-0.00006	0.00370
48	0.00060	0.10737	-0.00126	-0.00375	-0.00002	-0.00238
49	-0.00452	0.08536	-0.00022	-0.00078	0.00001	0.00313
SUM	0.13859	2.87185	0.13859	-2.23533	0.50631	-3.28069

Condition **LC28=1.2D+Di+Wl90**

41	0.00573	0.27635	0.03346	0.00071	0.00106	-0.02461
21	0.07400	0.95530	0.00000	-2.07138	0.24751	-2.96388
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.06320	0.71206	-0.03917	-0.01821	-0.00061	-0.03155
43	0.00802	0.49478	0.00428	-0.00576	0.00003	-0.01926
44	0.01154	0.03808	0.00271	-0.00251	0.00009	-0.01179
45	-0.00299	0.03452	0.00012	0.00041	-0.00006	0.00283
48	0.00396	0.10838	-0.00124	-0.00320	-0.00002	-0.00598
49	-0.00146	0.08519	-0.00015	-0.00069	0.00002	-0.00061
SUM	0.16200	2.87185	0.00000	-2.25238	0.24804	-3.28852

Condition **LC29=1.2D+Di+Wl120**

41	0.00452	0.27523	0.01985	-0.00829	0.00092	-0.02438
21	0.06223	0.95530	-0.06223	-2.04026	-0.08951	-2.96977
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03571	0.71301	-0.07449	-0.04283	-0.00040	-0.01530
43	0.00434	0.49765	-0.00238	-0.00869	-0.00015	-0.01397
44	0.02641	0.03469	-0.01843	-0.01443	0.00007	-0.02265
45	-0.00264	0.03442	0.00013	0.00043	-0.00005	0.00212
48	0.00677	0.10922	-0.00099	-0.00214	-0.00002	-0.00872
49	0.00127	0.08514	-0.00005	-0.00044	0.00004	-0.00381
SUM	0.13859	2.87185	-0.13859	-2.26840	-0.08911	-3.29016

Condition **LC30=1.2D+Di+Wl150**

41	0.00821	0.27462	0.00757	-0.01567	0.00113	-0.02874
21	0.08202	0.95530	-0.08202	-2.03036	-0.11799	-2.95987
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03559	0.71400	-0.08184	-0.04886	-0.00057	-0.01594
43	0.02126	0.49838	-0.00622	-0.01147	-0.00013	-0.02357
44	0.02803	0.03355	-0.01884	-0.01481	0.00009	-0.02424
45	-0.00249	0.03437	0.00015	0.00049	-0.00005	0.00181
48	0.00776	0.10946	-0.00116	-0.00245	-0.00002	-0.01002
49	0.00206	0.08498	-0.00007	-0.00055	0.00004	-0.00489
SUM	0.18243	2.87185	-0.18243	-2.27544	-0.11750	-3.29915

Condition **LC31=1.2D+Di-WI0**

41	-0.00404	0.27417	0.01579	-0.01272	0.00026	-0.01626
21	0.00000	0.95530	-0.13200	-2.00537	-0.63140	-3.00088
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.00931	0.71299	-0.12951	-0.08057	0.00016	0.01533
43	-0.03853	0.51424	-0.00274	-0.00652	-0.00044	0.01491
44	0.04254	0.01927	-0.04559	-0.03019	-0.00002	-0.03461
45	-0.00232	0.03428	0.00011	0.00038	-0.00005	0.00150
48	0.00842	0.10929	-0.00019	-0.00004	-0.00001	-0.00985
49	0.00324	0.08513	0.00013	0.00015	0.00005	-0.00599
SUM	0.00000	2.87185	-0.29400	-2.28664	-0.63144	-3.26954

Condition **LC32=1.2D+Di-WI30**

41	-0.01669	0.27579	0.05234	0.00881	-0.00051	-0.00149
21	-0.08202	0.95530	-0.08202	-2.03036	-0.66670	-3.04189
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.01855	0.71139	-0.11914	-0.07118	0.00074	0.02496
43	-0.10472	0.51633	0.01176	0.00452	-0.00056	0.05406
44	0.03770	0.01757	-0.04627	-0.03013	-0.00012	-0.02962
45	-0.00287	0.03445	0.00003	0.00013	-0.00005	0.00261
48	0.00449	0.10814	0.00064	0.00148	0.00000	-0.00467
49	0.00021	0.08570	0.00024	0.00065	0.00004	-0.00185
SUM	-0.18243	2.87185	-0.18243	-2.26782	-0.66716	-3.23157

Condition **LC33=1.2D+Di-WI60**

41	-0.01334	0.27602	0.05238	0.00961	-0.00027	-0.00468
21	-0.06223	0.95530	-0.06223	-2.04026	-0.50578	-3.03199
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.00611	0.71228	-0.10203	-0.05971	0.00054	0.01614
43	-0.09084	0.50967	0.01154	0.00390	-0.00048	0.04548
44	0.03339	0.02296	-0.03891	-0.02570	-0.00009	-0.02619
45	-0.00300	0.03451	0.00003	0.00012	-0.00005	0.00286
48	0.00393	0.10817	0.00044	0.00097	0.00000	-0.00417
49	-0.00040	0.08576	0.00019	0.00051	0.00003	-0.00112
SUM	-0.13859	2.87185	-0.13859	-2.26232	-0.50609	-3.23736

Condition **LC34=1.2D+Di-WI90**

41	-0.01451	0.27723	0.07044	0.02110	-0.00028	-0.00223
21	-0.07400	0.95530	0.00000	-2.07138	-0.24751	-3.03788
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01481	0.71170	-0.07063	-0.03764	0.00045	0.00480
43	-0.10145	0.50802	0.02041	0.00888	-0.00035	0.04939
44	0.01947	0.02469	-0.02078	-0.01538	-0.00009	-0.01570
45	-0.00343	0.03463	0.00001	0.00005	-0.00005	0.00373
48	0.00057	0.10716	0.00042	0.00043	0.00000	-0.00057
49	-0.00347	0.08593	0.00013	0.00042	0.00002	0.00261
SUM	-0.16200	2.87185	0.00000	-2.24527	-0.24782	-3.22953

Condition **LC35=1.2D+Di-WI120**

41	-0.01330	0.27835	0.08405	0.03010	-0.00013	-0.00246
21	-0.06223	0.95530	0.06223	-2.10249	0.08951	-3.03199
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.04230	0.71075	-0.03531	-0.01302	0.00023	-0.01144
43	-0.09776	0.50515	0.02708	0.01181	-0.00017	0.04409
44	0.00461	0.02808	0.00036	-0.00346	-0.00007	-0.00484
45	-0.00378	0.03472	0.00000	0.00003	-0.00006	0.00444

48	-0.00224	0.10632	0.00017	-0.00064	0.00000	0.00217
49	-0.00619	0.08599	0.00002	0.00017	0.00001	0.00581
SUM	-0.13859	2.87185	0.13859	-2.22925	0.08933	-3.22789

Condition **LC36=1.2D+Di-Wl150**

41	-0.01699	0.27896	0.09633	0.03748	-0.00035	0.00190
21	-0.08202	0.95530	0.08202	-2.11239	0.11799	-3.04189
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.04242	0.70977	-0.02797	-0.00699	0.00041	-0.01080
43	-0.11468	0.50442	0.03091	0.01459	-0.00019	0.05370
44	0.00299	0.02922	0.00077	-0.00307	-0.00010	-0.00324
45	-0.00393	0.03477	-0.00002	-0.00004	-0.00006	0.00475
48	-0.00323	0.10608	0.00034	-0.00033	0.00000	0.00348
49	-0.00698	0.08614	0.00004	0.00028	0.00001	0.00689
SUM	-0.18243	2.87185	0.18243	-2.22221	0.11772	-3.21890

Condition **LC37=1.2D+1.6LL1**

41	-0.00187	0.12922	0.02231	0.00456	0.00018	-0.00616
21	0.00000	0.61530	0.00000	-0.97052	0.00000	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.02007	0.33747	-0.02242	-0.01148	-0.00004	-0.00721
43	-0.02237	0.29216	0.00106	-0.00128	-0.00003	0.00734
44	-0.00098	0.28018	-0.00292	-0.00166	0.00006	0.00231
45	-0.00481	0.02611	-0.00031	-0.00105	-0.00004	0.00750
48	0.01064	0.17097	0.00156	0.00536	-0.00012	-0.00241
49	-0.00069	0.04393	0.00072	0.00235	-0.00001	0.00428
SUM	0.00000	2.06251	0.00000	-1.12547	-0.00001	-1.64097

Condition **LC38=1.2D+1.6LL2**

41	-0.00213	0.12887	0.02212	0.00460	0.00017	-0.00563
21	0.00000	0.61530	0.00000	-0.97052	0.00000	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01914	0.33702	-0.02334	-0.01195	-0.00001	-0.00687
43	-0.02454	0.28103	0.00664	0.00079	-0.00008	0.00812
44	0.00801	0.01274	-0.00521	-0.00517	0.00000	-0.00751
45	-0.00104	0.42257	0.00002	0.00008	-0.00002	0.00096
48	0.00136	0.05334	-0.00024	-0.00087	0.00000	-0.00208
49	-0.00080	0.04446	0.00002	0.00002	0.00001	0.00008
SUM	0.00000	2.06251	0.00000	-1.13478	0.00005	-1.65955

Condition **LC39=1.2D+1.6LL3**

41	-0.00214	0.12879	0.02257	0.00500	0.00017	-0.00544
21	0.00000	0.61530	0.00000	-0.97052	0.00000	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01886	0.73700	-0.02379	-0.01162	-0.00002	-0.00706
43	-0.02441	0.28104	0.00665	0.00075	-0.00008	0.00795
44	0.00812	0.01294	-0.00521	-0.00522	0.00000	-0.00769
45	-0.00119	0.02281	0.00005	0.00017	-0.00002	0.00107
48	0.00144	0.05338	-0.00025	-0.00090	0.00000	-0.00222
49	-0.00067	0.04407	-0.00002	-0.00013	0.00001	-0.00018
SUM	0.00000	2.06251	0.00000	-1.13421	0.00006	-1.66017

Condition **LC40=1.2D+WL0+1.6LLa1**

41	-0.00227	0.12971	0.03390	0.01232	0.00021	-0.00467
21	0.00000	1.41530	0.04200	-3.66735	0.20090	-5.23959
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03450	0.33669	0.00086	0.00515	-0.00009	-0.01606
43	-0.02721	0.27693	0.01138	0.00333	0.00001	0.00824
44	-0.00043	0.01663	0.00619	0.00145	0.00000	-0.00102
45	-0.00149	0.02291	0.00003	0.00011	-0.00002	0.00167
48	-0.00057	0.05292	-0.00030	-0.00126	0.00000	-0.00002
49	-0.00252	0.04423	-0.00006	-0.00019	0.00000	0.00212
SUM	0.00000	2.46251	0.09400	-3.79821	0.20100	-5.48301

Condition **LC41=1.2D+WL30+1.6LLa1**

41	0.00199	0.12923	0.02193	0.00526	0.00047	-0.00964
21	0.02687	1.41530	0.02687	-3.65979	0.21840	-5.22615
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03873	0.33737	-0.00178	0.00257	-0.00029	-0.01988
43	-0.00480	0.27499	0.00689	-0.00017	0.00005	-0.00514
44	0.00045	0.01822	0.00753	0.00211	0.00004	-0.00207
45	-0.00134	0.02287	0.00006	0.00019	-0.00002	0.00136
48	0.00057	0.05329	-0.00059	-0.00182	-0.00001	-0.00157
49	-0.00166	0.04406	-0.00010	-0.00037	0.00000	0.00093
SUM	0.06081	2.46251	0.06081	-3.80378	0.21865	-5.49585

Condition **LC42=1.2D+WL60+1.6LLa1**

41	0.00054	0.12908	0.02201	0.00501	0.00036	-0.00822
21	0.01980	1.41530	0.01980	-3.65625	0.16093	-5.22969
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03249	0.33673	-0.00929	-0.00248	-0.00020	-0.01562
43	-0.01148	0.27958	0.00684	0.00004	0.00001	-0.00093
44	0.00275	0.01454	0.00357	-0.00031	0.00002	-0.00397
45	-0.00126	0.02283	0.00006	0.00020	-0.00002	0.00121
48	0.00090	0.05326	-0.00049	-0.00155	0.00000	-0.00188
49	-0.00132	0.04402	-0.00008	-0.00029	0.00001	0.00051
SUM	0.04243	2.46251	0.04243	-3.80739	0.16111	-5.49226

Condition **LC43=1.2D+WL90+1.6LLa1**

41	0.00084	0.12875	0.01658	0.00152	0.00036	-0.00895
21	0.02200	1.41530	0.00000	-3.64635	0.07359	-5.22859
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.02702	0.33684	-0.01852	-0.00888	-0.00017	-0.01275
43	-0.00721	0.27919	0.00401	-0.00164	-0.00002	-0.00293
44	0.00685	0.01489	-0.00155	-0.00322	0.00003	-0.00706
45	-0.00113	0.02279	0.00007	0.00023	-0.00002	0.00094
48	0.00198	0.05360	-0.00051	-0.00145	-0.00001	-0.00306
49	-0.00035	0.04396	-0.00006	-0.00029	0.00001	-0.00067
SUM	0.05000	2.46251	0.00000	-3.81184	0.07377	-5.49675

Condition **LC44=1.2D+WL120+1.6LLa1**

41	0.00056	0.12842	0.01249	-0.00117	0.00032	-0.00894
21	0.01980	1.41530	-0.01980	-3.63645	-0.02848	-5.22969
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01817	0.33730	-0.02918	-0.01639	-0.00011	-0.00747
43	-0.00923	0.27900	0.00232	-0.00220	-0.00008	-0.00057
44	0.01119	0.01468	-0.00788	-0.00669	0.00002	-0.01007
45	-0.00106	0.02278	0.00006	0.00022	-0.00002	0.00080

48	0.00266	0.05385	-0.00041	-0.00106	-0.00001	-0.00364
49	0.00034	0.04399	-0.00003	-0.00019	0.00001	-0.00145
SUM	0.04243	2.46251	-0.04243	-3.81571	-0.02834	-5.49473

Condition **LC45=1.2D+WL150+1.6LLa1**

41	0.00206	0.12812	0.00728	-0.00427	0.00041	-0.01070
21	0.02687	1.41530	-0.02687	-3.63292	-0.03865	-5.22615
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01801	0.33783	-0.03236	-0.01895	-0.00017	-0.00775
43	-0.00166	0.28066	0.00029	-0.00368	-0.00007	-0.00492
44	0.01238	0.01284	-0.00871	-0.00732	0.00003	-0.01127
45	-0.00095	0.02274	0.00008	0.00026	-0.00002	0.00059
48	0.00327	0.05395	-0.00049	-0.00121	-0.00001	-0.00444
49	0.00084	0.04388	-0.00004	-0.00024	0.00002	-0.00212
SUM	0.06081	2.46251	-0.06081	-3.82009	-0.03847	-5.50046

Condition **LC46=1.2D-WL0+1.6LLa1**

41	-0.00199	0.12803	0.01031	-0.00313	0.00012	-0.00659
21	0.00000	1.41530	-0.04200	-3.62535	-0.20090	-5.23959
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.00384	0.33741	-0.04754	-0.02905	0.00006	0.00228
43	-0.02174	0.28496	0.00190	-0.00176	-0.00017	0.00792
44	0.01648	0.00907	-0.01660	-0.01180	-0.00001	-0.01409
45	-0.00093	0.02273	0.00006	0.00021	-0.00002	0.00055
48	0.00329	0.05387	-0.00017	-0.00043	0.00000	-0.00416
49	0.00106	0.04396	0.00003	-0.00002	0.00002	-0.00227
SUM	0.00000	2.46251	-0.09400	-3.82309	-0.20089	-5.48962

Condition **LC47=1.2D-WL30+1.6LLa1**

41	-0.00624	0.12851	0.02228	0.00393	-0.00014	-0.00161
21	-0.02687	1.41530	-0.02687	-3.63292	-0.21840	-5.25302
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.00039	0.33672	-0.04489	-0.02647	0.00026	0.00610
43	-0.04416	0.28690	0.00639	0.00174	-0.00022	0.02130
44	0.01560	0.00749	-0.01794	-0.01246	-0.00004	-0.01304
45	-0.00108	0.02277	0.00004	0.00013	-0.00002	0.00086
48	0.00215	0.05351	0.00012	0.00012	0.00000	-0.00261
49	0.00020	0.04412	0.00007	0.00017	0.00002	-0.00108
SUM	-0.06081	2.46251	-0.06081	-3.81751	-0.21854	-5.47677

Condition **LC48=1.2D-WL60+1.6LLa1**

41	-0.00480	0.12866	0.02220	0.00418	-0.00003	-0.00304
21	-0.01980	1.41530	-0.01980	-3.63645	-0.16093	-5.24949
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.00585	0.33737	-0.03738	-0.02142	0.00017	0.00184
43	-0.03747	0.28231	0.00644	0.00153	-0.00018	0.01709
44	0.01330	0.01117	-0.01398	-0.01005	-0.00003	-0.01115
45	-0.00116	0.02281	0.00004	0.00012	-0.00002	0.00102
48	0.00182	0.05354	0.00002	-0.00014	0.00000	-0.00230
49	-0.00015	0.04417	0.00004	0.00009	0.00001	-0.00066
SUM	-0.04243	2.46251	-0.04243	-3.81390	-0.16100	-5.48037

Condition **LC49=1.2D-WL90+1.6LLa1**

41	-0.00510	0.12899	0.02764	0.00767	-0.00003	-0.00230
21	-0.02200	1.41530	0.00000	-3.64635	-0.07359	-5.25059
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01132	0.33726	-0.02815	-0.01502	0.00014	-0.00103
43	-0.04175	0.28270	0.00927	0.00321	-0.00014	0.01909
44	0.00920	0.01082	-0.00885	-0.00714	-0.00003	-0.00805
45	-0.00129	0.02284	0.00003	0.00010	-0.00002	0.00129
48	0.00074	0.05319	0.00004	-0.00024	0.00000	-0.00112
49	-0.00111	0.04423	0.00003	0.00008	0.00001	0.00053
SUM	-0.05000	2.46251	0.00000	-3.80945	-0.07366	-5.47588

Condition **LC50=1.2D-WL120+1.6LLa1**

41	-0.00481	0.12932	0.03172	0.01036	0.00001	-0.00231
21	-0.01980	1.41530	0.01980	-3.65625	0.02848	-5.24949
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.02017	0.33680	-0.01749	-0.00750	0.00008	-0.00631
43	-0.03973	0.28289	0.01096	0.00378	-0.00008	0.01673
44	0.00486	0.01103	-0.00252	-0.00367	-0.00003	-0.00505
45	-0.00136	0.02285	0.00003	0.00011	-0.00002	0.00143
48	0.00006	0.05295	-0.00006	-0.00063	0.00000	-0.00053
49	-0.00181	0.04420	-0.00001	-0.00001	0.00001	0.00131
SUM	-0.04243	2.46251	0.04243	-3.80558	0.02845	-5.47790

Condition **LC51=1.2D-WL150+1.6LLa1**

41	-0.00631	0.12962	0.03693	0.01346	-0.00008	-0.00055
21	-0.02687	1.41530	0.02687	-3.65979	0.03865	-5.25302
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.02033	0.33627	-0.01431	-0.00495	0.00015	-0.00603
43	-0.04730	0.28123	0.01299	0.00525	-0.00009	0.02108
44	0.00366	0.01287	-0.00170	-0.00304	-0.00004	-0.00384
45	-0.00147	0.02289	0.00002	0.00007	-0.00002	0.00164
48	-0.00055	0.05284	0.00002	-0.00049	0.00000	0.00026
49	-0.00230	0.04431	0.00000	0.00004	0.00001	0.00198
SUM	-0.06081	2.46251	0.06081	-3.80120	0.03858	-5.47217

Condition **LC52=1.2D+WL0+1.6LLa2**

41	-0.00472	0.12593	0.02732	0.01039	0.00007	0.00066
21	0.00000	0.61530	0.04200	-0.99152	0.20090	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.06949	0.53352	0.00872	0.00688	0.00024	-0.03109
43	-0.08864	0.99666	0.02855	0.00534	-0.00018	0.03195
44	0.01815	-0.09048	-0.01176	-0.01641	-0.00006	-0.02308
45	0.00020	0.02199	0.00026	0.00089	-0.00001	-0.00159
48	0.00436	0.05043	-0.00091	-0.00411	0.00000	-0.00853
49	0.00116	0.04197	-0.00018	-0.00067	0.00002	-0.00391
SUM	0.00000	2.46251	0.09400	-1.14096	0.20097	-1.68221

Condition **LC53=1.2D+WL30+1.6LLa2**

41	-0.00046	0.12545	0.01535	0.00334	0.00033	-0.00432
21	0.02687	0.61530	0.02687	-0.98395	0.21840	-1.39950
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.07372	0.53421	0.00608	0.00430	0.00004	-0.03491
43	-0.06622	0.99472	0.02406	0.00183	-0.00014	0.01858
44	0.01903	-0.08889	-0.01042	-0.01575	-0.00002	-0.02413
45	0.00035	0.02195	0.00029	0.00097	-0.00001	-0.00190

48	0.00551	0.05079	-0.00120	-0.00467	0.00000	-0.01008
49	0.00202	0.04180	-0.00022	-0.00085	0.00002	-0.00510
SUM	0.06081	2.46251	0.06081	-1.14654	0.21862	-1.69506

Condition **LC54=1.2D+WL60+1.6LLa2**

41	-0.00190	0.12530	0.01543	0.00309	0.00023	-0.00289
21	0.01980	0.61530	0.01980	-0.98042	0.16093	-1.40303
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.06748	0.53357	-0.00143	-0.00075	0.00012	-0.03065
43	-0.07291	0.99930	0.02401	0.00205	-0.00017	0.02279
44	0.02133	-0.09257	-0.01438	-0.01816	-0.00004	-0.02602
45	0.00043	0.02191	0.00029	0.00097	-0.00001	-0.00205
48	0.00584	0.05077	-0.00109	-0.00440	0.00000	-0.01039
49	0.00236	0.04175	-0.00020	-0.00077	0.00002	-0.00552
SUM	0.04243	2.46251	0.04243	-1.15015	0.16108	-1.69146

Condition **LC55=1.2D+WL90+1.6LLa2**

41	-0.00161	0.12498	0.00999	-0.00040	0.00023	-0.00362
21	0.02200	0.61530	0.00000	-0.97052	0.07359	-1.40193
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.06201	0.53367	-0.01066	-0.00715	0.00015	-0.02778
43	-0.06864	0.99892	0.02118	0.00037	-0.00021	0.02079
44	0.02543	-0.09222	-0.01951	-0.02107	-0.00003	-0.02911
45	0.00056	0.02188	0.00030	0.00100	-0.00001	-0.00232
48	0.00691	0.05111	-0.00112	-0.00430	0.00000	-0.01157
49	0.00333	0.04169	-0.00018	-0.00076	0.00002	-0.00671
SUM	0.05000	2.46251	0.00000	-1.15460	0.07374	-1.69596

Condition **LC56=1.2D+WL120+1.6LLa2**

41	-0.00189	0.12465	0.00590	-0.00309	0.00019	-0.00362
21	0.01980	0.61530	-0.01980	-0.96062	-0.02848	-1.40303
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.05315	0.53413	-0.02132	-0.01467	0.00021	-0.02250
43	-0.07065	0.99873	0.01949	-0.00020	-0.00027	0.02315
44	0.02977	-0.09243	-0.02584	-0.02454	-0.00004	-0.03212
45	0.00063	0.02187	0.00029	0.00099	-0.00001	-0.00247
48	0.00759	0.05136	-0.00101	-0.00391	0.00000	-0.01216
49	0.00403	0.04172	-0.00015	-0.00067	0.00003	-0.00749
SUM	0.04243	2.46251	-0.04243	-1.15847	-0.02837	-1.69393

Condition **LC57=1.2D+WL150+1.6LLa2**

41	-0.00039	0.12435	0.00070	-0.00619	0.00028	-0.00538
21	0.02687	0.61530	-0.02687	-0.95708	-0.03865	-1.39950
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.05300	0.53466	-0.02450	-0.01722	0.00015	-0.02278
43	-0.06308	1.00039	0.01746	-0.00167	-0.00026	0.01880
44	0.03096	-0.09427	-0.02666	-0.02517	-0.00003	-0.03332
45	0.00074	0.02182	0.00031	0.00103	-0.00001	-0.00268
48	0.00820	0.05146	-0.00109	-0.00406	0.00000	-0.01295
49	0.00452	0.04161	-0.00015	-0.00072	0.00003	-0.00816
SUM	0.06081	2.46251	-0.06081	-1.16285	-0.03850	-1.69966

Condition **LC58=1.2D-WL0+1.6LLa2**

41	-0.00444	0.12426	0.00373	-0.00505	-0.00001	-0.00126
21	0.00000	0.61530	-0.04200	-0.94952	-0.20090	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03883	0.53424	-0.03968	-0.02732	0.00038	-0.01275
43	-0.08317	1.00468	0.01907	0.00024	-0.00036	0.03164
44	0.03506	-0.09804	-0.03455	-0.02966	-0.00007	-0.03614
45	0.00076	0.02181	0.00029	0.00098	-0.00001	-0.00271
48	0.00823	0.05138	-0.00077	-0.00328	0.00001	-0.01267
49	0.00474	0.04169	-0.00009	-0.00049	0.00003	-0.00830
SUM	0.00000	2.46251	-0.09400	-1.16584	-0.20092	-1.68882

Condition **LC59=1.2D-WL30+1.6LLa2**

41	-0.00869	0.12474	0.01569	0.00201	-0.00027	0.00372
21	-0.02687	0.61530	-0.02687	-0.95708	-0.21840	-1.42637
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.03460	0.53356	-0.03703	-0.02474	0.00058	-0.00893
43	-0.10559	1.00662	0.02356	0.00375	-0.00040	0.04502
44	0.03418	-0.09962	-0.03589	-0.03032	-0.00010	-0.03509
45	0.00060	0.02185	0.00027	0.00090	-0.00001	-0.00240
48	0.00708	0.05102	-0.00049	-0.00273	0.00001	-0.01112
49	0.00388	0.04186	-0.00005	-0.00031	0.00003	-0.00711
SUM	-0.06081	2.46251	-0.06081	-1.16027	-0.21857	-1.67598

Condition **LC60=1.2D-WL60+1.6LLa2**

41	-0.00725	0.12489	0.01562	0.00226	-0.00017	0.00229
21	-0.01980	0.61530	-0.01980	-0.96062	-0.16093	-1.42283
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.04084	0.53420	-0.02952	-0.01969	0.00050	-0.01320
43	-0.09890	1.00204	0.02361	0.00353	-0.00036	0.04081
44	0.03188	-0.09594	-0.03193	-0.02790	-0.00009	-0.03320
45	0.00053	0.02189	0.00027	0.00090	-0.00001	-0.00225
48	0.00675	0.05104	-0.00059	-0.00299	0.00001	-0.01081
49	0.00353	0.04191	-0.00008	-0.00039	0.00003	-0.00669
SUM	-0.04243	2.46251	-0.04243	-1.15666	-0.16103	-1.67957

Condition **LC61=1.2D-WL90+1.6LLa2**

41	-0.00755	0.12521	0.02105	0.00575	-0.00017	0.00302
21	-0.02200	0.61530	0.00000	-0.97052	-0.07359	-1.42393
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.04631	0.53409	-0.02029	-0.01329	0.00047	-0.01606
43	-0.10317	1.00242	0.02643	0.00521	-0.00033	0.04281
44	0.02778	-0.09629	-0.02680	-0.02499	-0.00009	-0.03011
45	0.00039	0.02192	0.00026	0.00087	-0.00001	-0.00198
48	0.00568	0.05070	-0.00056	-0.00309	0.00001	-0.00963
49	0.00257	0.04197	-0.00009	-0.00039	0.00002	-0.00551
SUM	-0.05000	2.46251	0.00000	-1.15221	-0.07369	-1.67508

Condition **LC62=1.2D-WL120+1.6LLa2**

41	-0.00726	0.12554	0.02514	0.00844	-0.00013	0.00302
21	-0.01980	0.61530	0.01980	-0.98042	0.02848	-1.42283
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.05516	0.53363	-0.00963	-0.00578	0.00041	-0.02134
43	-0.10116	1.00261	0.02813	0.00578	-0.00027	0.04045
44	0.02344	-0.09608	-0.02048	-0.02152	-0.00009	-0.02710
45	0.00032	0.02194	0.00026	0.00088	-0.00001	-0.00184

48	0.00499	0.05045	-0.00067	-0.00348	0.00001	-0.00904
49	0.00187	0.04193	-0.00012	-0.00049	0.00002	-0.00473
SUM	-0.04243	2.46251	0.04243	-1.14834	0.02842	-1.67711

Condition **LC63=1.2D-WL150+1.6LLa2**

41	-0.00876	0.12584	0.03034	0.01154	-0.00022	0.00478
21	-0.02687	0.61530	0.02687	-0.98395	0.03865	-1.42637
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.05532	0.53311	-0.00645	-0.00322	0.00047	-0.02106
43	-0.10873	1.00095	0.03016	0.00725	-0.00028	0.04479
44	0.02225	-0.09424	-0.01965	-0.02089	-0.00009	-0.02589
45	0.00022	0.02198	0.00025	0.00084	-0.00001	-0.00162
48	0.00439	0.05035	-0.00059	-0.00334	0.00001	-0.00825
49	0.00138	0.04205	-0.00012	-0.00044	0.00002	-0.00406
SUM	-0.06081	2.46251	0.06081	-1.14396	0.03855	-1.67138

Condition **LC64=1.2D+WL0+1.6LLa3**

41	-0.00664	0.34856	0.07510	0.02048	0.00076	-0.02804
21	0.00000	0.61530	0.04200	-0.99152	0.20090	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.02198	0.93528	-0.04594	-0.01292	-0.00032	-0.01452
43	-0.00470	0.24403	0.00888	0.00070	0.00012	-0.00712
44	-0.00572	0.03137	0.01494	0.00709	0.00005	0.00341
45	-0.00165	0.02304	0.00004	0.00015	-0.00003	0.00197
48	-0.00051	0.05337	-0.00086	-0.00248	-0.00001	-0.00039
49	-0.00276	0.04437	-0.00017	-0.00056	0.00000	0.00236
SUM	0.00000	2.46251	0.09400	-1.13081	0.20146	-1.68896

Condition **LC65=1.2D+WL30+1.6LLa3**

41	-0.00238	0.34808	0.06313	0.01342	0.00102	-0.03302
21	0.02687	0.61530	0.02687	-0.98395	0.21840	-1.39950
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.02621	0.93597	-0.04858	-0.01550	-0.00052	-0.01834
43	0.01772	0.24209	0.00439	-0.00280	0.00017	-0.02050
44	-0.00484	0.03295	0.01629	0.00775	0.00009	0.00236
45	-0.00150	0.02300	0.00007	0.00023	-0.00003	0.00165
48	0.00063	0.05374	-0.00115	-0.00303	-0.00001	-0.00194
49	-0.00190	0.04420	-0.00021	-0.00074	0.00000	0.00117
SUM	0.06081	2.46251	0.06081	-1.13638	0.21911	-1.70180

Condition **LC66=1.2D+WL60+1.6LLa3**

41	-0.00383	0.34793	0.06321	0.01317	0.00091	-0.03159
21	0.01980	0.61530	0.01980	-0.98042	0.16093	-1.40303
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01997	0.93533	-0.05609	-0.02055	-0.00043	-0.01407
43	0.01103	0.24668	0.00434	-0.00258	0.00013	-0.01629
44	-0.00254	0.02927	0.01232	0.00534	0.00007	0.00046
45	-0.00142	0.02296	0.00007	0.00023	-0.00003	0.00150
48	0.00096	0.05371	-0.00105	-0.00277	-0.00001	-0.00225
49	-0.00155	0.04415	-0.00018	-0.00066	0.00000	0.00075
SUM	0.04243	2.46251	0.04243	-1.14000	0.16157	-1.69821

Condition **LC67=1.2D+WL90+1.6LLa3**

41	-0.00353	0.34761	0.05778	0.00968	0.00091	-0.03232
21	0.02200	0.61530	0.00000	-0.97052	0.07359	-1.40193
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.01450	0.93543	-0.06533	-0.02695	-0.00040	-0.01120
43	0.01531	0.24630	0.00151	-0.00426	0.00009	-0.01829
44	0.00156	0.02962	0.00720	0.00243	0.00008	-0.00263
45	-0.00129	0.02293	0.00008	0.00026	-0.00003	0.00123
48	0.00204	0.05406	-0.00107	-0.00267	-0.00001	-0.00343
49	-0.00059	0.04409	-0.00017	-0.00066	0.00001	-0.00043
SUM	0.05000	2.46251	0.00000	-1.14444	0.07423	-1.70270

Condition **LC68=1.2D+WL120+1.6LLa3**

41	-0.00382	0.34728	0.05369	0.00700	0.00087	-0.03232
21	0.01980	0.61530	-0.01980	-0.96062	-0.02848	-1.40303
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.00564	0.93589	-0.07598	-0.03447	-0.00034	-0.00593
43	0.01329	0.24610	-0.00018	-0.00483	0.00003	-0.01593
44	0.00590	0.02941	0.00087	-0.00105	0.00007	-0.00564
45	-0.00122	0.02291	0.00008	0.00025	-0.00003	0.00109
48	0.00272	0.05430	-0.00097	-0.00228	-0.00001	-0.00402
49	0.00011	0.04412	-0.00013	-0.00056	0.00001	-0.00121
SUM	0.04243	2.46251	-0.04243	-1.14831	-0.02788	-1.70067

Condition **LC69=1.2D+WL150+1.6LLa3**

41	-0.00232	0.34698	0.04848	0.00389	0.00096	-0.03408
21	0.02687	0.61530	-0.02687	-0.95708	-0.03865	-1.39950
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.00549	0.93642	-0.07916	-0.03702	-0.00041	-0.00620
43	0.02086	0.24776	-0.00221	-0.00631	0.00004	-0.02028
44	0.00709	0.02757	0.00005	-0.00168	0.00008	-0.00684
45	-0.00111	0.02287	0.00009	0.00029	-0.00002	0.00088
48	0.00333	0.05441	-0.00105	-0.00242	-0.00001	-0.00481
49	0.00060	0.04401	-0.00014	-0.00061	0.00001	-0.00188
SUM	0.06081	2.46251	-0.06081	-1.15269	-0.03801	-1.70640

Condition **LC70=1.2D-WL0+1.6LLa3**

41	-0.00636	0.34689	0.05151	0.00504	0.00067	-0.02996
21	0.00000	0.61530	-0.04200	-0.94952	-0.20090	-1.41293
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.00868	0.93600	-0.09434	-0.04712	-0.00017	0.00383
43	0.00077	0.25206	-0.00060	-0.00439	-0.00006	-0.00744
44	0.01119	0.02381	-0.00784	-0.00616	0.00004	-0.00966
45	-0.00109	0.02286	0.00007	0.00024	-0.00002	0.00085
48	0.00335	0.05433	-0.00073	-0.00164	-0.00001	-0.00453
49	0.00082	0.04409	-0.00007	-0.00039	0.00001	-0.00203
SUM	0.00000	2.46251	-0.09400	-1.15569	-0.20043	-1.69556

Condition **LC71=1.2D-WL30+1.6LLa3**

41	-0.01062	0.34737	0.06348	0.01209	0.00041	-0.02498
21	-0.02687	0.61530	-0.02687	-0.95708	-0.21840	-1.42637
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.01291	0.93532	-0.09170	-0.04454	0.00003	0.00765
43	-0.02165	0.25400	0.00389	-0.00088	-0.00010	0.00594
44	0.01031	0.02222	-0.00919	-0.00682	0.00001	-0.00861
45	-0.00125	0.02290	0.00005	0.00016	-0.00002	0.00116

48	0.00221	0.05396	-0.00044	-0.00109	-0.00001	-0.00298
49	-0.00004	0.04426	-0.00003	-0.00020	0.00001	-0.00084
SUM	-0.06081	2.46251	-0.06081	-1.15012	-0.21808	-1.68272

Condition **LC72=1.2D-WL60+1.6LLa3**

41	-0.00917	0.34752	0.06340	0.01234	0.00052	-0.02641
21	-0.01980	0.61530	-0.01980	-0.96062	-0.16093	-1.42283
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.00668	0.93596	-0.08418	-0.03949	-0.00006	0.00338
43	-0.01496	0.24942	0.00394	-0.00110	-0.00006	0.00173
44	0.00801	0.02590	-0.00522	-0.00440	0.00002	-0.00672
45	-0.00132	0.02294	0.00005	0.00016	-0.00002	0.00131
48	0.00188	0.05399	-0.00054	-0.00135	-0.00001	-0.00267
49	-0.00038	0.04431	-0.00006	-0.00028	0.00001	-0.00042
SUM	-0.04243	2.46251	-0.04243	-1.14650	-0.16054	-1.68631

Condition **LC73=1.2D-WL90+1.6LLa3**

41	-0.00947	0.34784	0.06884	0.01583	0.00052	-0.02568
21	-0.02200	0.61530	0.00000	-0.97052	-0.07359	-1.42393
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	-0.00120	0.93585	-0.07495	-0.03309	-0.00009	0.00052
43	-0.01923	0.24980	0.00676	0.00058	-0.00003	0.00373
44	0.00391	0.02555	-0.00010	-0.00150	0.00002	-0.00362
45	-0.00146	0.02297	0.00004	0.00013	-0.00003	0.00158
48	0.00080	0.05365	-0.00052	-0.00145	-0.00001	-0.00149
49	-0.00135	0.04436	-0.00007	-0.00029	0.00000	0.00077
SUM	-0.05000	2.46251	0.00000	-1.14205	-0.07320	-1.68182

Condition **LC74=1.2D-WL120+1.6LLa3**

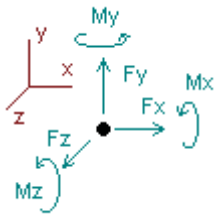
41	-0.00918	0.34817	0.07292	0.01852	0.00056	-0.02569
21	-0.01980	0.61530	0.01980	-0.98042	0.02848	-1.42283
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.00765	0.93539	-0.06430	-0.02557	-0.00015	-0.00476
43	-0.01721	0.24999	0.00846	0.00115	0.00003	0.00137
44	-0.00043	0.02576	0.00623	0.00198	0.00003	-0.00062
45	-0.00153	0.02298	0.00004	0.00014	-0.00003	0.00172
48	0.00012	0.05340	-0.00062	-0.00184	-0.00001	-0.00090
49	-0.00204	0.04433	-0.00011	-0.00038	0.00000	0.00155
SUM	-0.04243	2.46251	0.04243	-1.13819	0.02891	-1.68385

Condition **LC75=1.2D-WL150+1.6LLa3**

41	-0.01069	0.34847	0.07813	0.02162	0.00047	-0.02392
21	-0.02687	0.61530	0.02687	-0.98395	0.03865	-1.42637
27	0.00000	0.16718	0.00000	-0.15176	0.00000	-0.23369
42	0.00781	0.93487	-0.06111	-0.02302	-0.00009	-0.00449
43	-0.02478	0.24833	0.01049	0.00262	0.00002	0.00572
44	-0.00162	0.02760	0.00705	0.00261	0.00002	0.00059
45	-0.00163	0.02303	0.00003	0.00010	-0.00003	0.00193
48	-0.00049	0.05329	-0.00054	-0.00170	-0.00001	-0.00011
49	-0.00254	0.04444	-0.00010	-0.00033	0.00000	0.00222
SUM	-0.06081	2.46251	0.06081	-1.13380	0.03904	-1.67812

Envelope for nodal reactions

Note.- **Ic** is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1

LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

		Forces						Moments					
Node		**Fx** [Kip]	**Ic**	**Fy** [Kip]	**Ic**	**Fz** [Kip]	**Ic**	**Mx** [Kip*ft]	**Ic**	**My** [Kip*ft]	**Ic**	**Mz** [Kip*ft]	**Ic**
41	Max	0.329	LC16	0.349	LC64	0.411	LC12	0.35046	LC11	0.00934	LC3	0.55411	LC23
	Min	-0.332	LC10	0.009	LC18	-0.372	LC18	-0.34242	LC17	-0.00905	LC21	-0.56396	LC5
21	Max	0.530	LC4	1.415	LC40	0.831	LC1	-0.37250	LC19	4.50389	LC2	-0.83369	LC16
	Min	-0.530	LC10	0.461	LC13	-0.831	LC7	-3.66735	LC40	-4.50389	LC8	-5.25302	LC51
27	Max	0.000	LC1	0.167	LC1	0.000	LC1	-0.11382	LC13	0.00000	LC1	-0.17526	LC13
	Min	0.000	LC1	0.125	LC13	0.000	LC1	-0.15176	LC1	0.00000	LC1	-0.23369	LC1
42	Max	0.555	LC2	0.936	LC69	0.684	LC14	0.44749	LC13	0.00716	LC20	0.32935	LC20
	Min	-0.521	LC20	0.123	LC23	-0.725	LC8	-0.46840	LC7	-0.00718	LC2	-0.34141	LC2
43	Max	0.707	LC16	1.271	LC8	0.360	LC12	0.23078	LC12	0.00294	LC14	0.45601	LC10
	Min	-0.750	LC10	-0.779	LC14	-0.348	LC18	-0.22941	LC18	-0.00308	LC8	-0.44187	LC16
44	Max	0.250	LC8	0.995	LC2	0.502	LC14	0.29201	LC14	0.00152	LC18	0.16394	LC14
	Min	-0.236	LC14	-0.972	LC20	-0.511	LC8	-0.30107	LC8	-0.00153	LC12	-0.17717	LC8
45	Max	0.038	LC17	0.423	LC38	0.097	LC2	0.23634	LC2	0.00203	LC24	0.11037	LC8
	Min	-0.040	LC11	0.011	LC19	-0.097	LC20	-0.23605	LC20	-0.00207	LC6	-0.10842	LC14
48	Max	0.098	LC6	0.171	LC37	0.152	LC24	0.34343	LC24	0.00093	LC20	0.24966	LC24
	Min	-0.095	LC24	0.019	LC24	-0.152	LC6	-0.34491	LC6	-0.00094	LC2	-0.25331	LC6
49	Max	0.104	LC18	0.086	LC36	0.154	LC24	0.38278	LC24	0.00051	LC12	0.28600	LC24
	Min	-0.105	LC12	0.016	LC14	-0.154	LC6	-0.38296	LC6	-0.00049	LC18	-0.28613	LC6

Date: 3/10/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM **Checked By:** MSC

HUDSON Design Group LLC

CHECK CONNECTION CAPACITY (Worst Case)

Reference: AISC Steel Construction Manual 14th Edition (ASD)

Bolt Type = A36 5/8" (Threaded Rod)

Allowable Tensile Load =

F_{Tall} = 6673 lbs.

Allowable Shear Load =

F_{Vall} = 4004 lbs.

TENSILE FORCES

Reaction **F =** 360 lbs. (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 750 lbs. (See Bentley Output)
Reactions in Y direction: 1271 lbs. (See Bentley Output)

Resultant: 1476 lbs.

No. of Supports = 1
No. of Bolts / Support = 2

Tension Design Load /Bolts =

f_t = 180.00 lbs. < 6673 lbs. **Therefore, OK !**

Shear Design Load / Bolts=

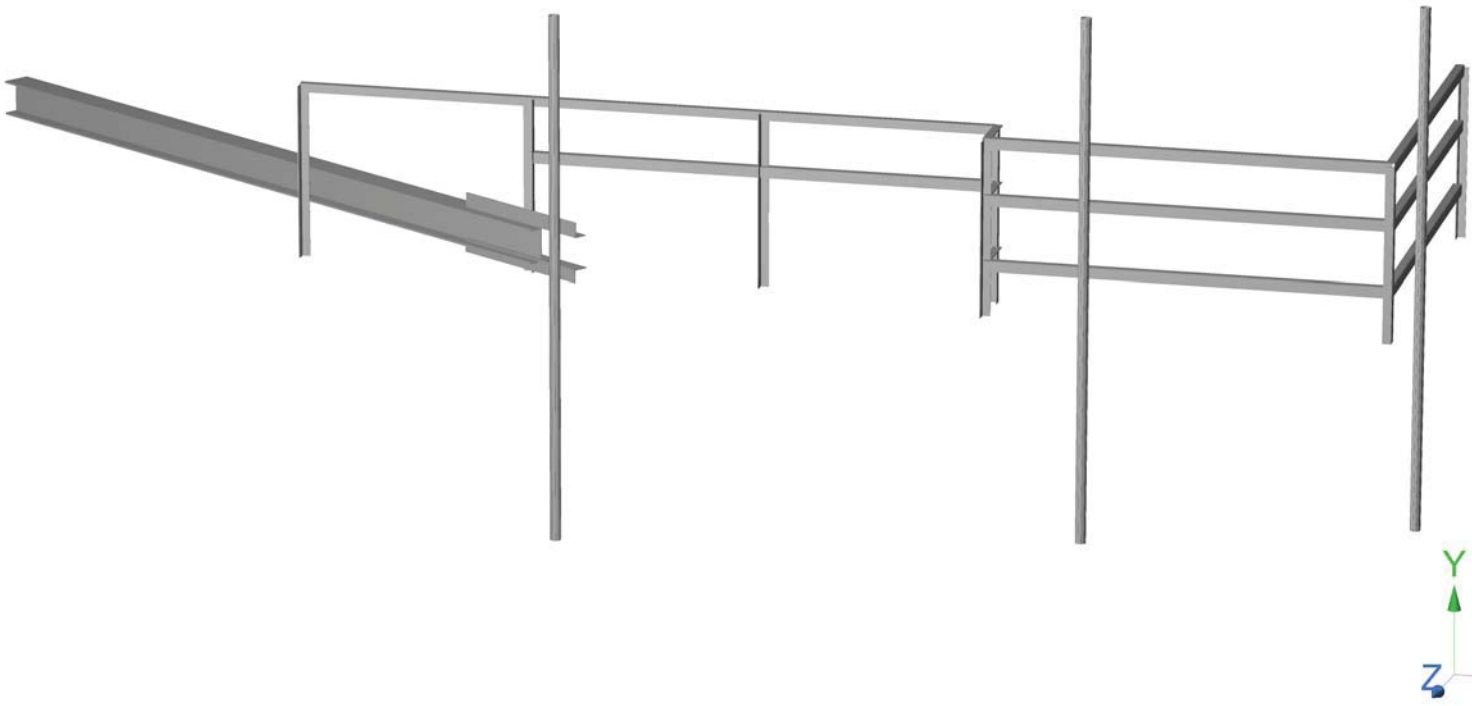
f_v = 737.89 lbs. < 4004 lbs. **Therefore, OK !**

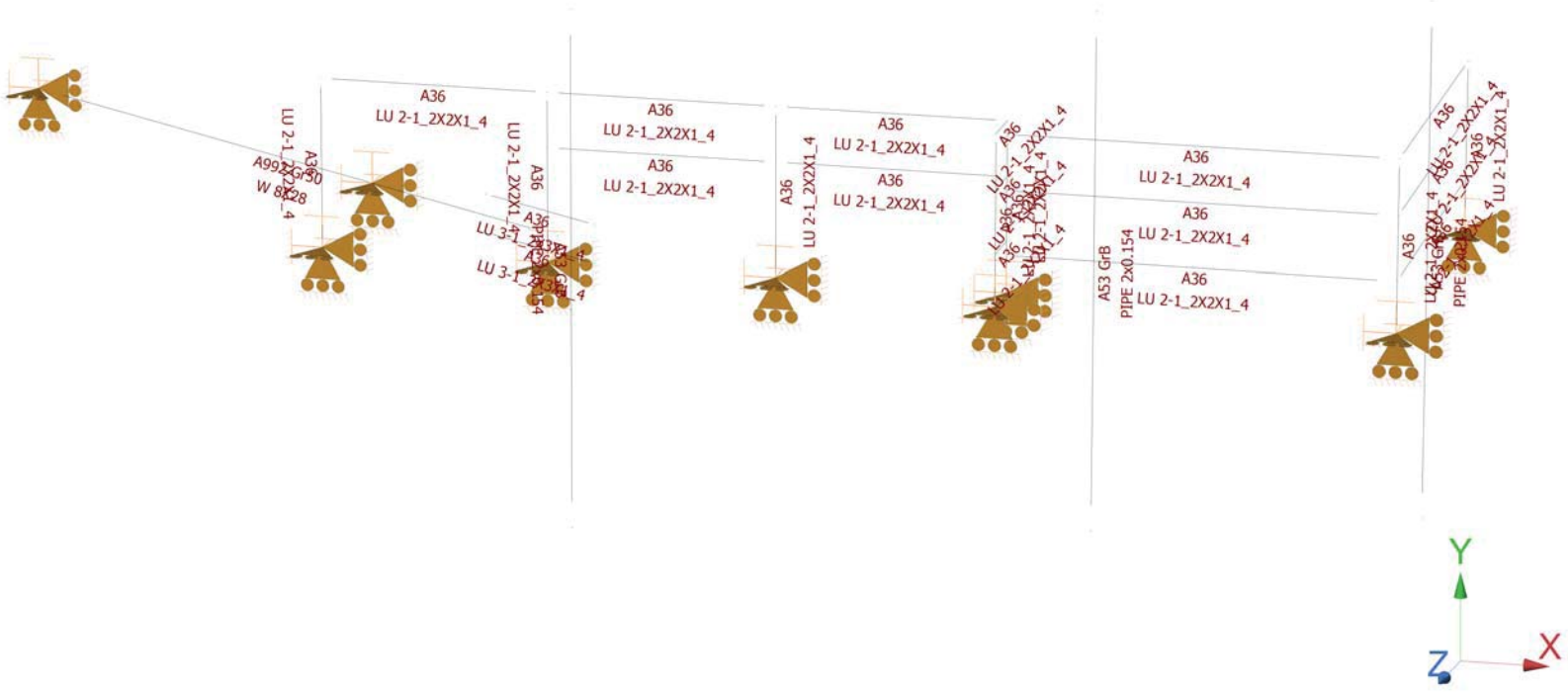
CHECK COMBINED TENSION AND SHEAR

f_t / F_T	+	f_v / F_V	≤	1.0			
0.027	+	0.184	=	0.211	<	1.0	**Therefore, OK !**

HUDSON
Design Group LLC

Beta Mount Calculations
(Existing Conditions)


Y
X
Z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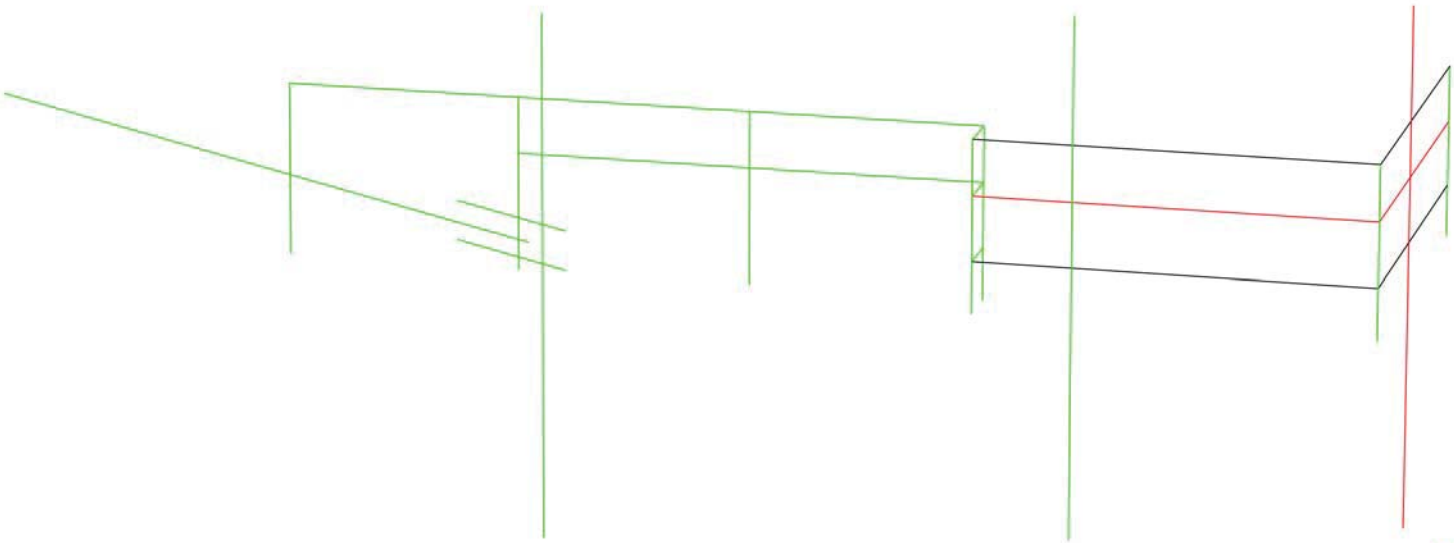
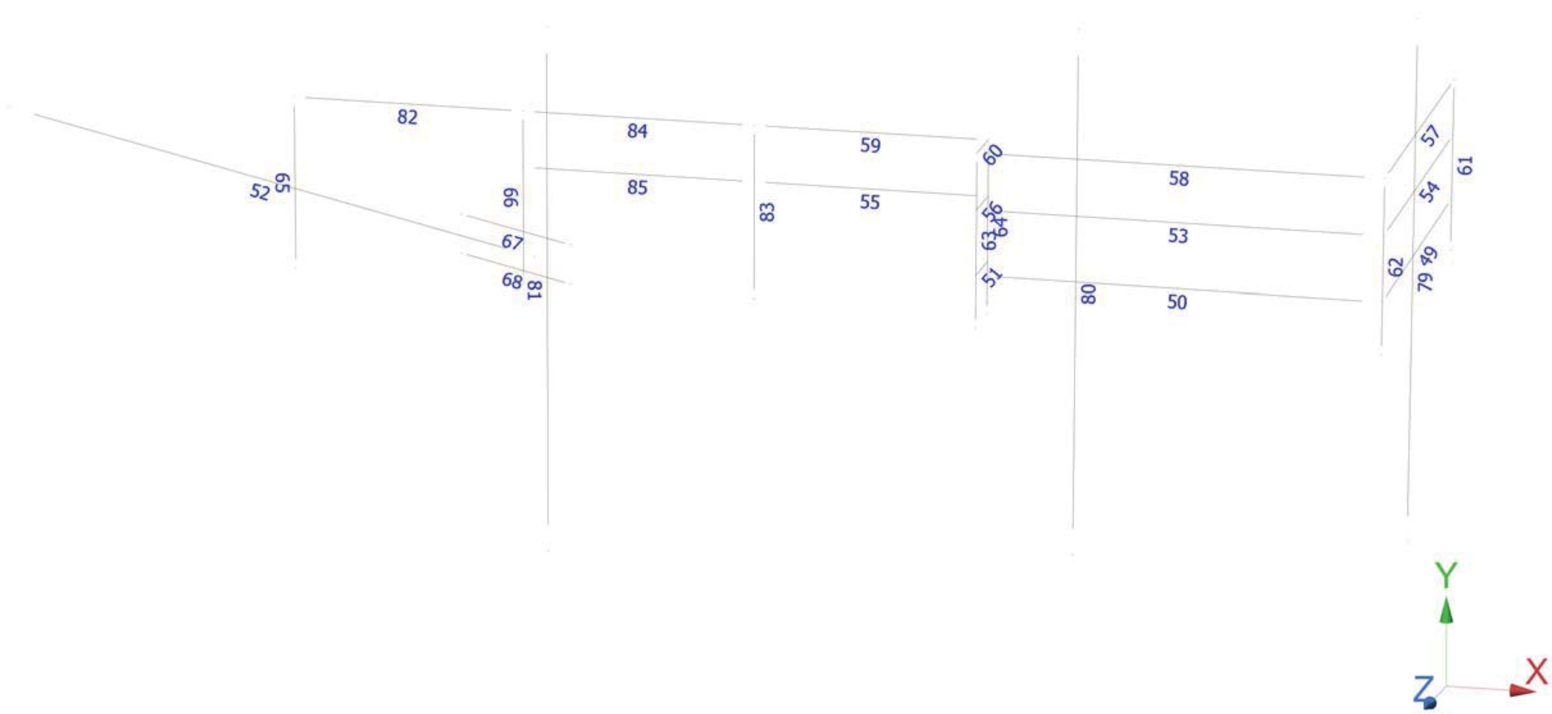
X


Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:20 PM
Units system: English



RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:21 PM
Units system: English

Load data

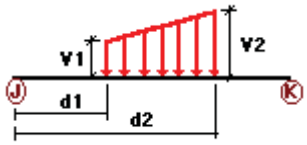
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL

Distributed force on members

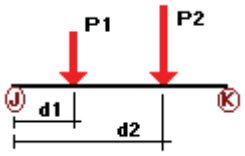


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	50	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
	55	Z	-0.016	-0.016	0.00	No	100.00	Yes
	58	z	-0.016	0.00	0.00	No	0.00	No
	59	Z	-0.016	-0.016	0.00	No	100.00	Yes
	61	z	-0.016	0.00	0.00	No	0.00	No
	62	z	-0.016	0.00	0.00	No	0.00	No
	63	z	-0.016	0.00	0.00	No	0.00	No
	64	z	-0.016	0.00	0.00	No	0.00	No
	65	z	-0.016	0.00	0.00	No	0.00	No
	66	z	-0.016	0.00	0.00	No	0.00	No
	67	z	-0.022	0.00	0.00	No	0.00	No
	68	z	-0.022	0.00	0.00	No	0.00	No
	82	Z	-0.016	-0.016	0.00	No	100.00	Yes
	83	Z	-0.016	-0.016	0.00	No	100.00	Yes
	84	Z	-0.016	-0.016	0.00	No	100.00	Yes
	85	Z	-0.016	-0.016	0.00	No	100.00	Yes
W30	49	z	-0.016	0.00	0.00	No	0.00	No
	50	z	-0.016	0.00	0.00	No	0.00	No
	51	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
	54	z	-0.016	0.00	0.00	No	0.00	No
	55	Z	-0.016	-0.016	0.00	No	100.00	Yes
	56	z	-0.016	0.00	0.00	No	0.00	No
	57	z	-0.016	0.00	0.00	No	0.00	No
	58	z	-0.016	0.00	0.00	No	0.00	No
	59	Z	-0.016	-0.016	0.00	No	100.00	Yes
	60	z	-0.016	0.00	0.00	No	0.00	No
	61	z	-0.016	0.00	0.00	No	0.00	No
	62	z	-0.016	0.00	0.00	No	0.00	No
	63	z	-0.016	0.00	0.00	No	0.00	No
	64	z	-0.016	0.00	0.00	No	0.00	No
	65	z	-0.016	0.00	0.00	No	0.00	No
	66	z	-0.016	0.00	0.00	No	0.00	No
	67	z	-0.022	0.00	0.00	No	0.00	No
	68	z	-0.022	0.00	0.00	No	0.00	No
	79	z	-0.009	0.00	0.00	No	0.00	No
	80	z	-0.009	0.00	0.00	No	0.00	No
	81	z	-0.009	0.00	0.00	No	0.00	No
	82	Z	-0.016	-0.016	0.00	No	100.00	Yes
	83	Z	-0.016	-0.016	0.00	No	100.00	Yes
	84	Z	-0.016	-0.016	0.00	No	100.00	Yes
	85	Z	-0.016	-0.016	0.00	No	100.00	Yes
W60	49	x	-0.016	0.00	0.00	No	0.00	No
	50	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	54	x	-0.016	0.00	0.00	No	0.00	No
	55	X	-0.016	-0.016	0.00	No	100.00	Yes
	56	x	-0.016	0.00	0.00	No	0.00	No
	57	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No
	59	X	-0.016	-0.016	0.00	No	100.00	Yes
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
	64	x	-0.016	0.00	0.00	No	0.00	No
	65	x	-0.016	0.00	0.00	No	0.00	No
	66	x	-0.016	0.00	0.00	No	0.00	No

	67	x	-0.022	0.00	0.00	No	0.00	No
	68	x	-0.022	0.00	0.00	No	0.00	No
	79	x	-0.009	0.00	0.00	No	0.00	No
	80	x	-0.009	0.00	0.00	No	0.00	No
	81	x	-0.009	0.00	0.00	No	0.00	No
	82	X	-0.016	-0.016	0.00	No	100.00	Yes
	83	X	-0.016	-0.016	0.00	No	100.00	Yes
	84	X	-0.016	-0.016	0.00	No	100.00	Yes
	85	X	-0.016	-0.016	0.00	No	100.00	Yes
W90	49	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	54	x	-0.016	0.00	0.00	No	0.00	No
	56	x	-0.016	0.00	0.00	No	0.00	No
	57	x	-0.016	0.00	0.00	No	0.00	No
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
	64	x	-0.016	0.00	0.00	No	0.00	No
	65	x	-0.016	0.00	0.00	No	0.00	No
	66	x	-0.016	0.00	0.00	No	0.00	No
	67	x	-0.022	0.00	0.00	No	0.00	No
	68	x	-0.022	0.00	0.00	No	0.00	No
	79	x	-0.009	0.00	0.00	No	0.00	No
	80	x	-0.009	0.00	0.00	No	0.00	No
	81	x	-0.009	0.00	0.00	No	0.00	No
	83	X	-0.016	-0.016	0.00	No	100.00	Yes
W120	49	x	-0.016	0.00	0.00	No	0.00	No
	50	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	54	x	-0.016	0.00	0.00	No	0.00	No
	55	X	-0.016	-0.016	0.00	No	100.00	Yes
	56	x	-0.016	0.00	0.00	No	0.00	No
	57	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No
	59	X	-0.016	-0.016	0.00	No	100.00	Yes
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
	64	x	-0.016	0.00	0.00	No	0.00	No
	65	x	-0.016	0.00	0.00	No	0.00	No
	66	x	-0.016	0.00	0.00	No	0.00	No
	67	x	-0.022	0.00	0.00	No	0.00	No
	68	x	-0.022	0.00	0.00	No	0.00	No
	79	x	-0.009	0.00	0.00	No	0.00	No
	80	x	-0.009	0.00	0.00	No	0.00	No
	81	x	-0.009	0.00	0.00	No	0.00	No
	82	X	-0.016	-0.016	0.00	No	100.00	Yes
	83	X	-0.016	-0.016	0.00	No	100.00	Yes
	84	X	-0.016	-0.016	0.00	No	100.00	Yes
	85	X	-0.016	-0.016	0.00	No	100.00	Yes
W150	49	z	0.016	0.00	0.00	No	0.00	No
	50	z	0.016	0.00	0.00	No	0.00	No
	51	z	0.016	0.00	0.00	No	0.00	No
	53	z	0.016	0.00	0.00	No	0.00	No
	54	z	0.016	0.00	0.00	No	0.00	No
	55	Z	0.016	0.016	0.00	No	100.00	Yes
	56	z	0.016	0.00	0.00	No	0.00	No

	57	z	0.016	0.00	0.00	No	0.00	No
	58	z	0.016	0.00	0.00	No	0.00	No
	59	Z	0.016	0.016	0.00	No	100.00	Yes
	60	z	0.016	0.00	0.00	No	0.00	No
	61	z	0.016	0.00	0.00	No	0.00	No
	62	z	0.016	0.00	0.00	No	0.00	No
	63	z	0.016	0.00	0.00	No	0.00	No
	64	z	0.016	0.00	0.00	No	0.00	No
	65	z	0.016	0.00	0.00	No	0.00	No
	66	z	0.016	0.00	0.00	No	0.00	No
	67	z	0.022	0.00	0.00	No	0.00	No
	68	z	0.022	0.00	0.00	No	0.00	No
	79	z	0.009	0.00	0.00	No	0.00	No
	80	z	0.009	0.00	0.00	No	0.00	No
	81	z	0.009	0.00	0.00	No	0.00	No
	82	Z	0.016	0.016	0.00	No	100.00	Yes
	83	Z	0.016	0.016	0.00	No	100.00	Yes
	84	Z	0.016	0.016	0.00	No	100.00	Yes
	85	Z	0.016	0.016	0.00	No	100.00	Yes
Di	49	y	-0.006	0.00	0.00	No	0.00	No
	50	y	-0.006	0.00	0.00	No	0.00	No
	51	y	-0.006	0.00	0.00	No	0.00	No
	53	y	-0.006	0.00	0.00	No	0.00	No
	54	y	-0.006	0.00	0.00	No	0.00	No
	55	Y	-0.006	-0.006	0.00	No	100.00	Yes
	56	y	-0.006	0.00	0.00	No	0.00	No
	57	y	-0.006	0.00	0.00	No	0.00	No
	58	y	-0.006	0.00	0.00	No	0.00	No
	59	Y	-0.006	-0.006	0.00	No	100.00	Yes
	60	y	-0.006	0.00	0.00	No	0.00	No
	61	y	-0.006	0.00	0.00	No	0.00	No
	62	y	-0.006	0.00	0.00	No	0.00	No
	63	y	-0.006	0.00	0.00	No	0.00	No
	64	y	-0.006	0.00	0.00	No	0.00	No
	65	y	-0.006	0.00	0.00	No	0.00	No
	66	y	-0.006	0.00	0.00	No	0.00	No
	67	y	-0.008	0.00	0.00	No	0.00	No
	68	y	-0.008	0.00	0.00	No	0.00	No
	79	y	-0.005	0.00	0.00	No	0.00	No
	80	y	-0.005	0.00	0.00	No	0.00	No
	81	y	-0.005	0.00	0.00	No	0.00	No
	82	Y	-0.006	-0.006	0.00	No	100.00	Yes
	83	Y	-0.006	-0.006	0.00	No	100.00	Yes
	84	Y	-0.006	-0.006	0.00	No	100.00	Yes
	85	Y	-0.006	-0.006	0.00	No	100.00	Yes

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	79	y	-0.075	1.50	No
		y	-0.075	8.50	No
	80	y	-0.033	2.25	No
		y	-0.033	4.00	No
		y	-0.041	6.00	No
		y	-0.041	7.75	No
	81	y	-0.055	2.25	No
		y	-0.055	7.75	No
Wo	79	z	-0.36	1.50	No
		z	-0.36	8.50	No
	80	z	-0.08	2.25	No
		z	-0.08	4.00	No
		z	-0.078	6.00	No
		z	-0.078	7.75	No
	81	z	-0.265	2.25	No
		z	-0.265	7.75	No
W30	79	3	-0.316	1.50	No
		3	-0.316	8.50	No
	80	3	-0.07	2.25	No
		3	-0.07	4.00	No
		3	-0.072	6.00	No
		3	-0.072	7.75	No
	81	3	-0.227	2.25	No
		3	-0.227	7.75	No
W60	79	3	-0.228	1.50	No
		3	-0.228	8.50	No
	80	3	-0.049	2.25	No
		3	-0.049	4.00	No
		3	-0.059	6.00	No
		3	-0.059	7.75	No
	81	3	-0.15	2.25	No
		3	-0.15	7.75	No
W90	79	x	-0.184	1.50	No
		x	-0.184	8.50	No
	80	x	-0.039	2.25	No
		x	-0.039	4.00	No
		x	-0.053	6.00	No
		x	-0.053	7.75	No
	81	x	-0.112	2.25	No
		x	-0.112	7.75	No
W120	79	2	-0.228	1.50	No
		2	-0.228	8.50	No
	80	2	-0.049	2.25	No
		2	-0.049	4.00	No
		2	-0.059	6.00	No
		2	-0.059	7.75	No
	81	2	-0.15	2.25	No
		2	-0.15	7.75	No
W150	79	2	-0.316	1.50	No
		2	-0.316	8.50	No
	80	2	-0.07	2.25	No
		2	-0.07	4.00	No
		2	-0.072	6.00	No
		2	-0.072	7.75	No
	81	2	-0.227	2.25	No
		2	-0.227	7.75	No
Di	79	y	-0.146	1.50	No
		y	-0.146	8.50	No
	80	y	-0.036	2.25	No
		y	-0.036	4.00	No

		y	-0.038	6.00	No
		y	-0.038	7.75	No
	81	y	-0.106	2.25	No
		y	-0.106	7.75	No
WI0	79	z	-0.066	1.50	No
		z	-0.066	8.50	No
	80	z	-0.016	2.25	No
		z	-0.016	4.00	No
		z	-0.016	6.00	No
		z	-0.016	7.75	No
	81	z	-0.049	2.25	No
		z	-0.049	7.75	No
WI30	79	3	-0.058	1.50	No
		3	-0.058	8.50	No
	80	3	-0.014	2.25	No
		3	-0.014	4.00	No
		3	-0.015	6.00	No
		3	-0.015	7.75	No
	81	3	-0.042	2.25	No
		3	-0.042	7.75	No
WI60	79	3	-0.044	1.50	No
		3	-0.044	8.50	No
	80	3	-0.011	2.25	No
		3	-0.011	4.00	No
		3	-0.013	6.00	No
		3	-0.013	7.75	No
	81	3	-0.03	2.25	No
		3	-0.03	7.75	No
WI90	79	x	-0.037	1.50	No
		x	-0.037	8.50	No
	80	x	-0.009	2.25	No
		x	-0.009	4.00	No
		x	-0.011	6.00	No
		x	-0.011	7.75	No
	81	x	-0.024	2.25	No
		x	-0.024	7.75	No
WI120	79	2	-0.044	1.50	No
		2	-0.044	8.50	No
	80	2	-0.011	2.25	No
		2	-0.011	4.00	No
		2	-0.013	6.00	No
		2	-0.013	7.75	No
	81	2	-0.03	2.25	No
		2	-0.03	7.75	No
WI150	79	2	-0.058	1.50	No
		2	-0.058	8.50	No
	80	2	-0.014	2.25	No
		2	-0.014	4.00	No
		2	-0.015	6.00	No
		2	-0.015	7.75	No
	81	2	-0.042	2.25	No
		2	-0.042	7.75	No
WL0	79	z	-0.021	1.50	No
		z	-0.021	8.50	No
	80	z	-0.005	2.25	No
		z	-0.005	4.00	No
		z	-0.005	6.00	No
		z	-0.005	7.75	No
	81	z	-0.016	2.25	No
		z	-0.016	7.75	No

WL30	79	3	-0.019	1.50	No
		3	-0.019	8.50	No
	80	3	-0.005	2.25	No
		3	-0.005	4.00	No
		3	-0.005	6.00	No
		3	-0.005	7.75	No
	81	3	-0.014	2.25	No
		3	-0.014	7.75	No
WL60	79	3	-0.014	1.50	No
		3	-0.014	8.50	No
	80	3	-0.003	2.25	No
		3	-0.003	4.00	No
		3	-0.004	6.00	No
		3	-0.004	7.75	No
	81	3	-0.009	2.25	No
		3	-0.009	7.75	No
WL90	79	x	-0.011	1.50	No
		x	-0.011	8.50	No
	80	x	-0.003	2.25	No
		x	-0.003	4.00	No
		x	-0.004	6.00	No
		x	-0.004	7.75	No
	81	x	-0.007	2.25	No
		x	-0.007	7.75	No
WL120	79	2	-0.014	1.50	No
		2	-0.014	8.50	No
	80	2	-0.003	2.25	No
		2	-0.003	4.00	No
		2	-0.004	6.00	No
		2	-0.004	7.75	No
	81	2	-0.009	2.25	No
		2	-0.009	7.75	No
WL150	79	2	-0.019	1.50	No
		2	-0.019	8.50	No
	80	2	-0.005	2.25	No
		2	-0.005	4.00	No
		2	-0.005	6.00	No
		2	-0.005	7.75	No
	81	2	-0.014	2.25	No
		2	-0.014	7.75	No
LL1	59	y	-0.25	3.00	No
LL2	58	y	-0.25	100.00	Yes
LL3	82	y	-0.25	100.00	Yes
LLa1	79	y	-0.50	50.00	Yes
LLa2	80	y	-0.50	50.00	Yes
LLa3	81	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00

W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 4:34 PM
Units system: English

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

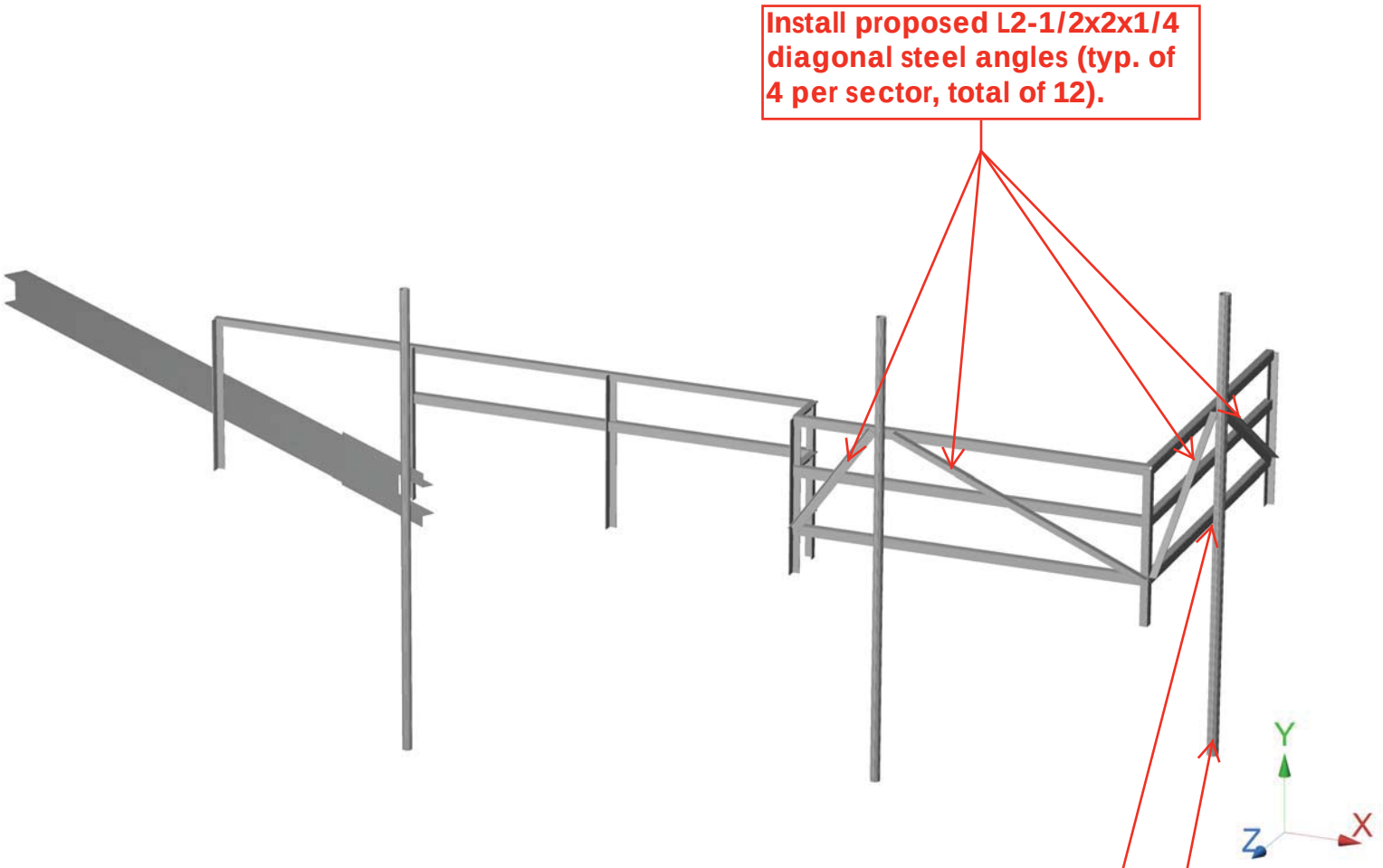
LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

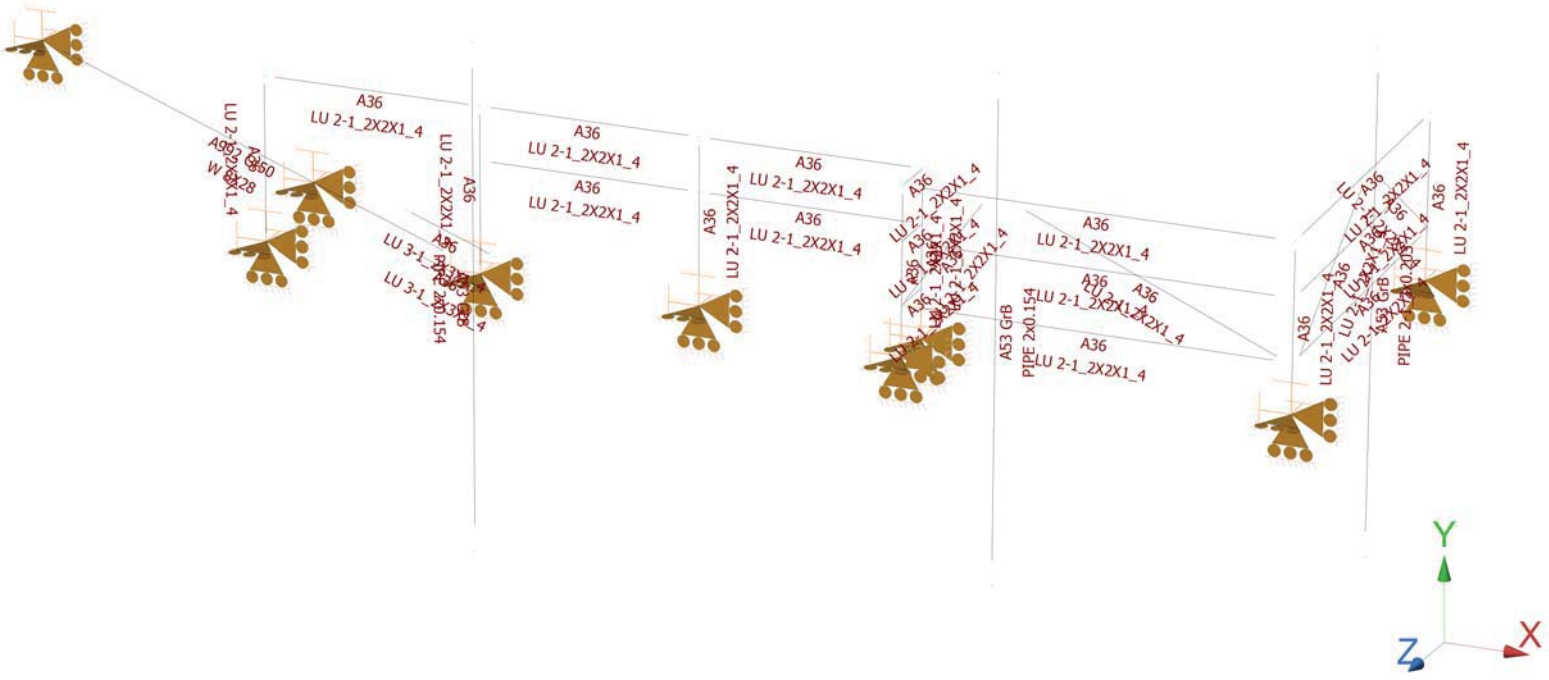
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

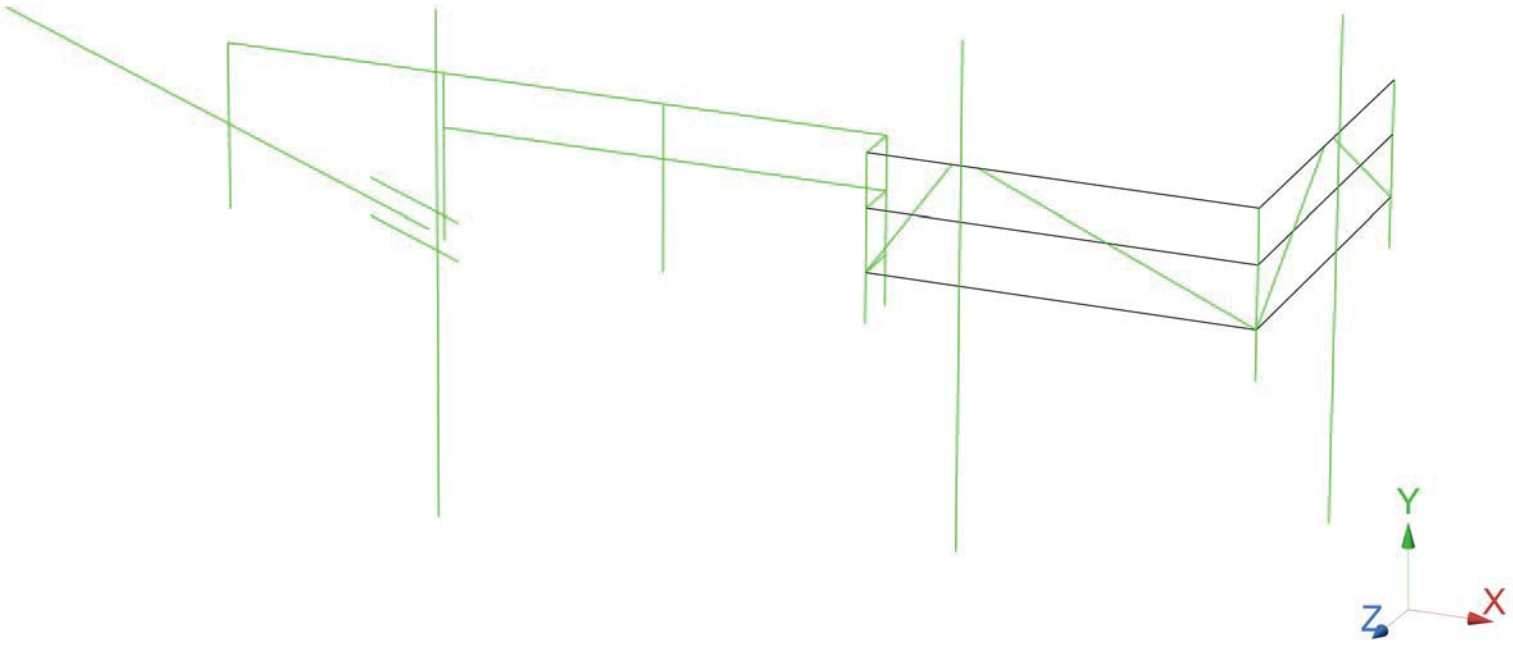
Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	LU 2-1_2X2X1_4	**49**	LC3 at 100.00%	0.22	With warnings	
		50	LC10 at 100.00%	0.20	With warnings	
		51	LC2 at 100.00%	0.24	OK	
		53	LC12 at 0.00%	1.14	N.G.	
		54	LC4 at 50.00%	**1.93**	**N.G.**	
		55	LC12 at 100.00%	0.12	OK	
		56	LC12 at 100.00%	0.96	OK	
		57	LC2 at 50.00%	0.90	With warnings	
		58	LC52 at 25.00%	0.48	With warnings	
		59	LC12 at 0.00%	0.23	OK	
		60	LC12 at 100.00%	0.38	OK	
		61	LC9 at 0.00%	0.76	OK	
		62	LC8 at 66.67%	0.75	OK	
		63	LC63 at 100.00%	0.52	OK	
		64	LC20 at 0.00%	0.26	OK	
		65	LC8 at 0.00%	0.20	OK	
		66	LC8 at 0.00%	0.39	OK	
		82	LC12 at 37.50%	0.08	OK	
		83	LC8 at 0.00%	0.36	OK	
		84	LC37 at 0.00%	0.09	OK	
		85	LC11 at 0.00%	0.05	OK	
	LU 3-1_2X3X1_4	**67**	LC1 at 14.58%	0.12	OK	
		68	LC6 at 33.33%	**0.15**	**OK**	
	PIPE 2x0.154	**79**	LC1 at 37.50%	**1.29**	**N.G.**	
		80	LC4 at 37.50%	0.39	OK	
		81	LC7 at 50.00%	0.55	OK	
	W 8X28	**52**	LC6 at 33.33%	**0.11**	**OK**	

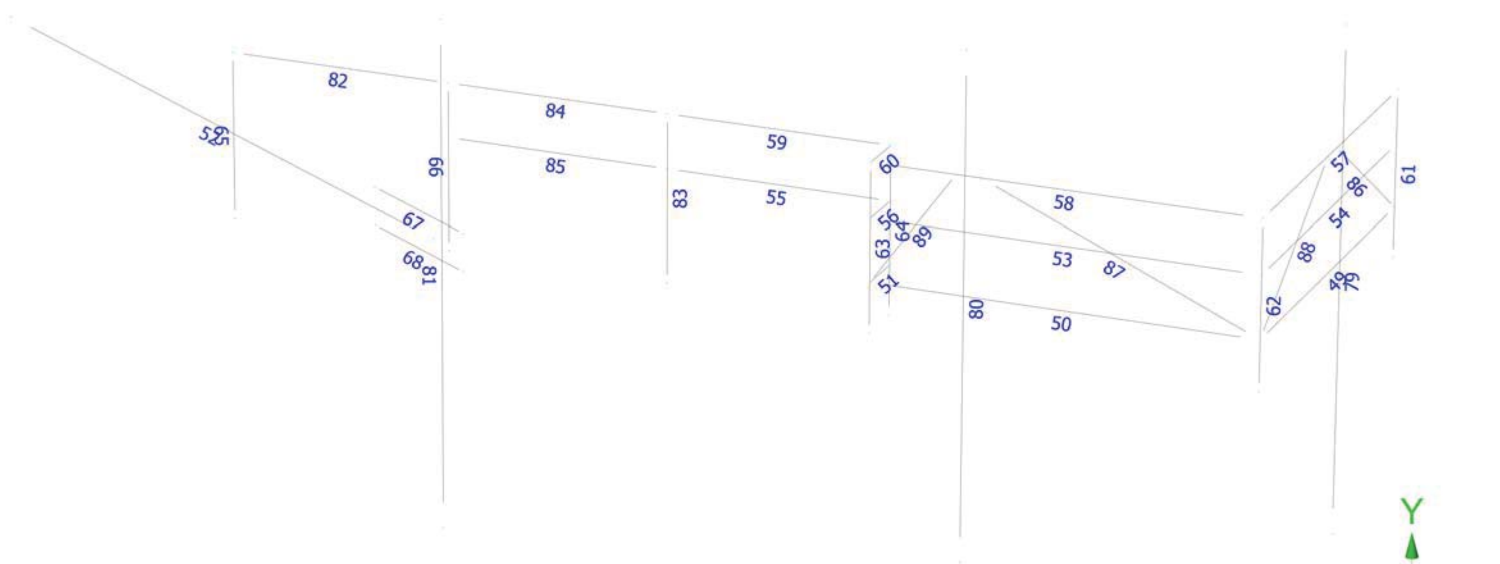
HUDSON
Design Group LLC

Beta Mount Calculations
(Modified Conditions)


Install proposed L2-1/2x2x1/4 diagonal steel angles (typ. of 4 per sector, total of 12).
Secure the proposed pipe masts to the modified handrail with a minimum of three points of connection (typ. of 1 per beta and gamma sector, total of 2).
Install proposed 2-1/2" std. (2.88" O.D.) pipe mast behind proposed QD8616-7 antenna secured to the modified handrail (typ. of 1 per beta and gamma sector, total of 2).
Y
X
Z


A36
LU 2-1_2X2X1_4
A53 GrB
PIPE 2x0.154
Y
X
Z


Y
X
Z


82
84
59
60
58
85
55
83
53
87
50
80
67
68
81
51
63
89
62
88
54
57
86
61
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:26 PM
Units system: English

Load data

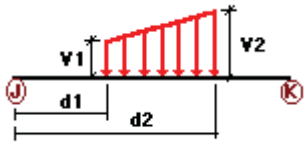
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL

Distributed force on members



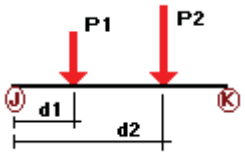
Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	50	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
	55	Z	-0.016	-0.016	0.00	No	100.00	Yes
	58	z	-0.016	0.00	0.00	No	0.00	No
	59	Z	-0.016	-0.016	0.00	No	100.00	Yes
	61	z	-0.016	0.00	0.00	No	0.00	No
	62	z	-0.016	0.00	0.00	No	0.00	No
	63	z	-0.016	0.00	0.00	No	0.00	No
	64	z	-0.016	0.00	0.00	No	0.00	No
	65	z	-0.016	0.00	0.00	No	0.00	No
	66	z	-0.016	0.00	0.00	No	0.00	No
	67	z	-0.022	0.00	0.00	No	0.00	No
	68	z	-0.022	0.00	0.00	No	0.00	No
	82	Z	-0.016	-0.016	0.00	No	100.00	Yes
	83	Z	-0.016	-0.016	0.00	No	100.00	Yes
	84	Z	-0.016	-0.016	0.00	No	100.00	Yes
	85	Z	-0.016	-0.016	0.00	No	100.00	Yes
	86	z	-0.016	0.00	0.00	No	0.00	No
	87	z	-0.016	0.00	0.00	No	0.00	No
	88	z	-0.016	0.00	0.00	No	0.00	No
	89	z	-0.016	0.00	0.00	No	0.00	No
W30	49	z	-0.016	0.00	0.00	No	0.00	No
	50	z	-0.016	0.00	0.00	No	0.00	No
	51	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
	54	z	-0.016	0.00	0.00	No	0.00	No
	55	Z	-0.016	-0.016	0.00	No	100.00	Yes
	56	z	-0.016	0.00	0.00	No	0.00	No
	57	z	-0.016	0.00	0.00	No	0.00	No
	58	z	-0.016	0.00	0.00	No	0.00	No
	59	Z	-0.016	-0.016	0.00	No	100.00	Yes
	60	z	-0.016	0.00	0.00	No	0.00	No
	61	z	-0.016	0.00	0.00	No	0.00	No
	62	z	-0.016	0.00	0.00	No	0.00	No
	63	z	-0.016	0.00	0.00	No	0.00	No
	64	z	-0.016	0.00	0.00	No	0.00	No
	65	z	-0.016	0.00	0.00	No	0.00	No
	66	z	-0.016	0.00	0.00	No	0.00	No
	67	z	-0.022	0.00	0.00	No	0.00	No
	68	z	-0.022	0.00	0.00	No	0.00	No
	79	z	-0.011	0.00	0.00	No	0.00	No
	80	z	-0.009	0.00	0.00	No	0.00	No
	81	z	-0.009	0.00	0.00	No	0.00	No
	82	Z	-0.016	-0.016	0.00	No	100.00	Yes
	83	Z	-0.016	-0.016	0.00	No	100.00	Yes
	84	Z	-0.016	-0.016	0.00	No	100.00	Yes
	85	Z	-0.016	-0.016	0.00	No	100.00	Yes
	86	z	-0.016	0.00	0.00	No	0.00	No
	87	z	-0.016	0.00	0.00	No	0.00	No
	88	z	-0.016	0.00	0.00	No	0.00	No
	89	z	-0.016	0.00	0.00	No	0.00	No
W60	49	x	-0.016	0.00	0.00	No	0.00	No
	50	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	54	x	-0.016	0.00	0.00	No	0.00	No
	55	X	-0.016	-0.016	0.00	No	100.00	Yes
	56	x	-0.016	0.00	0.00	No	0.00	No
	57	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No

	59	X	-0.016	-0.016	0.00	No	100.00	Yes
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
	64	x	-0.016	0.00	0.00	No	0.00	No
	65	x	-0.016	0.00	0.00	No	0.00	No
	66	x	-0.016	0.00	0.00	No	0.00	No
	67	x	-0.022	0.00	0.00	No	0.00	No
	68	x	-0.022	0.00	0.00	No	0.00	No
	79	x	-0.011	0.00	0.00	No	0.00	No
	80	x	-0.009	0.00	0.00	No	0.00	No
	81	x	-0.009	0.00	0.00	No	0.00	No
	82	X	-0.016	-0.016	0.00	No	100.00	Yes
	83	X	-0.016	-0.016	0.00	No	100.00	Yes
	84	X	-0.016	-0.016	0.00	No	100.00	Yes
	85	X	-0.016	-0.016	0.00	No	100.00	Yes
	86	x	-0.016	0.00	0.00	No	0.00	No
	87	x	-0.016	0.00	0.00	No	0.00	No
	88	x	-0.016	0.00	0.00	No	0.00	No
	89	x	-0.016	0.00	0.00	No	0.00	No
W90	49	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	54	x	-0.016	0.00	0.00	No	0.00	No
	56	x	-0.016	0.00	0.00	No	0.00	No
	57	x	-0.016	0.00	0.00	No	0.00	No
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
	64	x	-0.016	0.00	0.00	No	0.00	No
	65	x	-0.016	0.00	0.00	No	0.00	No
	66	x	-0.016	0.00	0.00	No	0.00	No
	67	x	-0.022	0.00	0.00	No	0.00	No
	68	x	-0.022	0.00	0.00	No	0.00	No
	79	x	-0.011	0.00	0.00	No	0.00	No
	80	x	-0.009	0.00	0.00	No	0.00	No
	81	x	-0.009	0.00	0.00	No	0.00	No
	83	X	-0.016	-0.016	0.00	No	100.00	Yes
	86	x	-0.016	0.00	0.00	No	0.00	No
	87	x	-0.016	0.00	0.00	No	0.00	No
	88	x	-0.016	0.00	0.00	No	0.00	No
	89	x	-0.016	0.00	0.00	No	0.00	No
W120	49	x	-0.016	0.00	0.00	No	0.00	No
	50	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	54	x	-0.016	0.00	0.00	No	0.00	No
	55	X	-0.016	-0.016	0.00	No	100.00	Yes
	56	x	-0.016	0.00	0.00	No	0.00	No
	57	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No
	59	X	-0.016	-0.016	0.00	No	100.00	Yes
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
	64	x	-0.016	0.00	0.00	No	0.00	No
	65	x	-0.016	0.00	0.00	No	0.00	No
	66	x	-0.016	0.00	0.00	No	0.00	No

	67	x	-0.022	0.00	0.00	No	0.00	No
	68	x	-0.022	0.00	0.00	No	0.00	No
	79	x	-0.011	0.00	0.00	No	0.00	No
	80	x	-0.009	0.00	0.00	No	0.00	No
	81	x	-0.009	0.00	0.00	No	0.00	No
	82	X	-0.016	-0.016	0.00	No	100.00	Yes
	83	X	-0.016	-0.016	0.00	No	100.00	Yes
	84	X	-0.016	-0.016	0.00	No	100.00	Yes
	85	X	-0.016	-0.016	0.00	No	100.00	Yes
	86	x	-0.016	0.00	0.00	No	0.00	No
	87	x	-0.016	0.00	0.00	No	0.00	No
	88	x	-0.016	0.00	0.00	No	0.00	No
	89	x	-0.016	0.00	0.00	No	0.00	No
W150	49	z	0.016	0.00	0.00	No	0.00	No
	50	z	0.016	0.00	0.00	No	0.00	No
	51	z	0.016	0.00	0.00	No	0.00	No
	53	z	0.016	0.00	0.00	No	0.00	No
	54	z	0.016	0.00	0.00	No	0.00	No
	55	Z	0.016	0.016	0.00	No	100.00	Yes
	56	z	0.016	0.00	0.00	No	0.00	No
	57	z	0.016	0.00	0.00	No	0.00	No
	58	z	0.016	0.00	0.00	No	0.00	No
	59	Z	0.016	0.016	0.00	No	100.00	Yes
	60	z	0.016	0.00	0.00	No	0.00	No
	61	z	0.016	0.00	0.00	No	0.00	No
	62	z	0.016	0.00	0.00	No	0.00	No
	63	z	0.016	0.00	0.00	No	0.00	No
	64	z	0.016	0.00	0.00	No	0.00	No
	65	z	0.016	0.00	0.00	No	0.00	No
	66	z	0.016	0.00	0.00	No	0.00	No
	67	z	0.022	0.00	0.00	No	0.00	No
	68	z	0.022	0.00	0.00	No	0.00	No
	79	z	0.011	0.00	0.00	No	0.00	No
	80	z	0.009	0.00	0.00	No	0.00	No
	81	z	0.009	0.00	0.00	No	0.00	No
	82	Z	0.016	0.016	0.00	No	100.00	Yes
	83	Z	0.016	0.016	0.00	No	100.00	Yes
	84	Z	0.016	0.016	0.00	No	100.00	Yes
	85	Z	0.016	0.016	0.00	No	100.00	Yes
	86	z	0.016	0.00	0.00	No	0.00	No
	87	z	0.016	0.00	0.00	No	0.00	No
	88	z	0.016	0.00	0.00	No	0.00	No
	89	z	0.016	0.00	0.00	No	0.00	No
Di	49	y	-0.006	0.00	0.00	No	0.00	No
	50	y	-0.006	0.00	0.00	No	0.00	No
	51	y	-0.006	0.00	0.00	No	0.00	No
	53	y	-0.006	0.00	0.00	No	0.00	No
	54	y	-0.006	0.00	0.00	No	0.00	No
	55	Y	-0.006	-0.006	0.00	No	100.00	Yes
	56	y	-0.006	0.00	0.00	No	0.00	No
	57	y	-0.006	0.00	0.00	No	0.00	No
	58	y	-0.006	0.00	0.00	No	0.00	No
	59	Y	-0.006	-0.006	0.00	No	100.00	Yes
	60	y	-0.006	0.00	0.00	No	0.00	No
	61	y	-0.006	0.00	0.00	No	0.00	No
	62	y	-0.006	0.00	0.00	No	0.00	No
	63	y	-0.006	0.00	0.00	No	0.00	No
	64	y	-0.006	0.00	0.00	No	0.00	No
	65	y	-0.006	0.00	0.00	No	0.00	No
	66	y	-0.006	0.00	0.00	No	0.00	No

67	y	-0.008	0.00	0.00	No	0.00	No
68	y	-0.008	0.00	0.00	No	0.00	No
79	y	-0.006	0.00	0.00	No	0.00	No
80	y	-0.005	0.00	0.00	No	0.00	No
81	y	-0.005	0.00	0.00	No	0.00	No
82	Y	-0.006	-0.006	0.00	No	100.00	Yes
83	Y	-0.006	-0.006	0.00	No	100.00	Yes
84	Y	-0.006	-0.006	0.00	No	100.00	Yes
85	Y	-0.006	-0.006	0.00	No	100.00	Yes
86	y	-0.006	0.00	0.00	No	0.00	No
87	y	-0.006	0.00	0.00	No	0.00	No
88	y	-0.006	0.00	0.00	No	0.00	No
89	y	-0.006	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	79	y	-0.075	1.50	No
		y	-0.075	8.50	No
	80	y	-0.033	2.25	No
		y	-0.033	4.00	No
		y	-0.041	6.00	No
		y	-0.041	7.75	No
	81	y	-0.055	2.25	No
		y	-0.055	7.75	No
Wo	79	z	-0.36	1.50	No
		z	-0.36	8.50	No
	80	z	-0.08	2.25	No
		z	-0.08	4.00	No
		z	-0.078	6.00	No
		z	-0.078	7.75	No
	81	z	-0.265	2.25	No
		z	-0.265	7.75	No
W30	79	3	-0.316	1.50	No
		3	-0.316	8.50	No
	80	3	-0.07	2.25	No
		3	-0.07	4.00	No
		3	-0.072	6.00	No
		3	-0.072	7.75	No
	81	3	-0.227	2.25	No
		3	-0.227	7.75	No
W60	79	3	-0.228	1.50	No
		3	-0.228	8.50	No
	80	3	-0.049	2.25	No
		3	-0.049	4.00	No
		3	-0.059	6.00	No
		3	-0.059	7.75	No
	81	3	-0.15	2.25	No
		3	-0.15	7.75	No

W90	79	x	-0.184	1.50	No
		x	-0.184	8.50	No
	80	x	-0.039	2.25	No
		x	-0.039	4.00	No
		x	-0.053	6.00	No
		x	-0.053	7.75	No
	81	x	-0.112	2.25	No
		x	-0.112	7.75	No
W120	79	2	-0.228	1.50	No
		2	-0.228	8.50	No
	80	2	-0.049	2.25	No
		2	-0.049	4.00	No
		2	-0.059	6.00	No
		2	-0.059	7.75	No
	81	2	-0.15	2.25	No
		2	-0.15	7.75	No
W150	79	2	-0.316	1.50	No
		2	-0.316	8.50	No
	80	2	-0.07	2.25	No
		2	-0.07	4.00	No
		2	-0.072	6.00	No
		2	-0.072	7.75	No
	81	2	-0.227	2.25	No
		2	-0.227	7.75	No
Di	79	y	-0.146	1.50	No
		y	-0.146	8.50	No
	80	y	-0.036	2.25	No
		y	-0.036	4.00	No
		y	-0.038	6.00	No
		y	-0.038	7.75	No
	81	y	-0.106	2.25	No
		y	-0.106	7.75	No
WI0	79	z	-0.066	1.50	No
		z	-0.066	8.50	No
	80	z	-0.016	2.25	No
		z	-0.016	4.00	No
		z	-0.016	6.00	No
		z	-0.016	7.75	No
	81	z	-0.049	2.25	No
		z	-0.049	7.75	No
WI30	79	3	-0.058	1.50	No
		3	-0.058	8.50	No
	80	3	-0.014	2.25	No
		3	-0.014	4.00	No
		3	-0.015	6.00	No
		3	-0.015	7.75	No
	81	3	-0.042	2.25	No
		3	-0.042	7.75	No
WI60	79	3	-0.044	1.50	No
		3	-0.044	8.50	No
	80	3	-0.011	2.25	No
		3	-0.011	4.00	No
		3	-0.013	6.00	No
		3	-0.013	7.75	No
	81	3	-0.03	2.25	No
		3	-0.03	7.75	No
WI90	79	x	-0.037	1.50	No
		x	-0.037	8.50	No
	80	x	-0.009	2.25	No
		x	-0.009	4.00	No

		x	-0.011	6.00	No
		x	-0.011	7.75	No
	81	x	-0.024	2.25	No
		x	-0.024	7.75	No
WI120	79	2	-0.044	1.50	No
		2	-0.044	8.50	No
	80	2	-0.011	2.25	No
		2	-0.011	4.00	No
		2	-0.013	6.00	No
		2	-0.013	7.75	No
	81	2	-0.03	2.25	No
		2	-0.03	7.75	No
WI150	79	2	-0.058	1.50	No
		2	-0.058	8.50	No
	80	2	-0.014	2.25	No
		2	-0.014	4.00	No
		2	-0.015	6.00	No
		2	-0.015	7.75	No
	81	2	-0.042	2.25	No
		2	-0.042	7.75	No
WL0	79	z	-0.021	1.50	No
		z	-0.021	8.50	No
	80	z	-0.005	2.25	No
		z	-0.005	4.00	No
		z	-0.005	6.00	No
		z	-0.005	7.75	No
	81	z	-0.016	2.25	No
		z	-0.016	7.75	No
WL30	79	3	-0.019	1.50	No
		3	-0.019	8.50	No
	80	3	-0.005	2.25	No
		3	-0.005	4.00	No
		3	-0.005	6.00	No
		3	-0.005	7.75	No
	81	3	-0.014	2.25	No
		3	-0.014	7.75	No
WL60	79	3	-0.014	1.50	No
		3	-0.014	8.50	No
	80	3	-0.003	2.25	No
		3	-0.003	4.00	No
		3	-0.004	6.00	No
		3	-0.004	7.75	No
	81	3	-0.009	2.25	No
		3	-0.009	7.75	No
WL90	79	x	-0.011	1.50	No
		x	-0.011	8.50	No
	80	x	-0.003	2.25	No
		x	-0.003	4.00	No
		x	-0.004	6.00	No
		x	-0.004	7.75	No
	81	x	-0.007	2.25	No
		x	-0.007	7.75	No
WL120	79	2	-0.014	1.50	No
		2	-0.014	8.50	No
	80	2	-0.003	2.25	No
		2	-0.003	4.00	No
		2	-0.004	6.00	No
		2	-0.004	7.75	No
	81	2	-0.009	2.25	No
		2	-0.009	7.75	No

WL150	79	2	-0.019	1.50	No
		2	-0.019	8.50	No
	80	2	-0.005	2.25	No
		2	-0.005	4.00	No
		2	-0.005	6.00	No
		2	-0.005	7.75	No
	81	2	-0.014	2.25	No
		2	-0.014	7.75	No
LL1	59	y	-0.25	3.00	No
LL2	58	y	-0.25	100.00	Yes
LL3	82	y	-0.25	100.00	Yes
LLa1	79	y	-0.50	50.00	Yes
LLa2	80	y	-0.50	50.00	Yes
LLa3	81	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:27 PM
Units system: English

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	LU 2-1_2X2X1_4	**49**	LC4 at 53.13%	0.63	With warnings	
		50	LC15 at 100.00%	0.29	With warnings	
		51	LC6 at 100.00%	0.32	OK	
		53	LC19 at 25.00%	0.53	With warnings	
		54	LC22 at 51.56%	0.53	With warnings	
		55	LC12 at 100.00%	0.10	OK	
		56	LC1 at 100.00%	0.27	OK	
		57	LC45 at 50.00%	0.27	With warnings	
		58	LC21 at 0.00%	0.20	With warnings	
		59	LC37 at 100.00%	0.23	OK	
		60	LC12 at 0.00%	0.16	OK	
		61	LC9 at 0.00%	**0.77**	**OK**	
		62	LC5 at 0.00%	0.44	OK	
		63	LC22 at 0.00%	0.47	OK	
		64	LC8 at 0.00%	0.26	OK	
		65	LC12 at 0.00%	0.20	OK	
		66	LC8 at 0.00%	0.40	OK	
		82	LC6 at 43.75%	0.07	OK	
		83	LC2 at 0.00%	0.34	OK	
		84	LC37 at 0.00%	0.08	OK	
		85	LC12 at 0.00%	0.04	OK	
		86	LC4 at 56.25%	0.37	OK	
		87	LC8 at 0.00%	0.34	OK	
		88	LC6 at 43.75%	0.27	OK	
		89	LC12 at 46.88%	0.40	OK	
	LU 3-1_2X3X1_4	**67**	LC1 at 14.58%	0.12	OK	
		68	LC6 at 33.33%	**0.15**	**OK**	
	PIPE 2-1_2x0.203	**79**	LC1 at 48.44%	**0.52**	**OK**	
	PIPE 2x0.154	**80**	LC10 at 37.50%	0.39	OK	
		81	LC7 at 50.00%	**0.55**	**OK**	
	W 8X28	**52**	LC6 at 33.33%	**0.11**	**OK**	

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:27 PM
Units system: English

Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
78	0.00	0.00	0.00	0
79	0.00	0.00	-7.5833	0
80	-7.5833	0.00	0.00	0
81	-7.5833	0.00	-1.00	0
82	-19.9167	0.3333	-1.00	0
83	-28.3034	0.3333	-6.4464	0
84	-15.5137	0.3333	1.8594	0
86	0.00	1.25	0.00	0
87	-7.5833	1.25	0.00	0
88	0.00	1.25	-7.5833	0
89	-7.5833	1.25	-1.00	0
90	0.00	2.3333	-7.5833	0
91	0.00	2.3333	0.00	0
92	-7.5833	2.3333	0.00	0
93	-7.5833	2.3333	-1.00	0
94	-20.9167	2.3333	-1.00	0
95	0.00	-1.00	-7.5833	0
96	0.00	-1.00	0.00	0
97	-7.5833	-1.00	0.00	0
98	-7.5833	-1.00	-1.00	0
99	-20.9167	-1.00	-1.00	0
100	-12.0278	2.3333	-1.00	0
101	-16.4722	2.3333	-1.00	0

102	-12.0278	-1.00	-1.00	0
103	-16.4722	-1.00	-1.00	0
104	-16.4722	1.25	-1.00	0
105	-17.191	0.75	0.7701	0
106	-14.675	0.75	2.404	0
107	-17.191	0.00	0.7701	0
108	-14.675	0.00	2.404	0
123	-5.6667	4.8333	0.20	0
124	-5.6667	-5.1667	0.20	0
125	0.20	4.8333	-3.8333	0
126	0.20	-5.1667	-3.8333	0
127	-15.1333	4.8333	2.3448	0
128	-15.1333	-5.1667	2.3448	0
129	-12.0278	1.25	-1.00	0
130	0.00	2.3333	-3.5833	0
131	0.00	2.3333	-4.0833	0
132	-5.4167	2.3333	0.00	0
133	-5.9167	2.3333	0.00	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
82	1	1	1	1	1	1
83	1	1	1	1	1	1
95	1	1	1	1	1	1
96	1	1	1	1	1	1
97	1	1	1	1	1	1
98	1	1	1	1	1	1
99	1	1	1	1	1	1
102	1	1	1	1	1	1
103	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	lg factor
49	78	79		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
50	80	78		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
51	81	80		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
52	84	83		W 8X28	A992 Gr50	0.00	0.00	0.00
53	87	86		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
54	86	88		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
55	129	89		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
56	89	87		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
57	91	90		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
58	92	91		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
59	93	100		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
60	93	92		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
61	95	90		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
62	96	91		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
63	97	92		LU 2-1_2X2X1_4	A36	0.00	0.00	0.00

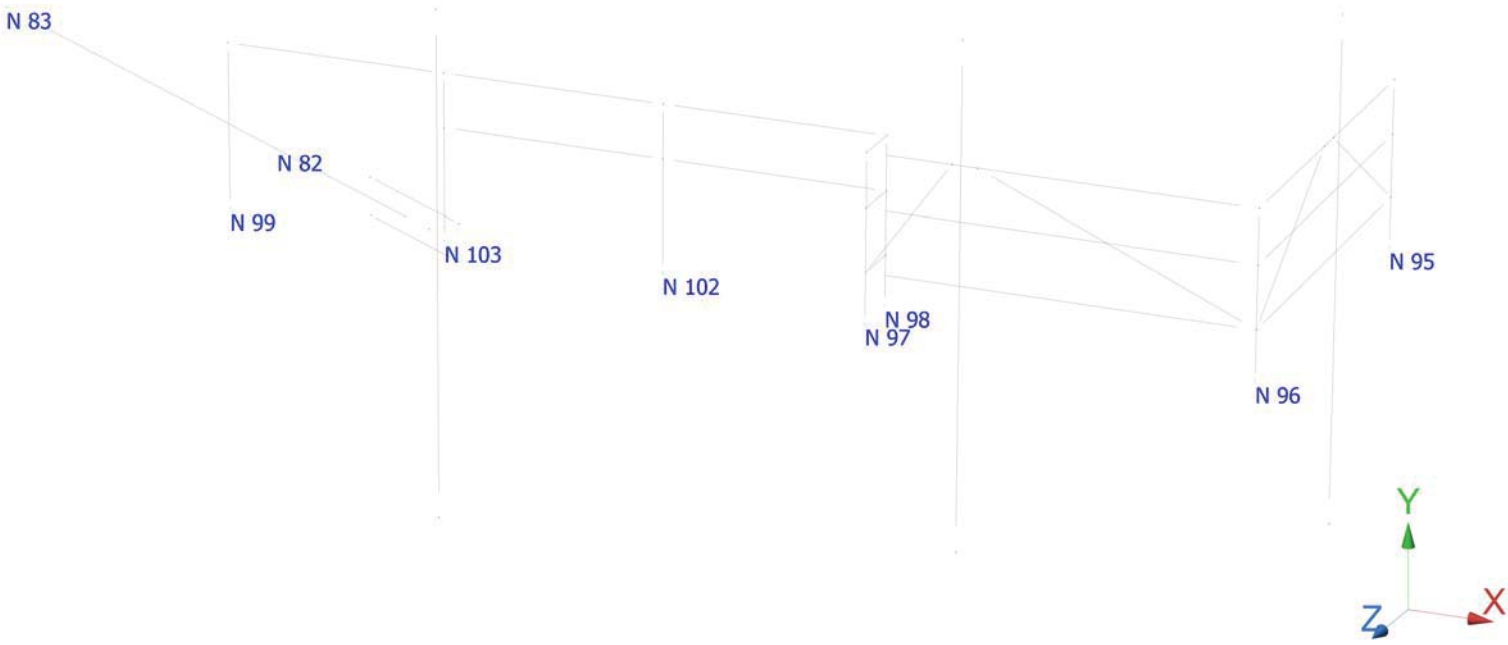
64	98	93	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
65	99	94	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
66	103	101	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
67	106	105	LU 3-1_2X3X1_4	A36	0.00	0.00	0.00
68	108	107	LU 3-1_2X3X1_4	A36	0.00	0.00	0.00
79	125	126	PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
80	123	124	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
81	127	128	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
82	101	94	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
83	102	100	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
84	100	101	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
85	104	129	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
86	79	131	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
87	78	132	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
88	130	78	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00
89	133	80	LU 2-1_2X2X1_4	A36	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
49	180.00	0	0.00	0.00	0.00
50	180.00	0	0.00	0.00	0.00
51	180.00	0	0.00	0.00	0.00
53	180.00	0	0.00	0.00	0.00
54	180.00	0	0.00	0.00	0.00
55	180.00	0	0.00	0.00	0.00
56	180.00	0	0.00	0.00	0.00
57	180.00	0	0.00	0.00	0.00
58	180.00	0	0.00	0.00	0.00
59	180.00	0	0.00	0.00	0.00
60	180.00	0	0.00	0.00	0.00
61	90.00	0	0.00	0.00	0.00
62	270.00	0	0.00	0.00	0.00
63	90.00	0	0.00	0.00	0.00
65	90.00	0	0.00	0.00	0.00
68	90.00	0	0.00	0.00	0.00
79	315.00	0	0.00	0.00	0.00
80	315.00	0	0.00	0.00	0.00
81	315.00	0	0.00	0.00	0.00
82	180.00	0	0.00	0.00	0.00
83	90.00	0	0.00	0.00	0.00
84	180.00	0	0.00	0.00	0.00
85	180.00	0	0.00	0.00	0.00
86	180.00	0	0.00	0.00	0.00
87	180.00	0	0.00	0.00	0.00
88	180.00	0	0.00	0.00	0.00
89	180.00	0	0.00	0.00	0.00

Rigid end offsets

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
86	1.00	0.00	0.00	1.00	0.00	0.00
87	0.00	0.00	1.00	0.00	0.00	1.00
88	1.00	0.00	0.00	1.00	0.00	0.00
89	0.00	0.00	1.00	0.00	0.00	1.00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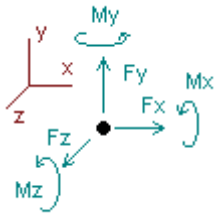
N 82
N 99
N 103
N 102
N 98
N 97
N 96
N 95
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:29 PM
Units system: English

Analysis result

Reactions



Direction of positive forces and moments

Node	Forces [Kip] FX	FY	FZ	Moments [Kip*ft] MX	MY	MZ
Condition **LC1=1.2D+Wo**						
99	-0.02382	0.03591	0.09687	0.23559	-0.00174	0.08285
82	0.00000	0.56730	0.64070	-1.07036	-2.97619	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00397	0.30713	0.54269	0.33664	-0.00156	0.05302
96	-0.32814	0.25120	0.63965	0.35659	0.00464	0.15976
97	-0.03011	-0.57112	0.40102	0.27398	-0.00234	0.06945
98	0.28299	0.84746	0.35311	0.23475	0.00081	-0.24046
102	-0.03808	0.04592	0.16799	0.40023	0.00094	0.13964
103	0.14113	0.03592	0.14247	0.34711	-0.00007	-0.31995
SUM	0.00000	1.68690	2.98450	0.96277	-2.97552	1.36133
Condition **LC2=1.2D+W30**						
99	-0.02489	0.03519	0.09669	0.23500	-0.00175	0.08481
82	0.32103	0.56730	0.52173	-1.01087	-1.33333	1.34386
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.17919	0.31092	0.38580	0.26863	0.00870	-0.06416
96	-0.07301	0.22386	0.67335	0.33037	-0.00173	0.00351
97	0.23917	-0.47937	0.30293	0.20768	-0.00063	-0.08636
98	0.23744	0.78299	0.37809	0.24504	0.00185	-0.20964
102	-0.04535	0.04226	0.17631	0.42015	0.00084	0.15297
103	0.13516	0.03656	0.14234	0.34771	-0.00008	-0.31285
SUM	0.96874	1.68690	2.67724	0.89197	-1.32613	1.14582
Condition **LC3=1.2D+W60**						
99	0.03845	0.02279	-0.00106	-0.00343	0.00007	-0.03454
82	0.37402	0.56730	0.21213	-0.91604	0.18185	1.33141
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.44851	0.27784	0.14242	-0.14883	0.01411	-0.57183
96	0.36864	0.11982	0.30304	0.11906	-0.00834	-0.24614
97	0.64318	0.57610	-0.14269	-0.11487	0.00224	-0.36467
98	0.07429	-0.13969	0.16466	0.10382	0.00234	-0.07694
102	0.04040	0.04134	0.00609	0.00871	-0.00012	-0.03261
103	0.05744	0.05421	0.00271	0.00997	0.00003	-0.06151
SUM	2.04492	1.68690	0.68731	-1.09336	0.19217	0.17686

Condition **LC4=1.2D+W90**

99	0.03695	0.02256	-0.00102	-0.00330	0.00006	-0.03146
82	0.38589	0.56730	0.00000	-0.80997	1.23625	1.33735
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.46266	0.26475	-0.01664	-0.23366	0.01514	-0.58237
96	0.49696	0.13225	0.11563	0.01180	-0.01001	-0.31223
97	0.67897	0.58083	-0.21619	-0.16185	0.00329	-0.39554
98	-0.00165	-0.14754	0.10640	0.06694	0.00240	-0.02180
102	0.03029	0.04516	0.00953	0.01960	-0.00013	-0.01784
103	0.04354	0.05442	0.00229	0.00878	0.00002	-0.04439
SUM	2.13361	1.68690	0.00000	-1.25342	1.24702	0.16542

Condition **LC5=1.2D+W120**

99	0.03527	0.02230	-0.00089	-0.00287	0.00007	-0.02796
82	0.37402	0.56730	-0.21213	-0.70390	2.21126	1.33141
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.43837	0.24948	-0.16035	-0.31333	0.01402	-0.56797
96	0.57051	0.14399	-0.09513	-0.09711	-0.01040	-0.34290
97	0.64871	0.57946	-0.26912	-0.19385	0.00394	-0.38702
98	-0.07175	-0.14712	0.03753	0.02377	0.00219	0.03143
102	0.02060	0.05031	0.01100	0.02610	-0.00011	-0.00450
103	0.02918	0.05399	0.00178	0.00701	0.00000	-0.02621
SUM	2.04492	1.68690	-0.68731	-1.40595	2.22096	0.23998

Condition **LC6=1.2D+W150**

99	0.02659	0.00960	-0.09711	-0.23636	0.00178	-0.08593
82	0.32103	0.56730	-0.52173	-0.60907	3.48086	1.34386
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.20187	0.11952	-0.50616	-0.27950	0.01182	-0.14168
96	0.49215	0.38188	-0.47085	-0.31295	-0.01042	-0.27485
97	0.34555	1.18845	-0.47449	-0.32864	0.00393	-0.24328
98	-0.31330	-0.85762	-0.30385	-0.21011	0.00037	0.25885
102	0.03410	0.05637	-0.16071	-0.38403	-0.00104	-0.13149
103	-0.13924	0.05421	-0.14234	-0.34566	0.00006	0.31824
SUM	0.96874	1.68690	-2.67724	-2.85807	3.48735	1.27742

Condition **LC7=1.2D-Wo**

99	0.02643	0.00983	-0.09682	-0.23541	0.00179	-0.08545
82	0.00000	0.56730	-0.64070	-0.54958	2.97619	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01041	0.10178	-0.49527	-0.29067	0.00121	-0.02195
96	0.29796	0.41971	-0.69241	-0.38654	-0.00445	-0.15053
97	0.06235	1.12743	-0.39346	-0.27413	0.00243	-0.08330
98	-0.29436	-0.81972	-0.35528	-0.23839	-0.00075	0.25068
102	0.03677	0.06066	-0.16801	-0.40087	-0.00094	-0.13844
103	-0.13956	0.05272	-0.14256	-0.34734	0.00006	0.31977
SUM	0.00000	1.68690	-2.98450	-2.87468	2.97554	1.50780

Condition **LC8=1.2D-W30**

99	0.02750	0.01055	-0.09664	-0.23482	0.00180	-0.08741
82	-0.32103	0.56730	-0.52173	-0.60906	1.33333	1.02282
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.17275	0.09799	-0.33838	-0.22266	-0.00906	0.09523
96	0.04283	0.44705	-0.72612	-0.36033	0.00191	0.00572
97	-0.20693	1.03568	-0.29537	-0.20784	0.00072	0.07250
98	-0.24880	-0.75525	-0.38026	-0.24868	-0.00179	0.21986

102	0.04403	0.06432	-0.17632	-0.42078	-0.00084	-0.15176
103	-0.13360	0.05208	-0.14242	-0.34794	0.00007	0.31267
SUM	-0.96874	1.68690	-2.67724	-2.80388	1.32615	1.72331

Condition **LC9=1.2D-W60**

99	-0.03584	0.02295	0.00111	0.00361	-0.00002	0.03194
82	-0.37403	0.56730	-0.21213	-0.70390	-0.18186	1.03526
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.44206	0.13107	-0.09499	0.19480	-0.01446	0.60290
96	-0.39882	0.55109	-0.35581	-0.14902	0.00852	0.25536
97	-0.61094	-0.01979	0.15025	0.11471	-0.00214	0.35081
98	-0.08566	0.16743	-0.16683	-0.10746	-0.00228	0.08716
102	-0.04171	0.06524	-0.00611	-0.00934	0.00012	0.03381
103	-0.05587	0.03443	-0.00280	-0.01020	-0.00004	0.06134
SUM	-2.04492	1.68690	-0.68731	-0.81855	-0.19215	2.69227

Condition **LC10=1.2D-W90**

99	-0.03434	0.02318	0.00107	0.00348	-0.00002	0.02886
82	-0.38589	0.56730	0.00000	-0.80996	-1.23626	1.02933
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.45622	0.14416	0.06406	0.27963	-0.01549	0.61344
96	-0.52714	0.53866	-0.16839	-0.04175	0.01019	0.32146
97	-0.64673	-0.02452	0.22375	0.16169	-0.00320	0.38168
98	-0.00972	0.17528	-0.10857	-0.07058	-0.00233	0.03201
102	-0.03160	0.06142	-0.00954	-0.02023	0.00013	0.01904
103	-0.04197	0.03422	-0.00238	-0.00901	-0.00003	0.04421
SUM	-2.13361	1.68690	0.00000	-0.65849	-1.24700	2.70371

Condition **LC11=1.2D-W120**

99	-0.03266	0.02344	0.00094	0.00305	-0.00002	0.02536
82	-0.37403	0.56730	0.21213	-0.91603	-2.21126	1.03526
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.43193	0.15943	0.20777	0.35930	-0.01437	0.59904
96	-0.60069	0.52692	0.04236	0.06716	0.01058	0.35212
97	-0.61647	-0.02315	0.27668	0.19370	-0.00385	0.37317
98	0.06038	0.17486	-0.03970	-0.02741	-0.00212	-0.02121
102	-0.02191	0.05626	-0.01101	-0.02673	0.00011	0.00570
103	-0.02762	0.03465	-0.00187	-0.00724	-0.00002	0.02603
SUM	-2.04492	1.68690	0.68731	-0.50596	-2.22095	2.62916

Condition **LC12=1.2D-W150**

99	-0.02397	0.03614	0.09716	0.23654	-0.00173	0.08333
82	-0.32103	0.56730	0.52173	-1.01086	-3.48087	1.02282
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.19542	0.28939	0.55359	0.32547	-0.01217	0.17275
96	-0.52234	0.28903	0.41808	0.28300	0.01060	0.28407
97	-0.31331	-0.63214	0.48205	0.32848	-0.00383	0.22943
98	0.30194	0.88536	0.30168	0.20647	-0.00030	-0.24863
102	-0.03541	0.05020	0.16070	0.38340	0.00104	0.13269
103	0.14081	0.03443	0.14225	0.34543	-0.00007	-0.31842
SUM	-0.96874	1.68690	2.67724	0.94616	-3.48733	1.59172

Condition **LC13=0.9D+Wo**

99	-0.02414	0.03019	0.09686	0.23556	-0.00175	0.08318
82	0.00000	0.42548	0.64070	-0.86787	-2.97619	0.88750
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	-0.00477	0.25601	0.53676	0.33089	-0.00152	0.04914
96	-0.32437	0.16734	0.64624	0.36033	0.00461	0.15860
97	-0.03414	-0.64066	0.40007	0.27400	-0.00235	0.07118
98	0.28441	0.84399	0.35338	0.23521	0.00081	-0.24174
102	-0.03792	0.03260	0.16799	0.40031	0.00094	0.13949
103	0.14093	0.02484	0.14248	0.34714	-0.00007	-0.31993
SUM	0.00000	1.26518	2.98450	1.20176	-2.97552	1.00269

Condition **LC14=0.9D+W30**

99	-0.02522	0.02947	0.09668	0.23498	-0.00176	0.08514
82	0.32103	0.42548	0.52173	-0.80838	-1.33333	1.04803
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	0.17839	0.25981	0.37988	0.26289	0.00875	-0.06805
96	-0.06924	0.14000	0.67995	0.33412	-0.00175	0.00235
97	0.23514	-0.54891	0.30199	0.20770	-0.00064	-0.08462
98	0.23886	0.77952	0.37836	0.24550	0.00185	-0.21092
102	-0.04518	0.02894	0.17631	0.42023	0.00084	0.15282
103	0.13497	0.02548	0.14235	0.34774	-0.00008	-0.31283
SUM	0.96874	1.26518	2.67724	1.13095	-1.32613	0.78718

Condition **LC15=0.9D+W60**

99	0.03812	0.01708	-0.00107	-0.00345	0.00006	-0.03421
82	0.37402	0.42548	0.21213	-0.71355	0.18185	1.03558
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	0.44770	0.22673	0.13649	-0.15457	0.01415	-0.57571
96	0.37241	0.03596	0.30964	0.12280	-0.00836	-0.24729
97	0.63915	0.50657	-0.14364	-0.11485	0.00222	-0.36294
98	0.07571	-0.14316	0.16494	0.10427	0.00234	-0.07822
102	0.04056	0.02802	0.00610	0.00879	-0.00012	-0.03276
103	0.05724	0.04313	0.00272	0.01000	0.00003	-0.06149
SUM	2.04492	1.26518	0.68731	-0.85437	0.19217	-0.18178

Condition **LC16=0.9D+W90**

99	0.03663	0.01684	-0.00103	-0.00333	0.00006	-0.03113
82	0.38589	0.42548	0.00000	-0.60748	1.23625	1.04151
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	0.46185	0.21364	-0.02256	-0.23941	0.01518	-0.58625
96	0.50073	0.04839	0.12222	0.01554	-0.01003	-0.31338
97	0.67494	0.51129	-0.21714	-0.16183	0.00328	-0.39381
98	-0.00023	-0.15101	0.10667	0.06740	0.00239	-0.02307
102	0.03045	0.03183	0.00953	0.01968	-0.00013	-0.01799
103	0.04334	0.04334	0.00230	0.00881	0.00002	-0.04436
SUM	2.13361	1.26518	0.00000	-1.01444	1.24702	-0.19322

Condition **LC17=0.9D+W120**

99	0.03494	0.01658	-0.00089	-0.00290	0.00006	-0.02763
82	0.37402	0.42548	-0.21213	-0.50141	2.21126	1.03558
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	0.43757	0.19837	-0.16628	-0.31908	0.01406	-0.57185
96	0.57428	0.06013	-0.08853	-0.09337	-0.01043	-0.34405
97	0.64468	0.50992	-0.27007	-0.19383	0.00393	-0.38529
98	-0.07033	-0.15059	0.03780	0.02422	0.00218	0.03015

102	0.02076	0.03699	0.01100	0.02618	-0.00011	-0.00465
103	0.02898	0.04291	0.00179	0.00704	0.00001	-0.02618
SUM	2.04492	1.26518	-0.68731	-1.16696	2.22096	-0.11867

Condition **LC18=0.9D+W150**

99	0.02626	0.00389	-0.09712	-0.23638	0.00177	-0.08560
82	0.32103	0.42548	-0.52173	-0.40658	3.48087	1.04802
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	0.20106	0.06841	-0.51209	-0.28525	0.01186	-0.14556
96	0.49593	0.29802	-0.46425	-0.30921	-0.01045	-0.27600
97	0.34152	1.11891	-0.47543	-0.32862	0.00391	-0.24155
98	-0.31188	-0.86109	-0.30357	-0.20965	0.00036	0.25757
102	0.03426	0.04305	-0.16071	-0.38395	-0.00104	-0.13164
103	-0.13944	0.04313	-0.14233	-0.34563	0.00006	0.31826
SUM	0.96874	1.26518	-2.67724	-2.61908	3.48735	0.91877

Condition **LC19=0.9D-Wo**

99	0.02610	0.00412	-0.09682	-0.23543	0.00178	-0.08512
82	0.00000	0.42548	-0.64070	-0.34709	2.97619	0.88750
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	0.00961	0.05067	-0.50119	-0.29641	0.00125	-0.02584
96	0.30174	0.33585	-0.68582	-0.38280	-0.00448	-0.15168
97	0.05832	1.05789	-0.39440	-0.27411	0.00242	-0.08157
98	-0.29294	-0.82319	-0.35501	-0.23794	-0.00075	0.24940
102	0.03693	0.04734	-0.16800	-0.40079	-0.00094	-0.13859
103	-0.13976	0.04164	-0.14255	-0.34731	0.00006	0.31980
SUM	0.00000	1.26517	-2.98450	-2.63570	2.97553	1.14916

Condition **LC20=0.9D-W30**

99	0.02718	0.00483	-0.09664	-0.23484	0.00179	-0.08709
82	-0.32103	0.42547	-0.52173	-0.40657	1.33333	0.72698
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	-0.17355	0.04687	-0.34431	-0.22841	-0.00901	0.09135
96	0.04660	0.36319	-0.71952	-0.35659	0.00189	0.00456
97	-0.21096	0.96614	-0.29632	-0.20782	0.00071	0.07423
98	-0.24738	-0.75872	-0.37999	-0.24823	-0.00179	0.21858
102	0.04420	0.05099	-0.17632	-0.42070	-0.00084	-0.15191
103	-0.13379	0.04100	-0.14241	-0.34791	0.00007	0.31269
SUM	-0.96874	1.26517	-2.67724	-2.56489	1.32614	1.36467

Condition **LC21=0.9D-W60**

99	-0.03616	0.01723	0.00111	0.00359	-0.00002	0.03226
82	-0.37402	0.42547	-0.21213	-0.50140	-0.18186	0.73943
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	-0.44287	0.07996	-0.10092	0.18905	-0.01442	0.59902
96	-0.39505	0.46723	-0.34921	-0.14527	0.00850	0.25421
97	-0.61497	-0.08933	0.14931	0.11473	-0.00215	0.35255
98	-0.08423	0.16396	-0.16656	-0.10700	-0.00228	0.08588
102	-0.04155	0.05191	-0.00611	-0.00926	0.00012	0.03366
103	-0.05607	0.02335	-0.00279	-0.01017	-0.00004	0.06136
SUM	-2.04492	1.26517	-0.68731	-0.57956	-0.19215	2.33363

Condition **LC22=0.9D-W90**

99	-0.03467	0.01747	0.00107	0.00346	-0.00002	0.02918
82	-0.38589	0.42547	0.00000	-0.60747	-1.23626	0.73349
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	-0.45702	0.09305	0.05813	0.27389	-0.01545	0.60955
96	-0.52337	0.45480	-0.16180	-0.03801	0.01017	0.32030
97	-0.65076	-0.09406	0.22281	0.16171	-0.00321	0.38342
98	-0.00830	0.17182	-0.10830	-0.07013	-0.00234	0.03074
102	-0.03144	0.04810	-0.00954	-0.02015	0.00013	0.01889
103	-0.04217	0.02314	-0.00237	-0.00898	-0.00003	0.04423
SUM	-2.13361	1.26517	0.00000	-0.41950	-1.24701	2.34507

Condition **LC23=0.9D-W120**

99	-0.03298	0.01772	0.00093	0.00303	-0.00002	0.02568
82	-0.37402	0.42547	0.21213	-0.71354	-2.21126	0.73943
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	-0.43273	0.10831	0.20185	0.35356	-0.01433	0.59515
96	-0.59692	0.44306	0.04896	0.07090	0.01056	0.35097
97	-0.62050	-0.09268	0.27574	0.19372	-0.00386	0.37490
98	0.06180	0.17139	-0.03943	-0.02695	-0.00213	-0.02248
102	-0.02175	0.04294	-0.01101	-0.02665	0.00011	0.00555
103	-0.02781	0.02357	-0.00186	-0.00721	-0.00002	0.02605
SUM	-2.04492	1.26517	0.68731	-0.26697	-2.22095	2.27052

Condition **LC24=0.9D-W150**

99	-0.02430	0.03042	0.09716	0.23651	-0.00174	0.08366
82	-0.32103	0.42547	0.52173	-0.80837	-3.48087	0.72698
83	0.00000	0.12539	0.00000	-0.11382	0.00000	0.17526
95	-0.19623	0.23828	0.54766	0.31972	-0.01213	0.16886
96	-0.51856	0.20517	0.42468	0.28674	0.01058	0.28292
97	-0.31734	-0.70167	0.48110	0.32850	-0.00384	0.23116
98	0.30336	0.88190	0.30195	0.20693	-0.00031	-0.24991
102	-0.03525	0.03688	0.16070	0.38348	0.00104	0.13254
103	0.14061	0.02335	0.14226	0.34546	-0.00007	-0.31840
SUM	-0.96874	1.26517	2.67724	1.18515	-3.48733	1.23307

Condition **LC25=1.2D+Di+WI0**

99	0.00426	0.03492	-0.00003	-0.00009	0.00006	-0.00539
82	0.00000	0.82730	0.09800	-1.69224	-0.46877	2.38862
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00874	0.44381	0.11572	0.08547	-0.00040	0.03420
96	-0.07345	0.70193	0.02196	0.01083	0.00066	0.02946
97	0.02906	0.48586	0.03458	0.01847	-0.00026	-0.00703
98	0.01926	0.04307	0.02480	0.01455	0.00008	-0.01443
102	0.00341	0.10590	-0.00123	-0.00456	0.00000	-0.00554
103	0.00872	0.08626	0.00020	0.00067	-0.00001	-0.00929
SUM	0.00000	2.89623	0.29400	-1.71867	-0.46864	2.64429

Condition **LC26=1.2D+Di+WI30**

99	0.00388	0.03475	-0.00006	-0.00018	0.00005	-0.00467
82	0.05940	0.82730	0.05940	-1.67294	-0.08545	2.41832
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.04236	0.44350	0.07742	0.06762	0.00151	0.01251
96	-0.01511	0.69778	0.01399	-0.00217	-0.00061	-0.00504
97	0.08213	0.50520	0.00827	0.00070	0.00016	-0.03913
98	0.00272	0.02851	0.02261	0.01211	0.00028	-0.00268

102	0.00096	0.10563	0.00069	0.00032	-0.00002	-0.00144
103	0.00610	0.08638	0.00013	0.00065	-0.00001	-0.00610
SUM	0.18243	2.89623	0.18243	-1.74565	-0.08409	2.60546

Condition **LC27=1.2D+Di+WI60**

99	0.00379	0.03473	-0.00004	-0.00013	0.00006	-0.00448
82	0.04242	0.82730	0.04243	-1.66446	-0.06104	2.40984
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.03370	0.44214	0.07221	0.06393	0.00104	0.01779
96	-0.01905	0.70018	-0.00386	-0.01002	-0.00039	-0.00205
97	0.07062	0.50465	0.00922	0.00121	0.00013	-0.03318
98	0.00089	0.02789	0.01803	0.00933	0.00023	-0.00094
102	0.00066	0.10588	0.00052	0.00002	-0.00001	-0.00115
103	0.00555	0.08629	0.00010	0.00052	-0.00001	-0.00534
SUM	0.13859	2.89623	0.13859	-1.75134	-0.05999	2.61417

Condition **LC28=1.2D+Di+WI90**

99	0.00344	0.03467	-0.00003	-0.00009	0.00005	-0.00376
82	0.04800	0.82730	0.00000	-1.64324	0.16055	2.41262
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.03780	0.43962	0.04059	0.04716	0.00131	0.01487
96	0.00840	0.70196	-0.03963	-0.03069	-0.00078	-0.01604
97	0.07955	0.50708	-0.00743	-0.00941	0.00037	-0.04049
98	-0.01598	0.02538	0.00520	0.00113	0.00025	0.01142
102	-0.00163	0.10674	0.00129	0.00248	-0.00001	0.00220
103	0.00242	0.08631	0.00000	0.00024	-0.00002	-0.00145
SUM	0.16200	2.89623	0.00000	-1.78418	0.16172	2.61306

Condition **LC29=1.2D+Di+WI120**

99	0.00309	0.03462	-0.00001	-0.00001	0.00005	-0.00303
82	0.04242	0.82730	-0.04243	-1.62203	0.34484	2.40984
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.03201	0.43653	0.01327	0.03184	0.00104	0.01825
96	0.02337	0.70487	-0.08194	-0.05239	-0.00084	-0.02215
97	0.07323	0.50623	-0.01918	-0.01665	0.00051	-0.03897
98	-0.03120	0.02542	-0.00984	-0.00825	0.00020	0.02291
102	-0.00370	0.10784	0.00163	0.00392	-0.00001	0.00506
103	-0.00065	0.08624	-0.00010	-0.00012	-0.00002	0.00241
SUM	0.13859	2.89623	-0.13859	-1.81543	0.34579	2.62800

Condition **LC30=1.2D+Di+WI150**

99	0.00292	0.03454	0.00000	0.00001	0.00005	-0.00269
82	0.05940	0.82730	-0.05940	-1.61354	0.48278	2.41832
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.03992	0.43612	0.00031	0.02551	0.00149	0.01315
96	0.03779	0.70354	-0.08801	-0.05761	-0.00115	-0.03046
97	0.08456	0.51362	-0.02579	-0.02106	0.00061	-0.04583
98	-0.03602	0.01993	-0.01150	-0.00970	0.00024	0.02670
102	-0.00452	0.10782	0.00209	0.00514	-0.00001	0.00635
103	-0.00161	0.08618	-0.00014	-0.00020	-0.00002	0.00367
SUM	0.18243	2.89623	-0.18243	-1.82322	0.48400	2.62290

Condition **LC31=1.2D+Di-WI0**

99	0.00262	0.03451	0.00007	0.00025	0.00006	-0.00206
82	0.00000	0.82730	-0.09800	-1.59424	0.46876	2.38862
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00471	0.43188	-0.00798	0.01776	-0.00043	0.03516
96	0.01000	0.71079	-0.14174	-0.07823	-0.00017	-0.01095
97	0.03254	0.50611	-0.01839	-0.01577	0.00043	-0.01744
98	-0.04104	0.02355	-0.02874	-0.02001	0.00003	0.03194
102	-0.00533	0.10913	0.00103	0.00306	0.00000	0.00691
103	-0.00350	0.08578	-0.00025	-0.00075	-0.00002	0.00633
SUM	0.00000	2.89623	-0.29400	-1.83969	0.46865	2.67221

Condition **LC32=1.2D+Di-WI30**

99	0.00300	0.03468	0.00010	0.00033	0.00006	-0.00278
82	-0.05940	0.82730	-0.05940	-1.61354	0.08544	2.35892
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.02891	0.43218	0.03032	0.03561	-0.00234	0.05686
96	-0.04834	0.71494	-0.13376	-0.06522	0.00111	0.02355
97	-0.02054	0.48677	0.00792	0.00200	0.00000	0.01466
98	-0.02449	0.03812	-0.02655	-0.01758	-0.00017	0.02020
102	-0.00287	0.10941	-0.00089	-0.00183	0.00002	0.00281
103	-0.00089	0.08566	-0.00018	-0.00073	-0.00002	0.00314
SUM	-0.18244	2.89623	-0.18243	-1.81271	0.08410	2.71104

Condition **LC33=1.2D+Di-WI60**

99	0.00309	0.03470	0.00008	0.00028	0.00006	-0.00297
82	-0.04243	0.82730	-0.04243	-1.62203	0.06103	2.36741
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.02025	0.43355	0.03553	0.03930	-0.00188	0.05158
96	-0.04440	0.71253	-0.11591	-0.05738	0.00088	0.02056
97	-0.00902	0.48732	0.00697	0.00149	0.00003	0.00871
98	-0.02266	0.03874	-0.02197	-0.01479	-0.00012	0.01846
102	-0.00258	0.10916	-0.00072	-0.00152	0.00002	0.00252
103	-0.00034	0.08576	-0.00015	-0.00060	-0.00002	0.00238
SUM	-0.13859	2.89623	-0.13859	-1.80702	0.06001	2.70233

Condition **LC34=1.2D+Di-WI90**

99	0.00344	0.03476	0.00007	0.00024	0.00006	-0.00370
82	-0.04800	0.82730	0.00000	-1.64324	-0.16056	2.36462
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.02435	0.43607	0.06715	0.05607	-0.00215	0.05450
96	-0.07184	0.71075	-0.08014	-0.03670	0.00127	0.03455
97	-0.01795	0.48489	0.02361	0.01211	-0.00020	0.01602
98	-0.00580	0.04124	-0.00914	-0.00660	-0.00014	0.00610
102	-0.00029	0.10830	-0.00149	-0.00398	0.00002	-0.00083
103	0.00280	0.08574	-0.00006	-0.00033	-0.00002	-0.00150
SUM	-0.16200	2.89623	0.00000	-1.77418	-0.16171	2.70344

Condition **LC35=1.2D+Di-WI120**

99	0.00379	0.03481	0.00004	0.00016	0.00006	-0.00442
82	-0.04243	0.82730	0.04243	-1.66445	-0.34485	2.36741
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.01856	0.43915	0.09447	0.07139	-0.00188	0.05112
96	-0.08682	0.70785	-0.03784	-0.01501	0.00133	0.04066
97	-0.01164	0.48574	0.03537	0.01935	-0.00035	0.01450
98	0.00942	0.04121	0.00590	0.00279	-0.00009	-0.00539

102	0.00178	0.10719	-0.00183	-0.00543	0.00002	-0.00370
103	0.00586	0.08581	0.00005	0.00004	-0.00001	-0.00536
SUM	-0.13859	2.89623	0.13859	-1.74293	-0.34577	2.68850

Condition **LC36=1.2D+Di-WI150**

99	0.00396	0.03489	0.00004	0.00015	0.00006	-0.00477
82	-0.05940	0.82730	0.05940	-1.67294	-0.48279	2.35892
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.02647	0.43956	0.10743	0.07772	-0.00233	0.05622
96	-0.10124	0.70918	-0.03176	-0.00978	0.00165	0.04898
97	-0.02296	0.47835	0.04198	0.02376	-0.00045	0.02136
98	0.01424	0.04669	0.00756	0.00424	-0.00013	-0.00918
102	0.00260	0.10721	-0.00229	-0.00664	0.00002	-0.00498
103	0.00682	0.08587	0.00009	0.00012	-0.00001	-0.00662
SUM	-0.18244	2.89623	0.18243	-1.73514	-0.48398	2.69360

Condition **LC37=1.2D+1.6LL1**

99	0.00199	0.02423	-0.00010	-0.00034	0.00003	-0.00225
82	0.00000	0.56730	0.00000	-0.80997	0.00000	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00320	0.20440	0.02244	0.02234	-0.00018	0.01569
96	-0.01983	0.33821	-0.02497	-0.01377	0.00009	0.00770
97	0.01317	0.28229	-0.00012	-0.00148	-0.00001	-0.00485
98	0.00490	0.11637	0.00079	0.00035	-0.00004	-0.00326
102	-0.01085	0.36164	0.00168	0.00524	0.00012	0.00957
103	0.00741	0.02527	0.00028	0.00068	-0.00006	-0.00621
SUM	0.00000	2.08690	0.00000	-0.94870	-0.00005	1.43340

Condition **LC38=1.2D+1.6LL2**

99	0.00128	0.02286	0.00003	0.00010	0.00002	-0.00125
82	0.00000	0.56730	0.00000	-0.80997	0.00000	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00323	0.20447	0.02392	0.02304	-0.00018	0.01552
96	-0.01496	0.73534	-0.02657	-0.01505	0.00009	0.00459
97	0.01624	0.27832	0.00379	-0.00004	0.00005	-0.00694
98	-0.00579	0.01387	-0.00111	-0.00187	0.00003	0.00525
102	-0.00071	0.05326	-0.00001	-0.00034	0.00000	0.00066
103	0.00071	0.04430	-0.00005	-0.00014	-0.00001	0.00003
SUM	0.00000	2.08690	0.00000	-0.95603	0.00001	1.43488

Condition **LC39=1.2D+1.6LL3**

99	0.00114	0.42262	0.00000	0.00001	0.00002	-0.00115
82	0.00000	0.56730	0.00000	-0.80997	0.00000	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00322	0.20446	0.02373	0.02300	-0.00018	0.01554
96	-0.01505	0.33542	-0.02639	-0.01499	0.00009	0.00459
97	0.01617	0.27822	0.00376	-0.00009	0.00005	-0.00696
98	-0.00568	0.01379	-0.00107	-0.00180	0.00003	0.00507
102	-0.00065	0.05323	-0.00002	-0.00038	0.00000	0.00056
103	0.00084	0.04468	0.00000	0.00003	-0.00001	-0.00024
SUM	0.00000	2.08690	0.00000	-0.95595	0.00001	1.43443

Condition **LC40=1.2D+WL0+1.6LLa1**

99	0.00185	0.02313	0.00002	0.00007	0.00003	-0.00235
82	0.00000	0.56730	0.03200	-0.82597	-0.15307	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01032	0.60275	0.09559	0.10177	-0.00055	0.06924
96	-0.01352	0.75168	-0.06071	-0.03152	0.00065	0.00783
97	-0.01286	0.24373	0.02248	0.01399	-0.00024	0.01242
98	0.00883	0.03315	0.00612	0.00382	-0.00008	-0.00648
102	0.00184	0.05345	-0.00156	-0.00437	0.00001	-0.00340
103	0.00356	0.04453	0.00006	0.00007	0.00000	-0.00374
SUM	0.00000	2.48690	0.09400	-0.89391	-0.15326	1.49056

Condition **LC41=1.2D+WL30+1.6LLa1**

99	0.00176	0.02309	0.00001	0.00003	0.00003	-0.00218
82	0.01980	0.56730	0.01980	-0.81987	-0.02848	1.19324
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.02132	0.60273	0.08375	0.09633	0.00007	0.06217
96	0.00512	0.75021	-0.06249	-0.03536	0.00024	-0.00330
97	0.00460	0.24916	0.01451	0.00862	-0.00010	0.00197
98	0.00416	0.02930	0.00615	0.00354	-0.00002	-0.00329
102	0.00117	0.05333	-0.00096	-0.00287	0.00001	-0.00225
103	0.00289	0.04459	0.00004	0.00010	0.00000	-0.00295
SUM	0.06081	2.48690	0.06081	-0.90124	-0.02827	1.47710

Condition **LC42=1.2D+WL60+1.6LLa1**

99	0.00167	0.02306	0.00002	0.00007	0.00003	-0.00200
82	0.01273	0.56730	0.01273	-0.81633	-0.01831	1.18970
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01827	0.60220	0.08165	0.09484	-0.00009	0.06399
96	0.00357	0.75120	-0.06889	-0.03811	0.00031	-0.00203
97	0.00009	0.25053	0.01426	0.00838	-0.00011	0.00423
98	0.00275	0.02748	0.00364	0.00190	-0.00004	-0.00190
102	0.00089	0.05344	-0.00100	-0.00289	0.00001	-0.00191
103	0.00246	0.04450	0.00002	0.00001	0.00000	-0.00234
SUM	0.04243	2.48690	0.04243	-0.90389	-0.01821	1.48143

Condition **LC43=1.2D+WL90+1.6LLa1**

99	0.00161	0.02306	0.00002	0.00006	0.00003	-0.00188
82	0.01400	0.56730	0.00000	-0.80997	0.04683	1.19034
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01892	0.60138	0.07218	0.08977	-0.00004	0.06345
96	0.01246	0.75202	-0.08096	-0.04505	0.00021	-0.00670
97	0.00306	0.24980	0.00938	0.00522	-0.00004	0.00177
98	-0.00204	0.02790	0.00013	-0.00024	-0.00003	0.00140
102	0.00032	0.05369	-0.00077	-0.00217	0.00001	-0.00105
103	0.00167	0.04457	0.00000	-0.00003	0.00000	-0.00141
SUM	0.05000	2.48690	0.00000	-0.91417	0.04696	1.47961

Condition **LC44=1.2D+WL120+1.6LLa1**

99	0.00150	0.02305	0.00003	0.00009	0.00003	-0.00163
82	0.01273	0.56730	-0.01273	-0.80360	0.10345	1.18970
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01768	0.60047	0.06296	0.08473	-0.00010	0.06425
96	0.01640	0.75278	-0.09345	-0.05142	0.00017	-0.00811
97	0.00054	0.24914	0.00602	0.00332	0.00000	0.00276
98	-0.00675	0.02838	-0.00452	-0.00316	-0.00005	0.00500

102	-0.00034	0.05407	-0.00070	-0.00179	0.00001	-0.00015
103	0.00067	0.04453	-0.00003	-0.00017	0.00000	-0.00014
SUM	0.04243	2.48690	-0.04243	-0.92377	0.10352	1.48536

Condition **LC45=1.2D+WL150+1.6LLa1**

99	0.00140	0.02300	0.00003	0.00010	0.00002	-0.00146
82	0.01980	0.56730	-0.01980	-0.80007	0.16093	1.19324
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.02056	0.60027	0.05844	0.08246	0.00007	0.06229
96	0.02297	0.75201	-0.09612	-0.05365	0.00005	-0.01188
97	0.00570	0.25359	0.00273	0.00099	0.00005	-0.00053
98	-0.00909	0.02500	-0.00558	-0.00403	-0.00003	0.00688
102	-0.00075	0.05405	-0.00046	-0.00118	0.00001	0.00049
103	0.00021	0.04449	-0.00005	-0.00020	-0.00001	0.00047
SUM	0.06081	2.48690	-0.06081	-0.92734	0.16110	1.48320

Condition **LC46=1.2D-WL0+1.6LLa1**

99	0.00133	0.02300	0.00005	0.00017	0.00003	-0.00130
82	0.00000	0.56730	-0.03200	-0.79397	0.15307	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00901	0.59896	0.05628	0.08026	-0.00056	0.06957
96	0.01275	0.75450	-0.11269	-0.05981	0.00038	-0.00490
97	-0.01188	0.25008	0.00595	0.00331	-0.00002	0.00923
98	-0.01004	0.02704	-0.01064	-0.00701	-0.00010	0.00804
102	-0.00090	0.05446	-0.00086	-0.00199	0.00002	0.00050
103	-0.00027	0.04437	-0.00008	-0.00037	-0.00001	0.00116
SUM	0.00000	2.48690	-0.09400	-0.93116	0.15280	1.49931

Condition **LC47=1.2D-WL30+1.6LLa1**

99	0.00142	0.02305	0.00006	0.00021	0.00003	-0.00147
82	-0.01980	0.56730	-0.01980	-0.80007	0.02848	1.17344
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00199	0.59898	0.06813	0.08570	-0.00119	0.07664
96	-0.00589	0.75597	-0.11091	-0.05597	0.00079	0.00623
97	-0.02935	0.24465	0.01391	0.00868	-0.00015	0.01969
98	-0.00537	0.03089	-0.01067	-0.00673	-0.00016	0.00485
102	-0.00023	0.05458	-0.00146	-0.00350	0.00002	-0.00065
103	0.00040	0.04431	-0.00007	-0.00039	0.00000	0.00037
SUM	-0.06081	2.48690	-0.06081	-0.92383	0.02781	1.51277

Condition **LC48=1.2D-WL60+1.6LLa1**

99	0.00151	0.02308	0.00005	0.00017	0.00003	-0.00164
82	-0.01273	0.56730	-0.01273	-0.80360	0.01831	1.17697
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00106	0.59951	0.07023	0.08719	-0.00102	0.07482
96	-0.00434	0.75497	-0.10451	-0.05323	0.00072	0.00496
97	-0.02484	0.24327	0.01417	0.00892	-0.00015	0.01742
98	-0.00396	0.03271	-0.00816	-0.00509	-0.00015	0.00346
102	0.00004	0.05447	-0.00142	-0.00348	0.00002	-0.00099
103	0.00083	0.04439	-0.00005	-0.00030	0.00000	-0.00024
SUM	-0.04243	2.48690	-0.04243	-0.92118	0.01776	1.50844

Condition **LC49=1.2D-WL90+1.6LLa1**

99	0.00157	0.02307	0.00005	0.00018	0.00003	-0.00177
82	-0.01400	0.56730	0.00000	-0.80997	-0.04683	1.17634
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00041	0.60033	0.07969	0.09226	-0.00107	0.07536
96	-0.01323	0.75416	-0.09245	-0.04628	0.00082	0.00963
97	-0.02781	0.24401	0.01904	0.01208	-0.00022	0.01988
98	0.00083	0.03229	-0.00466	-0.00295	-0.00015	0.00016
102	0.00062	0.05422	-0.00166	-0.00420	0.00002	-0.00185
103	0.00162	0.04433	-0.00003	-0.00026	0.00000	-0.00117
SUM	-0.05000	2.48690	0.00000	-0.91090	-0.04741	1.51026

Condition **LC50=1.2D-WL120+1.6LLa1**

99	0.00169	0.02309	0.00004	0.00015	0.00003	-0.00202
82	-0.01273	0.56730	0.01273	-0.81633	-0.10346	1.17697
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00165	0.60124	0.08892	0.09730	-0.00102	0.07456
96	-0.01717	0.75339	-0.07995	-0.03991	0.00086	0.01104
97	-0.02529	0.24466	0.02241	0.01398	-0.00026	0.01889
98	0.00554	0.03181	0.00000	-0.00003	-0.00014	-0.00344
102	0.00128	0.05384	-0.00172	-0.00458	0.00002	-0.00275
103	0.00261	0.04437	0.00001	-0.00013	0.00000	-0.00244
SUM	-0.04243	2.48690	0.04243	-0.90130	-0.10397	1.50451

Condition **LC51=1.2D-WL150+1.6LLa1**

99	0.00178	0.02313	0.00004	0.00014	0.00003	-0.00219
82	-0.01980	0.56730	0.01980	-0.81987	-0.16093	1.17344
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00124	0.60144	0.09343	0.09957	-0.00118	0.07652
96	-0.02374	0.75417	-0.07728	-0.03768	0.00098	0.01481
97	-0.03045	0.24021	0.02569	0.01631	-0.00031	0.02218
98	0.00788	0.03519	0.00106	0.00084	-0.00015	-0.00533
102	0.00168	0.05387	-0.00196	-0.00519	0.00002	-0.00339
103	0.00308	0.04441	0.00003	-0.00009	0.00000	-0.00305
SUM	-0.06081	2.48690	0.06081	-0.89773	-0.16155	1.50667

Condition **LC52=1.2D+WL0+1.6LLa2**

99	-0.00022	0.02192	0.00022	0.00073	0.00001	0.00160
82	0.00000	0.56730	0.03200	-0.82597	-0.15307	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00641	0.20330	0.03572	0.02575	-0.00002	0.00928
96	-0.05324	0.53241	0.00828	0.00089	-0.00009	0.02028
97	0.06190	0.99228	0.01277	-0.00533	0.00013	-0.03202
98	-0.01068	-0.09010	0.00488	-0.00443	0.00022	0.01624
102	-0.00279	0.05013	0.00051	-0.00042	-0.00002	0.00325
103	-0.00138	0.04248	-0.00039	-0.00107	-0.00001	0.00435
SUM	0.00000	2.48690	0.09400	-0.96161	-0.15284	1.43999

Condition **LC53=1.2D+WL30+1.6LLa2**

99	-0.00031	0.02188	0.00021	0.00069	0.00001	0.00176
82	0.01980	0.56730	0.01980	-0.81987	-0.02848	1.19324
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01741	0.20328	0.02387	0.02031	0.00060	0.00221
96	-0.03460	0.53094	0.00650	-0.00294	-0.00050	0.00914
97	0.07937	0.99770	0.00481	-0.01070	0.00027	-0.04248
98	-0.01535	-0.09394	0.00491	-0.00471	0.00029	0.01942

102	-0.00346	0.05001	0.00111	0.00108	-0.00003	0.00440
103	-0.00205	0.04254	-0.00040	-0.00105	-0.00001	0.00514
SUM	0.06081	2.48690	0.06081	-0.96894	-0.02785	1.42652

Condition **LC54=1.2D+WL60+1.6LLa2**

99	-0.00039	0.02185	0.00022	0.00073	0.00001	0.00194
82	0.01273	0.56730	0.01273	-0.81633	-0.01831	1.18970
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01436	0.20275	0.02177	0.01882	0.00044	0.00403
96	-0.03616	0.53193	0.00010	-0.00569	-0.00043	0.01041
97	0.07485	0.99908	0.00455	-0.01094	0.00026	-0.04021
98	-0.01676	-0.09577	0.00240	-0.00634	0.00027	0.02081
102	-0.00373	0.05012	0.00108	0.00106	-0.00002	0.00474
103	-0.00248	0.04246	-0.00042	-0.00114	-0.00001	0.00575
SUM	0.04243	2.48690	0.04243	-0.97159	-0.01780	1.43086

Condition **LC55=1.2D+WL90+1.6LLa2**

99	-0.00045	0.02185	0.00021	0.00072	0.00001	0.00206
82	0.01400	0.56730	0.00000	-0.80997	0.04683	1.19034
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01501	0.20193	0.01231	0.01375	0.00049	0.00349
96	-0.02726	0.53275	-0.01197	-0.01264	-0.00052	0.00574
97	0.07782	0.99834	-0.00032	-0.01410	0.00033	-0.04267
98	-0.02155	-0.09534	-0.00111	-0.00848	0.00027	0.02411
102	-0.00431	0.05036	0.00131	0.00178	-0.00002	0.00560
103	-0.00326	0.04252	-0.00044	-0.00118	-0.00001	0.00667
SUM	0.05000	2.48690	0.00000	-0.98188	0.04737	1.42904

Condition **LC56=1.2D+WL120+1.6LLa2**

99	-0.00057	0.02183	0.00023	0.00076	0.00001	0.00231
82	0.01273	0.56730	-0.01273	-0.80360	0.10345	1.18970
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01377	0.20102	0.00308	0.00870	0.00043	0.00428
96	-0.02332	0.53351	-0.02447	-0.01901	-0.00056	0.00433
97	0.07531	0.99769	-0.00369	-0.01600	0.00037	-0.04168
98	-0.02626	-0.09486	-0.00576	-0.01141	0.00026	0.02771
102	-0.00497	0.05074	0.00138	0.00216	-0.00002	0.00649
103	-0.00426	0.04248	-0.00048	-0.00131	-0.00002	0.00794
SUM	0.04243	2.48690	-0.04243	-0.99147	0.10393	1.43478

Condition **LC57=1.2D+WL150+1.6LLa2**

99	-0.00066	0.02179	0.00023	0.00076	0.00001	0.00249
82	0.01980	0.56730	-0.01980	-0.80007	0.16093	1.19324
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01665	0.20082	-0.00143	0.00644	0.00060	0.00233
96	-0.01675	0.53274	-0.02713	-0.02124	-0.00068	0.00056
97	0.08046	1.00214	-0.00697	-0.01833	0.00042	-0.04497
98	-0.02859	-0.09824	-0.00682	-0.01228	0.00028	0.02960
102	-0.00537	0.05072	0.00161	0.00277	-0.00003	0.00713
103	-0.00473	0.04244	-0.00050	-0.00135	-0.00002	0.00856
SUM	0.06081	2.48690	-0.06081	-0.99505	0.16151	1.43262

Condition **LC58=1.2D-WL0+1.6LLa2**

99	-0.00073	0.02179	0.00025	0.00084	0.00001	0.00264
82	0.00000	0.56730	-0.03200	-0.79397	0.15307	1.18334
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00510	0.19952	-0.00360	0.00423	-0.00004	0.00961
96	-0.02697	0.53523	-0.04371	-0.02739	-0.00035	0.00754
97	0.06288	0.99862	-0.00376	-0.01601	0.00035	-0.03521
98	-0.02955	-0.09620	-0.01188	-0.01525	0.00020	0.03075
102	-0.00553	0.05114	0.00122	0.00196	-0.00002	0.00714
103	-0.00521	0.04232	-0.00053	-0.00151	-0.00002	0.00924
SUM	0.00000	2.48690	-0.09400	-0.99887	0.15321	1.44873

Condition **LC59=1.2D-WL30+1.6LLa2**

99	-0.00065	0.02183	0.00026	0.00088	0.00002	0.00248
82	-0.01980	0.56730	-0.01980	-0.80007	0.02848	1.17344
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00590	0.19953	0.00825	0.00967	-0.00066	0.01668
96	-0.04562	0.53670	-0.04192	-0.02356	0.00006	0.01867
97	0.04542	0.99320	0.00420	-0.01064	0.00022	-0.02475
98	-0.02488	-0.09235	-0.01191	-0.01498	0.00014	0.02756
102	-0.00486	0.05125	0.00062	0.00045	-0.00001	0.00599
103	-0.00453	0.04226	-0.00051	-0.00154	-0.00002	0.00845
SUM	-0.06081	2.48690	-0.06081	-0.99154	0.02822	1.46220

Condition **LC60=1.2D-WL60+1.6LLa2**

99	-0.00056	0.02186	0.00025	0.00084	0.00002	0.00230
82	-0.01273	0.56730	-0.01273	-0.80360	0.01831	1.17697
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00285	0.20007	0.01035	0.01116	-0.00049	0.01485
96	-0.04406	0.53570	-0.03553	-0.02081	-0.00001	0.01740
97	0.04993	0.99182	0.00446	-0.01040	0.00022	-0.02702
98	-0.02347	-0.09053	-0.00940	-0.01334	0.00016	0.02617
102	-0.00458	0.05115	0.00065	0.00047	-0.00001	0.00566
103	-0.00411	0.04235	-0.00049	-0.00145	-0.00001	0.00785
SUM	-0.04243	2.48690	-0.04243	-0.98888	0.01817	1.45787

Condition **LC61=1.2D-WL90+1.6LLa2**

99	-0.00050	0.02186	0.00025	0.00085	0.00002	0.00217
82	-0.01400	0.56730	0.00000	-0.80997	-0.04683	1.17634
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00350	0.20088	0.01982	0.01623	-0.00055	0.01539
96	-0.05296	0.53489	-0.02346	-0.01386	0.00008	0.02207
97	0.04696	0.99255	0.00933	-0.00724	0.00015	-0.02456
98	-0.01868	-0.09095	-0.00590	-0.01120	0.00015	0.02287
102	-0.00400	0.05090	0.00042	-0.00025	-0.00001	0.00479
103	-0.00332	0.04228	-0.00047	-0.00141	-0.00001	0.00692
SUM	-0.05000	2.48690	0.00000	-0.97860	-0.04700	1.45969

Condition **LC62=1.2D-WL120+1.6LLa2**

99	-0.00038	0.02188	0.00024	0.00081	0.00001	0.00193
82	-0.01273	0.56730	0.01273	-0.81633	-0.10346	1.17697
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00226	0.20180	0.02904	0.02128	-0.00049	0.01460
96	-0.05689	0.53412	-0.01096	-0.00750	0.00012	0.02348
97	0.04947	0.99321	0.01270	-0.00534	0.00011	-0.02555
98	-0.01397	-0.09143	-0.00125	-0.00827	0.00017	0.01927

102	-0.00335	0.05052	0.00035	-0.00063	-0.00001	0.00390
103	-0.00232	0.04232	-0.00043	-0.00127	-0.00001	0.00565
SUM	-0.04243	2.48690	0.04243	-0.96900	-0.10356	1.45394

Condition **LC63=1.2D-WL150+1.6LLa2**

99	-0.00029	0.02192	0.00024	0.00081	0.00002	0.00175
82	-0.01980	0.56730	0.01980	-0.81987	-0.16093	1.17344
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00514	0.20199	0.03356	0.02354	-0.00066	0.01655
96	-0.06347	0.53490	-0.00829	-0.00527	0.00024	0.02725
97	0.04432	0.98876	0.01599	-0.00301	0.00006	-0.02226
98	-0.01163	-0.08805	-0.00018	-0.00740	0.00015	0.01739
102	-0.00294	0.05054	0.00012	-0.00124	-0.00001	0.00326
103	-0.00186	0.04236	-0.00042	-0.00124	-0.00001	0.00504
SUM	-0.06081	2.48690	0.06081	-0.96543	-0.16114	1.45610

Condition **LC64=1.2D+WL0+1.6LLa3**

99	0.00156	0.02294	0.00001	0.00004	0.00002	-0.00182
82	-0.00001	1.36730	0.03200	-3.50180	-0.15309	5.00999
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00387	0.20635	0.04337	0.03374	-0.00017	0.01537
96	-0.02823	0.33405	-0.00039	-0.00084	0.00022	0.01098
97	0.01563	0.27498	0.01205	0.00526	-0.00006	-0.00533
98	0.00375	0.01692	0.00730	0.00359	0.00004	-0.00215
102	0.00071	0.05278	-0.00036	-0.00151	0.00000	-0.00135
103	0.00269	0.04440	0.00003	0.00011	-0.00001	-0.00253
SUM	-0.00001	2.48690	0.09400	-3.61316	-0.15304	5.25684

Condition **LC65=1.2D+WL30+1.6LLa3**

99	0.00148	0.02290	0.00000	0.00000	0.00002	-0.00166
82	0.01979	1.36730	0.01980	-3.49570	-0.02851	5.01989
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01488	0.20633	0.03152	0.02830	0.00045	0.00830
96	-0.00958	0.33258	-0.00217	-0.00467	-0.00019	-0.00015
97	0.03310	0.28041	0.00408	-0.00011	0.00007	-0.01579
98	-0.00092	0.01308	0.00733	0.00332	0.00011	0.00104
102	0.00004	0.05267	0.00024	0.00000	-0.00001	-0.00020
103	0.00202	0.04446	0.00001	0.00013	-0.00001	-0.00174
SUM	0.06080	2.48690	0.06081	-3.62049	-0.02805	5.24338

Condition **LC66=1.2D+WL60+1.6LLa3**

99	0.00139	0.02286	0.00001	0.00004	0.00002	-0.00148
82	0.01272	1.36730	0.01273	-3.49217	-0.01833	5.01635
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01183	0.20580	0.02942	0.02681	0.00029	0.01012
96	-0.01114	0.33357	-0.00857	-0.00742	-0.00012	0.00112
97	0.02858	0.28179	0.00383	-0.00035	0.00006	-0.01352
98	-0.00233	0.01125	0.00482	0.00168	0.00009	0.00243
102	-0.00023	0.05277	0.00021	-0.00002	0.00000	0.00014
103	0.00160	0.04438	-0.00001	0.00004	-0.00001	-0.00114
SUM	0.04242	2.48690	0.04243	-3.62315	-0.01800	5.24771

Condition **LC67=1.2D+WL90+1.6LLa3**

99	0.00133	0.02287	0.00001	0.00003	0.00002	-0.00135
82	0.01399	1.36730	0.00000	-3.48580	0.04680	5.01699
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01248	0.20498	0.01996	0.02174	0.00034	0.00958
96	-0.00224	0.33439	-0.02064	-0.01437	-0.00021	-0.00355
97	0.03155	0.28105	-0.00105	-0.00351	0.00014	-0.01598
98	-0.00712	0.01168	0.00131	-0.00046	0.00010	0.00573
102	-0.00081	0.05302	0.00044	0.00070	-0.00001	0.00100
103	0.00081	0.04444	-0.00003	0.00000	-0.00001	-0.00021
SUM	0.04999	2.48690	0.00000	-3.63343	0.04717	5.24589

Condition **LC68=1.2D+WL120+1.6LLa3**

99	0.00121	0.02285	0.00002	0.00006	0.00002	-0.00111
82	0.01272	1.36730	-0.01273	-3.47944	0.10343	5.01635
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01124	0.20407	0.01073	0.01670	0.00028	0.01038
96	0.00169	0.33515	-0.03314	-0.02074	-0.00025	-0.00496
97	0.02904	0.28040	-0.00441	-0.00541	0.00018	-0.01500
98	-0.01182	0.01215	-0.00334	-0.00339	0.00008	0.00933
102	-0.00147	0.05340	0.00051	0.00108	0.00000	0.00190
103	-0.00019	0.04440	-0.00007	-0.00013	-0.00001	0.00106
SUM	0.04242	2.48690	-0.04243	-3.64302	0.10373	5.25164

Condition **LC69=1.2D+WL150+1.6LLa3**

99	0.00112	0.02281	0.00002	0.00007	0.00002	-0.00093
82	0.01979	1.36730	-0.01980	-3.47590	0.16091	5.01989
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.01412	0.20387	0.00622	0.01443	0.00045	0.00842
96	0.00827	0.33438	-0.03581	-0.02296	-0.00037	-0.00873
97	0.03419	0.28484	-0.00770	-0.00774	0.00022	-0.01828
98	-0.01416	0.00878	-0.00440	-0.00426	0.00010	0.01122
102	-0.00187	0.05338	0.00074	0.00169	-0.00001	0.00254
103	-0.00065	0.04436	-0.00008	-0.00017	-0.00001	0.00167
SUM	0.06080	2.48690	-0.06081	-3.64660	0.16132	5.24948

Condition **LC70=1.2D-WL0+1.6LLa3**

99	0.00105	0.02281	0.00004	0.00014	0.00002	-0.00078
82	-0.00001	1.36730	-0.03200	-3.46980	0.15304	5.00999
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	0.00257	0.20256	0.00405	0.01223	-0.00018	0.01570
96	-0.00196	0.33687	-0.05238	-0.02912	-0.00004	-0.00176
97	0.01661	0.28133	-0.00448	-0.00542	0.00015	-0.00852
98	-0.01512	0.01082	-0.00947	-0.00723	0.00003	0.01237
102	-0.00203	0.05379	0.00035	0.00087	0.00000	0.00255
103	-0.00113	0.04424	-0.00011	-0.00034	-0.00001	0.00236
SUM	-0.00001	2.48690	-0.09400	-3.65042	0.15302	5.26559

Condition **LC71=1.2D-WL30+1.6LLa3**

99	0.00113	0.02285	0.00005	0.00018	0.00002	-0.00094
82	-0.01981	1.36730	-0.01980	-3.47590	0.02846	5.00009
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00843	0.20258	0.01590	0.01767	-0.00081	0.02277
96	-0.02060	0.33834	-0.05059	-0.02529	0.00037	0.00937
97	-0.00085	0.27590	0.00348	-0.00005	0.00002	0.00193
98	-0.01045	0.01466	-0.00950	-0.00695	-0.00004	0.00918

102	-0.00136	0.05391	-0.00025	-0.00063	0.00001	0.00140
103	-0.00046	0.04418	-0.00010	-0.00036	-0.00001	0.00157
SUM	-0.06082	2.48690	-0.06081	-3.64309	0.02803	5.27905

Condition **LC72=1.2D-WL60+1.6LLa3**

99	0.00122	0.02288	0.00004	0.00014	0.00002	-0.00112
82	-0.01274	1.36730	-0.01273	-3.47944	0.01829	5.00362
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00538	0.20311	0.01800	0.01916	-0.00064	0.02095
96	-0.01904	0.33734	-0.04420	-0.02254	0.00030	0.00811
97	0.00366	0.27452	0.00374	0.00019	0.00003	-0.00034
98	-0.00903	0.01649	-0.00699	-0.00532	-0.00002	0.00779
102	-0.00108	0.05380	-0.00022	-0.00061	0.00001	0.00106
103	-0.00003	0.04426	-0.00008	-0.00027	-0.00001	0.00096
SUM	-0.04243	2.48690	-0.04243	-3.64043	0.01797	5.27472

Condition **LC73=1.2D-WL90+1.6LLa3**

99	0.00128	0.02288	0.00004	0.00015	0.00002	-0.00124
82	-0.01401	1.36730	0.00000	-3.48580	-0.04685	5.00299
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00603	0.20393	0.02747	0.02423	-0.00069	0.02149
96	-0.02794	0.33653	-0.03213	-0.01559	0.00040	0.01278
97	0.00069	0.27526	0.00861	0.00335	-0.00004	0.00213
98	-0.00425	0.01606	-0.00348	-0.00318	-0.00003	0.00449
102	-0.00051	0.05356	-0.00045	-0.00133	0.00001	0.00020
103	0.00075	0.04420	-0.00006	-0.00023	-0.00001	0.00004
SUM	-0.05001	2.48690	0.00000	-3.63015	-0.04720	5.27654

Condition **LC74=1.2D-WL120+1.6LLa3**

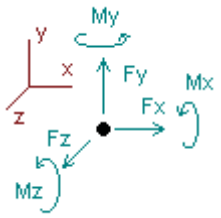
99	0.00140	0.02289	0.00003	0.00012	0.00002	-0.00149
82	-0.01274	1.36730	0.01273	-3.49217	-0.10348	5.00362
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00479	0.20485	0.03669	0.02927	-0.00064	0.02069
96	-0.03188	0.33576	-0.01963	-0.00922	0.00043	0.01418
97	0.00320	0.27591	0.01198	0.00525	-0.00008	0.00114
98	0.00046	0.01558	0.00117	-0.00025	-0.00001	0.00089
102	0.00015	0.05318	-0.00052	-0.00171	0.00000	-0.00070
103	0.00175	0.04424	-0.00002	-0.00009	-0.00001	-0.00124
SUM	-0.04243	2.48690	0.04243	-3.62056	-0.10376	5.27080

Condition **LC75=1.2D-WL150+1.6LLa3**

99	0.00149	0.02294	0.00003	0.00011	0.00002	-0.00167
82	-0.01981	1.36730	0.01980	-3.49570	-0.16095	5.00009
83	0.00000	0.16718	0.00000	-0.15176	0.00000	0.23369
95	-0.00768	0.20504	0.04121	0.03154	-0.00080	0.02265
96	-0.03845	0.33654	-0.01696	-0.00699	0.00055	0.01796
97	-0.00195	0.27146	0.01526	0.00758	-0.00013	0.00442
98	0.00280	0.01896	0.00223	0.00062	-0.00003	-0.00100
102	0.00056	0.05320	-0.00075	-0.00232	0.00001	-0.00133
103	0.00222	0.04428	0.00000	-0.00006	-0.00001	-0.00185
SUM	-0.06082	2.48690	0.06081	-3.61698	-0.16134	5.27296

Envelope for nodal reactions

Note.- **Ic** is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1

LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

		Forces						Moments					
Node		**Fx** [Kip]	**lc**	**Fy** [Kip]	**lc**	**Fz** [Kip]	**lc**	**Mx** [Kip*ft]	**lc**	**My** [Kip*ft]	**lc**	**Mz** [Kip*ft]	**lc**
99	Max	0.038	LC3	0.423	LC39	0.097	LC12	0.23654	LC12	0.00180	LC8	0.08514	LC14
	Min	-0.036	LC21	0.004	LC18	-0.097	LC18	-0.23638	LC18	-0.00176	LC14	-0.08741	LC8
82	Max	0.386	LC16	1.367	LC65	0.641	LC13	-0.34709	LC19	3.48087	LC18	5.01989	LC65
	Min	-0.386	LC10	0.425	LC20	-0.641	LC7	-3.50180	LC64	-3.48087	LC12	0.72698	LC20
83	Max	0.000	LC1	0.167	LC1	0.000	LC1	-0.11382	LC13	0.00000	LC1	0.23369	LC1
	Min	0.000	LC1	0.125	LC13	0.000	LC1	-0.15176	LC1	0.00000	LC1	0.17526	LC13
95	Max	0.463	LC4	0.603	LC40	0.554	LC12	0.35930	LC11	0.01518	LC16	0.61344	LC10
	Min	-0.457	LC22	0.047	LC20	-0.512	LC18	-0.31908	LC17	-0.01549	LC10	-0.58625	LC16
96	Max	0.574	LC17	0.756	LC47	0.680	LC14	0.36033	LC13	0.01060	LC12	0.35212	LC11
	Min	-0.601	LC11	0.036	LC15	-0.726	LC8	-0.38654	LC7	-0.01045	LC18	-0.34405	LC17
97	Max	0.679	LC4	1.188	LC6	0.482	LC12	0.32850	LC24	0.00394	LC5	0.38342	LC22
	Min	-0.651	LC22	-0.702	LC24	-0.475	LC18	-0.32864	LC6	-0.00386	LC23	-0.39554	LC4
98	Max	0.303	LC24	0.885	LC12	0.378	LC14	0.24550	LC14	0.00240	LC4	0.25885	LC6
	Min	-0.313	LC6	-0.861	LC18	-0.380	LC8	-0.24868	LC8	-0.00234	LC22	-0.24991	LC24
102	Max	0.044	LC20	0.362	LC37	0.176	LC14	0.42023	LC14	0.00104	LC12	0.15297	LC2
	Min	-0.045	LC2	0.028	LC15	-0.176	LC8	-0.42078	LC8	-0.00104	LC18	-0.15191	LC20
103	Max	0.141	LC1	0.086	LC26	0.142	LC13	0.34774	LC14	0.00007	LC20	0.31980	LC19
	Min	-0.140	LC19	0.023	LC22	-0.143	LC7	-0.34794	LC8	-0.00008	LC2	-0.31995	LC1

Date: 3/10/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM **Checked By:** MSC

HUDSON Design Group LLC

CHECK CONNECTION CAPACITY (Worst Case)

Reference: AISC Steel Construction Manual 14th Edition (ASD)

Bolt Type = A36 5/8" (Threaded Rod)

Allowable Tensile Load =

F_{Tall} = 6673 lbs.

Allowable Shear Load =

F_{Vall} = 4004 lbs.

TENSILE FORCES

Reaction **F =** 726 lbs. (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 601 lbs. (See Bentley Output)
Reactions in Y direction: 756 lbs. (See Bentley Output)

Resultant: 966 lbs.

No. of Supports = 1
No. of Bolts / Support = 2

Tension Design Load /Bolts =

f_t = 363.00 lbs. < 6673 lbs. **Therefore, OK !**

Shear Design Load / Bolts=

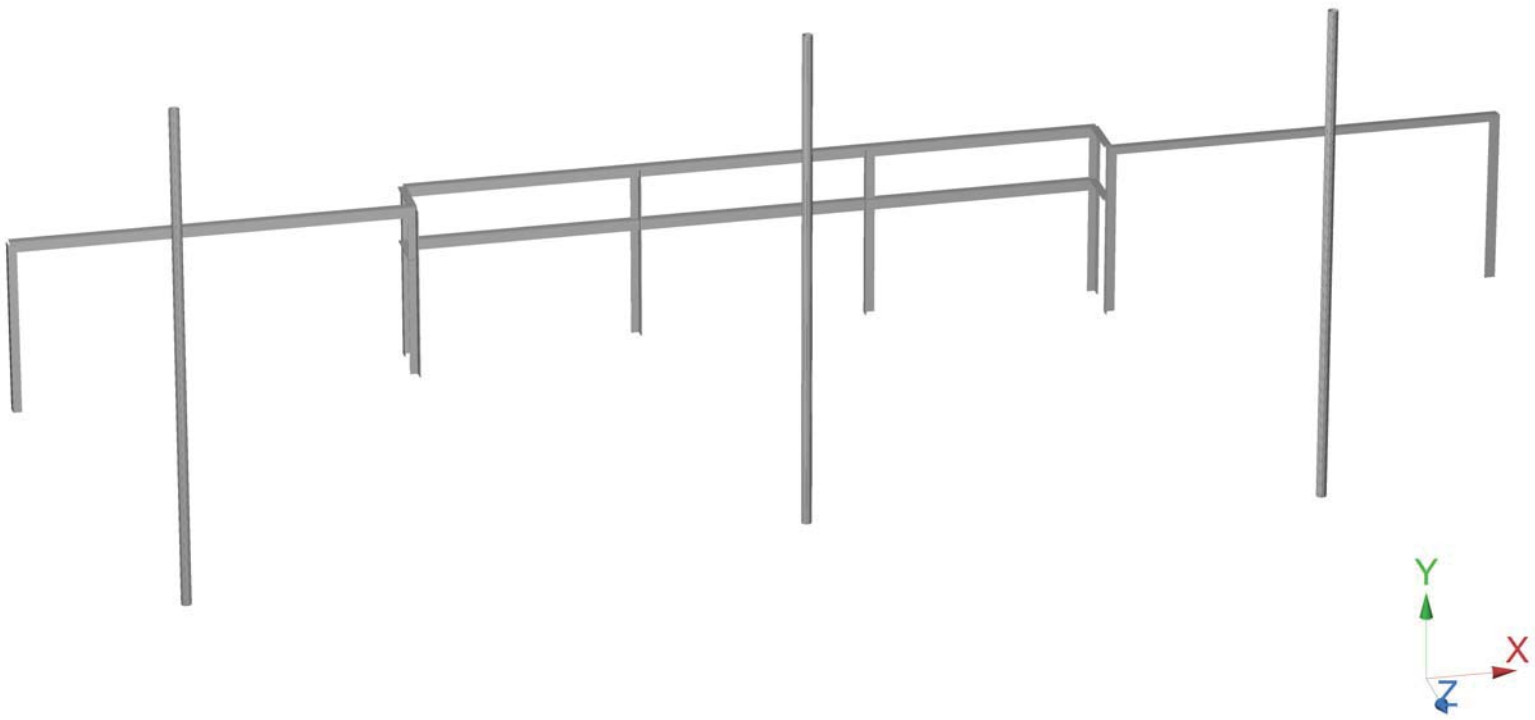
f_v = 482.89 lbs. < 4004 lbs. **Therefore, OK !**

CHECK COMBINED TENSION AND SHEAR

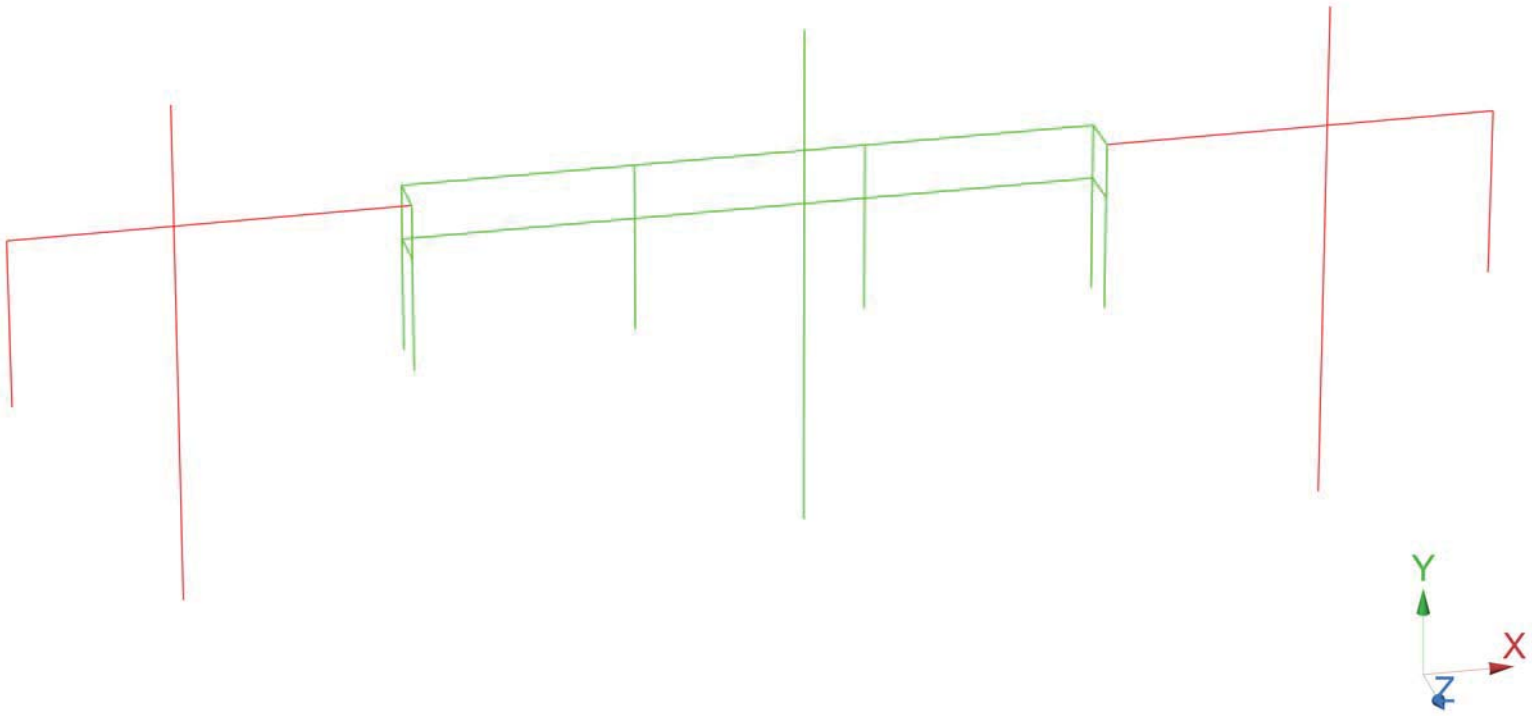
f_t / F_T	+	f_v / F_V	≤	1.0			
0.054	+	0.121	=	0.175	<	1.0	**Therefore, OK !**

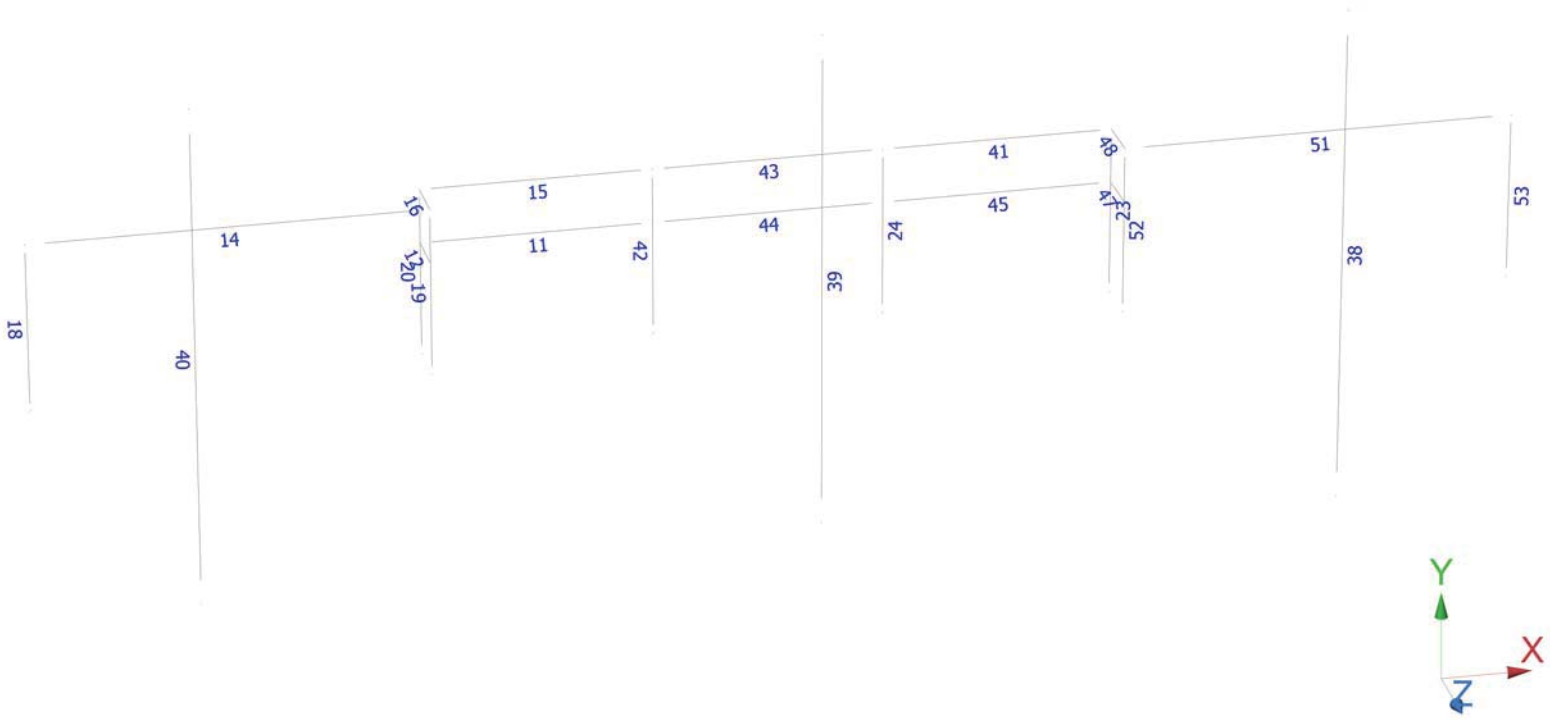
HUDSON
Design Group LLC

Gamma Mount Calculations
(Existing Conditions)


Y
X
Z


A36
LU 2-1_2X2X1_4
A53 GrB
PIPE 2x0.154
Y
X
Z


Y
X
Z


14
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Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/9/2022 10:37 AM
Units system: English

Load data

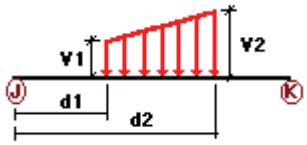
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL

Distributed force on members

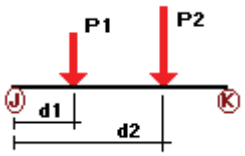


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [in]	%	Dist2 [in]	%
Wo	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	14	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
	45	Z	-0.016	-0.016	0.00	No	100.00	Yes
	51	z	-0.016	0.00	0.00	No	0.00	No
	52	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
W30	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	12	z	-0.016	0.00	0.00	No	0.00	No
	14	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	16	z	-0.016	0.00	0.00	No	0.00	No
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	38	z	-0.009	0.00	0.00	No	0.00	No
	39	z	-0.009	0.00	0.00	No	0.00	No
	40	z	-0.009	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
	45	Z	-0.016	-0.016	0.00	No	100.00	Yes
	47	z	-0.016	0.00	0.00	No	0.00	No
	48	z	-0.016	0.00	0.00	No	0.00	No
	51	z	-0.016	0.00	0.00	No	0.00	No
	52	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
W60	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	14	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	X	-0.016	-0.016	0.00	No	100.00	Yes
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No

	52	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
W90	12	x	-0.016	0.00	0.00	No	0.00	No
	16	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
	52	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
W120	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	14	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	38	x	-0.009	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	X	-0.016	-0.016	0.00	No	100.00	Yes
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	52	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
W150	11	Z	0.016	0.016	0.00	No	100.00	Yes
	12	z	0.016	0.00	0.00	No	0.00	No
	14	z	0.016	0.00	0.00	No	0.00	No
	15	Z	0.016	0.016	0.00	No	100.00	Yes
	16	z	0.016	0.00	0.00	No	0.00	No
	18	z	0.016	0.00	0.00	No	0.00	No
	19	z	0.016	0.00	0.00	No	0.00	No
	20	z	0.016	0.00	0.00	No	0.00	No
	23	z	0.016	0.00	0.00	No	0.00	No
	24	z	0.016	0.00	0.00	No	0.00	No
	38	z	0.009	0.00	0.00	No	0.00	No
	39	z	0.009	0.00	0.00	No	0.00	No
	40	z	0.009	0.00	0.00	No	0.00	No
	41	Z	0.016	0.016	0.00	No	100.00	Yes
	42	Z	0.016	0.016	0.00	No	100.00	Yes
	43	Z	0.016	0.016	0.00	No	100.00	Yes
	44	Z	0.016	0.016	0.00	No	100.00	Yes
	45	Z	0.016	0.016	0.00	No	100.00	Yes
	47	z	0.016	0.00	0.00	No	0.00	No
	48	z	0.016	0.00	0.00	No	0.00	No

	51	z	0.016	0.00	0.00	No	0.00	No
	52	z	0.016	0.00	0.00	No	0.00	No
	53	z	0.016	0.00	0.00	No	0.00	No
Di	11	Y	-0.006	-0.006	0.00	No	100.00	Yes
	12	y	-0.006	0.00	0.00	No	0.00	No
	14	y	-0.006	0.00	0.00	No	0.00	No
	15	Y	-0.006	-0.006	0.00	No	100.00	Yes
	16	y	-0.006	0.00	0.00	No	0.00	No
	18	y	-0.006	0.00	0.00	No	0.00	No
	19	y	-0.006	0.00	0.00	No	0.00	No
	20	y	-0.006	0.00	0.00	No	0.00	No
	23	y	-0.006	0.00	0.00	No	0.00	No
	24	y	-0.006	0.00	0.00	No	0.00	No
	38	y	-0.005	0.00	0.00	No	0.00	No
	39	y	-0.005	0.00	0.00	No	0.00	No
	40	y	-0.005	0.00	0.00	No	0.00	No
	41	Y	-0.006	-0.006	0.00	No	100.00	Yes
	42	Y	-0.006	-0.006	0.00	No	100.00	Yes
	43	Y	-0.006	-0.006	0.00	No	100.00	Yes
	44	Y	-0.006	-0.006	0.00	No	100.00	Yes
	45	Y	-0.006	-0.006	0.00	No	100.00	Yes
	47	y	-0.006	0.00	0.00	No	0.00	No
	48	y	-0.006	0.00	0.00	No	0.00	No
	51	y	-0.006	0.00	0.00	No	0.00	No
	52	y	-0.006	0.00	0.00	No	0.00	No
	53	y	-0.006	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [in]	%
D	38	y	-0.075	18.00	No
		y	-0.075	102.00	No
	39	y	-0.033	27.00	No
		y	-0.033	48.00	No
		y	-0.041	72.00	No
		y	-0.041	93.00	No
	40	y	-0.055	27.00	No
		y	-0.055	93.00	No
Wo	38	z	-0.36	18.00	No
		z	-0.36	102.00	No
	39	z	-0.08	27.00	No
		z	-0.08	48.00	No
		z	-0.078	72.00	No
		z	-0.078	93.00	No
	40	z	-0.265	27.00	No
		z	-0.265	93.00	No
W30	38	3	-0.316	18.00	No
		3	-0.316	102.00	No
	39	3	-0.07	27.00	No

		3	-0.07	48.00	No
		3	-0.072	72.00	No
		3	-0.072	93.00	No
	40	3	-0.227	27.00	No
		3	-0.227	93.00	No
W60	38	3	-0.228	18.00	No
		3	-0.228	102.00	No
	39	3	-0.049	27.00	No
		3	-0.049	48.00	No
		3	-0.059	72.00	No
		3	-0.059	93.00	No
	40	3	-0.15	27.00	No
		3	-0.15	93.00	No
W90	38	x	-0.184	18.00	No
		x	-0.184	102.00	No
	39	x	-0.039	27.00	No
		x	-0.039	48.00	No
		x	-0.053	72.00	No
		x	-0.053	93.00	No
	40	x	-0.112	27.00	No
		x	-0.112	93.00	No
W120	38	2	-0.228	18.00	No
		2	-0.228	102.00	No
	39	2	-0.049	27.00	No
		2	-0.049	48.00	No
		2	-0.059	72.00	No
		2	-0.059	93.00	No
	40	2	-0.15	27.00	No
		2	-0.15	93.00	No
W150	38	2	-0.316	18.00	No
		2	-0.316	102.00	No
	39	2	-0.07	27.00	No
		2	-0.07	48.00	No
		2	-0.072	72.00	No
		2	-0.072	93.00	No
	40	2	-0.227	27.00	No
		2	-0.227	93.00	No
Di	38	y	-0.146	18.00	No
		y	-0.146	102.00	No
	39	y	-0.036	27.00	No
		y	-0.036	48.00	No
		y	-0.038	72.00	No
		y	-0.038	93.00	No
	40	y	-0.106	27.00	No
		y	-0.106	93.00	No
WI0	38	z	-0.066	18.00	No
		z	-0.066	102.00	No
	39	z	-0.016	27.00	No
		z	-0.016	48.00	No
		z	-0.016	72.00	No
		z	-0.016	93.00	No
	40	z	-0.049	27.00	No
		z	-0.049	93.00	No
WI30	38	3	-0.058	18.00	No
		3	-0.058	102.00	No
	39	3	-0.014	27.00	No
		3	-0.014	48.00	No
		3	-0.015	72.00	No
		3	-0.015	93.00	No
	40	3	-0.042	27.00	No

		3	-0.042	93.00	No
WI60	38	3	-0.044	18.00	No
		3	-0.044	102.00	No
	39	3	-0.011	27.00	No
		3	-0.011	48.00	No
		3	-0.013	72.00	No
		3	-0.013	93.00	No
	40	3	-0.03	27.00	No
		3	-0.03	93.00	No
WI90	38	x	-0.037	18.00	No
		x	-0.037	102.00	No
	39	x	-0.009	27.00	No
		x	-0.009	48.00	No
		x	-0.011	72.00	No
		x	-0.011	93.00	No
	40	x	-0.024	27.00	No
		x	-0.024	93.00	No
WI120	38	2	-0.044	18.00	No
		2	-0.044	102.00	No
	39	2	-0.011	27.00	No
		2	-0.011	48.00	No
		2	-0.013	72.00	No
		2	-0.013	93.00	No
	40	2	-0.03	27.00	No
		2	-0.03	93.00	No
WI150	38	2	-0.058	18.00	No
		2	-0.058	102.00	No
	39	2	-0.014	27.00	No
		2	-0.014	48.00	No
		2	-0.015	72.00	No
		2	-0.015	93.00	No
	40	2	-0.042	27.00	No
		2	-0.042	93.00	No
WL0	38	z	-0.021	18.00	No
		z	-0.021	102.00	No
	39	z	-0.005	27.00	No
		z	-0.005	48.00	No
		z	-0.005	72.00	No
		z	-0.005	93.00	No
	40	z	-0.016	27.00	No
		z	-0.016	93.00	No
WL30	38	3	-0.019	18.00	No
		3	-0.019	102.00	No
	39	3	-0.005	27.00	No
		3	-0.005	48.00	No
		3	-0.005	72.00	No
		3	-0.005	93.00	No
	40	3	-0.014	27.00	No
		3	-0.014	93.00	No
WL60	38	3	-0.014	18.00	No
		3	-0.014	102.00	No
	39	3	-0.003	27.00	No
		3	-0.003	48.00	No
		3	-0.004	72.00	No
		3	-0.004	93.00	No
	40	3	-0.009	27.00	No
		3	-0.009	93.00	No
WL90	38	x	-0.011	18.00	No
		x	-0.011	102.00	No
	39	x	-0.003	27.00	No

		x	-0.003	48.00	No
		x	-0.004	72.00	No
		x	-0.004	93.00	No
	40	x	-0.007	27.00	No
		x	-0.007	93.00	No
WL120	38	2	-0.014	18.00	No
		2	-0.014	102.00	No
	39	2	-0.003	27.00	No
		2	-0.003	48.00	No
		2	-0.004	72.00	No
		2	-0.004	93.00	No
	40	2	-0.009	27.00	No
		2	-0.009	93.00	No
WL150	38	2	-0.019	18.00	No
		2	-0.019	102.00	No
	39	2	-0.005	27.00	No
		2	-0.005	48.00	No
		2	-0.005	72.00	No
		2	-0.005	93.00	No
	40	2	-0.014	27.00	No
		2	-0.014	93.00	No
LL1	43	y	-0.25	50.00	Yes
LL2	51	y	-0.25	0.00	Yes
LL3	14	y	-0.25	0.00	Yes
LLa1	38	y	-0.50	50.00	Yes
LLa2	39	y	-0.50	50.00	Yes
LLa3	40	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00

LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

RAM® Elements
CONNECT Edition

Current Date: 3/9/2022 10:37 AM
Units system: English

Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

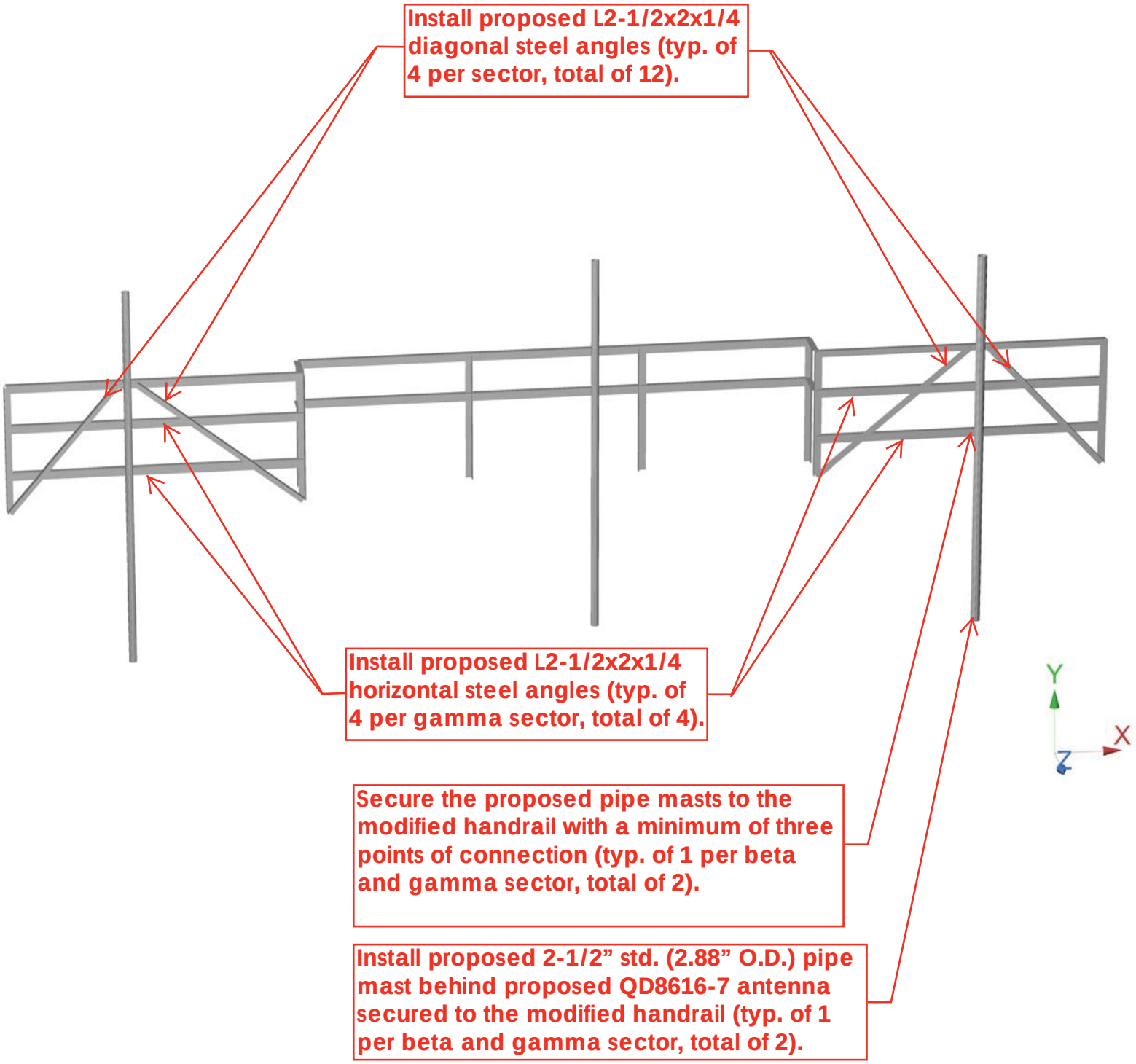
LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

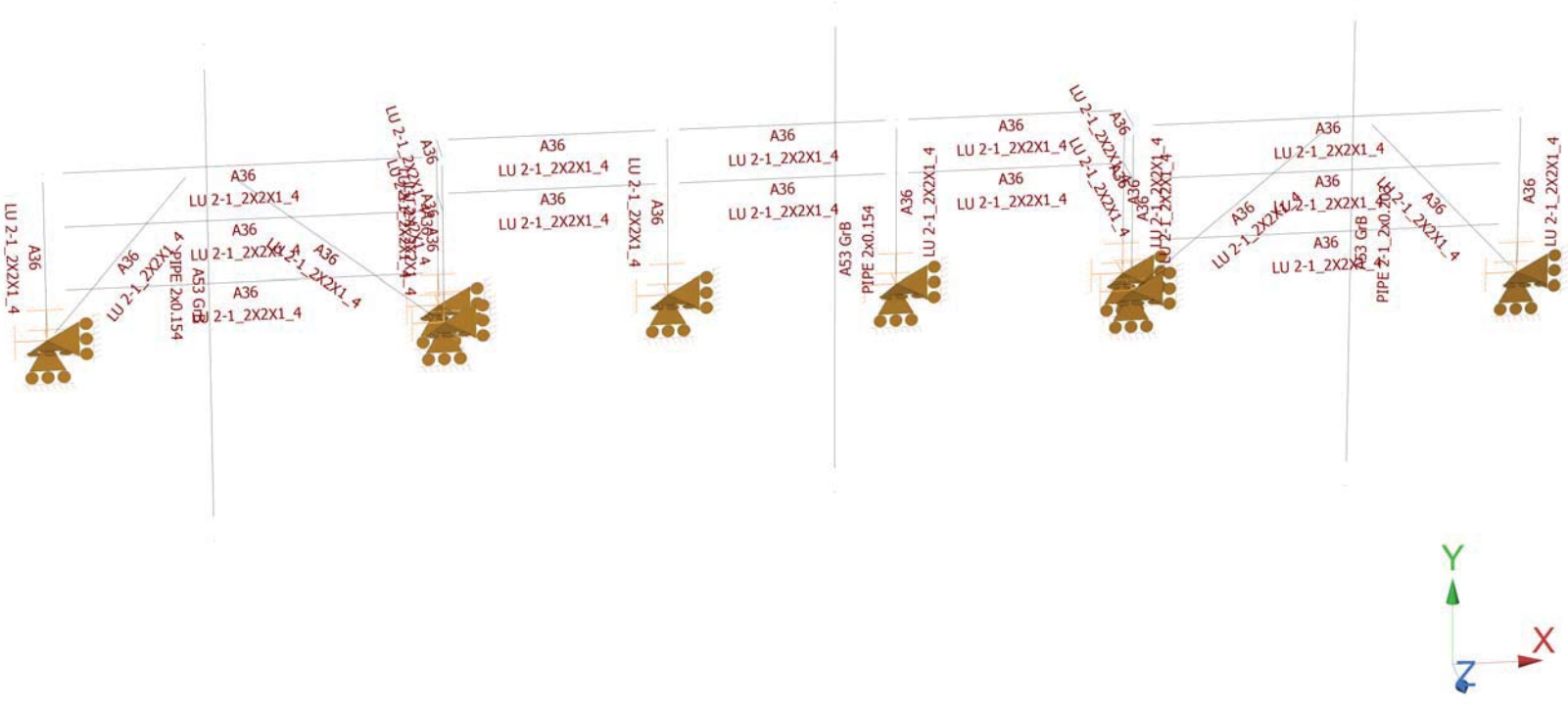
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

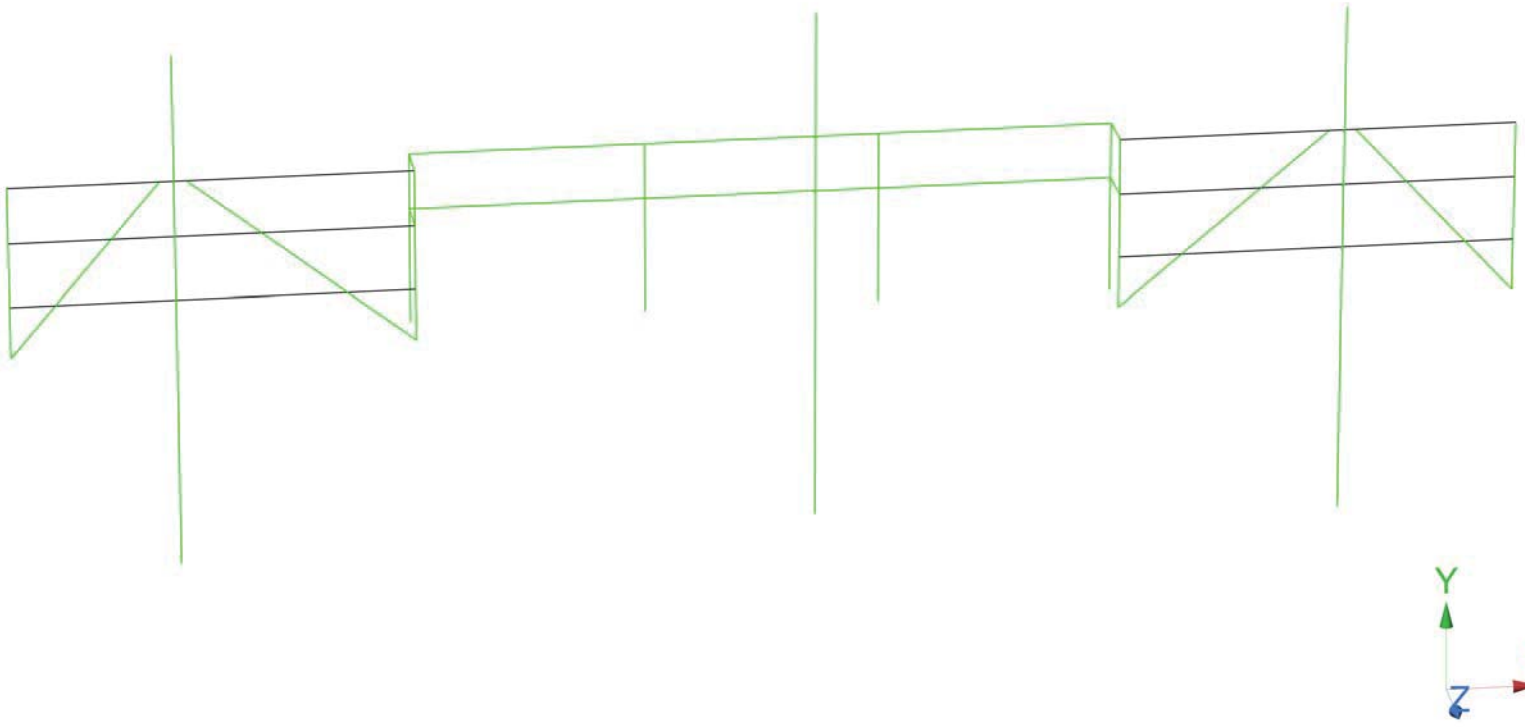
Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	LU 2-1_2X2X1_4	**11**	LC2 at 100.00%	0.23	OK	
		12	LC1 at 0.00%	0.36	OK	
		14	LC75 at 40.63%	1.35	N.G.	
		15	LC2 at 0.00%	0.37	OK	
		16	LC1 at 0.00%	0.75	OK	
		18	LC64 at 0.00%	1.03	N.G.	
		19	LC69 at 0.00%	0.77	OK	
		20	LC12 at 100.00%	0.36	OK	
		23	LC1 at 100.00%	0.44	OK	
		24	LC8 at 100.00%	0.51	OK	
		41	LC6 at 100.00%	0.43	OK	
		42	LC6 at 100.00%	0.43	OK	
		43	LC63 at 100.00%	0.27	OK	
		44	LC1 at 75.00%	0.54	OK	
		45	LC12 at 0.00%	0.27	OK	
		47	LC2 at 100.00%	0.36	OK	
		48	LC8 at 0.00%	0.86	OK	
		51	LC19 at 43.75%	**1.57**	**N.G.**	
		52	LC46 at 0.00%	0.71	OK	
		53	LC7 at 0.00%	1.37	N.G.	
	PIPE 2x0.154	**38**	LC7 at 25.00%	**1.63**	**N.G.**	
		39	LC10 at 37.50%	0.39	OK	
		40	LC1 at 25.00%	1.05	N.G.	

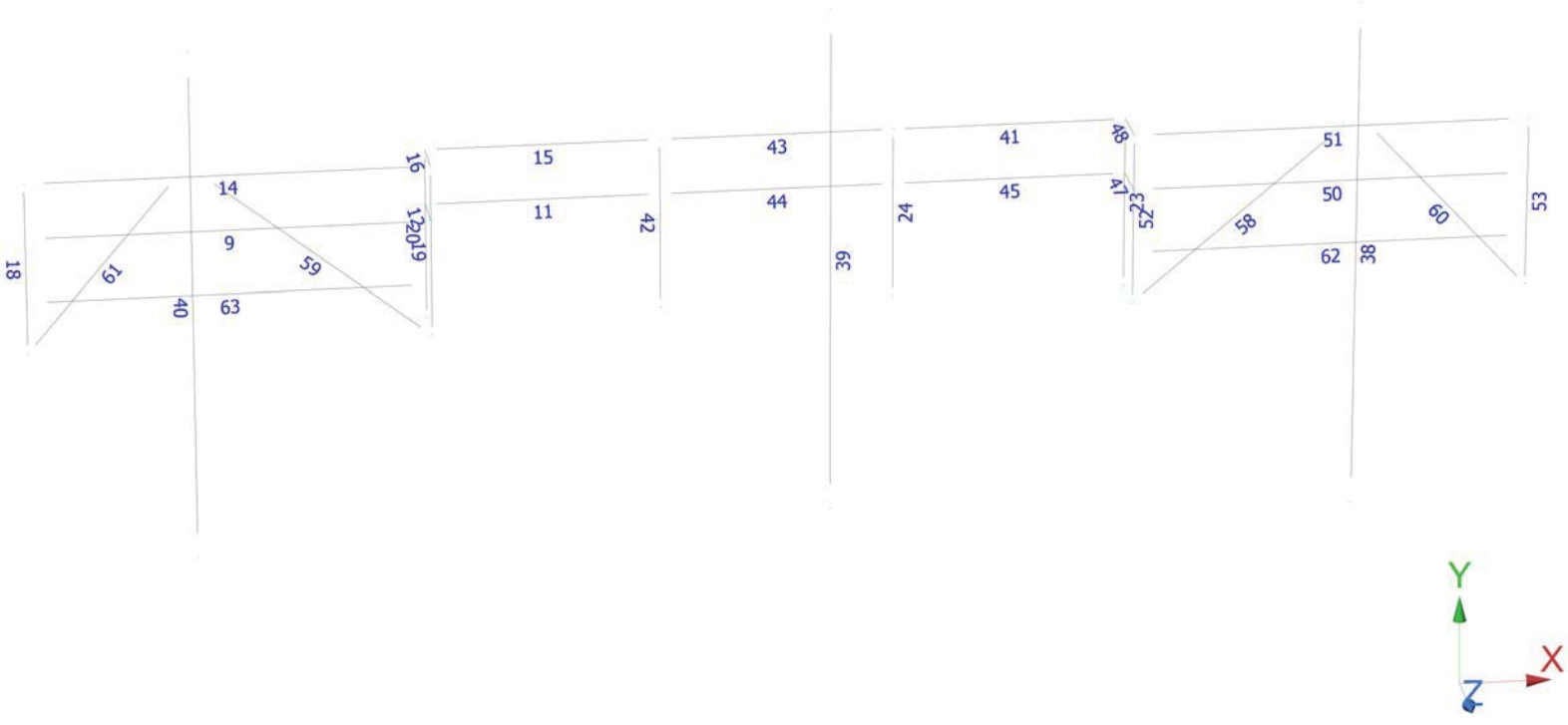
HUDSON
Design Group LLC

Gamma Mount Calculations
(Modified Conditions)


Install proposed L2-1/2x2x1/4 diagonal steel angles (typ. of 4 per sector, total of 12).
Install proposed L2-1/2x2x1/4 horizontal steel angles (typ. of 4 per gamma sector, total of 4).
Secure the proposed pipe masts to the modified handrail with a minimum of three points of connection (typ. of 1 per beta and gamma sector, total of 2).
Install proposed 2-1/2” std. (2.88” O.D.) pipe mast behind proposed QD8616-7 antenna secured to the modified handrail (typ. of 1 per beta and gamma sector, total of 2).
Y
X
Z


A36
LU 2-1_2X2X1_4
PIPE 2x0.154
A53 GrB
Y
X
Z


Y
X
Z


18
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39
24
41
45
48
47
23
52
51
50
58
60
62
38
53
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:19 PM
Units system: English

Load data

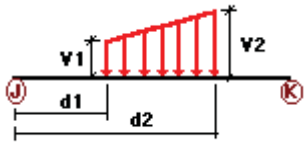
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
D	Dead Load	No	DL
Wo	Wind Load (NO ICE)	No	WIND
W30	WL 30deg	No	WIND
W60	WL 60deg	No	WIND
W90	WL 90deg	No	WIND
W120	WL 120deg	No	WIND
W150	WL 150deg	No	WIND
Di	Ice Load	No	LL
WI0	WL ICE 0deg	No	WIND
WI30	WL ICE 30deg	No	WIND
WI60	WL ICE 60deg	No	WIND
WI90	WL ICE 90deg	No	WIND
WI120	WL ICE 120deg	No	WIND
WI150	WL ICE 150deg	No	WIND
WL0	WL 30 mph 0deg	No	WIND
WL30	WL 30 mph 30deg	No	WIND
WL60	WL 30 mph 60deg	No	WIND
WL90	WL 30 mph 90deg	No	WIND
WL120	WL 30 mph 120deg	No	WIND
WL150	WL 30 mph 150deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load Right End of Mount	No	LL
LL3	250 lb Live Load Left End of Mount	No	LL
LLa1	500 lb Live Load Antenna 1	No	LL
LLa2	500 lb Live Load Antenna 2	No	LL
LLa3	500 lb Live Load Antenna 3	No	LL

Distributed force on members



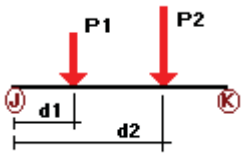
Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
Wo	14	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
	45	Z	-0.016	-0.016	0.00	No	100.00	Yes
	50	z	-0.016	0.00	0.00	No	0.00	No
	51	z	-0.016	0.00	0.00	No	0.00	No
	52	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
	58	z	-0.016	0.00	0.00	No	0.00	No
	59	z	-0.016	0.00	0.00	No	0.00	No
	60	z	-0.016	0.00	0.00	No	0.00	No
	61	z	-0.016	0.00	0.00	No	0.00	No
	62	z	-0.016	0.00	0.00	No	0.00	No
	63	z	-0.016	0.00	0.00	No	0.00	No
W30	14	z	-0.016	0.00	0.00	No	0.00	No
	9	z	-0.016	0.00	0.00	No	0.00	No
	11	Z	-0.016	-0.016	0.00	No	100.00	Yes
	12	z	-0.016	0.00	0.00	No	0.00	No
	15	Z	-0.016	-0.016	0.00	No	100.00	Yes
	16	z	-0.016	0.00	0.00	No	0.00	No
	18	z	-0.016	0.00	0.00	No	0.00	No
	19	z	-0.016	0.00	0.00	No	0.00	No
	20	z	-0.016	0.00	0.00	No	0.00	No
	23	z	-0.016	0.00	0.00	No	0.00	No
	24	z	-0.016	0.00	0.00	No	0.00	No
	38	z	-0.011	0.00	0.00	No	0.00	No
	39	z	-0.009	0.00	0.00	No	0.00	No
	40	z	-0.009	0.00	0.00	No	0.00	No
	41	Z	-0.016	-0.016	0.00	No	100.00	Yes
	42	Z	-0.016	-0.016	0.00	No	100.00	Yes
	43	Z	-0.016	-0.016	0.00	No	100.00	Yes
	44	Z	-0.016	-0.016	0.00	No	100.00	Yes
	45	Z	-0.016	-0.016	0.00	No	100.00	Yes
	47	z	-0.016	0.00	0.00	No	0.00	No
	48	z	-0.016	0.00	0.00	No	0.00	No
	50	z	-0.016	0.00	0.00	No	0.00	No
	51	z	-0.016	0.00	0.00	No	0.00	No
	52	z	-0.016	0.00	0.00	No	0.00	No
	53	z	-0.016	0.00	0.00	No	0.00	No
	58	z	-0.016	0.00	0.00	No	0.00	No
	59	z	-0.016	0.00	0.00	No	0.00	No
	60	z	-0.016	0.00	0.00	No	0.00	No
	61	z	-0.016	0.00	0.00	No	0.00	No
	62	z	-0.016	0.00	0.00	No	0.00	No
	63	z	-0.016	0.00	0.00	No	0.00	No
W60	14	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes

	16	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	38	x	-0.011	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	X	-0.016	-0.016	0.00	No	100.00	Yes
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
	50	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	52	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No
	59	x	-0.016	0.00	0.00	No	0.00	No
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
W90	12	x	-0.016	0.00	0.00	No	0.00	No
	16	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	38	x	-0.011	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
	52	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No
	59	x	-0.016	0.00	0.00	No	0.00	No
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
W120	14	x	-0.016	0.00	0.00	No	0.00	No
	9	x	-0.016	0.00	0.00	No	0.00	No
	11	X	-0.016	-0.016	0.00	No	100.00	Yes
	12	x	-0.016	0.00	0.00	No	0.00	No
	15	X	-0.016	-0.016	0.00	No	100.00	Yes
	16	x	-0.016	0.00	0.00	No	0.00	No
	18	x	-0.016	0.00	0.00	No	0.00	No
	19	x	-0.016	0.00	0.00	No	0.00	No
	20	x	-0.016	0.00	0.00	No	0.00	No
	23	x	-0.016	0.00	0.00	No	0.00	No
	24	x	-0.016	0.00	0.00	No	0.00	No
	38	x	-0.011	0.00	0.00	No	0.00	No
	39	x	-0.009	0.00	0.00	No	0.00	No
	40	x	-0.009	0.00	0.00	No	0.00	No
	41	X	-0.016	-0.016	0.00	No	100.00	Yes

	42	X	-0.016	-0.016	0.00	No	100.00	Yes
	43	X	-0.016	-0.016	0.00	No	100.00	Yes
	44	X	-0.016	-0.016	0.00	No	100.00	Yes
	45	X	-0.016	-0.016	0.00	No	100.00	Yes
	47	x	-0.016	0.00	0.00	No	0.00	No
	48	x	-0.016	0.00	0.00	No	0.00	No
	50	x	-0.016	0.00	0.00	No	0.00	No
	51	x	-0.016	0.00	0.00	No	0.00	No
	52	x	-0.016	0.00	0.00	No	0.00	No
	53	x	-0.016	0.00	0.00	No	0.00	No
	58	x	-0.016	0.00	0.00	No	0.00	No
	59	x	-0.016	0.00	0.00	No	0.00	No
	60	x	-0.016	0.00	0.00	No	0.00	No
	61	x	-0.016	0.00	0.00	No	0.00	No
	62	x	-0.016	0.00	0.00	No	0.00	No
	63	x	-0.016	0.00	0.00	No	0.00	No
W150	14	z	0.016	0.00	0.00	No	0.00	No
	9	z	0.016	0.00	0.00	No	0.00	No
	11	Z	0.016	0.016	0.00	No	100.00	Yes
	12	z	0.016	0.00	0.00	No	0.00	No
	15	Z	0.016	0.016	0.00	No	100.00	Yes
	16	z	0.016	0.00	0.00	No	0.00	No
	18	z	0.016	0.00	0.00	No	0.00	No
	19	z	0.016	0.00	0.00	No	0.00	No
	20	z	0.016	0.00	0.00	No	0.00	No
	23	z	0.016	0.00	0.00	No	0.00	No
	24	z	0.016	0.00	0.00	No	0.00	No
	38	z	-0.011	0.00	0.00	No	0.00	No
	39	z	0.009	0.00	0.00	No	0.00	No
	40	z	0.009	0.00	0.00	No	0.00	No
	41	Z	0.016	0.016	0.00	No	100.00	Yes
	42	Z	0.016	0.016	0.00	No	100.00	Yes
	43	Z	0.016	0.016	0.00	No	100.00	Yes
	44	Z	0.016	0.016	0.00	No	100.00	Yes
	45	Z	0.016	0.016	0.00	No	100.00	Yes
	47	z	0.016	0.00	0.00	No	0.00	No
	48	z	0.016	0.00	0.00	No	0.00	No
	50	z	0.016	0.00	0.00	No	0.00	No
	51	z	0.016	0.00	0.00	No	0.00	No
	52	z	0.016	0.00	0.00	No	0.00	No
	53	z	0.016	0.00	0.00	No	0.00	No
	58	z	0.016	0.00	0.00	No	0.00	No
	59	z	0.016	0.00	0.00	No	0.00	No
	60	z	0.016	0.00	0.00	No	0.00	No
	61	z	0.016	0.00	0.00	No	0.00	No
	62	z	0.016	0.00	0.00	No	0.00	No
	63	z	0.016	0.00	0.00	No	0.00	No
Di	14	y	-0.006	0.00	0.00	No	0.00	No
	9	y	-0.006	0.00	0.00	No	0.00	No
	11	Y	-0.006	-0.006	0.00	No	100.00	Yes
	12	y	-0.006	0.00	0.00	No	0.00	No
	15	Y	-0.006	-0.006	0.00	No	100.00	Yes
	16	y	-0.006	0.00	0.00	No	0.00	No
	18	y	-0.006	0.00	0.00	No	0.00	No
	19	y	-0.006	0.00	0.00	No	0.00	No
	20	y	-0.006	0.00	0.00	No	0.00	No
	23	y	-0.006	0.00	0.00	No	0.00	No
	24	y	-0.006	0.00	0.00	No	0.00	No
	38	y	-0.006	0.00	0.00	No	0.00	No
	39	y	-0.005	0.00	0.00	No	0.00	No

40	y	-0.005	0.00	0.00	No	0.00	No
41	Y	-0.006	-0.006	0.00	No	100.00	Yes
42	Y	-0.006	-0.006	0.00	No	100.00	Yes
43	Y	-0.006	-0.006	0.00	No	100.00	Yes
44	Y	-0.006	-0.006	0.00	No	100.00	Yes
45	Y	-0.006	-0.006	0.00	No	100.00	Yes
47	y	-0.006	0.00	0.00	No	0.00	No
48	y	-0.006	0.00	0.00	No	0.00	No
50	y	-0.006	0.00	0.00	No	0.00	No
51	y	-0.006	0.00	0.00	No	0.00	No
52	y	-0.006	0.00	0.00	No	0.00	No
53	y	-0.006	0.00	0.00	No	0.00	No
58	y	-0.006	0.00	0.00	No	0.00	No
59	y	-0.006	0.00	0.00	No	0.00	No
60	y	-0.006	0.00	0.00	No	0.00	No
61	y	-0.006	0.00	0.00	No	0.00	No
62	y	-0.006	0.00	0.00	No	0.00	No
63	y	-0.006	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
D	38	y	-0.075	1.50	No
		y	-0.075	8.50	No
	39	y	-0.033	2.25	No
		y	-0.033	4.00	No
		y	-0.041	6.00	No
		y	-0.041	7.75	No
	40	y	-0.055	2.25	No
		y	-0.055	7.75	No
Wo	38	z	-0.36	1.50	No
		z	-0.36	8.50	No
	39	z	-0.08	2.25	No
		z	-0.08	4.00	No
		z	-0.078	6.00	No
		z	-0.078	7.75	No
	40	z	-0.265	2.25	No
		z	-0.265	7.75	No
W30	38	3	-0.316	1.50	No
		3	-0.316	8.50	No
	39	3	-0.07	2.25	No
		3	-0.07	4.00	No
		3	-0.072	6.00	No
		3	-0.072	7.75	No
	40	3	-0.227	2.25	No
		3	-0.227	7.75	No
W60	38	3	-0.228	1.50	No
		3	-0.228	8.50	No
	39	3	-0.049	2.25	No

		3	-0.049	4.00	No
		3	-0.059	6.00	No
		3	-0.059	7.75	No
	40	3	-0.15	2.25	No
		3	-0.15	7.75	No
W90	38	x	-0.184	1.50	No
		x	-0.184	8.50	No
	39	x	-0.039	2.25	No
		x	-0.039	4.00	No
		x	-0.053	6.00	No
		x	-0.053	7.75	No
	40	x	-0.112	2.25	No
		x	-0.112	7.75	No
W120	38	2	-0.228	1.50	No
		2	-0.228	8.50	No
	39	2	-0.049	2.25	No
		2	-0.049	4.00	No
		2	-0.059	6.00	No
		2	-0.059	7.75	No
	40	2	-0.15	2.25	No
		2	-0.15	7.75	No
W150	38	2	-0.316	1.50	No
		2	-0.316	8.50	No
	39	2	-0.07	2.25	No
		2	-0.07	4.00	No
		2	-0.072	6.00	No
		2	-0.072	7.75	No
	40	2	-0.227	2.25	No
		2	-0.227	7.75	No
Di	38	y	-0.146	1.50	No
		y	-0.146	8.50	No
	39	y	-0.036	2.25	No
		y	-0.036	4.00	No
		y	-0.038	6.00	No
		y	-0.038	7.75	No
	40	y	-0.106	2.25	No
		y	-0.106	7.75	No
WI0	38	z	-0.066	1.50	No
		z	-0.066	8.50	No
	39	z	-0.016	2.25	No
		z	-0.016	4.00	No
		z	-0.016	6.00	No
		z	-0.016	7.75	No
	40	z	-0.049	2.25	No
		z	-0.049	7.75	No
WI30	38	3	-0.058	1.50	No
		3	-0.058	8.50	No
	39	3	-0.014	2.25	No
		3	-0.014	4.00	No
		3	-0.015	6.00	No
		3	-0.015	7.75	No
	40	3	-0.042	2.25	No
		3	-0.042	7.75	No
WI60	38	3	-0.044	1.50	No
		3	-0.044	8.50	No
	39	3	-0.011	2.25	No
		3	-0.011	4.00	No
		3	-0.013	6.00	No
		3	-0.013	7.75	No
	40	3	-0.03	2.25	No

		3	-0.03	7.75	No
WI90	38	x	-0.037	1.50	No
		x	-0.037	8.50	No
	39	x	-0.009	2.25	No
		x	-0.009	4.00	No
		x	-0.011	6.00	No
		x	-0.011	7.75	No
	40	x	-0.024	2.25	No
		x	-0.024	7.75	No
WI120	38	2	-0.044	1.50	No
		2	-0.044	8.50	No
	39	2	-0.011	2.25	No
		2	-0.011	4.00	No
		2	-0.013	6.00	No
		2	-0.013	7.75	No
	40	2	-0.03	2.25	No
		2	-0.03	7.75	No
WI150	38	2	-0.058	1.50	No
		2	-0.058	8.50	No
	39	2	-0.014	2.25	No
		2	-0.014	4.00	No
		2	-0.015	6.00	No
		2	-0.015	7.75	No
	40	2	-0.042	2.25	No
		2	-0.042	7.75	No
WL0	38	z	-0.021	1.50	No
		z	-0.021	8.50	No
	39	z	-0.005	2.25	No
		z	-0.005	4.00	No
		z	-0.005	6.00	No
		z	-0.005	7.75	No
	40	z	-0.016	2.25	No
		z	-0.016	7.75	No
WL30	38	3	-0.019	1.50	No
		3	-0.019	8.50	No
	39	3	-0.005	2.25	No
		3	-0.005	4.00	No
		3	-0.005	6.00	No
		3	-0.005	7.75	No
	40	3	-0.014	2.25	No
		3	-0.014	7.75	No
WL60	38	3	-0.014	1.50	No
		3	-0.014	8.50	No
	39	3	-0.003	2.25	No
		3	-0.003	4.00	No
		3	-0.004	6.00	No
		3	-0.004	7.75	No
	40	3	-0.009	2.25	No
		3	-0.009	7.75	No
WL90	38	x	-0.011	1.50	No
		x	-0.011	8.50	No
	39	x	-0.003	2.25	No
		x	-0.003	4.00	No
		x	-0.004	6.00	No
		x	-0.004	7.75	No
	40	x	-0.007	2.25	No
		x	-0.007	7.75	No
WL120	38	2	-0.014	1.50	No
		2	-0.014	8.50	No
	39	2	-0.003	2.25	No

		2	-0.003	4.00	No
		2	-0.004	6.00	No
		2	-0.004	7.75	No
	40	2	-0.009	2.25	No
		2	-0.009	7.75	No
WL150	38	2	-0.019	1.50	No
		2	-0.019	8.50	No
	39	2	-0.005	2.25	No
		2	-0.005	4.00	No
		2	-0.005	6.00	No
		2	-0.005	7.75	No
	40	2	-0.014	2.25	No
		2	-0.014	7.75	No
LL1	43	y	-0.25	50.00	Yes
LL2	51	y	-0.25	0.00	Yes
LL3	14	y	-0.25	0.00	Yes
LLa1	38	y	-0.50	50.00	Yes
LLa2	39	y	-0.50	50.00	Yes
LLa3	40	y	-0.50	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
D	Dead Load	No	0.00	-1.00	0.00
Wo	Wind Load (NO ICE)	No	0.00	0.00	0.00
W30	WL 30deg	No	0.00	0.00	0.00
W60	WL 60deg	No	0.00	0.00	0.00
W90	WL 90deg	No	0.00	0.00	0.00
W120	WL 120deg	No	0.00	0.00	0.00
W150	WL 150deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
WI0	WL ICE 0deg	No	0.00	0.00	0.00
WI30	WL ICE 30deg	No	0.00	0.00	0.00
WI60	WL ICE 60deg	No	0.00	0.00	0.00
WI90	WL ICE 90deg	No	0.00	0.00	0.00
WI120	WL ICE 120deg	No	0.00	0.00	0.00
WI150	WL ICE 150deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30deg	No	0.00	0.00	0.00
WL60	WL 30 mph 60deg	No	0.00	0.00	0.00
WL90	WL 30 mph 90deg	No	0.00	0.00	0.00
WL120	WL 30 mph 120deg	No	0.00	0.00	0.00
WL150	WL 30 mph 150deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load Right End of Mount	No	0.00	0.00	0.00
LL3	250 lb Live Load Left End of Mount	No	0.00	0.00	0.00
LLa1	500 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	500 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	500 lb Live Load Antenna 3	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
D	0.00	0.00	0.00
Wo	0.00	0.00	0.00
W30	0.00	0.00	0.00
W60	0.00	0.00	0.00
W90	0.00	0.00	0.00
W120	0.00	0.00	0.00
W150	0.00	0.00	0.00
Di	0.00	0.00	0.00
WI0	0.00	0.00	0.00
WI30	0.00	0.00	0.00
WI60	0.00	0.00	0.00
WI90	0.00	0.00	0.00
WI120	0.00	0.00	0.00
WI150	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
WL60	0.00	0.00	0.00
WL90	0.00	0.00	0.00
WL120	0.00	0.00	0.00
WL150	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LL3	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:20 PM
Units system: English

Steel Code Check

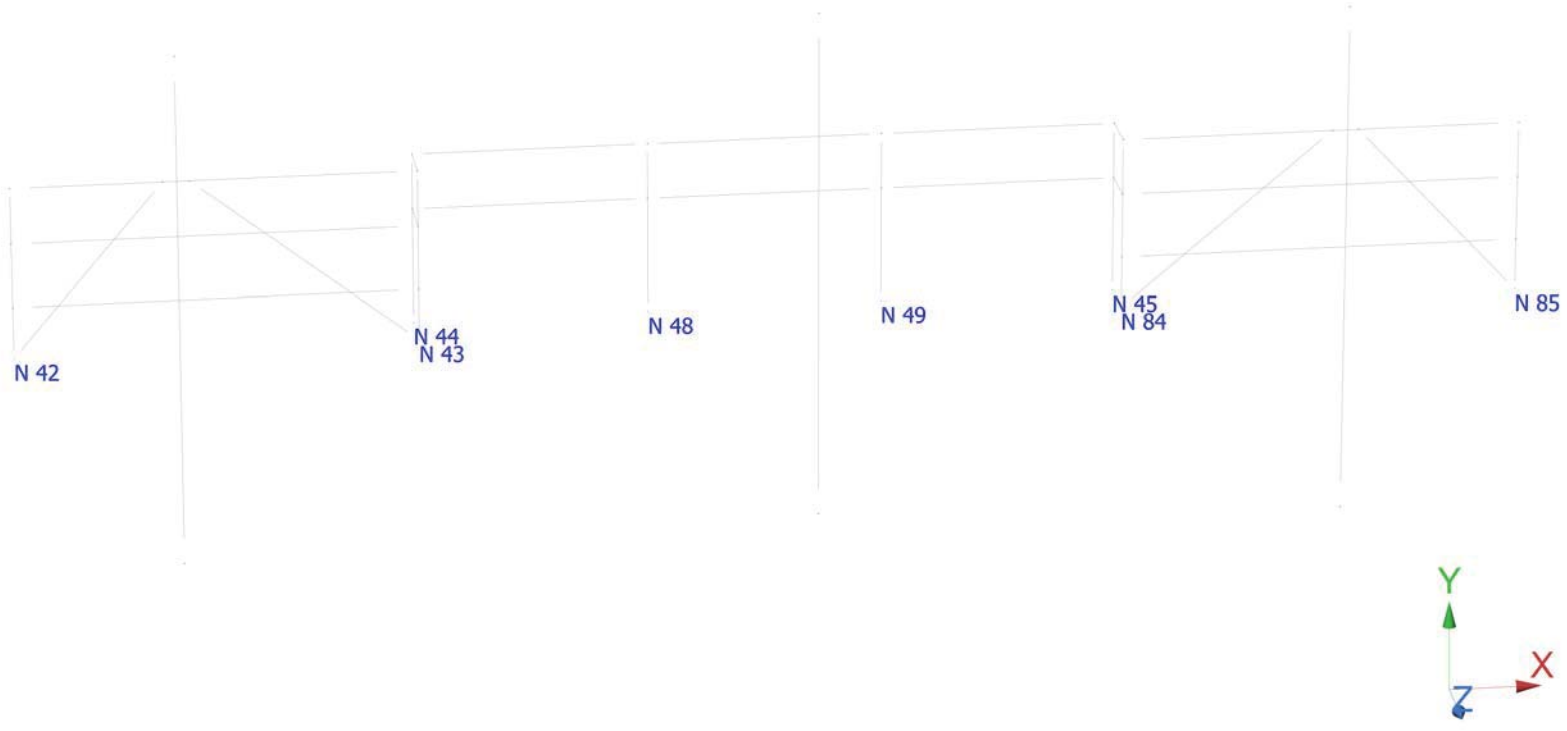
Report: Summary - Group by member

Load conditions to be included in design :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo
LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2

LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	LU 2-1_2X2X1_4	**9**	LC19 at 40.63%	**0.95**	**With warnings**	
		11	LC2 at 100.00%	0.20	OK	
		12	LC7 at 0.00%	0.17	OK	
		14	LC1 at 40.63%	0.23	With warnings	
		15	LC6 at 0.00%	0.15	OK	
		16	LC6 at 100.00%	0.15	OK	
		18	LC8 at 100.00%	0.18	OK	
		19	LC24 at 100.00%	0.20	OK	
		20	LC6 at 100.00%	0.18	OK	
		23	LC6 at 100.00%	0.24	OK	
		24	LC6 at 100.00%	0.63	OK	
		41	LC8 at 100.00%	0.19	OK	
		42	LC7 at 100.00%	0.39	OK	
		43	LC52 at 100.00%	0.27	OK	
		44	LC1 at 75.00%	0.54	OK	
		45	LC1 at 0.00%	0.25	OK	
		47	LC7 at 0.00%	0.27	OK	
		48	LC7 at 0.00%	0.23	OK	
		50	LC19 at 56.25%	0.41	With warnings	
		51	LC2 at 46.25%	0.38	With warnings	
		52	LC6 at 100.00%	0.16	OK	
		53	LC7 at 70.83%	0.28	OK	
		58	LC1 at 0.00%	0.53	OK	
		59	LC1 at 100.00%	0.44	OK	
		60	LC1 at 100.00%	0.71	OK	
		61	LC1 at 0.00%	0.56	OK	
		62	LC19 at 56.25%	0.85	With warnings	
		63	LC7 at 41.67%	0.14	With warnings	
	PIPE 2-1_2x0.203	**38**	LC1 at 48.44%	**0.52**	**OK**	
	PIPE 2x0.154	**39**	LC4 at 37.50%	0.39	OK	
		40	LC1 at 37.50%	**0.80**	**OK**	

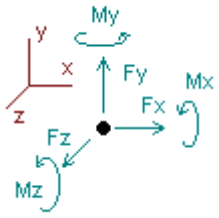

N 42
N 44
N 43
N 48
N 49
N 45
N 84
N 85
Y
X
Z

RAM® Elements
CONNECT Edition

Current Date: 3/10/2022 5:22 PM
Units system: English

Analysis result

Reactions



Direction of positive forces and moments

	Forces [Kip]			Moments [Kip*ft]		
Node	**FX**	**FY**	**FZ**	**MX**	**MY**	**MZ**
Condition **LC1=1.2D+Wo**						
42	-0.04250	0.23126	0.59218	0.75731	-0.50171	0.19735
43	0.25591	-0.36278	0.58944	0.63597	0.49740	-0.40614
44	-0.01785	0.51431	0.10604	0.11679	-0.00042	0.03386
45	0.08262	0.54466	0.20328	0.25108	-0.00028	-0.11748
48	0.12670	0.04760	0.27191	0.51096	-0.00251	-0.24149
49	-0.27578	0.31962	0.40668	0.50925	0.00421	0.35330
84	-0.71947	-0.36015	0.60222	0.59566	-0.67423	0.47671
85	0.59037	0.24127	0.68796	0.79772	0.74615	-0.28833
SUM	0.00000	1.17580	3.45971	4.17472	0.06862	0.00779
Condition **LC2=1.2D+W30**						
42	0.16154	0.23990	0.52771	0.71854	-0.41257	0.06724
43	0.34946	-0.36164	0.56028	0.61363	0.45237	-0.43165
44	0.03260	0.50160	0.08035	0.08723	-0.00035	-0.02457
45	0.10906	0.54028	0.21323	0.26189	-0.00063	-0.14604
48	0.14500	0.02513	0.27417	0.51367	-0.00249	-0.26314
49	-0.21527	0.34207	0.37464	0.46563	0.00416	0.27956
84	-0.31839	-0.30459	0.53060	0.52867	-0.56987	0.32852
85	0.70472	0.19305	0.59148	0.73373	0.64603	-0.31189
SUM	0.96874	1.17580	3.15245	3.92299	0.11665	-0.50197
Condition **LC3=1.2D+W60**						
42	0.39217	0.29195	0.11687	0.06017	-0.06005	-0.02723
43	0.26184	0.07633	0.13079	0.12708	0.15187	-0.17018
44	0.15147	0.03882	-0.06026	-0.07588	-0.00011	-0.16826
45	0.06866	0.03320	-0.00588	-0.00514	-0.00098	-0.06715
48	0.09706	0.02671	0.06556	0.06138	-0.00094	-0.09359
49	0.00265	0.27909	0.12436	0.05844	0.00227	-0.06325
84	0.22520	0.28513	0.14247	0.08827	-0.20880	-0.00036
85	0.48226	0.14457	0.17340	0.12211	0.23444	-0.28358
SUM	1.68131	1.17580	0.68731	0.43644	0.11769	-0.87359

Condition **LC4=1.2D+W90**

42	0.44753	0.27044	-0.00289	-0.02613	0.05463	-0.11351
43	0.15207	0.09676	0.03992	0.03887	0.02853	-0.10053
44	0.12644	0.02732	-0.04870	-0.06001	-0.00013	-0.13717
45	0.06941	0.02051	0.01200	0.01352	-0.00070	-0.06533
48	0.07022	0.04681	0.02075	0.02299	-0.00010	-0.06733
49	0.09441	0.28029	-0.01463	-0.05346	0.00055	-0.12935
84	0.57236	0.31319	-0.00406	-0.03459	0.01139	-0.12524
85	0.23757	0.12048	-0.00241	-0.00810	0.01768	-0.14730
SUM	1.77000	1.17580	0.00000	-0.10691	0.11185	-0.88577

Condition **LC5=1.2D+W120**

42	0.48750	0.24647	-0.12241	-0.11215	0.16664	-0.19283
43	0.02808	0.11905	-0.05565	-0.05459	-0.09623	-0.02441
44	0.08563	0.01779	-0.03139	-0.03780	-0.00010	-0.08909
45	0.06172	0.00328	0.02752	0.03012	-0.00033	-0.05488
48	0.03613	0.08011	-0.02848	-0.02131	0.00078	-0.03230
49	0.17091	0.27011	-0.14950	-0.15949	-0.00120	-0.17787
84	0.87179	0.33499	-0.15088	-0.15601	0.23309	-0.23127
85	-0.06045	0.10400	-0.17652	-0.13827	-0.20123	0.00947
SUM	1.68131	1.17580	-0.68731	-0.64951	0.10142	-0.79320

Condition **LC6=1.2D+W150**

42	0.47928	0.18256	-0.52213	-0.74212	0.48493	-0.22754
43	-0.32486	0.67274	-0.51054	-0.57512	-0.41896	0.28994
44	0.09367	-0.45513	-0.14613	-0.16717	0.00044	-0.12819
45	-0.06235	-0.48801	-0.22050	-0.26976	-0.00032	0.09199
48	-0.08746	0.10212	-0.25423	-0.50743	0.00226	0.20364
49	0.28497	0.19057	-0.38451	-0.53618	-0.00329	-0.41701
84	0.93703	0.78424	-0.40690	-0.47053	0.42455	-0.41597
85	-0.35155	0.18671	-0.48750	-0.69394	-0.50274	-0.00375
SUM	0.96874	1.17580	-2.93245	-3.96226	-0.01313	-0.60690

Condition **LC7=1.2D-Wo**

42	0.34728	0.15787	-0.59359	-0.80462	0.52713	-0.19607
43	-0.53321	0.68475	-0.58846	-0.65772	-0.51306	0.39545
44	0.02521	-0.44501	-0.11092	-0.12500	0.00044	-0.04657
45	-0.09221	-0.51742	-0.22202	-0.27104	0.00014	0.12537
48	-0.12121	0.13461	-0.27489	-0.54034	0.00250	0.24739
49	0.23994	0.15958	-0.38671	-0.52650	-0.00376	-0.35500
84	1.07696	0.79518	-0.59732	-0.62506	0.69176	-0.46886
85	-0.94275	0.20624	-0.68580	-0.84637	-0.77066	0.27482
SUM	0.00000	1.17580	-3.45971	-4.39665	-0.06552	-0.02347

Condition **LC8=1.2D-W30**

42	0.14324	0.14923	-0.52912	-0.76586	0.43798	-0.06596
43	-0.62676	0.68360	-0.55930	-0.63538	-0.46804	0.42097
44	-0.02524	-0.43229	-0.08523	-0.09543	0.00037	0.01185
45	-0.11866	-0.51304	-0.23197	-0.28185	0.00048	0.15394
48	-0.13951	0.15709	-0.27715	-0.54305	0.00248	0.26904
49	0.17942	0.13713	-0.35466	-0.48288	-0.00370	-0.28126
84	0.67588	0.73962	-0.52570	-0.55807	0.58740	-0.32067
85	-1.05710	0.25447	-0.58932	-0.78239	-0.67054	0.29838
SUM	-0.96874	1.17580	-3.15245	-4.14491	-0.11356	0.48630

Condition **LC9=1.2D-W60**

42	-0.08739	0.09717	-0.11828	-0.10749	0.08546	0.02852
43	-0.53914	0.24563	-0.12982	-0.14884	-0.16753	0.15950
44	-0.14411	0.03049	0.05539	0.06767	0.00013	0.15554
45	-0.07826	-0.00597	-0.01286	-0.01482	0.00084	0.07505
48	-0.09157	0.15551	-0.06855	-0.09077	0.00094	0.09949
49	-0.03850	0.20012	-0.10438	-0.07569	-0.00181	0.06155
84	0.13229	0.14990	-0.13756	-0.11766	0.22633	0.00820
85	-0.83464	0.30295	-0.17124	-0.17077	-0.25895	0.27006
SUM	-1.68131	1.17580	-0.68731	-0.65837	-0.11460	0.85792

Condition **LC10=1.2D-W90**

42	-0.14275	0.11869	0.00148	-0.02119	-0.02922	0.11480
43	-0.42937	0.22520	-0.03895	-0.06062	-0.04419	0.08984
44	-0.11907	0.04198	0.04382	0.05180	0.00015	0.12446
45	-0.07900	0.00673	-0.03074	-0.03348	0.00056	0.07323
48	-0.06473	0.13540	-0.02374	-0.05237	0.00010	0.07323
49	-0.13025	0.19892	0.03461	0.03621	-0.00010	0.12765
84	-0.21487	0.12184	0.00896	0.00519	0.00614	0.13309
85	-0.58995	0.32703	0.00456	-0.04055	-0.04219	0.13379
SUM	-1.77000	1.17580	0.00000	-0.11501	-0.10876	0.87009

Condition **LC11=1.2D-W120**

42	-0.18272	0.14265	0.12100	0.06484	-0.14122	0.19412
43	-0.30537	0.20292	0.05662	0.03283	0.08056	0.01373
44	-0.07826	0.05152	0.02651	0.02959	0.00012	0.07638
45	-0.07132	0.02396	-0.04626	-0.05008	0.00018	0.06278
48	-0.03065	0.10210	0.02550	-0.00807	-0.00078	0.03820
49	-0.20676	0.20910	0.16948	0.14224	0.00166	0.17617
84	-0.51430	0.10004	0.15578	0.12662	-0.21556	0.23912
85	-0.29193	0.34352	0.17867	0.08962	0.17672	-0.02298
SUM	-1.68131	1.17580	0.68731	0.42758	-0.09833	0.77753

Condition **LC12=1.2D-W150**

42	-0.17450	0.20657	0.52072	0.69481	-0.45951	0.22883
43	0.04756	-0.35077	0.51151	0.55337	0.40329	-0.30062
44	-0.08630	0.52443	0.14126	0.15896	-0.00042	0.11547
45	0.05275	0.51525	0.20176	0.24980	0.00017	-0.08410
48	0.09294	0.08009	0.25125	0.47805	-0.00227	-0.19774
49	-0.32082	0.28863	0.40449	0.51893	0.00375	0.41532
84	-0.57954	-0.34921	0.41180	0.44113	-0.40702	0.42382
85	-0.00083	0.26081	0.48966	0.64528	0.47823	-0.00976
SUM	-0.96874	1.17580	2.93245	3.74033	0.01622	0.59122

Condition **LC13=0.9D+Wo**

42	-0.08060	0.18262	0.59236	0.76322	-0.50489	0.19719
43	0.29058	-0.40303	0.58931	0.63869	0.49936	-0.40480
44	-0.01877	0.50565	0.10665	0.11782	-0.00042	0.03545
45	0.08382	0.54125	0.20562	0.25357	-0.00026	-0.11846
48	0.12601	0.02482	0.27228	0.51463	-0.00251	-0.24222
49	-0.27130	0.25972	0.40419	0.51140	0.00416	0.35351
84	-0.76415	-0.41453	0.60161	0.59933	-0.67642	0.47573
85	0.63442	0.18534	0.68769	0.80380	0.74922	-0.28664
SUM	0.00000	0.88185	3.45971	4.20247	0.06823	0.00975

Condition **LC14=0.9D+W30**

42	0.12345	0.19126	0.52789	0.72446	-0.41574	0.06708
43	0.38413	-0.40188	0.56016	0.61635	0.45433	-0.43032
44	0.03168	0.49294	0.08096	0.08825	-0.00035	-0.02298
45	0.11026	0.53687	0.21557	0.26438	-0.00061	-0.14703
48	0.14431	0.00235	0.27454	0.51734	-0.00249	-0.26388
49	-0.21078	0.28217	0.37214	0.46779	0.00410	0.27978
84	-0.36308	-0.35897	0.52999	0.53234	-0.57206	0.32754
85	0.74877	0.13711	0.59121	0.73982	0.64909	-0.31020
SUM	0.96874	0.88185	3.15245	3.95073	0.11627	-0.50001

Condition **LC15=0.9D+W60**

42	0.35407	0.24331	0.11704	0.06609	-0.06322	-0.02739
43	0.29650	0.03609	0.13067	0.12980	0.15383	-0.16885
44	0.15055	0.03015	-0.05965	-0.07485	-0.00012	-0.16667
45	0.06986	0.02980	-0.00354	-0.00264	-0.00097	-0.06814
48	0.09637	0.00393	0.06594	0.06506	-0.00094	-0.09432
49	0.00713	0.21919	0.12187	0.06060	0.00221	-0.06304
84	0.18051	0.23075	0.14185	0.09194	-0.21099	-0.00134
85	0.52631	0.08863	0.17313	0.12819	0.23751	-0.28189
SUM	1.68131	0.88185	0.68731	0.46418	0.11731	-0.87163

Condition **LC16=0.9D+W90**

42	0.40944	0.22180	-0.00271	-0.02022	0.05146	-0.11367
43	0.18673	0.05651	0.03980	0.04159	0.03048	-0.09919
44	0.12552	0.01866	-0.04809	-0.05898	-0.00013	-0.13558
45	0.07061	0.01711	0.01434	0.01601	-0.00069	-0.06632
48	0.06953	0.02403	0.02113	0.02666	-0.00010	-0.06807
49	0.09889	0.22039	-0.01713	-0.05130	0.00050	-0.12914
84	0.52767	0.25881	-0.00467	-0.03091	0.00920	-0.12622
85	0.28161	0.06454	-0.00268	-0.00202	0.02074	-0.14561
SUM	1.77000	0.88185	0.00000	-0.07917	0.11146	-0.88381

Condition **LC17=0.9D+W120**

42	0.44940	0.19783	-0.12224	-0.10624	0.16346	-0.19300
43	0.06274	0.07880	-0.05577	-0.05187	-0.09427	-0.02308
44	0.08471	0.00913	-0.03078	-0.03678	-0.00010	-0.08750
45	0.06292	-0.00012	0.02986	0.03262	-0.00031	-0.05587
48	0.03544	0.05734	-0.02811	-0.01764	0.00078	-0.03304
49	0.17540	0.21021	-0.15200	-0.15733	-0.00126	-0.17766
84	0.82710	0.28062	-0.15149	-0.15234	0.23090	-0.23225
85	-0.01640	0.04806	-0.17679	-0.13219	-0.19816	0.01116
SUM	1.68131	0.88185	-0.68731	-0.62177	0.10104	-0.79124

Condition **LC18=0.9D+W150**

42	0.44119	0.13392	-0.52196	-0.73621	0.48175	-0.22770
43	-0.29020	0.63249	-0.51066	-0.57240	-0.41700	0.29127
44	0.09275	-0.46379	-0.14552	-0.16615	0.00044	-0.12660
45	-0.06115	-0.49141	-0.21816	-0.26727	-0.00030	0.09101
48	-0.08814	0.07934	-0.25386	-0.50376	0.00226	0.20290
49	0.28945	0.13067	-0.38701	-0.53402	-0.00335	-0.41680
84	0.89234	0.72986	-0.40751	-0.46685	0.42236	-0.41695
85	-0.30750	0.13077	-0.48777	-0.68786	-0.49967	-0.00207
SUM	0.96874	0.88185	-2.93245	-3.93451	-0.01351	-0.60494

Condition **LC19=0.9D-Wo**

42	0.30918	0.10923	-0.59342	-0.79871	0.52395	-0.19623
43	-0.49855	0.64450	-0.58858	-0.65500	-0.51111	0.39679
44	0.02429	-0.45367	-0.11031	-0.12397	0.00044	-0.04498
45	-0.09101	-0.52083	-0.21968	-0.26854	0.00015	0.12439
48	-0.12190	0.11184	-0.27451	-0.53667	0.00250	0.24665
49	0.24442	0.09968	-0.38920	-0.52434	-0.00382	-0.35479
84	1.03227	0.74080	-0.59794	-0.62138	0.68957	-0.46984
85	-0.89870	0.15030	-0.68607	-0.84029	-0.76760	0.27651
SUM	0.00000	0.88185	-3.45971	-4.36891	-0.06591	-0.02151

Condition **LC20=0.9D-W30**

42	0.10514	0.10058	-0.52895	-0.75994	0.43480	-0.06612
43	-0.59210	0.64336	-0.55943	-0.63266	-0.46608	0.42230
44	-0.02616	-0.44096	-0.08462	-0.09441	0.00037	0.01344
45	-0.11746	-0.51644	-0.22963	-0.27936	0.00050	0.15296
48	-0.14020	0.13431	-0.27677	-0.53938	0.00248	0.26831
49	0.18390	0.07723	-0.35715	-0.48073	-0.00376	-0.28105
84	0.63119	0.68524	-0.52631	-0.55439	0.58521	-0.32165
85	-1.01305	0.19853	-0.58959	-0.77631	-0.66747	0.30007
SUM	-0.96874	0.88185	-3.15245	-4.11717	-0.11395	0.48826

Condition **LC21=0.9D-W60**

42	-0.12549	0.04853	-0.11810	-0.10157	0.08229	0.02835
43	-0.50447	0.20539	-0.12994	-0.14612	-0.16558	0.16084
44	-0.14503	0.02183	0.05599	0.06870	0.00013	0.15713
45	-0.07706	-0.00937	-0.01052	-0.01233	0.00086	0.07406
48	-0.09226	0.13273	-0.06817	-0.08709	0.00094	0.09875
49	-0.03402	0.14022	-0.10688	-0.07353	-0.00187	0.06177
84	0.08761	0.09552	-0.13818	-0.11399	0.22414	0.00722
85	-0.79059	0.24701	-0.17151	-0.16469	-0.25589	0.27175
SUM	-1.68131	0.88185	-0.68731	-0.63062	-0.11499	0.85987

Condition **LC22=0.9D-W90**

42	-0.18085	0.07005	0.00165	-0.01527	-0.03240	0.11464
43	-0.39471	0.18496	-0.03907	-0.05790	-0.04223	0.09118
44	-0.11999	0.03332	0.04443	0.05283	0.00014	0.12605
45	-0.07780	0.00332	-0.02840	-0.03099	0.00058	0.07224
48	-0.06542	0.11263	-0.02336	-0.04870	0.00010	0.07249
49	-0.12577	0.13902	0.03211	0.03836	-0.00016	0.12786
84	-0.25955	0.06746	0.00834	0.00886	0.00395	0.13211
85	-0.54590	0.27109	0.00429	-0.03447	-0.03912	0.13548
SUM	-1.77000	0.88185	0.00000	-0.08727	-0.10914	0.87205

Condition **LC23=0.9D-W120**

42	-0.22081	0.09401	0.12118	0.07075	-0.14440	0.19396
43	-0.27071	0.16267	0.05650	0.03555	0.08252	0.01506
44	-0.07918	0.04285	0.02712	0.03062	0.00012	0.07797
45	-0.07012	0.02055	-0.04392	-0.04759	0.00020	0.06180
48	-0.03133	0.07932	0.02588	-0.00440	-0.00078	0.03746
49	-0.20228	0.14920	0.16698	0.14439	0.00160	0.17639
84	-0.55899	0.04566	0.15517	0.13029	-0.21775	0.23814
85	-0.24788	0.28758	0.17840	0.09570	0.17978	-0.02129
SUM	-1.68131	0.88185	0.68731	0.45532	-0.09872	0.77949

Condition **LC24=0.9D-W150**

42	-0.21260	0.15793	0.52090	0.70072	-0.46269	0.22867
43	0.08222	-0.39102	0.51139	0.55609	0.40525	-0.29928
44	-0.08722	0.51577	0.14187	0.15999	-0.00043	0.11706
45	0.05395	0.51184	0.20410	0.25230	0.00019	-0.08508
48	0.09226	0.05731	0.25162	0.48172	-0.00227	-0.19848
49	-0.31633	0.22873	0.40199	0.52108	0.00369	0.41553
84	-0.62423	-0.40358	0.41119	0.44481	-0.40921	0.42284
85	0.04322	0.20487	0.48939	0.65136	0.48129	-0.00807
SUM	-0.96874	0.88185	2.93245	3.76807	0.01583	0.59318

Condition **LC25=1.2D+Di+WI0**

42	0.30968	0.41971	0.05457	-0.00939	-0.02610	0.04089
43	-0.26453	0.34047	0.04494	0.01898	0.03993	-0.04537
44	0.01985	0.06529	-0.01073	-0.01533	0.00002	-0.02676
45	-0.00824	0.03279	-0.02383	-0.02553	-0.00024	0.00584
48	0.01670	0.15851	0.01707	-0.00432	-0.00036	-0.00850
49	-0.06437	0.42302	0.07135	0.03220	0.00107	0.02482
84	0.26351	0.44857	0.06690	0.01946	-0.07050	0.05654
85	-0.27260	0.48145	0.07373	-0.00014	0.06217	-0.07505
SUM	0.00000	2.36980	0.29400	0.01593	0.00599	-0.02760

Condition **LC26=1.2D+Di+WI30**

42	0.35121	0.41964	0.03327	-0.02335	-0.00072	0.01038
43	-0.25622	0.34234	0.03256	0.00809	0.02188	-0.04449
44	0.02694	0.06175	-0.01443	-0.01937	0.00003	-0.03484
45	-0.00323	0.03109	-0.02044	-0.02197	-0.00028	0.00069
48	0.01719	0.15680	0.01211	-0.00944	-0.00026	-0.00931
49	-0.04227	0.42677	0.04946	0.01000	0.00087	0.00207
84	0.35620	0.45991	0.04476	-0.00035	-0.03771	0.02219
85	-0.26739	0.47150	0.04513	-0.02010	0.03037	-0.07042
SUM	0.18243	2.36980	0.18243	-0.07650	0.01418	-0.12372

Condition **LC27=1.2D+Di+WI60**

42	0.34803	0.41800	0.02330	-0.03147	0.00759	0.00751
43	-0.27180	0.34319	0.02403	-0.00059	0.01059	-0.03551
44	0.02359	0.06211	-0.01245	-0.01696	0.00002	-0.03075
45	-0.00439	0.02951	-0.02020	-0.02177	-0.00025	0.00208
48	0.01495	0.15871	0.00953	-0.01321	-0.00022	-0.00630
49	-0.04061	0.42522	0.04458	0.00549	0.00079	0.00114
84	0.36517	0.46061	0.03501	-0.00827	-0.02393	0.01878
85	-0.29635	0.47246	0.03480	-0.02806	0.01652	-0.05684
SUM	0.13859	2.36980	0.13859	-0.11482	0.01112	-0.09988

Condition **LC28=1.2D+Di+WI90**

42	0.36024	0.41364	-0.00055	-0.04845	0.03061	-0.01038
43	-0.29269	0.34752	0.00600	-0.01802	-0.01380	-0.02211
44	0.01815	0.05952	-0.01011	-0.01375	0.00002	-0.02411
45	-0.00433	0.02695	-0.01648	-0.01787	-0.00019	0.00255
48	0.00901	0.16361	-0.00052	-0.02199	-0.00003	-0.00045
49	-0.02030	0.42509	0.01383	-0.01958	0.00042	-0.01380
84	0.43365	0.46591	0.00706	-0.03167	0.01857	-0.00575
85	-0.34173	0.46757	0.00077	-0.05330	-0.02530	-0.03128
SUM	0.16200	2.36980	0.00000	-0.22463	0.01030	-0.10533

Condition **LC29=1.2D+Di+WI120**

42	0.36634	0.40858	-0.02448	-0.06573	0.05274	-0.02537
43	-0.31912	0.35218	-0.01316	-0.03679	-0.03900	-0.00628
44	0.00954	0.05743	-0.00637	-0.00893	0.00002	-0.01390
45	-0.00589	0.02376	-0.01317	-0.01439	-0.00011	0.00473
48	0.00165	0.17055	-0.01133	-0.03187	0.00017	0.00718
49	-0.00293	0.42312	-0.01610	-0.04334	0.00003	-0.02516
84	0.48984	0.46949	-0.02117	-0.05493	0.06143	-0.02559
85	-0.40083	0.46470	-0.03280	-0.07852	-0.06764	-0.00047
SUM	0.13859	2.36980	-0.13859	-0.33451	0.00763	-0.08486

Condition **LC30=1.2D+Di+WI150**

42	0.38014	0.40829	-0.03396	-0.07226	0.06328	-0.03656
43	-0.31952	0.35293	-0.01961	-0.04278	-0.04761	-0.00394
44	0.01051	0.05658	-0.00701	-0.00963	0.00003	-0.01506
45	-0.00508	0.02242	-0.01245	-0.01358	-0.00012	0.00389
48	0.00118	0.17112	-0.01331	-0.03466	0.00020	0.00795
49	0.00232	0.42305	-0.02203	-0.04986	-0.00003	-0.03092
84	0.51956	0.47332	-0.03017	-0.06279	0.07461	-0.03663
85	-0.40667	0.46210	-0.04390	-0.08646	-0.08059	0.00434
SUM	0.18243	2.36980	-0.18243	-0.37201	0.00977	-0.10693

Condition **LC31=1.2D+Di-WI0**

42	0.35978	0.40235	-0.05658	-0.09076	0.08005	-0.03721
43	-0.36679	0.35652	-0.04120	-0.06504	-0.07475	0.02127
44	-0.00505	0.05764	0.00075	-0.00028	0.00003	0.00326
45	-0.01117	0.01777	-0.01202	-0.01315	0.00000	0.01084
48	-0.00819	0.18087	-0.02281	-0.04663	0.00035	0.01946
49	0.00430	0.41594	-0.03822	-0.06220	-0.00031	-0.02816
84	0.52535	0.47153	-0.05440	-0.08175	0.11009	-0.03838
85	-0.49823	0.46718	-0.06951	-0.10688	-0.11644	0.04565
SUM	0.00000	2.36980	-0.29400	-0.46669	-0.00099	-0.00327

Condition **LC32=1.2D+Di-WI30**

42	0.31825	0.40241	-0.03528	-0.07680	0.05468	-0.00670
43	-0.37510	0.35466	-0.02883	-0.05415	-0.05670	0.02039
44	-0.01214	0.06118	0.00445	0.00376	0.00002	0.01133
45	-0.01618	0.01948	-0.01541	-0.01671	0.00003	0.01599
48	-0.00869	0.18259	-0.01785	-0.04151	0.00025	0.02027
49	-0.01779	0.41218	-0.01634	-0.03999	-0.00011	-0.00541
84	0.43266	0.46018	-0.03227	-0.06194	0.07729	-0.00403
85	-0.50345	0.47713	-0.04091	-0.08693	-0.08464	0.04102
SUM	-0.18243	2.36980	-0.18243	-0.37426	-0.00918	0.09285

Condition **LC33=1.2D+Di-WI60**

42	0.32144	0.40405	-0.02531	-0.06868	0.04637	-0.00382
43	-0.35952	0.35381	-0.02029	-0.04548	-0.04541	0.01141
44	-0.00879	0.06082	0.00248	0.00135	0.00002	0.00724
45	-0.01502	0.02106	-0.01564	-0.01691	0.00001	0.01459
48	-0.00645	0.18067	-0.01527	-0.03774	0.00021	0.01726
49	-0.01946	0.41374	-0.01146	-0.03549	-0.00003	-0.00448
84	0.42369	0.45949	-0.02251	-0.05402	0.06351	-0.00062
85	-0.47449	0.47617	-0.03057	-0.07896	-0.07080	0.02743
SUM	-0.13859	2.36980	-0.13859	-0.33594	-0.00612	0.06901

Condition **LC34=1.2D+Di-WI90**

42	0.30923	0.40842	-0.00146	-0.05170	0.02334	0.01406
43	-0.33863	0.34948	-0.00226	-0.02804	-0.02102	-0.00199
44	-0.00335	0.06341	0.00013	-0.00186	0.00002	0.00061
45	-0.01508	0.02362	-0.01937	-0.02082	-0.00005	0.01412
48	-0.00051	0.17577	-0.00522	-0.02896	0.00002	0.01141
49	-0.03976	0.41387	0.01929	-0.01042	0.00035	0.01046
84	0.35521	0.45418	0.00544	-0.03061	0.02102	0.02391
85	-0.42911	0.48106	0.00345	-0.05373	-0.02898	0.00187
SUM	-0.16200	2.36980	0.00000	-0.22613	-0.00530	0.07446

Condition **LC35=1.2D+Di-WI120**

42	0.30313	0.41347	0.02246	-0.03442	0.00122	0.02905
43	-0.31220	0.34482	0.01690	-0.00927	0.00418	-0.01782
44	0.00527	0.06550	-0.00361	-0.00667	0.00002	-0.00960
45	-0.01352	0.02680	-0.02267	-0.02430	-0.00013	0.01194
48	0.00686	0.16883	0.00559	-0.01908	-0.00018	0.00378
49	-0.05714	0.41584	0.04923	0.01335	0.00073	0.02182
84	0.29902	0.45060	0.03367	-0.00735	-0.02185	0.04375
85	-0.37001	0.48393	0.03703	-0.02851	0.01337	-0.02893
SUM	-0.13859	2.36980	0.13859	-0.11626	-0.00263	0.05400

Condition **LC36=1.2D+Di-WI150**

42	0.28933	0.41376	0.03194	-0.02789	-0.00932	0.04024
43	-0.31180	0.34407	0.02334	-0.00329	0.01279	-0.02016
44	0.00430	0.06635	-0.00296	-0.00598	0.00001	-0.00844
45	-0.01433	0.02814	-0.02340	-0.02510	-0.00013	0.01279
48	0.00733	0.16826	0.00757	-0.01629	-0.00021	0.00301
49	-0.06239	0.41590	0.05515	0.01986	0.00079	0.02758
84	0.26930	0.44677	0.04267	0.00050	-0.03502	0.05480
85	-0.36417	0.48653	0.04813	-0.02056	0.02631	-0.03374
SUM	-0.18243	2.36980	0.18243	-0.07875	-0.00477	0.07606

Condition **LC37=1.2D+1.6LL1**

42	0.15945	0.20044	-0.00159	-0.02682	0.01468	-0.00063
43	-0.13163	0.15493	-0.00114	-0.01302	-0.00817	-0.00484
44	0.00118	0.03023	-0.00179	-0.00488	0.00000	-0.00658
45	-0.00715	-0.00222	-0.01029	-0.00964	-0.00009	0.00488
48	0.00394	0.26772	-0.00013	-0.01003	0.00002	-0.00014
49	-0.04014	0.48357	0.00910	-0.01246	0.00040	0.01271
84	0.18494	0.22268	0.00400	-0.01305	0.00840	0.00495
85	-0.17059	0.21844	0.00183	-0.02140	-0.01055	-0.00698
SUM	0.00000	1.57580	0.00000	-0.11129	0.00469	0.00335

Condition **LC38=1.2D+1.6LL2**

42	0.15245	0.19460	-0.00072	-0.02368	0.01273	0.00063
43	-0.13859	0.16094	0.00050	-0.01087	-0.00784	-0.00535
44	0.00375	0.03467	-0.00246	-0.00414	0.00001	-0.00645
45	-0.00468	0.01373	-0.00912	-0.00967	-0.00007	0.00379
48	0.00278	0.09110	-0.00147	-0.01464	0.00000	0.00289
49	-0.01788	0.23959	0.01001	-0.00859	0.00023	-0.00090
84	0.18097	0.21677	0.00227	-0.01476	0.00886	0.00271
85	-0.17881	0.62439	0.00100	-0.02473	-0.01265	-0.00945
SUM	0.00000	1.57580	0.00000	-0.11108	0.00126	-0.01213

Condition **LC39=1.2D+1.6LL3**

42	0.15485	0.59518	-0.00077	-0.02405	0.01318	0.00313
43	-0.14067	0.16013	0.00034	-0.01100	-0.00814	-0.00419
44	0.00352	0.03489	-0.00226	-0.00389	0.00001	-0.00614
45	-0.00484	0.01364	-0.00939	-0.01001	-0.00007	0.00400
48	0.00272	0.09108	-0.00146	-0.01463	0.00000	0.00297
49	-0.01800	0.23960	0.01001	-0.00858	0.00023	-0.00073
84	0.17867	0.21747	0.00246	-0.01469	0.00877	0.00394
85	-0.17626	0.22381	0.00107	-0.02436	-0.01228	-0.00675
SUM	0.00000	1.57580	0.00000	-0.11119	0.00169	-0.00377

Condition **LC40=1.2D+WL0+1.6LLa1**

42	0.14007	0.19458	0.01803	-0.00856	-0.00585	0.01437
43	-0.12600	0.16122	0.01399	0.00241	0.01123	-0.01571
44	0.00407	0.03398	-0.00312	-0.00467	0.00003	-0.00614
45	-0.01171	-0.01092	-0.02664	-0.03215	-0.00008	0.01341
48	0.00435	0.08768	0.00362	-0.01092	-0.00013	0.00206
49	-0.03176	0.24029	0.02744	0.00660	0.00044	0.01152
84	0.54273	0.59950	0.03478	-0.03228	-0.00008	0.01833
85	-0.52177	0.66947	0.02590	-0.08510	-0.01480	-0.05848
SUM	0.00000	1.97580	0.09400	-0.16467	-0.00923	-0.02064

Condition **LC41=1.2D+WL30+1.6LLa1**

42	0.15387	0.19466	0.01129	-0.01299	0.00229	0.00442
43	-0.12280	0.16170	0.01016	-0.00094	0.00559	-0.01566
44	0.00671	0.03294	-0.00445	-0.00615	0.00004	-0.00917
45	-0.00994	-0.01133	-0.02554	-0.03099	-0.00009	0.01158
48	0.00489	0.08679	0.00258	-0.01164	-0.00010	0.00124
49	-0.02523	0.24177	0.02147	0.00062	0.00039	0.00480
84	0.57210	0.60316	0.02808	-0.03832	0.00980	0.00749
85	-0.51878	0.66610	0.01723	-0.09106	-0.02432	-0.05756
SUM	0.06081	1.97580	0.06081	-0.19148	-0.00641	-0.05287

Condition **LC42=1.2D+WL60+1.6LLa1**

42	0.15247	0.19397	0.00715	-0.01632	0.00571	0.00325
43	-0.12931	0.16212	0.00657	-0.00458	0.00091	-0.01189
44	0.00511	0.03299	-0.00357	-0.00506	0.00004	-0.00721
45	-0.01059	-0.01207	-0.02557	-0.03106	-0.00008	0.01234
48	0.00364	0.08789	0.00098	-0.01435	-0.00008	0.00310
49	-0.02414	0.24078	0.01874	-0.00233	0.00035	0.00376
84	0.57483	0.60334	0.02463	-0.04110	0.01474	0.00634
85	-0.52958	0.66679	0.01350	-0.09405	-0.02937	-0.05265
SUM	0.04243	1.97580	0.04243	-0.20886	-0.00779	-0.04296

Condition **LC43=1.2D+WL90+1.6LLa1**

42	0.15601	0.19266	-0.00003	-0.02149	0.01263	-0.00204
43	-0.13570	0.16337	0.00126	-0.00972	-0.00647	-0.00786
44	0.00384	0.03222	-0.00296	-0.00420	0.00003	-0.00561
45	-0.01029	-0.01270	-0.02426	-0.02970	-0.00007	0.01220
48	0.00212	0.08892	-0.00175	-0.01625	-0.00002	0.00437
49	-0.01765	0.24121	0.00939	-0.00968	0.00024	-0.00091
84	0.59621	0.60500	0.01561	-0.04866	0.02826	-0.00128
85	-0.54453	0.66511	0.00275	-0.10195	-0.04261	-0.04424
SUM	0.05000	1.97580	0.00000	-0.24164	-0.00801	-0.04537

Condition **LC44=1.2D+WL120+1.6LLa1**

42	0.15767	0.19094	-0.00716	-0.02652	0.01919	-0.00654
43	-0.14382	0.16499	-0.00460	-0.01546	-0.01397	-0.00309
44	0.00068	0.03154	-0.00167	-0.00256	0.00004	-0.00191
45	-0.01102	-0.01365	-0.02326	-0.02861	-0.00004	0.01313
48	-0.00033	0.09134	-0.00506	-0.01903	0.00003	0.00683
49	-0.01301	0.24048	0.00054	-0.01624	0.00012	-0.00336
84	0.61479	0.60606	0.00679	-0.05592	0.04191	-0.00778
85	-0.56254	0.66409	-0.00800	-0.11005	-0.05611	-0.03475
SUM	0.04243	1.97580	-0.04243	-0.27440	-0.00883	-0.03747

Condition **LC45=1.2D+WL150+1.6LLa1**

42	0.16367	0.19101	-0.01114	-0.02934	0.02365	-0.01126
43	-0.14371	0.16513	-0.00722	-0.01788	-0.01757	-0.00216
44	0.00131	0.03121	-0.00201	-0.00294	0.00004	-0.00268
45	-0.01059	-0.01439	-0.02301	-0.02834	-0.00004	0.01267
48	-0.00057	0.09173	-0.00623	-0.02097	0.00006	0.00737
49	-0.00998	0.24022	-0.00276	-0.02030	0.00008	-0.00703
84	0.62535	0.60766	0.00349	-0.05881	0.04658	-0.01178
85	-0.56468	0.66324	-0.01195	-0.11285	-0.06071	-0.03304
SUM	0.06081	1.97580	-0.06081	-0.29142	-0.00790	-0.04790

Condition **LC46=1.2D-WL0+1.6LLa1**

42	0.15671	0.18905	-0.01830	-0.03522	0.02888	-0.01122
43	-0.15916	0.16629	-0.01414	-0.02505	-0.02623	0.00602
44	-0.00373	0.03164	0.00052	0.00010	0.00004	0.00328
45	-0.01261	-0.01570	-0.02292	-0.02825	0.00000	0.01496
48	-0.00342	0.09467	-0.00884	-0.02412	0.00010	0.01079
49	-0.01030	0.23808	-0.00679	-0.02289	0.00001	-0.00503
84	0.62608	0.60688	-0.00386	-0.06452	0.05737	-0.01189
85	-0.59356	0.66491	-0.01966	-0.11904	-0.07161	-0.02007
SUM	0.00000	1.97580	-0.09400	-0.31899	-0.01146	-0.01315

Condition **LC47=1.2D-WL30+1.6LLa1**

42	0.14292	0.18896	-0.01156	-0.03079	0.02074	-0.00127
43	-0.16236	0.16581	-0.01032	-0.02170	-0.02058	0.00597
44	-0.00637	0.03267	0.00186	0.00158	0.00003	0.00631
45	-0.01437	-0.01530	-0.02402	-0.02942	0.00001	0.01680
48	-0.00396	0.09555	-0.00780	-0.02340	0.00007	0.01162
49	-0.01683	0.23660	-0.00082	-0.01691	0.00006	0.00169
84	0.59671	0.60322	0.00285	-0.05848	0.04748	-0.00105
85	-0.59655	0.66827	-0.01099	-0.11308	-0.06209	-0.02099
SUM	-0.06081	1.97580	-0.06081	-0.29219	-0.01427	0.01908

Condition **LC48=1.2D-WL60+1.6LLa1**

42	0.14431	0.18965	-0.00742	-0.02746	0.01732	-0.00010
43	-0.15584	0.16539	-0.00673	-0.01806	-0.01590	0.00221
44	-0.00477	0.03263	0.00097	0.00049	0.00003	0.00435
45	-0.01373	-0.01456	-0.02399	-0.02935	0.00000	0.01604
48	-0.00270	0.09446	-0.00621	-0.02069	0.00005	0.00976
49	-0.01792	0.23759	0.00191	-0.01395	0.00010	0.00273
84	0.59398	0.60304	0.00630	-0.05570	0.04255	0.00010
85	-0.58575	0.66759	-0.00725	-0.11009	-0.05704	-0.02591
SUM	-0.04243	1.97580	-0.04243	-0.27480	-0.01290	0.00917

Condition **LC49=1.2D-WL90+1.6LLa1**

42	0.14077	0.19097	-0.00024	-0.02229	0.01040	0.00519
43	-0.14946	0.16415	-0.00142	-0.01292	-0.00853	-0.00183
44	-0.00350	0.03340	0.00036	-0.00037	0.00004	0.00275
45	-0.01402	-0.01393	-0.02530	-0.03071	-0.00002	0.01618
48	-0.00119	0.09342	-0.00347	-0.01878	-0.00001	0.00849
49	-0.02440	0.23716	0.01126	-0.00661	0.00021	0.00740
84	0.57260	0.60138	0.01531	-0.04814	0.02903	0.00772
85	-0.57080	0.66926	0.00349	-0.10220	-0.04380	-0.03432
SUM	-0.05000	1.97580	0.00000	-0.24202	-0.01268	0.01158

Condition **LC50=1.2D-WL120+1.6LLa1**

42	0.13911	0.19269	0.00688	-0.01726	0.00384	0.00969
43	-0.14134	0.16252	0.00444	-0.00718	-0.00102	-0.00660
44	-0.00034	0.03407	-0.00093	-0.00201	0.00003	-0.00096
45	-0.01330	-0.01298	-0.02630	-0.03179	-0.00005	0.01525
48	0.00126	0.09100	-0.00017	-0.01600	-0.00007	0.00603
49	-0.02905	0.23788	0.02011	-0.00005	0.00033	0.00985
84	0.55402	0.60032	0.02414	-0.04088	0.01537	0.01422
85	-0.55279	0.67029	0.01424	-0.09409	-0.03030	-0.04381
SUM	-0.04243	1.97580	0.04243	-0.20926	-0.01186	0.00368

Condition **LC51=1.2D-WL150+1.6LLa1**

42	0.13311	0.19262	0.01086	-0.01444	-0.00062	0.01441
43	-0.14145	0.16238	0.00706	-0.00476	0.00257	-0.00753
44	-0.00097	0.03441	-0.00059	-0.00163	0.00003	-0.00019
45	-0.01373	-0.01224	-0.02656	-0.03207	-0.00004	0.01571
48	0.00150	0.09062	0.00100	-0.01406	-0.00009	0.00549
49	-0.03208	0.23815	0.02341	0.00401	0.00036	0.01352
84	0.54346	0.59872	0.02743	-0.03799	0.01070	0.01822
85	-0.55065	0.67114	0.01819	-0.09130	-0.02570	-0.04552
SUM	-0.06081	1.97580	0.06081	-0.19224	-0.01278	0.01410

Condition **LC52=1.2D+WL0+1.6LLa2**

42	0.18271	0.22513	0.01342	-0.02343	0.00474	0.00492
43	-0.08388	0.13062	0.00990	-0.00293	0.01053	-0.01739
44	0.01422	0.04761	-0.00717	-0.01501	0.00000	-0.02782
45	-0.01122	-0.04075	-0.02901	-0.02850	-0.00039	0.00596
48	0.01856	0.22684	0.00153	-0.05632	-0.00012	0.00609
49	-0.09312	0.90774	0.06447	-0.02188	0.00125	0.00533
84	0.12832	0.24597	0.01532	-0.00493	-0.02309	0.01811
85	-0.15559	0.23264	0.02556	-0.00209	0.01776	-0.02046
SUM	0.00000	1.97580	0.09400	-0.15508	0.01068	-0.02525

Condition **LC53=1.2D+WL30+1.6LLa2**

42	0.19650	0.22521	0.00668	-0.02786	0.01288	-0.00503
43	-0.08068	0.13110	0.00608	-0.00628	0.00488	-0.01734
44	0.01686	0.04657	-0.00851	-0.01649	0.00001	-0.03085
45	-0.00945	-0.04115	-0.02792	-0.02734	-0.00040	0.00412
48	0.01910	0.22595	0.00049	-0.05704	-0.00010	0.00527
49	-0.08660	0.90921	0.05849	-0.02786	0.00120	-0.00139
84	0.15769	0.24963	0.00861	-0.01097	-0.01321	0.00727
85	-0.15260	0.22928	0.01689	-0.00805	0.00824	-0.01953
SUM	0.06081	1.97580	0.06081	-0.18189	0.01349	-0.05748

Condition **LC54=1.2D+WL60+1.6LLa2**

42	0.19511	0.22452	0.00254	-0.03119	0.01630	-0.00620
43	-0.08720	0.13152	0.00248	-0.00992	0.00020	-0.01357
44	0.01526	0.04662	-0.00762	-0.01540	0.00000	-0.02889
45	-0.01010	-0.04189	-0.02795	-0.02740	-0.00039	0.00489
48	0.01784	0.22705	-0.00111	-0.05975	-0.00007	0.00713
49	-0.08551	0.90822	0.05576	-0.03081	0.00116	-0.00243
84	0.16042	0.24981	0.00516	-0.01375	-0.00827	0.00612
85	-0.16340	0.22996	0.01315	-0.01104	0.00319	-0.01462
SUM	0.04243	1.97580	0.04243	-0.19927	0.01212	-0.04757

Condition **LC55=1.2D+WL90+1.6LLa2**

42	0.19864	0.22321	-0.00464	-0.03636	0.02322	-0.01149
43	-0.09358	0.13277	-0.00283	-0.01506	-0.00717	-0.00953
44	0.01399	0.04585	-0.00701	-0.01454	0.00000	-0.02729
45	-0.00980	-0.04252	-0.02664	-0.02604	-0.00038	0.00475
48	0.01633	0.22808	-0.00384	-0.06166	-0.00002	0.00840
49	-0.07902	0.90866	0.04641	-0.03816	0.00104	-0.00710
84	0.18180	0.25147	-0.00385	-0.02131	0.00525	-0.00150
85	-0.17835	0.22829	0.00240	-0.01893	-0.01005	-0.00621
SUM	0.05000	1.97580	0.00000	-0.23205	0.01190	-0.04998

Condition **LC56=1.2D+WL120+1.6LLa2**

42	0.20031	0.22149	-0.01177	-0.04139	0.02978	-0.01599
43	-0.10170	0.13439	-0.00869	-0.02080	-0.01468	-0.00477
44	0.01083	0.04517	-0.00573	-0.01290	0.00000	-0.02358
45	-0.01053	-0.04347	-0.02564	-0.02496	-0.00035	0.00568
48	0.01388	0.23050	-0.00715	-0.06443	0.00004	0.01086
49	-0.07438	0.90793	0.03756	-0.04472	0.00093	-0.00955
84	0.20038	0.25253	-0.01268	-0.02857	0.01890	-0.00800
85	-0.19636	0.22726	-0.00834	-0.02704	-0.02355	0.00328
SUM	0.04243	1.97580	-0.04243	-0.26482	0.01108	-0.04208

Condition **LC57=1.2D+WL150+1.6LLa2**

42	0.20631	0.22156	-0.01575	-0.04420	0.03424	-0.02071
43	-0.10159	0.13453	-0.01130	-0.02322	-0.01827	-0.00384
44	0.01146	0.04484	-0.00606	-0.01328	0.00001	-0.02435
45	-0.01010	-0.04421	-0.02538	-0.02469	-0.00035	0.00522
48	0.01364	0.23089	-0.00832	-0.06637	0.00006	0.01140
49	-0.07134	0.90766	0.03426	-0.04878	0.00089	-0.01322
84	0.21094	0.25413	-0.01597	-0.03146	0.02357	-0.01200
85	-0.19850	0.22641	-0.01229	-0.02984	-0.02815	0.00499
SUM	0.06081	1.97580	-0.06081	-0.28183	0.01200	-0.05251

Condition **LC58=1.2D-WL0+1.6LLa2**

42	0.19934	0.21960	-0.02291	-0.05009	0.03947	-0.02067
43	-0.11704	0.13569	-0.01823	-0.03039	-0.02693	0.00434
44	0.00642	0.04527	-0.00354	-0.01024	0.00000	-0.01840
45	-0.01212	-0.04553	-0.02530	-0.02460	-0.00031	0.00751
48	0.01079	0.23383	-0.01093	-0.06952	0.00010	0.01482
49	-0.07167	0.90552	0.03023	-0.05137	0.00082	-0.01121
84	0.21166	0.25335	-0.02332	-0.03717	0.03436	-0.01211
85	-0.22738	0.22808	-0.02001	-0.03603	-0.03906	0.01796
SUM	0.00000	1.97580	-0.09400	-0.30940	0.00845	-0.01776

Condition **LC59=1.2D-WL30+1.6LLa2**

42	0.18555	0.21951	-0.01617	-0.04566	0.03133	-0.01072
43	-0.12024	0.13521	-0.01441	-0.02704	-0.02129	0.00429
44	0.00378	0.04630	-0.00220	-0.00876	0.00000	-0.01537
45	-0.01388	-0.04513	-0.02639	-0.02576	-0.00030	0.00935
48	0.01025	0.23471	-0.00989	-0.06880	0.00008	0.01565
49	-0.07819	0.90405	0.03620	-0.04539	0.00087	-0.00450
84	0.18229	0.24969	-0.01662	-0.03113	0.02447	-0.00127
85	-0.23037	0.23144	-0.01134	-0.03007	-0.02953	0.01703
SUM	-0.06081	1.97580	-0.06081	-0.28260	0.00563	0.01447

Condition **LC60=1.2D-WL60+1.6LLa2**

42	0.18694	0.22020	-0.01203	-0.04232	0.02791	-0.00955
43	-0.11373	0.13479	-0.01082	-0.02340	-0.01661	0.00053
44	0.00538	0.04626	-0.00309	-0.00985	0.00000	-0.01733
45	-0.01324	-0.04439	-0.02636	-0.02570	-0.00031	0.00859
48	0.01150	0.23362	-0.00830	-0.06609	0.00005	0.01379
49	-0.07928	0.90504	0.03893	-0.04244	0.00091	-0.00346
84	0.17956	0.24951	-0.01316	-0.02835	0.01954	-0.00012
85	-0.21957	0.23076	-0.00760	-0.02708	-0.02448	0.01212
SUM	-0.04243	1.97580	-0.04243	-0.26521	0.00701	0.00456

Condition **LC61=1.2D-WL90+1.6LLa2**

42	0.18341	0.22151	-0.00485	-0.03716	0.02099	-0.00426
43	-0.10734	0.13355	-0.00551	-0.01826	-0.00923	-0.00351
44	0.00665	0.04703	-0.00370	-0.01071	0.00001	-0.01893
45	-0.01353	-0.04376	-0.02767	-0.02706	-0.00033	0.00873
48	0.01302	0.23258	-0.00556	-0.06418	0.00000	0.01251
49	-0.08577	0.90460	0.04829	-0.03509	0.00102	0.00121
84	0.15819	0.24785	-0.00415	-0.02079	0.00601	0.00750
85	-0.20462	0.23243	0.00315	-0.01918	-0.01124	0.00371
SUM	-0.05000	1.97580	0.00000	-0.23244	0.00723	0.00697

Condition **LC62=1.2D-WL120+1.6LLa2**

42	0.18174	0.22324	0.00227	-0.03213	0.01443	0.00024
43	-0.09922	0.13192	0.00035	-0.01252	-0.00173	-0.00828
44	0.00981	0.04771	-0.00498	-0.01235	0.00000	-0.02263
45	-0.01281	-0.04281	-0.02867	-0.02814	-0.00036	0.00780
48	0.01547	0.23016	-0.00226	-0.06141	-0.00006	0.01006
49	-0.09041	0.90533	0.05714	-0.02853	0.00114	0.00366
84	0.13960	0.24679	0.00468	-0.01353	-0.00764	0.01399
85	-0.18661	0.23346	0.01390	-0.01108	0.00226	-0.00578
SUM	-0.04243	1.97580	0.04243	-0.19967	0.00805	-0.00093

Condition **LC63=1.2D-WL150+1.6LLa2**

42	0.17574	0.22317	0.00625	-0.02931	0.00997	0.00496
43	-0.09933	0.13178	0.00297	-0.01010	0.00187	-0.00921
44	0.00918	0.04804	-0.00465	-0.01197	0.00000	-0.02187
45	-0.01324	-0.04207	-0.02893	-0.02841	-0.00035	0.00825
48	0.01571	0.22978	-0.00109	-0.05947	-0.00008	0.00952
49	-0.09344	0.90560	0.06043	-0.02447	0.00117	0.00733
84	0.12904	0.24519	0.00797	-0.01064	-0.01231	0.01800
85	-0.18447	0.23431	0.01784	-0.00828	0.00685	-0.00749
SUM	-0.06081	1.97580	0.06081	-0.18265	0.00712	0.00949

Condition **LC64=1.2D+WL0+1.6LLa3**

42	0.51671	0.66526	0.02024	-0.09481	0.02442	0.03924
43	-0.52142	0.52235	0.01989	-0.03062	-0.01044	-0.01540
44	0.01605	0.00585	-0.01269	-0.01743	-0.00001	-0.02286
45	-0.00183	0.01429	-0.01014	-0.01048	-0.00015	-0.00004
48	0.00890	0.08793	0.00500	-0.00781	-0.00011	-0.00423
49	-0.02446	0.24071	0.02587	0.00307	0.00047	0.00077
84	0.14175	0.21661	0.02132	0.00097	-0.02038	0.01828
85	-0.13570	0.22280	0.02451	-0.00531	0.01753	-0.02663
SUM	0.00000	1.97580	0.09400	-0.16243	0.01133	-0.01087

Condition **LC65=1.2D+WL30+1.6LLa3**

42	0.53051	0.66535	0.01350	-0.09924	0.03256	0.02930
43	-0.51822	0.52283	0.01607	-0.03397	-0.01608	-0.01535
44	0.01869	0.00481	-0.01403	-0.01892	-0.00001	-0.02589
45	-0.00007	0.01388	-0.00904	-0.00932	-0.00016	-0.00188
48	0.00943	0.08704	0.00396	-0.00853	-0.00009	-0.00505
49	-0.01794	0.24219	0.01990	-0.00292	0.00041	-0.00595
84	0.17112	0.22026	0.01461	-0.00508	-0.01049	0.00744
85	-0.13272	0.21944	0.01584	-0.01127	0.00800	-0.02571
SUM	0.06081	1.97580	0.06081	-0.18923	0.01414	-0.04310

Condition **LC66=1.2D+WL60+1.6LLa3**

42	0.52911	0.66466	0.00936	-0.10257	0.03599	0.02813
43	-0.52473	0.52325	0.01248	-0.03761	-0.02076	-0.01159
44	0.01709	0.00486	-0.01314	-0.01783	-0.00001	-0.02393
45	-0.00071	0.01314	-0.00907	-0.00938	-0.00015	-0.00112
48	0.00818	0.08814	0.00237	-0.01124	-0.00006	-0.00319
49	-0.01685	0.24120	0.01717	-0.00587	0.00037	-0.00699
84	0.17385	0.22044	0.01116	-0.00786	-0.00556	0.00629
85	-0.14351	0.22012	0.01211	-0.01426	0.00295	-0.02079
SUM	0.04243	1.97580	0.04243	-0.20662	0.01277	-0.03319

Condition **LC67=1.2D+WL90+1.6LLa3**

42	0.53265	0.66334	0.00218	-0.10773	0.04290	0.02283
43	-0.53112	0.52450	0.00716	-0.04275	-0.02814	-0.00755
44	0.01582	0.00409	-0.01253	-0.01696	-0.00001	-0.02233
45	-0.00042	0.01251	-0.00776	-0.00802	-0.00013	-0.00126
48	0.00666	0.08918	-0.00037	-0.01314	-0.00001	-0.00192
49	-0.01036	0.24163	0.00782	-0.01322	0.00026	-0.01166
84	0.19523	0.22210	0.00215	-0.01541	0.00796	-0.00133
85	-0.15847	0.21845	0.00136	-0.02216	-0.01028	-0.01238
SUM	0.05000	1.97580	0.00000	-0.23940	0.01255	-0.03560

Condition **LC68=1.2D+WL120+1.6LLa3**

42	0.53431	0.66162	-0.00495	-0.11277	0.04947	0.01833
43	-0.53924	0.52612	0.00130	-0.04849	-0.03564	-0.00278
44	0.01266	0.00341	-0.01125	-0.01532	-0.00001	-0.01863
45	-0.00115	0.01156	-0.00676	-0.00694	-0.00010	-0.00033
48	0.00422	0.09160	-0.00367	-0.01592	0.00005	0.00054
49	-0.00572	0.24091	-0.00103	-0.01978	0.00014	-0.01411
84	0.21381	0.22317	-0.00668	-0.02268	0.02161	-0.00783
85	-0.17647	0.21742	-0.00939	-0.03027	-0.02378	-0.00289
SUM	0.04243	1.97580	-0.04243	-0.27216	0.01173	-0.02770

Condition **LC69=1.2D+WL150+1.6LLa3**

42	0.54031	0.66169	-0.00892	-0.11558	0.05393	0.01362
43	-0.53913	0.52626	-0.00131	-0.05091	-0.03924	-0.00185
44	0.01329	0.00308	-0.01158	-0.01571	-0.00001	-0.01939
45	-0.00072	0.01082	-0.00651	-0.00667	-0.00011	-0.00079
48	0.00397	0.09198	-0.00484	-0.01786	0.00007	0.00108
49	-0.00268	0.24064	-0.00433	-0.02383	0.00011	-0.01778
84	0.22437	0.22476	-0.00997	-0.02556	0.02629	-0.01183
85	-0.17861	0.21657	-0.01334	-0.03306	-0.02838	-0.00118
SUM	0.06081	1.97580	-0.06081	-0.28918	0.01266	-0.03812

Condition **LC70=1.2D-WL0+1.6LLa3**

42	0.53335	0.65973	-0.01609	-0.12146	0.05916	0.01366
43	-0.55458	0.52742	-0.00824	-0.05808	-0.04790	0.00633
44	0.00825	0.00351	-0.00906	-0.01267	-0.00001	-0.01344
45	-0.00274	0.00951	-0.00642	-0.00658	-0.00007	0.00151
48	0.00112	0.09492	-0.00746	-0.02101	0.00011	0.00451
49	-0.00301	0.23850	-0.00836	-0.02643	0.00003	-0.01578
84	0.22509	0.22398	-0.01732	-0.03128	0.03707	-0.01194
85	-0.20749	0.21824	-0.02105	-0.03925	-0.03929	0.01179
SUM	0.00000	1.97580	-0.09400	-0.31675	0.00910	-0.00338

Condition **LC71=1.2D-WL30+1.6LLa3**

42	0.51955	0.65965	-0.00935	-0.11703	0.05102	0.02360
43	-0.55778	0.52694	-0.00442	-0.05473	-0.04225	0.00628
44	0.00561	0.00454	-0.00772	-0.01118	-0.00001	-0.01041
45	-0.00450	0.00991	-0.00752	-0.00774	-0.00006	0.00334
48	0.00059	0.09581	-0.00642	-0.02029	0.00009	0.00533
49	-0.00953	0.23702	-0.00239	-0.02044	0.00008	-0.00906
84	0.19573	0.22032	-0.01062	-0.02524	0.02718	-0.00110
85	-0.21048	0.22161	-0.01238	-0.03329	-0.02976	0.01086
SUM	-0.06081	1.97580	-0.06081	-0.28994	0.00629	0.02885

Condition **LC72=1.2D-WL60+1.6LLa3**

42	0.52095	0.66034	-0.00521	-0.11370	0.04759	0.02477
43	-0.55126	0.52652	-0.00083	-0.05109	-0.03757	0.00251
44	0.00721	0.00450	-0.00861	-0.01227	-0.00001	-0.01237
45	-0.00385	0.01065	-0.00749	-0.00768	-0.00007	0.00258
48	0.00184	0.09471	-0.00482	-0.01758	0.00006	0.00347
49	-0.01062	0.23801	0.00034	-0.01749	0.00012	-0.00802
84	0.19300	0.22015	-0.00717	-0.02245	0.02225	0.00005
85	-0.19968	0.22092	-0.00865	-0.03030	-0.02471	0.00595
SUM	-0.04243	1.97580	-0.04243	-0.27256	0.00766	0.01894

Condition **LC73=1.2D-WL90+1.6LLa3**

42	0.51741	0.66165	0.00197	-0.10854	0.04067	0.03007
43	-0.54488	0.52527	0.00449	-0.04595	-0.03020	-0.00153
44	0.00848	0.00527	-0.00922	-0.01313	-0.00001	-0.01397
45	-0.00415	0.01128	-0.00880	-0.00904	-0.00009	0.00272
48	0.00336	0.09367	-0.00209	-0.01567	0.00001	0.00220
49	-0.01711	0.23758	0.00969	-0.01014	0.00024	-0.00335
84	0.17162	0.21849	0.00185	-0.01490	0.00873	0.00767
85	-0.18473	0.22259	0.00210	-0.02241	-0.01147	-0.00246
SUM	-0.05000	1.97580	0.00000	-0.23978	0.00788	0.02135

Condition **LC74=1.2D-WL120+1.6LLa3**

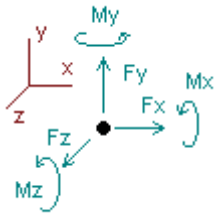
42	0.51575	0.66337	0.00909	-0.10351	0.03411	0.03457
43	-0.53676	0.52365	0.01034	-0.04021	-0.02269	-0.00629
44	0.01164	0.00594	-0.01050	-0.01477	-0.00001	-0.01767
45	-0.00342	0.01223	-0.00980	-0.01012	-0.00011	0.00179
48	0.00581	0.09126	0.00122	-0.01289	-0.00005	-0.00026
49	-0.02175	0.23831	0.01854	-0.00358	0.00035	-0.00090
84	0.15304	0.21742	0.01067	-0.00763	-0.00492	0.01417
85	-0.16672	0.22362	0.01285	-0.01430	0.00202	-0.01195
SUM	-0.04243	1.97580	0.04243	-0.20702	0.00870	0.01345

Condition **LC75=1.2D-WL150+1.6LLa3**

42	0.50975	0.66330	0.01307	-0.10069	0.02965	0.03928
43	-0.53687	0.52351	0.01296	-0.03779	-0.01910	-0.00722
44	0.01101	0.00628	-0.01017	-0.01439	-0.00001	-0.01691
45	-0.00385	0.01297	-0.01006	-0.01039	-0.00011	0.00225
48	0.00605	0.09087	0.00239	-0.01095	-0.00007	-0.00080
49	-0.02479	0.23857	0.02184	0.00047	0.00039	0.00277
84	0.14248	0.21583	0.01397	-0.00475	-0.00960	0.01817
85	-0.16459	0.22447	0.01680	-0.01151	0.00662	-0.01366
SUM	-0.06081	1.97580	0.06081	-0.19000	0.00777	0.02388

Envelope for nodal reactions

Note.- **Ic** is the controlling load condition



Direction of positive forces and moments

Envelope of nodal reactions for :

LC1=1.2D+Wo
LC2=1.2D+W30
LC3=1.2D+W60
LC4=1.2D+W90
LC5=1.2D+W120
LC6=1.2D+W150
LC7=1.2D-Wo
LC8=1.2D-W30
LC9=1.2D-W60
LC10=1.2D-W90
LC11=1.2D-W120
LC12=1.2D-W150
LC13=0.9D+Wo
LC14=0.9D+W30
LC15=0.9D+W60
LC16=0.9D+W90
LC17=0.9D+W120
LC18=0.9D+W150
LC19=0.9D-Wo

LC20=0.9D-W30
LC21=0.9D-W60
LC22=0.9D-W90
LC23=0.9D-W120
LC24=0.9D-W150
LC25=1.2D+Di+WI0
LC26=1.2D+Di+WI30
LC27=1.2D+Di+WI60
LC28=1.2D+Di+WI90
LC29=1.2D+Di+WI120
LC30=1.2D+Di+WI150
LC31=1.2D+Di-WI0
LC32=1.2D+Di-WI30
LC33=1.2D+Di-WI60
LC34=1.2D+Di-WI90
LC35=1.2D+Di-WI120
LC36=1.2D+Di-WI150
LC37=1.2D+1.6LL1
LC38=1.2D+1.6LL2
LC39=1.2D+1.6LL3
LC40=1.2D+WL0+1.6LLa1
LC41=1.2D+WL30+1.6LLa1
LC42=1.2D+WL60+1.6LLa1
LC43=1.2D+WL90+1.6LLa1
LC44=1.2D+WL120+1.6LLa1
LC45=1.2D+WL150+1.6LLa1
LC46=1.2D-WL0+1.6LLa1
LC47=1.2D-WL30+1.6LLa1
LC48=1.2D-WL60+1.6LLa1
LC49=1.2D-WL90+1.6LLa1
LC50=1.2D-WL120+1.6LLa1
LC51=1.2D-WL150+1.6LLa1
LC52=1.2D+WL0+1.6LLa2
LC53=1.2D+WL30+1.6LLa2
LC54=1.2D+WL60+1.6LLa2
LC55=1.2D+WL90+1.6LLa2
LC56=1.2D+WL120+1.6LLa2
LC57=1.2D+WL150+1.6LLa2
LC58=1.2D-WL0+1.6LLa2
LC59=1.2D-WL30+1.6LLa2
LC60=1.2D-WL60+1.6LLa2
LC61=1.2D-WL90+1.6LLa2
LC62=1.2D-WL120+1.6LLa2
LC63=1.2D-WL150+1.6LLa2
LC64=1.2D+WL0+1.6LLa3
LC65=1.2D+WL30+1.6LLa3
LC66=1.2D+WL60+1.6LLa3
LC67=1.2D+WL90+1.6LLa3
LC68=1.2D+WL120+1.6LLa3
LC69=1.2D+WL150+1.6LLa3
LC70=1.2D-WL0+1.6LLa3
LC71=1.2D-WL30+1.6LLa3
LC72=1.2D-WL60+1.6LLa3
LC73=1.2D-WL90+1.6LLa3
LC74=1.2D-WL120+1.6LLa3
LC75=1.2D-WL150+1.6LLa3

Node		Forces						Moments					
		Fx [Kip]	**lc**	**Fy** [Kip]	**lc**	**Fz** [Kip]	**lc**	**Mx** [Kip*ft]	**lc**	**My** [Kip*ft]	**lc**	**Mz** [Kip*ft]	**lc**
42	Max	0.540	LC69	0.665	LC65	0.592	LC13	0.76322	LC13	0.52713	LC7	0.22883	LC12
	Min	-0.221	LC23	0.049	LC21	-0.594	LC7	-0.80462	LC7	-0.50489	LC13	-0.22770	LC18
43	Max	0.384	LC14	0.685	LC7	0.589	LC1	0.63869	LC13	0.49936	LC13	0.42230	LC20
	Min	-0.627	LC8	-0.403	LC13	-0.589	LC19	-0.65772	LC7	-0.51306	LC7	-0.43165	LC2
44	Max	0.151	LC3	0.524	LC12	0.142	LC24	0.15999	LC24	0.00044	LC6	0.15713	LC21
	Min	-0.145	LC21	-0.464	LC18	-0.146	LC6	-0.16717	LC6	-0.00043	LC24	-0.16826	LC3
45	Max	0.110	LC14	0.545	LC1	0.216	LC14	0.26438	LC14	0.00086	LC21	0.15394	LC8
	Min	-0.119	LC8	-0.521	LC19	-0.232	LC8	-0.28185	LC8	-0.00098	LC3	-0.14703	LC14
48	Max	0.145	LC2	0.268	LC37	0.275	LC14	0.51734	LC14	0.00250	LC19	0.26904	LC8
	Min	-0.140	LC20	0.002	LC14	-0.277	LC8	-0.54305	LC8	-0.00251	LC1	-0.26388	LC14
49	Max	0.289	LC18	0.909	LC53	0.407	LC1	0.52108	LC24	0.00421	LC1	0.41553	LC24
	Min	-0.321	LC12	0.077	LC20	-0.389	LC19	-0.53618	LC6	-0.00382	LC19	-0.41701	LC6
84	Max	1.077	LC7	0.795	LC7	0.602	LC1	0.59933	LC13	0.69176	LC7	0.47671	LC1
	Min	-0.764	LC13	-0.415	LC13	-0.598	LC19	-0.62506	LC7	-0.67642	LC13	-0.46984	LC19
85	Max	0.749	LC14	0.671	LC51	0.688	LC1	0.80380	LC13	0.74922	LC13	0.30007	LC20
	Min	-1.057	LC8	0.048	LC17	-0.686	LC19	-0.84637	LC7	-0.77066	LC7	-0.31189	LC2

Date: 3/10/2022
Project Name: SHELTON EAST CENTRAL
Project No.: CT2113
Designed By: KSBM **Checked By:** MSC

HUDSON Design Group LLC

CHECK CONNECTION CAPACITY (Worst Case)

Reference: AISC Steel Construction Manual 14th Edition (ASD)

Bolt Type = A36 5/8" (Threaded Rod)

Allowable Tensile Load =

F_{Tall} = 6673 lbs.

Allowable Shear Load =

F_{Vall} = 4004 lbs.

TENSILE FORCES

Reaction **F =** 602 lbs. (See Bentley Output)

SHEAR FORCES

Reactions in X direction: 1077 lbs. (See Bentley Output)
Reactions in Y direction: 795 lbs. (See Bentley Output)

Resultant: 1339 lbs.

No. of Supports = 1
No. of Bolts / Support = 2

Tension Design Load /Bolts =

f_t = 301.00 lbs. < 6673 lbs. **Therefore, OK !**

Shear Design Load / Bolts=

f_v = 669.32 lbs. < 4004 lbs. **Therefore, OK !**

CHECK COMBINED TENSION AND SHEAR

f_t / F_T	+	f_v / F_V	≤	1.0			
0.045	+	0.167	=	0.212	<	1.0	**Therefore, OK !**

EXHIBIT 5

Radio Frequency Exposure Analysis Report

April 7, 2022

Centerline on behalf of AT&T
Centerline Communications Project Number: 566598

AT&T Site Name: Shelton East Central
Site Number: CT2113
FA#: 10034975
USID: 27016

Site Address: 219 Nells Rock Road, Shelton, CT 06484

Site Compliance Summary

AT&T Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	2.41755 µW/cm^2
Cumulative General Population % MPE (Ground Level):	0.2722%

April 7, 2022

Centerline
Attn: Jennifer Iliades, Project Manager
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **Shelton East Central**

Centerline Communications, LLC ("Centerline") was contracted to analyze the proposed AT&T facility at **219 Nells Rock Road, Shelton, CT 06484** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{MHz}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of 1 mW/cm^2 (1000 $\mu W/cm^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/ controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

Calculation Methodology

Centerline Communications, LLC has performed theoretical modeling of the site using a software tool, RoofMaster®, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

Data & Results

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the ground.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

Maximum Calculated Cumulative Power Density (Location: approximately of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu W/cm^2$)	General Population MPE Limit ($\mu W/cm^2$)	General Population % MPE
AT&T A 1	QUINTEL QD8616-7	700	13.04	165.25	4.00	40.00	3219.44	0.02014	466.67	0.00432
AT&T A 1	QUINTEL QD8616-7	700	13.04	165.25	2.00	40.00	1609.72	0.01006	466.67	0.00216
AT&T A 1	QUINTEL QD8616-7	1900	15.25	165.25	2.00	40.00	2680.22	0.00863	1000.00	0.00086
AT&T A 1	QUINTEL QD8616-7	1900	15.27	165.25	2.00	40.00	2694.82	0.00867	1000.00	0.00087
AT&T A 1	QUINTEL QD8616-7	2100	15.56	165.25	2.00	40.00	2881.11	0.00980	1000.00	0.00098
AT&T A 1	QUINTEL QD8616-7	2100	15.56	165.25	2.00	40.00	2881.11	0.00980	1000.00	0.00098
AT&T A 2	ERICSSON AIR6449	3700	23.55	165.25	1.00	108.40	24548.74	0.50575	1000.00	0.05058
AT&T A 3	ERICSSON AIR6419 LTE	3400	22.85	165.25	1.00	54.20	10447.19	0.21863	1000.00	0.02186
AT&T A 3	ERICSSON AIR6419 NR	3400	22.85	165.25	1.00	54.00	10408.63	0.21863	1000.00	0.02186
AT&T A 4	KATHREIN 80010965	700	11.85	165.25	2.00	40.00	1224.87	0.00234	466.67	0.00050
AT&T A 4	KATHREIN 80010965	2300	15.75	165.25	4.00	25.00	3758.37	0.00295	1000.00	0.00030
AT&T A 4	KATHREIN 80010965	850	13.55	165.25	2.00	40.00	1811.72	0.00255	566.67	0.00045
AT&T B 5	QUINTEL QD8616-7	700	13.04	165.25	4.00	40.00	3219.44	0.00000	466.67	0.00000
AT&T B 5	QUINTEL QD8616-7	700	13.04	165.25	2.00	40.00	1609.72	0.00000	466.67	0.00000
AT&T B 5	QUINTEL QD8616-7	1900	15.25	165.25	2.00	40.00	2680.22	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7	1900	15.27	165.25	2.00	40.00	2694.82	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7	2100	15.56	165.25	2.00	40.00	2881.11	0.00000	1000.00	0.00000
AT&T B 5	QUINTEL QD8616-7	2100	15.56	165.25	2.00	40.00	2881.11	0.00000	1000.00	0.00000
AT&T B 6	ERICSSON AIR6449	3700	23.55	165.25	1.00	108.40	24548.74	0.00005	1000.00	0.00001
AT&T B 7	ERICSSON AIR6419 LTE	3400	22.85	165.25	1.00	54.20	10447.19	0.00003	1000.00	0.00000
AT&T B 7	ERICSSON AIR6419 NR	3400	22.85	165.25	1.00	54.00	10408.63	0.00003	1000.00	0.00000
AT&T B 8	KATHREIN 80010965	700	11.85	165.25	2.00	40.00	1224.87	0.00001	466.67	0.00000
AT&T B 8	KATHREIN 80010965	2300	15.75	165.25	4.00	25.00	3758.37	0.00000	1000.00	0.00000
AT&T B 8	KATHREIN 80010965	850	13.55	165.25	2.00	40.00	1811.72	0.00001	566.67	0.00000
AT&T C 9	QUINTEL QD8616-7	700	13.04	165.25	4.00	40.00	3219.44	0.00004	466.67	0.00001
AT&T C 9	QUINTEL QD8616-7	700	13.04	165.25	2.00	40.00	1609.72	0.00002	466.67	0.00000
AT&T C 9	QUINTEL QD8616-7	1900	15.25	165.25	2.00	40.00	2680.22	0.00000	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7	1900	15.27	165.25	2.00	40.00	2694.82	0.00000	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7	2100	15.56	165.25	2.00	40.00	2881.11	0.00000	1000.00	0.00000
AT&T C 9	QUINTEL QD8616-7	2100	15.56	165.25	2.00	40.00	2881.11	0.00000	1000.00	0.00000
AT&T C 10	ERICSSON AIR6449	3700	23.55	165.25	1.00	108.40	24548.74	0.00042	1000.00	0.00004
AT&T C 11	ERICSSON AIR6419 LTE	3400	22.85	165.25	1.00	54.20	10447.19	0.00075	1000.00	0.00008
AT&T C 11	ERICSSON AIR6419 NR	3400	22.85	165.25	1.00	54.00	10408.63	0.00075	1000.00	0.00008
AT&T C 12	KATHREIN 80010965	700	11.85	165.25	2.00	40.00	1224.87	0.00001	466.67	0.00000
AT&T C 12	KATHREIN 80010965	2300	15.75	165.25	4.00	25.00	3758.37	0.00001	1000.00	0.00000

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (μW/cm²)	General Population MPE Limit (μW/cm²)	General Population % MPE
AT&T C 12	KATHREIN 80010965	850	13.55	165.25	2.00	40.00	1811.72	0.00001	566.67	0.00000
Unknown A 13	GENERIC PANEL 6FT	850	12.62	153.00	4.00	40.00	2924.96	0.04331	566.67	0.00764
Unknown A 13	GENERIC PANEL 6FT	1900	15.84	153.00	4.00	40.00	6139.32	0.04586	1000.00	0.00459
Unknown A 14	GENERIC PANEL 6FT	2100	16.39	153.00	4.00	40.00	6968.19	0.06440	1000.00	0.00644
Unknown A 15	GENERIC PANEL 6FT	700	12.33	153.00	4.00	40.00	2736.02	0.01191	466.67	0.00255
Unknown A 16	GENERIC PANEL	3700	23.34	153.00	4.00	50.00	43154.89	0.97085	1000.00	0.09709
Unknown B 17	GENERIC PANEL 6FT	850	12.62	153.00	4.00	40.00	2924.96	0.00000	566.67	0.00000
Unknown B 17	GENERIC PANEL 6FT	1900	15.84	153.00	4.00	40.00	6139.32	0.00000	1000.00	0.00000
Unknown B 18	GENERIC PANEL 6FT	2100	16.39	153.00	4.00	40.00	6968.19	0.00000	1000.00	0.00000
Unknown B 19	GENERIC PANEL 6FT	700	12.33	153.00	4.00	40.00	2736.02	0.00000	466.67	0.00000
Unknown B 20	GENERIC PANEL	3700	23.34	153.00	4.00	50.00	43154.89	0.00025	1000.00	0.00003
Unknown C 21	GENERIC PANEL 6FT	850	12.62	153.00	4.00	40.00	2924.96	0.00005	566.67	0.00001
Unknown C 21	GENERIC PANEL 6FT	1900	15.84	153.00	4.00	40.00	6139.32	0.00002	1000.00	0.00000
Unknown C 22	GENERIC PANEL 6FT	2100	16.39	153.00	4.00	40.00	6968.19	0.00002	1000.00	0.00000
Unknown C 23	GENERIC PANEL 6FT	700	12.33	153.00	4.00	40.00	2736.02	0.00002	466.67	0.00000
Unknown C 24	GENERIC PANEL	3700	23.34	153.00	4.00	50.00	43154.89	0.00305	1000.00	0.00031
Unknown A 25	GENERIC PANEL 6FT	700	12.33	137.00	4.00	40.00	2736.02	0.09008	466.67	0.01930
Unknown A 25	GENERIC PANEL 6FT	850	12.62	137.00	4.00	40.00	2924.96	0.09196	566.67	0.01623
Unknown A 26	GENERIC PANEL 6FT	1900	15.84	137.00	4.00	30.00	4604.49	0.01982	1000.00	0.00198
Unknown A 27	GENERIC PANEL 6FT	2100	16.39	137.00	4.00	40.00	6968.19	0.00262	1000.00	0.00026
Unknown B 28	GENERIC PANEL 6FT	700	12.33	137.00	4.00	40.00	2736.02	0.00000	466.67	0.00000
Unknown B 28	GENERIC PANEL 6FT	850	12.62	137.00	4.00	40.00	2924.96	0.00000	566.67	0.00000
Unknown B 29	GENERIC PANEL 6FT	1900	15.84	137.00	4.00	30.00	4604.49	0.00001	1000.00	0.00000
Unknown B 30	GENERIC PANEL 6FT	2100	16.39	137.00	4.00	40.00	6968.19	0.00000	1000.00	0.00000
Unknown C 31	GENERIC PANEL 6FT	700	12.33	137.00	4.00	40.00	2736.02	0.00005	466.67	0.00001
Unknown C 31	GENERIC PANEL 6FT	850	12.62	137.00	4.00	40.00	2924.96	0.00005	566.67	0.00001
Unknown C 32	GENERIC PANEL 6FT	1900	15.84	137.00	4.00	30.00	4604.49	0.00002	1000.00	0.00000
Unknown C 33	GENERIC PANEL 6FT	2100	16.39	137.00	4.00	40.00	6968.19	0.00001	1000.00	0.00000

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density (µW/cm²)	General Population MPE Limit (µW/cm²)	General Population % MPE
Unknown A 34	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.02990	566.67	0.00528
Unknown A 35	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.01937	566.67	0.00342
Unknown A 36	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00101	566.67	0.00018
Unknown B 37	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 38	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown B 39	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown C 40	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00003	566.67	0.00001
Unknown C 41	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00002	566.67	0.00000
Unknown C 42	GENERIC PANEL 6FT	850	12.62	125.00	1.00	60.00	1096.86	0.00000	566.67	0.00000
Unknown A 43	GENERIC OMNI	450	5.96	125.00	1.00	25.25	99.60	0.00210	300.00	0.00070
Unknown A 44	GENERIC OMNI	450	5.96	125.00	1.00	25.25	99.60	0.00071	300.00	0.00024
							Cumulative Power Density:	**2.41755 µW/cm²**	**Cumulative % MPE:**	**0.27220%**

Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **Compliant** with FCC rules and regulations.

Michelle Stone

Michelle Stone
RF EME Technical Writer II
Centerline Communications, LLC

EXHIBIT 6

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z9Y45030302175296

Weight

1.00 LBS

Service

UPS Ground

Shipped / Billed On

04/22/2022

Delivered On

05/27/2022 10:35 A.M.

Delivered To

1025 LENOX PARK BLVD NE
BROOKHAVEN, GA, 30319, US

Received By

WILLIAMS

Reference Number(s)

CT2113-CSC AT&T MARICELA CITY

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/27/2022 1:26 P.M. EST

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z9Y45030307059279

Weight

1.00 LBS

Service

UPS Ground

Shipped / Billed On

04/22/2022

Delivered On

05/24/2022 10:16 A.M.

Delivered To

54 HILL ST
SHELTON, CT, 06484, US

Received By

NICOLE

Left At

Front Desk

Reference Number(s)

CT2113-CSC ZEO

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/24/2022 11:46 A.M. EST

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z9Y45030318916287

Weight

1.00 LBS

Service

UPS Ground

Shipped / Billed On

04/22/2022

Delivered On

05/24/2022 10:16 A.M.

Delivered To

54 HILL ST
SHELTON, CT, 06484, US

Received By

NICOLE

Left At

Front Desk

Reference Number(s)

CT2113-CSC CITY PLANNER

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/24/2022 11:43 A.M. EST

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number

1Z9Y45030306204265

Weight

1.00 LBS

Service

UPS Ground

Shipped / Billed On

04/22/2022

Delivered On

05/24/2022 10:16 A.M.

Delivered To

54 HILL ST
SHELTON, CT, 06484, US

Received By

NICOLE

Left At

Front Desk

Reference Number(s)

CT2113-CSC MAYOR

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 05/24/2022 11:38 A.M. EST