Structural Engineering
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PH: (760) 285-3033 | www.wtgroup.com

Project: Sheriff's Crime Lab - Remodel
200 S. Lena Road
San Bernardino, CA 92415

Job No.: J2300064

STRUCTURAL CALCULATIONS

Date: 06/14/2024

The calculations included herein, as listed above, were prepared by me, or under my direct supervision, and to the best of my knowledge comply with the requirements of all applicable codes and ordinances.

Christopher J. Starke, P.E.
California P.E. License No. C96312
Expires: 09/30/2024

INDEX OF CALCULATIONS

OVERVIEW

77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	4
Job Ref.	**Date**
J2300064	06/14/2024

APPLICABLE CODES AND REFERENCES

2022 California Building Code
ASCE 7-16 Minimum Design Loads for Buildings and Other Structures
AISC Steel Construction Manual Fifteenth Edition (AISC 360-16)
ACI 318-19 Building Code Requirements for Structural Concrete
Architectural Drawings provided by "Holt Architecture"

Load Combinations (California Building Code 2022 LRFD):

- 1.4D — ASCE 7-16 Eq. 2.3.1.1
- 1.2D + 1.6L + 0.5(L_r or S or R) — ASCE 7-16 Eq. 2.3.1.2
- 1.2D + 1.6(L_r or S or R) + (L or 0.5W) — ASCE 7-16 Eq. 2.3.1.3
- 1.2D + 1.0W + L + 0.5(L_r or S or R) — ASCE 7-16 Eq. 2.3.1.4
- 0.9D + 1.0W — ASCE 7-16 Eq. 2.3.1.5
- 1.2D + E_v + E_h + L + 0.2S — ASCE 7-16 Eq. 2.3.6.6
- 0.9D – E_v + E_h — ASCE 7-16 Eq. 2.3.6.7

Load Combinations (California Building Code 2022 ASD):

- D — ASCE 7-16 Eq. 2.4.1.1
- D + L — ASCE 7-16 Eq. 2.4.1.2
- D + (L_r or S or R) — ASCE 7-16 Eq. 2.4.1.3
- D + 0.75L + 0.75(L_r or S or R) — ASCE 7-16 Eq. 2.4.1.4
- D + (0.6W) — ASCE 7-16 Eq. 2.4.1.5
- D + 0.75L + 0.75(0.6W) + 0.75(L_r or S or R) — ASCE 7-16 Eq. 2.4.1.6
- 0.6D + 0.6W — ASCE 7-16 Eq. 2.4.1.7
- 1.0D + 0.7E_v + 0.7E_h — ASCE 7-16 Eq. 2.4.5.8
- 1.0D + 0.525E_v + 0.525E_h + 0.75L + 0.75S — ASCE 7-16 Eq. 2.4.5.9
- 0.6D – 0.7E_v + 0.7E_h — ASCE 7-16 Eq. 2.4.5.10

Notations:

- D = Dead load
- E = Earthquake load
- L = Live load, except roof live load
- L_r = Roof live load
- R = Rain load
- S = Snow load
- W = Wind load

77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	5
Job Ref.	**Date**
J2300064	06/14/2024

ASSUMED EXISTING MATERIAL SPECIFICATIONS

- Concrete Compressive Strength — f'c = 3000 psi
- Masonry Cpmpressive Strength — f'm = 1500 psi
- Reinforcing Bars — ASTM A615 – Gr. 40
- Wide Flanges and Angles — ASTM A36 (F_y = 36 ksi)
- HSS Tubes — ASTM A500 Gr. B (F_y = 46 ksi)
- Design Soil Bearing Capacity — 1500 psf (No Geotechnical Report)

MATERIAL SPECIFICATIONS

Bolts:

- Anchor Rods — ASTM F1554 — F_u = 58 ksi
- Shear Bolts — ASTM A325 — F_u = 120 ksi

Structural Steel:

- Angles — ASTM A572 Gr. 50 — F_y = 50 ksi
- Plates — ASTM A572 Gr. 50 — F_y = 50 ksi
- HSS Tubes — ASTM A500 Gr. C — F_y = 50 ksi
- Wide Flange — ASTM A992 — F_y = 50 ksi

Rebar: ASTM A615 — F_y = 60 ksi

Concrete: min. f'_c = 3000 psi @ 28 days

Soil:

Allowable Soil Bearing Pressure	
Continuous and Isolated Footings	q_a* = 1500 psf

Additional Notes:

- *Assumed – No Geotechnical Report
- The design loads determined with the TEDDs calculations are used in the design of our RISA-3D model. The determined reactions from RISA-3D are then automatically applied to the foundation elements in RISAFoundation.

SERVICEABILITY/DRIFT CRITERIA

Serviceability Criteria for Deflection

Deflection Limits Table 1604.3 from California Building Code 2022

Construction	L or L_r	S or W	D + L
Roof members: Supporting nonplaster ceiling	L/240	L/240	L/180
Exterior walls: With other brittle finishes	--	L/240	--
Interior partitions: With other brittle finishes	L/240	--	--

Wind Drift Criteria

Section CC.2.2 ASCE 7-16

Structure	Brittle wall finishes
Drift limit	h/600 (h = unsupported height between supports (in inches))

Seismic Drift Criteria

Allowable Story Drift Table 12.12-1 from ASCE 7-16

Risk catergory	II
Structure	Other masonry shear wall structures
Allowable story drift	$0.007h_{sx}$

DESIGN LOADS

77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	7
Job Ref.	**Date**
J2300064	06/14/2024

DESIGN LOADS

Governing Code:

California Building Code (CBC) 2022

Dead Loads used in design are as follows:

Roof Dead Load	DL_r = 16 psf

Live Loads used in design are as follows:

Roof Live Load	L_r = 20 psf

Wind Loads used in design are as follows:

Basic Wind Speed (3 second gust)	V = 96 mph
Building Category	= II
Wind Exposure	= C
Design Wind Pressure (Walls)	= 15 psf
Components and Cladding (Roof/Walls)	= Varies (See Components and Cladding Diagrams)

Seismic Loads used in design are as follows:

Mapped Acceleration Parameters	
• Short Period	S_S = 2.064
• 1 Second Period	S_1 = 0.819
Design Spectral Acceleration Parameters	
• Short Period	S_{DS} = 1.651
• 1 Second Period	S_{D1} = 0.928
Seismic importance factor	I_e = 1.0
Site Class	= D - Default
Seismic Design Category	= E
Basic Seismic-Force Resisting System	Steel Ordinary Moment Frames
Response Modification Coefficient	R = 3.5
Overstrength Factor	Ω_0 = 3.0
Deflection Amplification Factor	C_d = 3.0
Seismic Response Coefficient	C_S = 0.3302
Design Base Shear	$V_S = C_S \times W$
Analysis Procedure	Equivalent Lateral Force

77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	8
Job Ref.	**Date**
J2300064	06/14/2024

DEAD LOADING

Roof Construction

Material	**Weight (psf)**
EDPM Membrane	0.7
Rigid Insulation	1.5
1-1/2" Metal Roof Deck	2.0
MEP	4.0
Suspended Ceiling	3.0
Miscellaneous	1.8
Superimposed Total	**13.0 psf**
W14X22 @ 8'-0" O.C.	3.0
Roof Dead Load Total	**16.0 psf**

LIVE LOADING

From Table 1607.1

Roof Live Load

Ordinary flat or pitched roofs	**20 psf**
Concentrated roof live load	**300 lb**

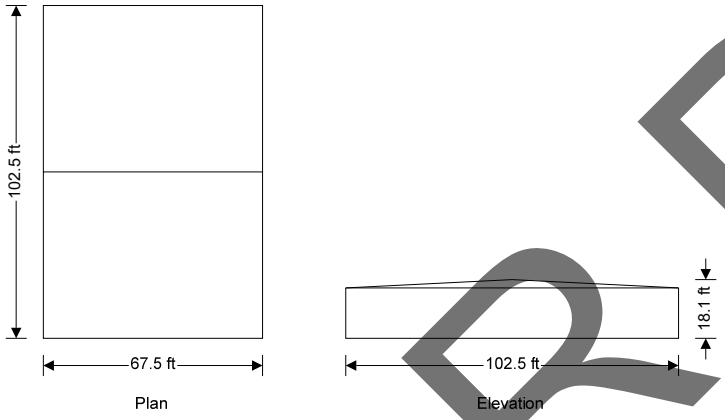
77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	9
Job Ref.	**Date**
J2300064	06/14/2024

WIND LOADING

In accordance with ASCE7-16

Directional



Building data

Type of roof	Gable
Length of building	b = **67.50** ft
Width of building	d = **102.50** ft
Height to eaves	H = **15.50** ft
Pitch of roof	α_0 = **2.9** deg
Mean height	h = **15.50** ft

General wind load requirements

Basic wind speed	V = **96.0** mph
Risk category	II
Velocity pressure exponent coef (Table 26.6-1)	K_d = **0.85**
Ground elevation above sea level	z_{gl} = **0** ft
Ground elevation factor	$K_e = \exp(-0.0000362 \times z_{gl}/1ft)$ = **1.00**
Exposure category (cl 26.7.3)	C
Enclosure classification (cl.26.12)	Enclosed buildings
Internal pressure coef +ve (Table 26.13-1)	GC_{pi_p} = **0.18**
Internal pressure coef –ve (Table 26.13-1)	GC_{pi_n} = **-0.18**
Gust effect factor	G_f = **0.85**
Minimum design wind loading (cl.27.1.5)	p_{min_r} = **8** lb/ft^2

Topography

Topography factor not significant	K_{zt} = 1.0
Velocity pressure equation	$q = 0.00256 \times K_z \times K_{zt} \times K_d \times V^2 \times 1psf/mph^2$

Velocity pressures table

z (ft)	K_z (Table 26.10-1)	q_z (psf)
15.00	0.85	17.05
15.50	0.86	17.15
18.10	0.88	17.67

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Peak velocity pressure for internal pressure

Peak velocity pressure – internal (as roof press.) q_i = **17.15** psf

Pressures and forces

Net pressure $p = q \times G_f \times C_{pe} - q_i \times GC_{pi}$

Net force $F_w = p \times A_{ref}$

Roof load case 1 - Wind 0, GC_{pi} 0.18, $-c_{pe}$

Total vertical net force $F_{w,v}$ = **-63.80** kips

Total horizontal net force $F_{w,h}$ = **-0.62** kips

Walls load case 1 - Wind 0, GC_{pi} 0.18, $-c_{pe}$

Overall loading

Projected vertical plan area of wall $A_{vert\_w\_0} = b \times H$ = **1046.25** ft²

Projected vertical area of roof $A_{vert\_r\_0} = b \times d/2 \times \tan(\alpha_0)$ = **175.24** ft²

Minimum overall horizontal loading $F_{w,total\_min} = p_{min\_w} \times A_{vert\_w\_0} + p_{min\_r} \times A_{vert\_r\_0}$ = **18.14** kips

Leeward net force $F_l = F_{w,wB}$ = **-9.3** kips

Windward net force $F_w = F_{w,wA\_1} + F_{w,wA\_2}$ = **8.9** kips

Overall horizontal loading $F_{w,total} = \max(F_w - F_l + F_{w,h}, F_{w,total\_min})$ = **18.1** kips

Roof load case 2 - Wind 0, GC_{pi} -0.18, $-0c_{pe}$

Total vertical net force $F_{w,v}$ = **3.20** kips

Total horizontal net force $F_{w,h}$ = **0.00** kips

Walls load case 2 - Wind 0, GC_{pi} -0.18, $-0c_{pe}$

Overall loading

Projected vertical plan area of wall $A_{vert\_w\_0} = b \times H$ = **1046.25** ft²

Projected vertical area of roof $A_{vert\_r\_0} = b \times d/2 \times \tan(\alpha_0)$ = **175.24** ft²

Minimum overall horizontal loading $F_{w,total\_min} = p_{min\_w} \times A_{vert\_w\_0} + p_{min\_r} \times A_{vert\_r\_0}$ = **18.14** kips

Leeward net force $F_l = F_{w,wB}$ = **-2.8** kips

Windward net force $F_w = F_{w,wA\_1} + F_{w,wA\_2}$ = **15.4** kips

Overall horizontal loading $F_{w,total} = \max(F_w - F_l + F_{w,h}, F_{w,total\_min})$ = **18.2** kips

Roof load case 3 - Wind 90, GC_{pi} 0.18, $-c_{pe}$

Total vertical net force $F_{w,v}$ = **-70.13** kips

Total horizontal net force $F_{w,h}$ = **0.00** kips

Walls load case 3 - Wind 90, GC_{pi} 0.18, $-c_{pe}$

Overall loading

Projected vertical plan area of wall $A_{vert\_w\_90} = d \times H + d^2 \times \tan(\alpha_0) / 4$ = **1721.81** ft²

Projected vertical area of roof $A_{vert\_r\_90}$ = **0.00** ft²

Minimum overall horizontal loading $F_{w,total\_min} = p_{min\_w} \times A_{vert\_w\_90} + p_{min\_r} \times A_{vert\_r\_90}$ = **27.55** kips

Leeward net force $F_l = F_{w,wB}$ = **-17.9** kips

Windward net force $F_w = F_{w,wA\_1} + F_{w,wA\_2}$ = **14.7** kips

Overall horizontal loading $F_{w,total} = \max(F_w - F_l + F_{w,h}, F_{w,total\_min})$ = **32.6** kips

WT Group
77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	11
Job Ref.	**Date**
J2300064	06/14/2024

Roof load case 4 - Wind 90, GC_{pi} -0.18, $+c_{pe}$

Total vertical net force — $F_{w,v}$ = **3.20** kips

Total horizontal net force — $F_{w,h}$ = **0.00** kips

Walls load case 4 - Wind 90, GC_{pi} -0.18, $+c_{pe}$

Overall loading

Projected vertical plan area of wall — $A_{vert\_w\_90} = d \times H + d^2 \times \tan(\alpha_0) / 4$ = **1721.81** ft²

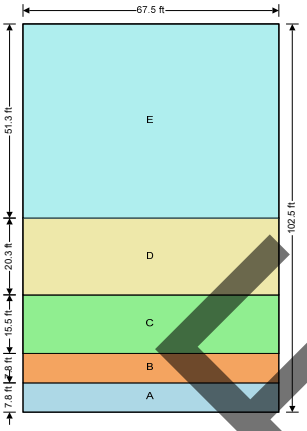
Projected vertical area of roof — $A_{vert\_r\_90}$ = **0.00** ft²

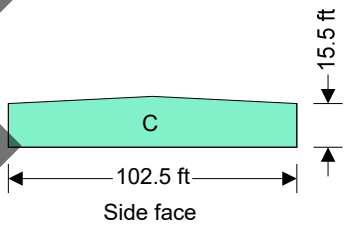
Minimum overall horizontal loading — $F_{w,total\_min} = p_{min\_w} \times A_{vert\_w\_90} + p_{min\_r} \times A_{vert\_r\_90}$ = **27.55** kips

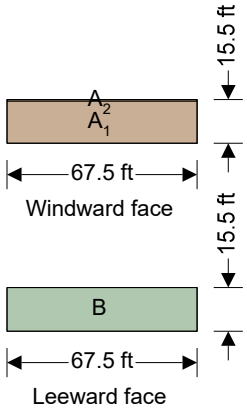
Leeward net force — $F_l = F_{w,wB}$ = **-7.2** kips

Windward net force — $F_w = F_{w,wA\_1} + F_{w,wA\_2}$ = **25.4** kips

Overall horizontal loading — $F_{w,total} = \max(F_w - F_l + F_{w,h}, F_{w,total\_min})$ = **32.6** kips

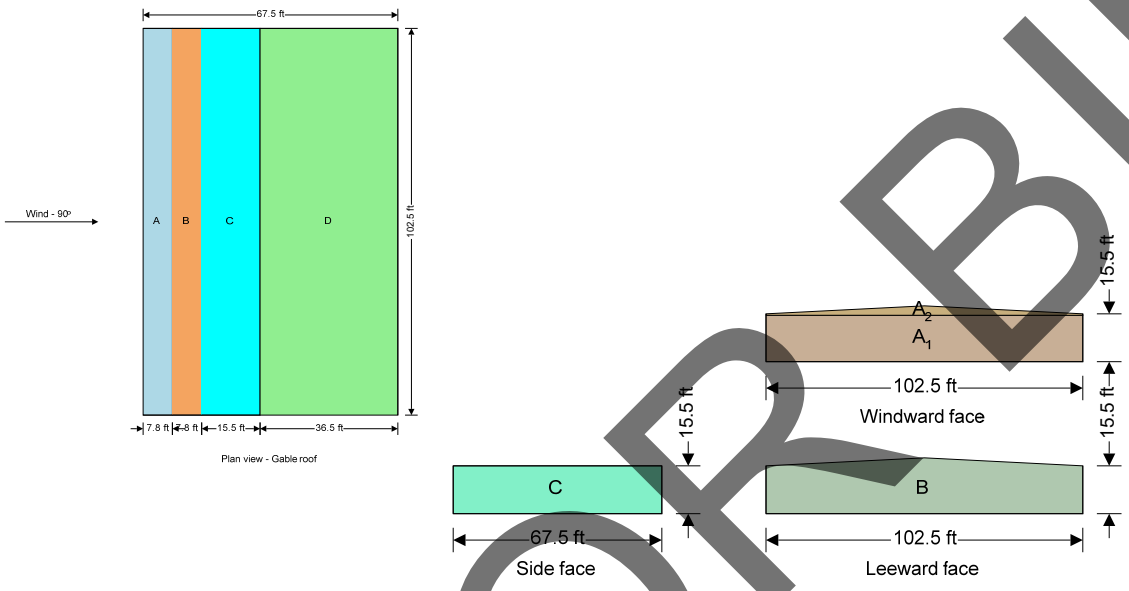






77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

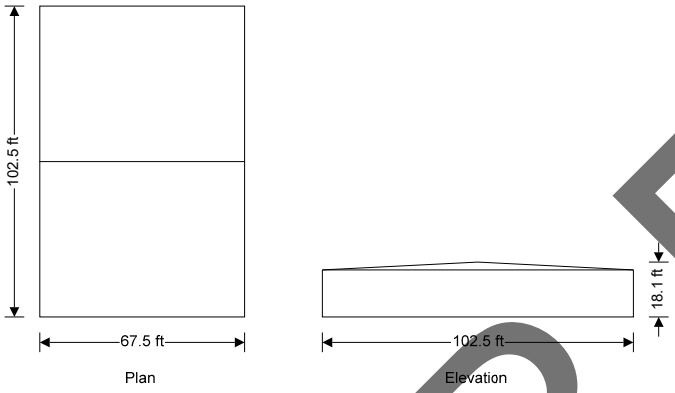
Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	12
Job Ref.	**Date**
J2300064	06/14/2024



77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	13
Job Ref.	**Date**
J2300064	06/14/2024

Components and Cladding



Building data

Type of roof	Gable
Length of building	b = **67.50** ft
Width of building	d = **102.50** ft
Height to eaves	H = **15.50** ft
Pitch of roof	α_0 = **2.9** deg
Mean height	h = **15.50** ft
End zone width	a = max(min(0.1×min(b, d), 0.4×h), 0.04×min(b, d), 3ft) = **6.20** ft

General wind load requirements

Basic wind speed	V = **96.0** mph
Risk category	II
Velocity pressure exponent coef (Table 26.6-1)	K_d = **0.85**
Ground elevation above sea level	z_{gl} = **0** ft
Ground elevation factor	$K_e = \exp(-0.0000362 \times z_{gl}/1ft)$ = **1.00**
Exposure category (cl 26.7.3)	C
Enclosure classification (cl.26.12)	Enclosed buildings
Internal pressure coef +ve (Table 26.13-1)	GC_{pi_p} = **0.18**
Internal pressure coef –ve (Table 26.13-1)	GC_{pi_n} = **-0.18**
Gust effect factor	G_f = **0.85**

Topography

Topography factor not significant	K_{zt} = 1.0

Velocity pressure

Velocity pressure coefficient (Table 26.10-1)	K_z = **0.86**
Velocity pressure	$q_h = 0.00256 \times K_z \times K_{zt} \times K_d \times K_e \times V^2 \times 1psf/mph^2$ = **17.1** psf

Peak velocity pressure for internal pressure

Peak velocity pressure – internal (as roof press.)	q_i = **17.15** psf

Equations used in tables

Net pressure	$p = q_h \times [GC_p - GC_{pi}]$

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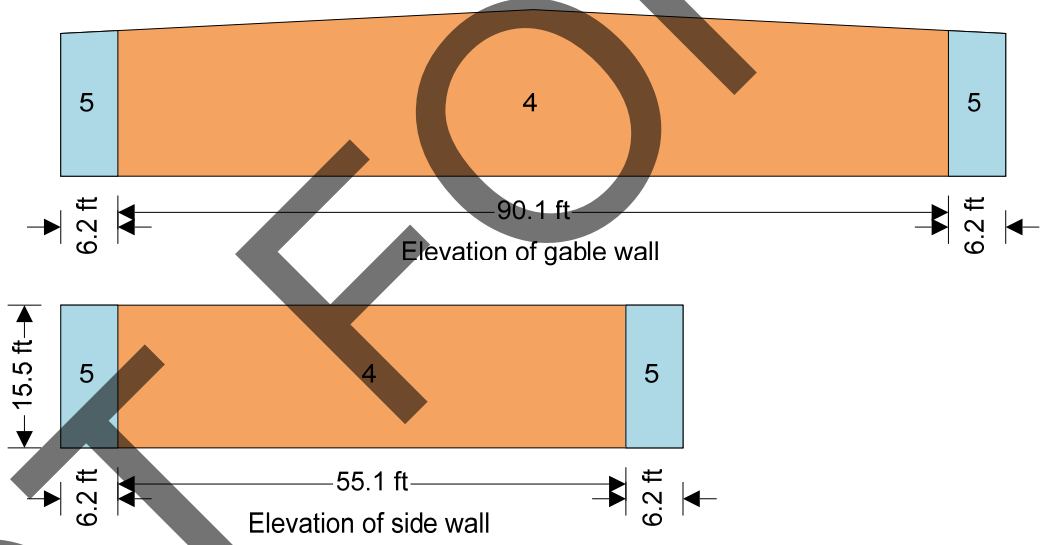
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	14
Job Ref.	**Date**
J2300064	06/14/2024

Components and cladding pressures - Wall (Table 30.3-1)

Component	Zone	Length (ft)	Width (ft)	Eff. area (ft^2)	$+GC_p$	$-GC_p$	Pres (+ve) (psf)	Pres (-ve) (psf)
<=10 sf	4	-	-	10.0	0.90	-0.99	18.5	-20.1
50 sf	4	-	-	50.0	0.79	-0.88	16.6	-18.2
200 sf	4	-	-	200.0	0.69	-0.78	15.0 #	-16.5
>500 sf	4	-	-	500.1	0.63	-0.72	13.9 #	-15.4 #
<=10 sf	5	-	-	10.0	0.90	-1.26	18.5	-24.7
50 sf	5	-	-	50.0	0.79	-1.04	16.6	-20.9
200 sf	5	-	-	200.0	0.69	-0.85	15.0 #	-17.6
>500 sf	5	-	-	500.1	0.63	-0.72	13.9 #	-15.4 #

The final net design wind pressure, including all permitted reductions, used in the design shall not be less than 16psf acting in either direction



Components and cladding pressures - Roof (Figure 30.3-2A)

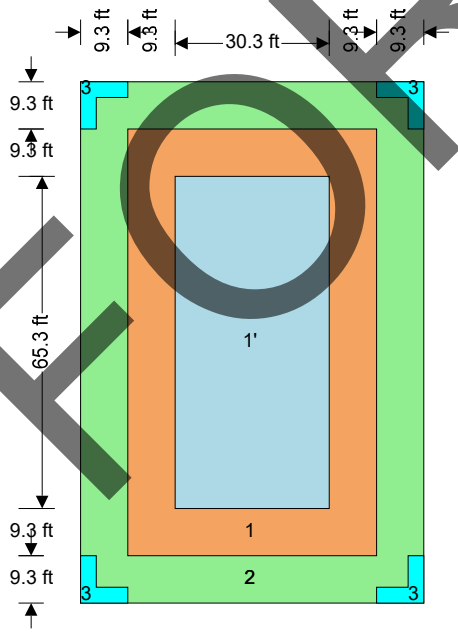
Component	Zone	Length (ft)	Width (ft)	Eff. area (ft^2)	$+GC_p$	$-GC_p$	Pres (+ve) (psf)	Pres (-ve) (psf)
<=10 sf	1	-	-	10.0	0.30	-1.70	8.2 #	-32.2
100 sf	1	-	-	100.0	0.20	-1.29	6.5 #	-25.2
200 sf	1	-	-	200.0	0.20	-1.16	6.5 #	-23.0
>500 sf	1	-	-	500.1	0.20	-1.00	6.5 #	-20.2
<=10 sf	1'	-	-	10.0	0.30	-0.90	8.2 #	-18.5
100 sf	1'	-	-	100.0	0.20	-0.90	6.5 #	-18.5
500 sf	1'	-	-	500.0	0.20	-0.55	6.5 #	-12.5 #
>1000 sf	1'	-	-	1000.1	0.20	-0.40	6.5 #	-9.9 #

77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	15
Job Ref.	**Date**
J2300064	06/14/2024

Component	Zone	Length (ft)	Width (ft)	Eff. area (ft^2)	$+GC_p$	$-GC_p$	Pres (+ve) (psf)	Pres (-ve) (psf)
<=10 sf	2	-	-	10.0	0.30	-2.30	8.2 #	-42.5
100 sf	2	-	-	100.0	0.20	-1.77	6.5 #	-33.4
200 sf	2	-	-	200.0	0.20	-1.61	6.5 #	-30.7
>500 sf	2	-	-	500.1	0.20	-1.40	6.5 #	-27.1
<=10 sf	3	-	-	10.0	0.30	-3.20	8.2 #	-58.0
100 sf	3	-	-	100.0	0.20	-2.14	6.5 #	-39.8
200 sf	3	-	-	200.0	0.20	-1.82	6.5 #	-34.3
>500 sf	3	-	-	500.1	0.20	-1.40	6.5 #	-27.1

The final net design wind pressure, including all permitted reductions, used in the design shall not be less than 16psf acting in either direction



Plan on roof

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Palm Desert, CA 92211
Phone: (760) 285-3033

Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	16
Job Ref.	**Date**
J2300064	06/14/2024

SEISMIC LOADING

In accordance with ASCE 7-16

Site parameters

Site class	D, Soil properties not known
Mapped acceleration parameters (Section 11.4.2)	
at short period	S_S = **2.064**
at 1 sec period	S_1 = **0.819**
Site coefficientat short period (Table 11.4-1)	F_a = **1.200**
at 1 sec period (Table 11.4-2)	F_v = **1.700**

Spectral response acceleration parameters

at short period (Eq. 11.4-1)	$S_{MS} = F_a \times S_S$ = **2.477**
at 1 sec period (Eq. 11.4-2)	$S_{M1} = F_v \times S_1$ = **1.392**

Design spectral acceleration parameters (Sect 11.4.4)

at short period (Eq. 11.4-3)	$S_{DS} = 2 / 3 \times S_{MS}$ = **1.651**
at 1 sec period (Eq. 11.4-4)	$S_{D1} = 2 / 3 \times S_{M1}$ = **0.928**

Seismic design category

Seismic occupancy category	II
Seismic design category (Sect. 11.6)	E

Approximate fundamental period

Height above base to highest level of building	h_n = **18** ft
From Table 12.8-2:	
Structure type	All other systems
Building period parameter C_t	C_t = **0.02**
Building period parameter x	x = **0.75**
Approximate fundamental period (Eq 12.8-7)	$T_a = C_t \times (h_n)^x \times 1\text{sec} / (1\text{ft})^x$= **0.175** sec
Building fundamental period (Sect 12.8.2)	T = T_a = **0.175** sec
Long-period transition period	T_L = **8** sec
Limiting period	$T_S = S_{D1} / S_{DS} \times 1$ sec = **0.562** sec

Seismic response coefficient

Seismic force-resisting system (Table 12.2-1)	A. Bearing_Wall_Systems 7. Special reinforced masonry shear walls
Response modification factor (Table 12.2-1)	R = **5**
Seismic importance factor (Table 1.5-2)	I_e = **1.500**
Seismic response coefficient (Sect 11.4.8)	
Calculated (Eq 12.8-2)	$C_{s\_calc} = S_{DS} / (R / I_e)$ = **0.3302**
Minimum:	
Eq.12.8-5	$C_{s\_min1} = \max(0.044 \times S_{DS} \times I_e, 0.01)$ = **0.0727**
Eq 12.8-6 (where S_1 >= 0.6)	$C_{s\_min2} = (0.5 \times S_1) / (R / I_e)$ = **0.0819**
	C_{s_min} = **0.0819**
Seismic response coefficient	C_s = **0.3302**

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Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	17
Job Ref.	**Date**
J2300064	06/14/2024

SEISMIC FORCES ON EQUIPMENT

RTU

In accordance with ASCE 7-16, Chapter 13

Site parameters

Site class	D, Soil properties not known
Mapped acceleration parameters (Section 11.4.2)	
at short period	S_S = **2.064**
at 1 sec period	S_1 = **0.819**

Design spectral acceleration parameters (Sect 11.4.4)

at short period (Eq. 11.4-3)	S_{DS} = **1.651**
at 1 sec period (Eq. 11.4-4)	S_{D1} = **0.928**

Equipment data

From Table 13.6-1	
Nonbuilding structure type	Other mechanical and electrical components
Component importance factor (Section 13.1.3)	I_p = **1.0**
Component amplification factor	a_p = **1.0**
Component response modification factor	R_p = **1.5**
Overstrength factor	Ω_0 = **2.0**
Screen wall dead load (37' x 22' x 4psf)	DL_{sw} = **3.3** kips
Screen wall framing dead load (From RISA3D)	DL_f = **1.0** kips
Component weight	W_p = **4.3** kips
Height in structure to point of attachment	z = **18.0** ft
Average roof height of structure	h = **18.0** ft

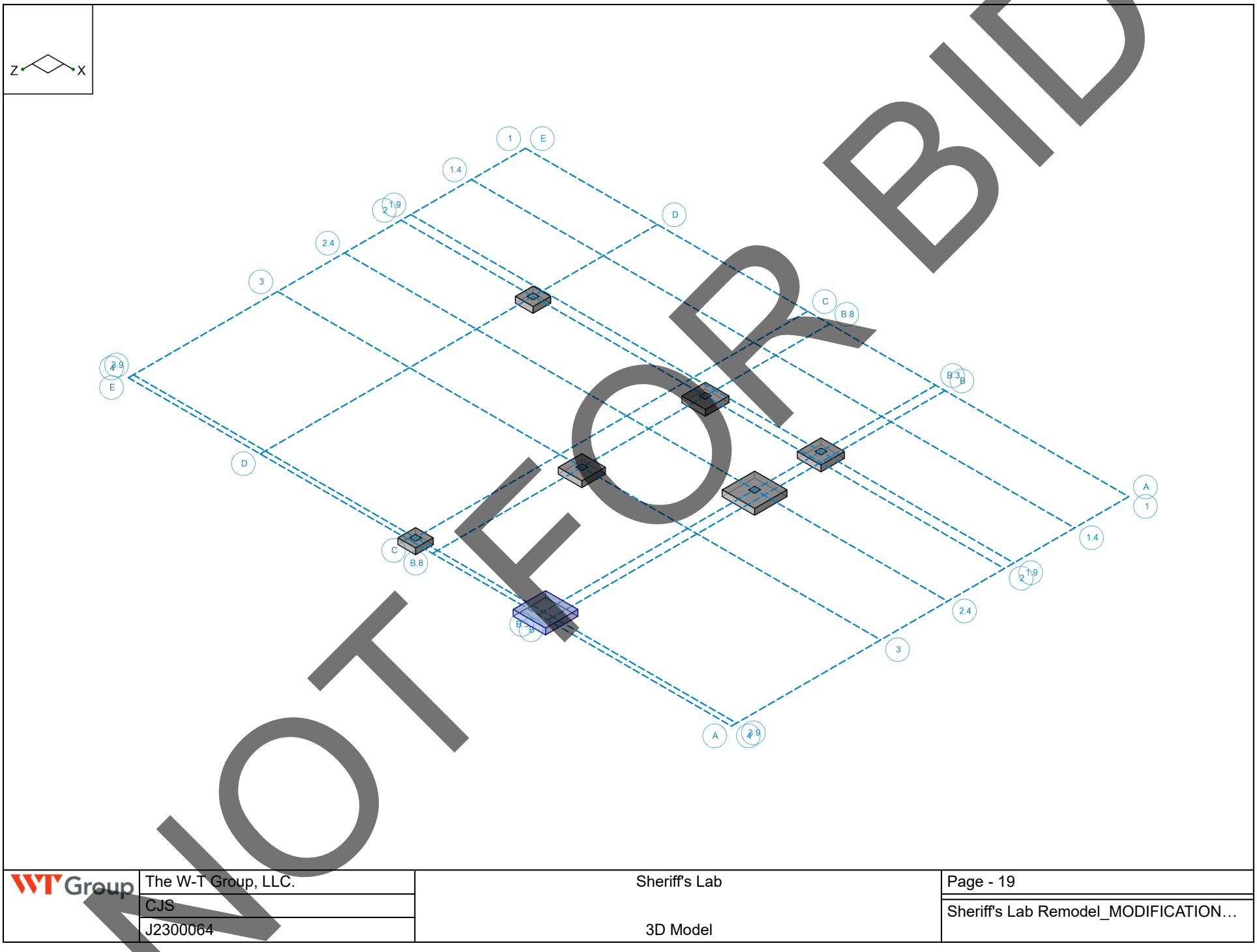
Horizontal Seismic Design Force

Maximum horizontal seismic design force	$F_{p,max} = 1.6 \times S_{DS} \times I_p \times W_{RTU}$ = **3.96 x W_{RTU}**
Minimum horizontal seismic design force	$F_{p,min} = 0.3 \times S_{DS} \times I_p \times W_p$ = **0.743 x W_{RTU}**
Calculated seismic design force	$F_p = 0.4 \times a_p \times S_{DS} \times W_p / (R_p / I_p) \times (1 + 2 \times z / h)$ = **0.8805 x W_{RTU} (Governs)**

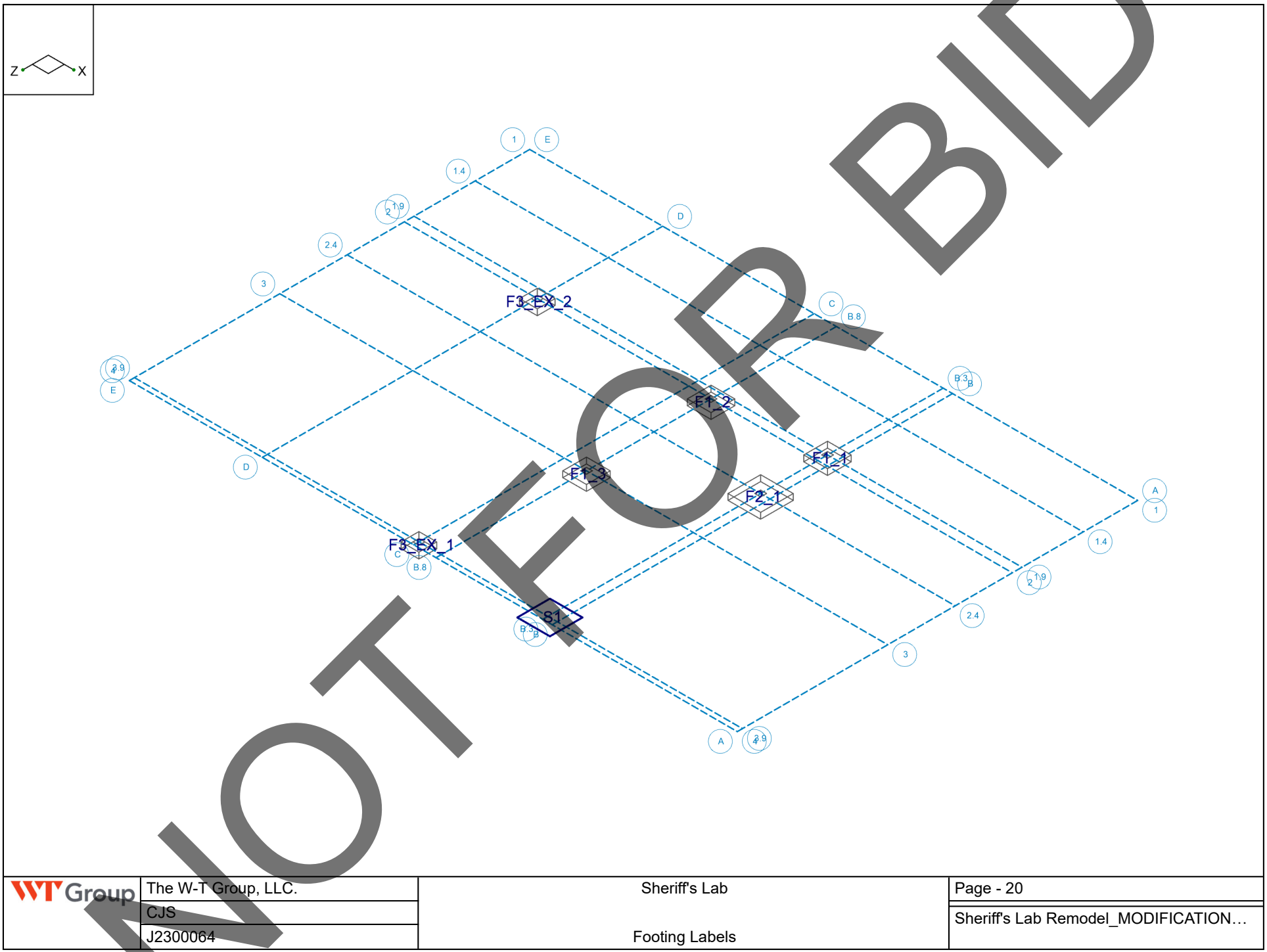
Vertical Seismic Design Force

Concurrent vertical seismic design force	$F_{p,v} = 0.2 \times S_{DS} \times W_p$ = **0.3302 x W_{RTU}**

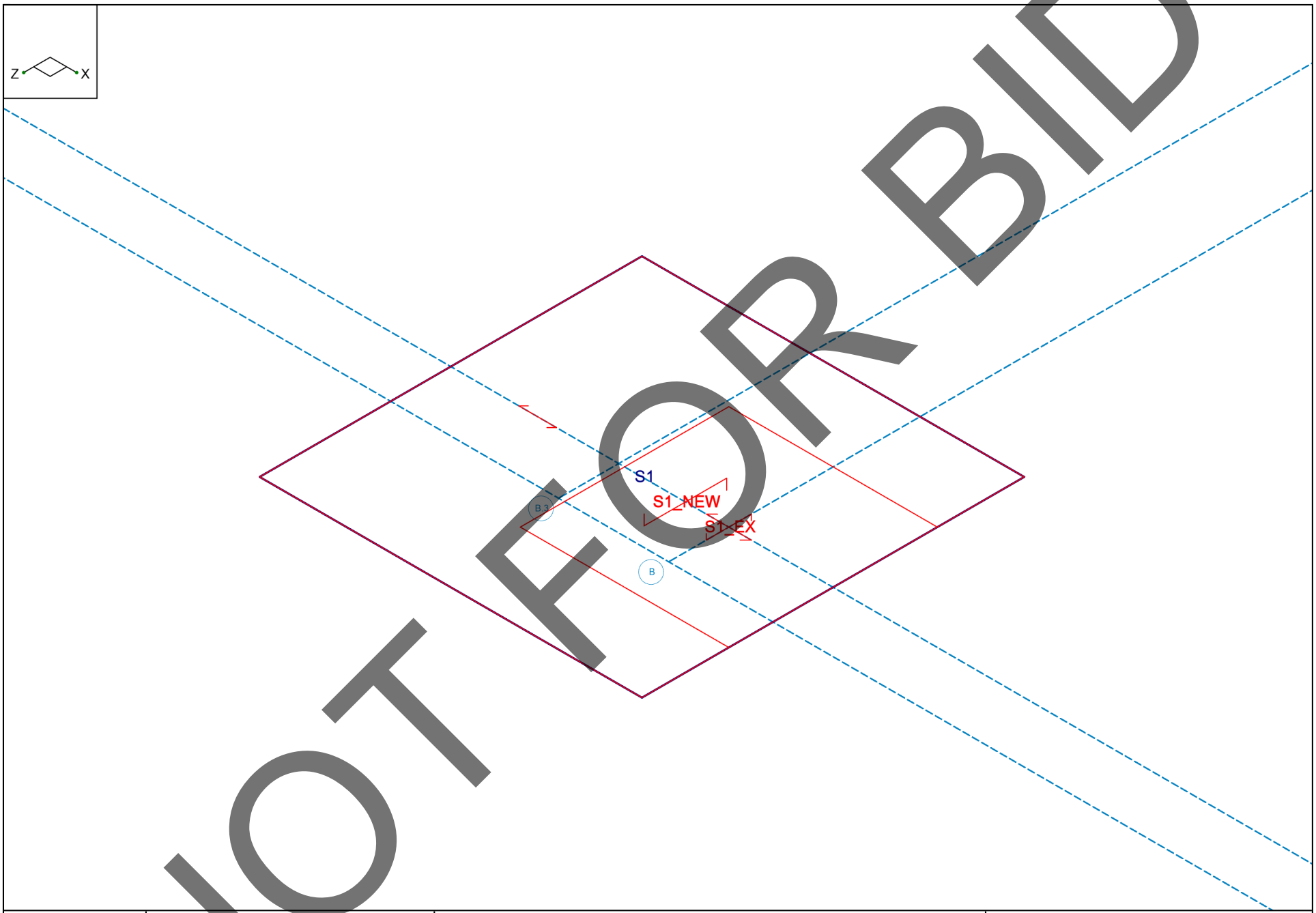
DESIGN OF FOUNDATION



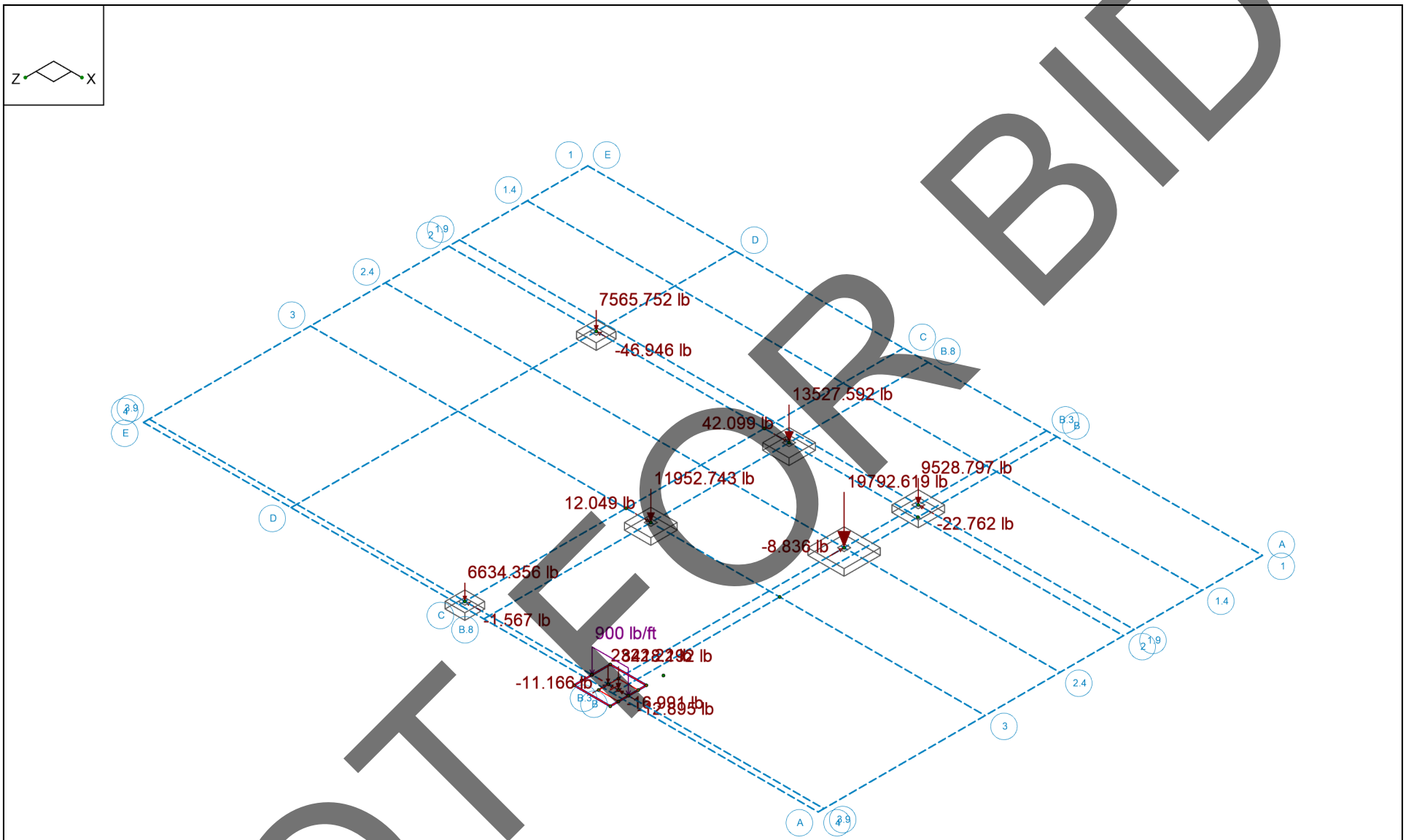
WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 19
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	3D Model	



WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 20
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Footing Labels	

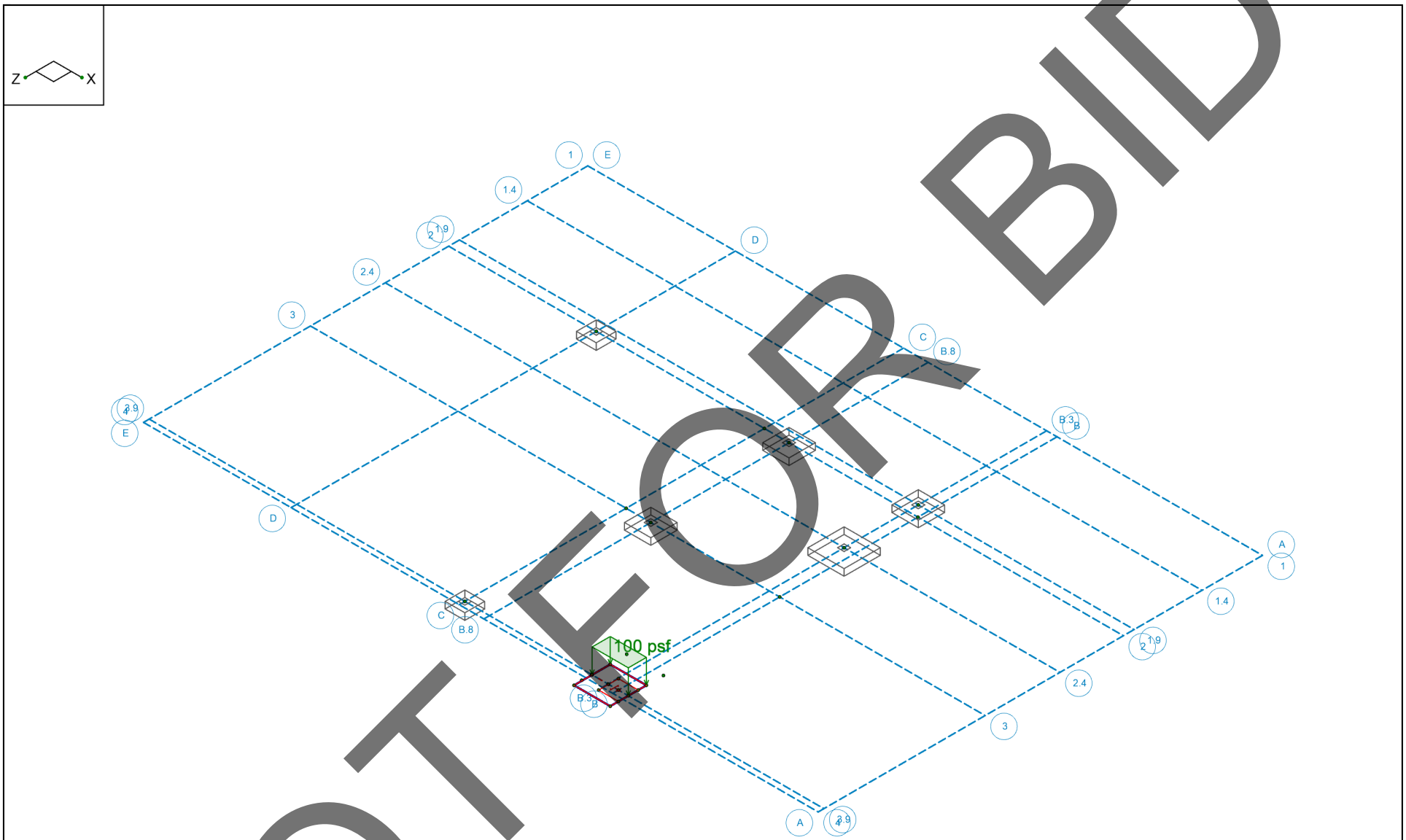


WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 21
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Design Strip Labels @ Combined Footing	



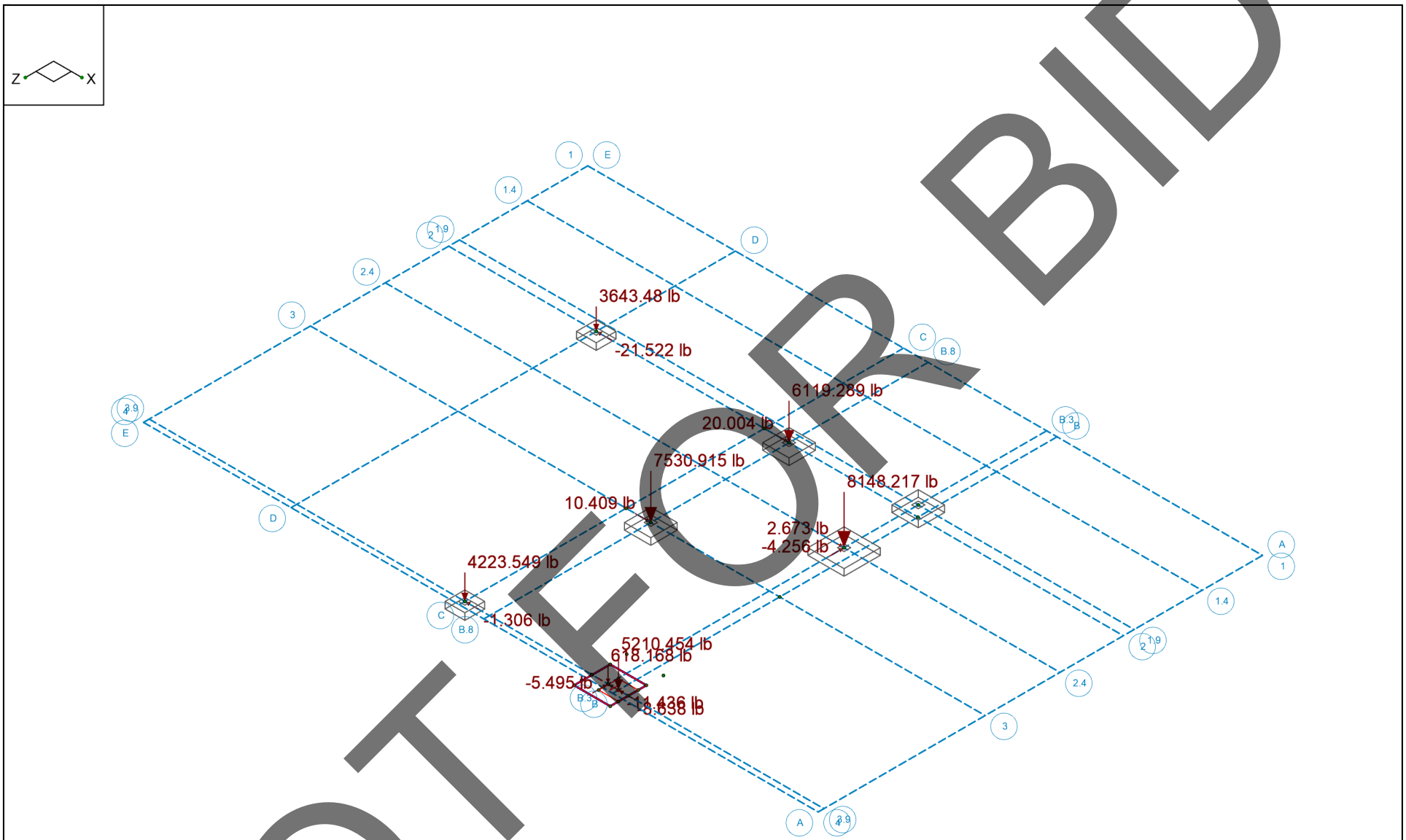
Loads: DL - Dead Load

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 22
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Dead Load	



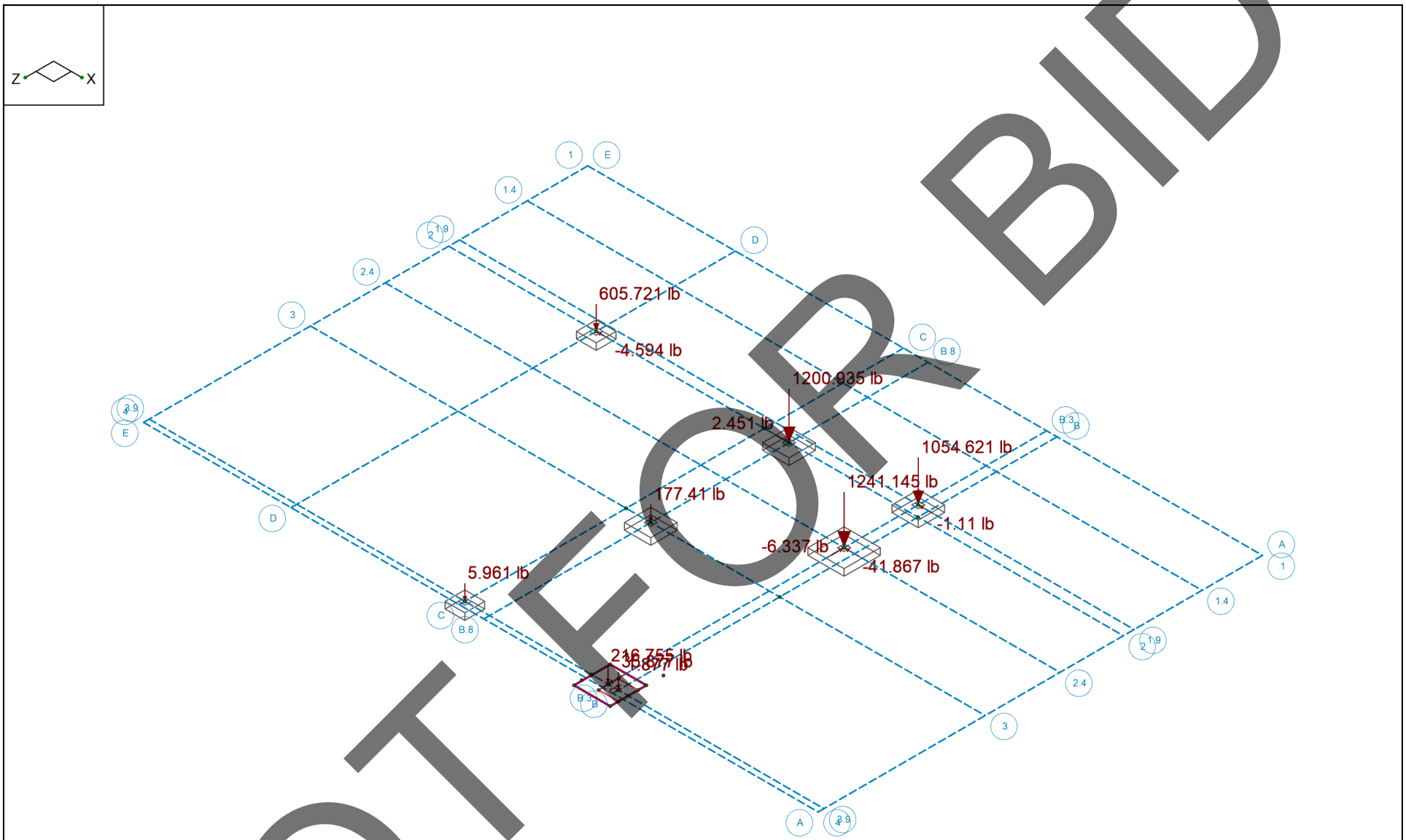
Loads: LL - Live Load

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 23
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Live Load	



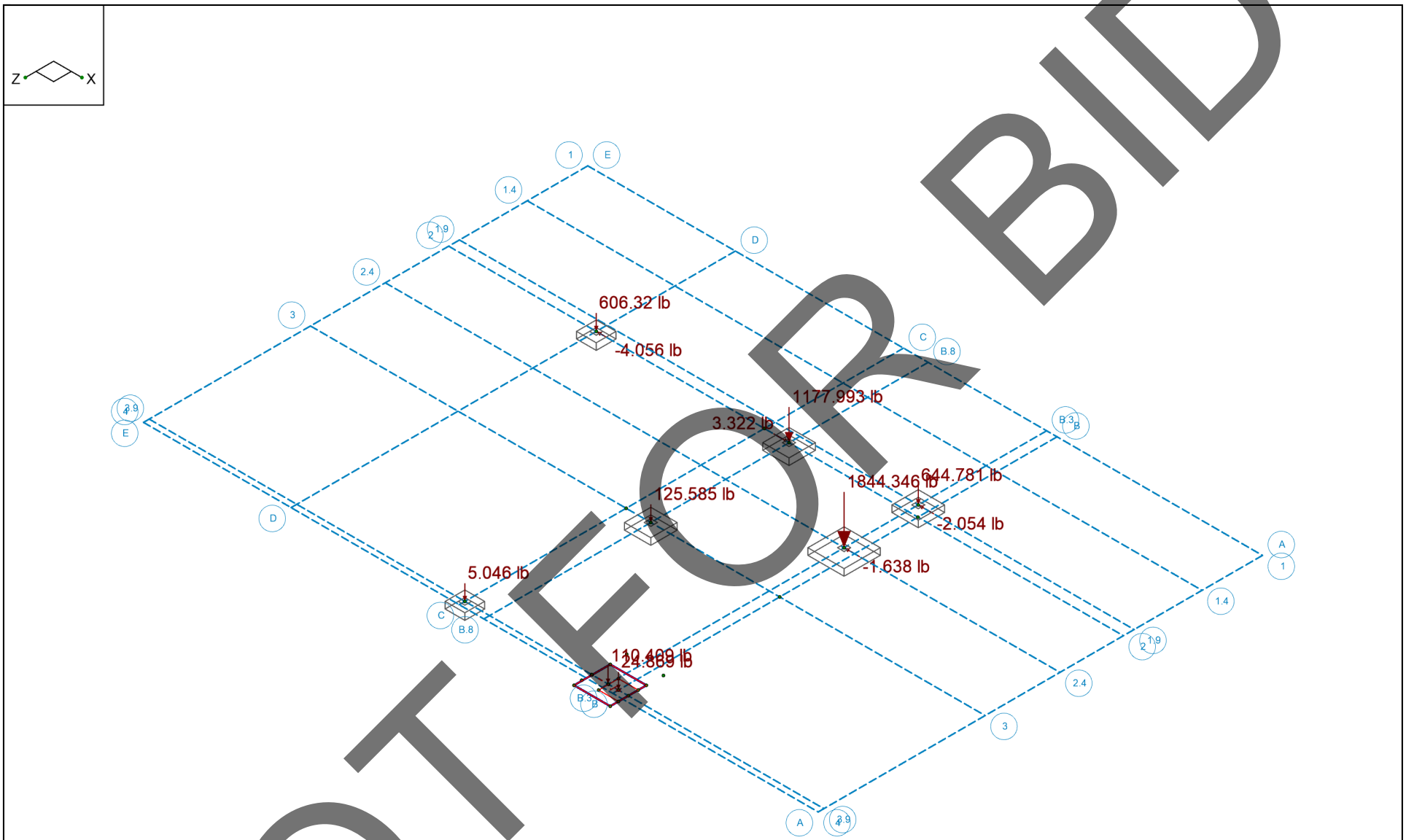
Loads: RLL - Roof Live Load

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 24
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Roof Live Load	



Loads: ELX - Earthquake Load X

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 25
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	RTU Seismic Load X-Direction	



Loads: ELZ - Earthquake Load Z

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 26
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	RTU Seismic Load Z-Direction	

Soil Definitions

	Label	Layers	Subgrade Modulus [k/ft³]	Allowable Bearing [psf]	Default
1	Default	Single	100	1610	Yes

Concrete Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	f'c [ksi]	Lambda	Flex Steel [ksi]	Shear Steel [ksi]
1	Conc3000NW	3156	1372	0.15	0.6	0.145	3	1	60	60
2	Conc3500NW	3409	1482	0.15	0.6	0.145	3.5	1	60	60
3	Conc4000NW	3644	1584	0.15	0.6	0.145	4	1	60	60
4	Conc3000LW	2085	907	0.15	0.6	0.11	3	0.75	60	60
5	Conc3500LW	2252	979	0.15	0.6	0.11	3.5	0.75	60	60
6	Conc4000LW	2408	1047	0.15	0.6	0.11	4	0.75	60	60
7	Conc3000NW WWR	3156	1372	0.15	0.6	0.145	3	1	70	60
8	Conc3500NW WWR	3409	1482	0.15	0.6	0.145	3.5	1	70	60
9	Conc4000NW WWR	3644	1584	0.15	0.6	0.145	4	1	70	60

Load Category

	Category	Node Loads	Distributed Loads	Area Loads
1	DL	17	1	
2	LL			1
3	RLL	18		
4	ELX	14		
5	ELZ	12		

Load Combination

	Label	Solve	Service	SF	Category	Factor	Category	Factor	Category	Factor	Category	Factor	Category	Factor	Category	Factor	Category	Factor
1	IBC 21/ASCE Strength 1	Yes			DL	1.4												
2	IBC 21/ASCE Strength 2 (a)	Yes			DL	1.2	LL	1.6	LLS	1.6	HL	1.6	RLL	0.5				
3	IBC 21/ASCE Strength 2 (b)	Yes			DL	1.2	LL	1.6	LLS	1.6	HL	1.6	SL	0.5	SLN	0.5		
4	IBC 21/ASCE Strength 2 (c)	Yes			DL	1.2	LL	1.6	LLS	1.6	HL	1.6	RL	0.5				
5	IBC 21/ASCE Strength 3 (a)	Yes			DL	1.2	RLL	1.6	HL	1.6	LL	0.5	LLS	1				
6	IBC 21/ASCE Strength 3 (c)	Yes			DL	1.2	SL	1.6	SLN	1.6	HL	1.6	LL	0.5	LLS	1		
7	IBC 21/ASCE Strength 3 (e)	Yes			DL	1.2	RL	1.6	HL	1.6	LL	0.5	LLS	1				
8	IBC 21/ASCE Strength 6 (a)	Yes			DL	1.2	ELX	1	LL	0.5	LLS	1	HL	1.6	SL	0.2	SLN	0.7
9	IBC 21/ASCE Strength 6 (a)	Yes			DL	1.2	ELZ	1	LL	0.5	LLS	1	HL	1.6	SL	0.2	SLN	0.7
10	IBC 21/ASCE Strength 6 (a)	Yes			DL	1.2	ELX	-1	LL	0.5	LLS	1	HL	1.6	SL	0.2	SLN	0.7
11	IBC 21/ASCE Strength 6 (a)	Yes			DL	1.2	ELZ	-1	LL	0.5	LLS	1	HL	1.6	SL	0.2	SLN	0.7
12	IBC 21/ASCE Strength 7 (a) (a)	Yes			DL	0.9	ELX	1	HL	1.6								
13	IBC 21/ASCE Strength 7 (a) (a)	Yes			DL	0.9	ELZ	1	HL	1.6								
14	IBC 21/ASCE Strength 7 (a) (a)	Yes			DL	0.9	ELX	-1	HL	1.6								
15	IBC 21/ASCE Strength 7 (a) (a)	Yes			DL	0.9	ELZ	-1	HL	1.6								
16	IBC 21/ASCE Strength 7 (b) (a)	Yes			DL	0.9	ELX	1	HL	0.9								
17	IBC 21/ASCE Strength 7 (b) (a)	Yes			DL	0.9	ELZ	1	HL	0.9								
18	IBC 21/ASCE Strength 7 (b) (a)	Yes			DL	0.9	ELX	-1	HL	0.9								
19	IBC 21/ASCE Strength 7 (b) (a)	Yes			DL	0.9	ELZ	-1	HL	0.9								
20	IBC 21/ASCE 1	Yes	Yes	1.5	DL	1												
21	IBC 21/ASCE 2	Yes	Yes	1.5	DL	1	HL	1	LL	1	LLS	1						
22	IBC 21/ASCE 3 (a)	Yes	Yes	1.5	DL	1	HL	1	RLL	1								
23	IBC 21/ASCE 3 (b)	Yes	Yes	1.5	DL	1	HL	1	SL	1								
24	IBC 21/ASCE 3 (c)	Yes	Yes	1.5	DL	1	HL	1	RL	1								
25	IBC 21/ASCE 4 (a)	Yes	Yes	1.5	DL	1	HL	1	LL	0.75	LLS	0.75	RLL	0.75				
26	IBC 21/ASCE 4 (b)	Yes	Yes	1.5	DL	1	HL	1	LL	0.75	LLS	0.75	SL	0.75	SLN	0.75		
27	IBC 21/ASCE 4 (c)	Yes	Yes	1.5	DL	1	HL	1	LL	0.75	LLS	0.75	RL	0.75				

Load Combination (Continued)

	Label	Solve	Service	SF	Category	Factor	Category	Factor	Category	Factor	Category	Factor	Category	Factor	Category	Factor	Category	Factor
28	IBC 21/ASCE 8 (a)	Yes	Yes	1.5	DL	1	HL	1	ELX	0.7								
29	IBC 21/ASCE 8 (a)	Yes	Yes	1.5	DL	1	HL	1	ELZ	0.7								
30	IBC 21/ASCE 8 (a)	Yes	Yes	1.5	DL	1	HL	1	ELX	-0.7								
31	IBC 21/ASCE 8 (a)	Yes	Yes	1.5	DL	1	HL	1	ELZ	-0.7								
32	IBC 21/ASCE 9 (a)	Yes	Yes	1.5	DL	1	HL	1	ELX	0.525	LL	0.75	LLS	0.75	SL	0.75		
33	IBC 21/ASCE 9 (a)	Yes	Yes	1.5	DL	1	HL	1	ELZ	0.525	LL	0.75	LLS	0.75	SL	0.75		
34	IBC 21/ASCE 9 (a)	Yes	Yes	1.5	DL	1	HL	1	ELX	-0.525	LL	0.75	LLS	0.75	SL	0.75		
35	IBC 21/ASCE 9 (a)	Yes	Yes	1.5	DL	1	HL	1	ELZ	-0.525	LL	0.75	LLS	0.75	SL	0.75		
36	IBC 21/ASCE 10 (a) (a)	Yes	Yes		DL	0.6	HL	1	ELX	0.7								
37	IBC 21/ASCE 10 (a) (a)	Yes	Yes		DL	0.6	HL	1	ELZ	0.7								
38	IBC 21/ASCE 10 (a) (a)	Yes	Yes		DL	0.6	HL	1	ELX	-0.7								
39	IBC 21/ASCE 10 (a) (a)	Yes	Yes		DL	0.6	HL	1	ELZ	-0.7								
40	IBC 21/ASCE 10 (b) (a)	Yes	Yes		DL	0.6	HL	0.6	ELX	0.7								
41	IBC 21/ASCE 10 (b) (a)	Yes	Yes		DL	0.6	HL	0.6	ELZ	0.7								
42	IBC 21/ASCE 10 (b) (a)	Yes	Yes		DL	0.6	HL	0.6	ELX	-0.7								
43	IBC 21/ASCE 10 (b) (a)	Yes	Yes		DL	0.6	HL	0.6	ELZ	-0.7								

Design Rules - Mat Slab

	Label	Max Bending Chk	Max Shear Chk	Top Bar	Bottom Bar	Min Top Bar Spacing [in]	Max Top Bar Spacing [in]	Min Bot Bar Spacing [in]	Max Bot Bar Spacing [in]	Spacing Increment [in]	Top Cover [in]	Bottom Cover [in]	Side Cover [in]	Rebar Options
1	S1_NEW	1	1	#5	N/A	3	18	N/A	N/A	1	8.375	3	0	Single Layer
2	S1_EX	1	1	#4	N/A	3	18	N/A	N/A	1	8.375	3	0	Single Layer

Design Rules - Footing

	Label	Max Bending Chk	Max Shear Chk	Top Bar	Bottom Bar	Top Cover [in]	Bottom Cover [in]
1	S1_NEW	1	1	#5	#5	1.5	3
2	S1_EX	1	1	#5	#5	1.5	3

Design Strips

	Label	Rebar Angle from Plan Horizontal (deg)	No. of Design Cuts	Design Rule
1	DS1	0	50	S1_EX
2	DS2	90	50	S1_EX
3	DS4	90	50	S1_NEW
4	DS5	0	50	S1_NEW

Spread Footing Definitions - Geometry

	Label	Max Length [in]	Min Length [in]	Max Width [in]	Min Width [in]	L/W Increment [in]	Max Thickness [in]	Min Thickness [in]	Thick Increment [in]	Force Square
1	F1	48	48	48	48	6	12	12	6	Yes
2	F2	66	66	66	66	6	12	12	6	Yes
3	F3_EX	36	36	36	36	6	12	12	6	Yes

Spread Footing Definitions - Soil

	Label	Overburden [psf]	Passive [lb]	Friction Coefficient	Gross/Net
1	F1	100	0	0.3	Gross
2	F2	100	0	0.3	Gross
3	F3_EX	100	0	0.3	Gross

Envelope Slab Soil Pressures

	Label	Max UC	Max LC	Soil Pressure[psf]	Allowable Bearing[psf]	Node
1	S1	0.859	22	1382.291	1610	N19

Envelope Spread Footing Soil Pressures

	Label	Max UC	Max LC	Soil Pressure[psf]	Allowable Bearing[psf]	Node
1	F2 - R3D_C2_NEW	0.726	22	1169.232	1610	A
2	F1 - R3D_C1_NEW	0.703	22	1131.72	1610	C
3	F1 - R3D_C4_NEW	0.918	22	1478.752	1610	A
4	F1 - R3D_C5_NEW	0.91	22	1464.834	1610	A
5	F3_EX - R3D_C8_EX	0.935	22	1505.685	1610	C
6	F3_EX - R3D_C7_EX	0.902	22	1452.072	1610	C

Strip Reinforcing

	Label	UC Top	LC	Gov Design Cut	UC Top	UC Bot	LC	Bot Bars/Mid Bars	Gov Design Cut	UC Bot	UC Shear	LC	Gov Design Cut	UC Shear
1	DS1	0	N/A	NA		0.342	5	#4@8in	DS1-X25		0.562	5	DS1-X38	
2	DS2	0	N/A	NA		0.116	5	#4@8in	DS2-X14		0.559	5	DS2-X35	
3	DS4	0.017	5	DS4-X50		0.033	5	#5@13in	DS4-X23		0.103	5	DS4-X23	
4	DS5	0	N/A	NA		0.177	5	#5@13in	DS5-X25		0.214	5	DS5-X26	

Spread Footing Code Check

	Node	Footing	Bearing Ratio	Bearing Pressure[psf]	Gov LC	UC Max	Muxx[k-ft]	Gov LC	UC Max	Muzz[k-ft]	Gov LC
1	R3D_C2_NEW	F2	0.726	1169.232	22	0.3	16.937	5	0.3	16.933	5
2	R3D_C1_NEW	F1	0.703	1131.72	22	0.118	5.29	5	0.118	5.304	5
3	R3D_C4_NEW	F1	0.918	1478.752	22	0.163	7.319	5	0.163	7.345	5
4	R3D_C5_NEW	F1	0.91	1464.834	22	0.165	7.423	5	0.165	7.433	5
5	R3D_C8_EX	F3_EX	0.935	1505.685	22	0.074	2.485	5	0.075	2.508	5
6	R3D_C7_EX	F3_EX	0.902	1452.072	22	0.073	2.453	5	0.073	2.454	5

Spread Footing Shear Code Check

	Node	Footing	UC Shear	Vux[lb]	Gov LC	UC Shear	Vuz[lb]	Gov LC
1	R3D_C2_NEW	F2	0.352	10385.389	5	0.352	10382.486	5
2	R3D_C1_NEW	F1	0.17	3771.526	5	0.171	3782.141	5
3	R3D_C4_NEW	F1	0.236	5218.347	5	0.237	5238.192	5
4	R3D_C5_NEW	F1	0.239	5292.298	5	0.239	5299.78	5
5	R3D_C8_EX	F3_EX	0.104	1501.2	5	0.106	1517.64	5
6	R3D_C7_EX	F3_EX	0.103	1482.112	5	0.103	1482.831	5

Spread Footing Geometry Results

	Node	Footing	Length[in]	Width[in]	Thickness[in]	ex[in]	ez[in]	Pedestal Ht[in]	Ped Xdim[in]	Ped Zdim[in]
1	R3D_C2_NEW	F2	66	66	12	0	0	0	12	12
2	R3D_C1_NEW	F1	48	48	12	0	0	0	12	12
3	R3D_C4_NEW	F1	48	48	12	0	0	0	12	12
4	R3D_C5_NEW	F1	48	48	12	0	0	0	12	12
5	R3D_C8_EX	F3_EX	36	36	12	0	0	0	12	12
6	R3D_C7_EX	F3_EX	36	36	12	0	0	0	12	12

Spread Footing Reinforcement

	Node	Footing	Bot x Steel[in^2]	Bot z Steel[in^2]	Top x Steel[in^2]	Top z Steel[in^2]
1	R3D_C2_NEW	F2	1.534	1.534	0	0
2	R3D_C1_NEW	F1	1.227	1.227	0	0
3	R3D_C4_NEW	F1	1.227	1.227	0	0
4	R3D_C5_NEW	F1	1.227	1.227	0	0
5	R3D_C8_EX	F3_EX	0.92	0.92	0	0
6	R3D_C7_EX	F3_EX	0.92	0.92	0	0

Spread Footing Stability

	Node	Footing	OSF-xx	LC	OSF-zz	LC	SR-xx	LC	SR-zz	LC
1	R3D_C2_NEW	F2	12.624	39	12.639	39	157.577	38	527.78	36
2	R3D_C1_NEW	F1	10.931	38	10.831	38	161.872	22	NA	1
3	R3D_C4_NEW	F1	12.453	38	12.27	38	113.361	22	NA	1
4	R3D_C5_NEW	F1	76.688	38	74.519	38	311.293	22	NA	1
5	R3D_C8_EX	F3_EX	13.813	39	13.232	39	58.338	22	NA	1
6	R3D_C7_EX	F3_EX	NA	1	NA	1	NA	1	NA	1

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Project	Calc. by
Sheriff's Crime Lab - Remodel	CJS
Section	**Sheet no./rev.**
Structural Calculations	31
Job Ref.	**Date**
J2300064	06/14/2024

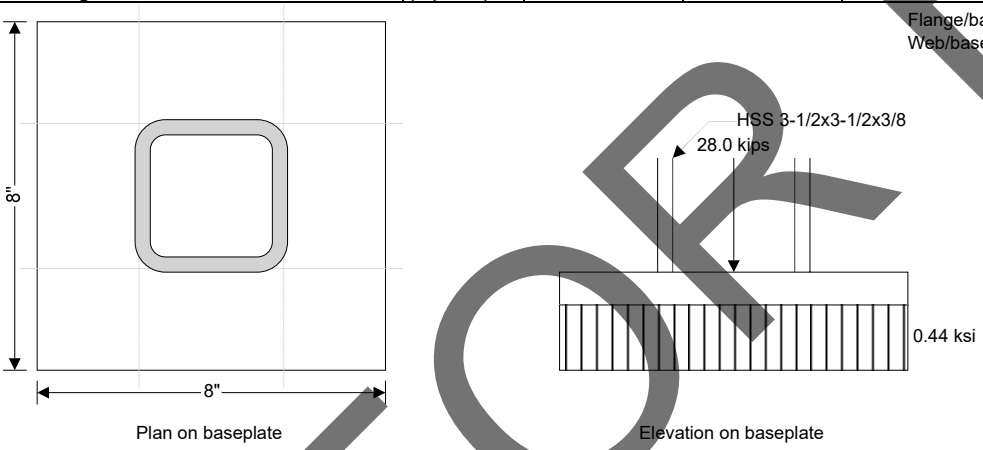
COLUMN BASE PLATE DESIGN

In accordance with AISC Steel Design Guide 1 and AISC 360-16

Design summary

Overall design status PASS

Description	Unit	Required	Provided	Utilization	Result
Plate thickness	(in)	0.471	0.750	0.628	PASS
Bearing strength	(kips)	28.00	130.56	0.214	PASS
Flange weld strength	(kips/in)	0.000	4.176	0.000	PASS



Design forces and moments

Axial force P_u = **28.0** kips (Compression)
(From RISA-3D @Node C2_NEW, Load combination 6)
Bending moment M_u = **0.0** kip_in
Shear force F_v = **0.0** kips

Column details

Column section HSS 3-1/2x3-1/2x3/8
Depth d = **3.500** in
Breadth b_f = **3.500** in
Thickness t = **0.349** in

Baseplate details

Depth N = **8.000** in
Breadth B = **8.000** in
Thickness t_p = **0.750** in
Design strength F_y = **36.0** ksi

Foundation geometry

Member thickness h_a = **12.000** in
Dist center of baseplate to left edge foundation x_{ce1} = **24.000** in
Dist center of baseplate to right edge foundation x_{ce2} = **24.000** in
Dist center of baseplate to bot edge foundation y_{ce1} = **24.000** in
Dist center of baseplate to top edge foundation y_{ce2} = **24.000** in

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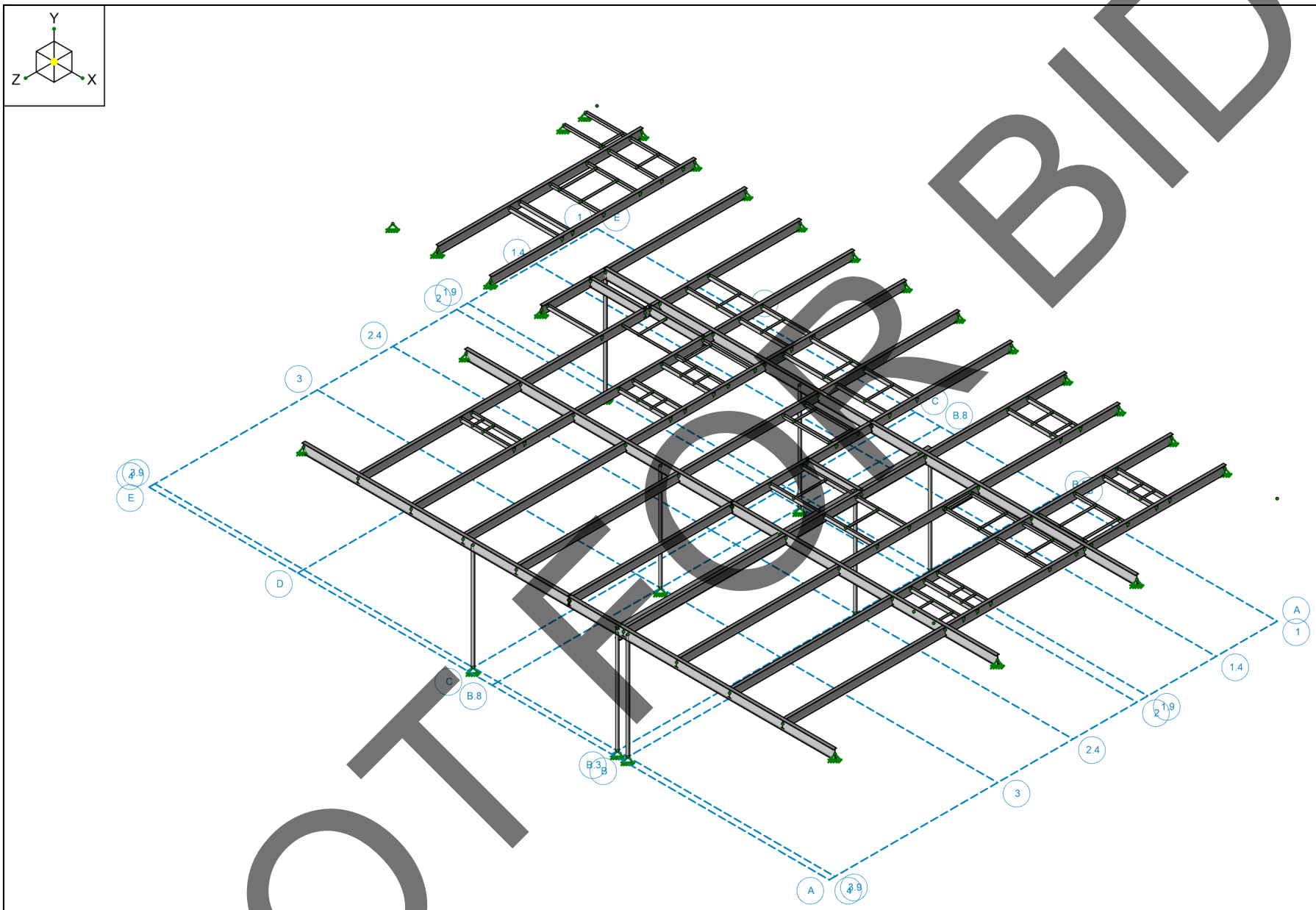
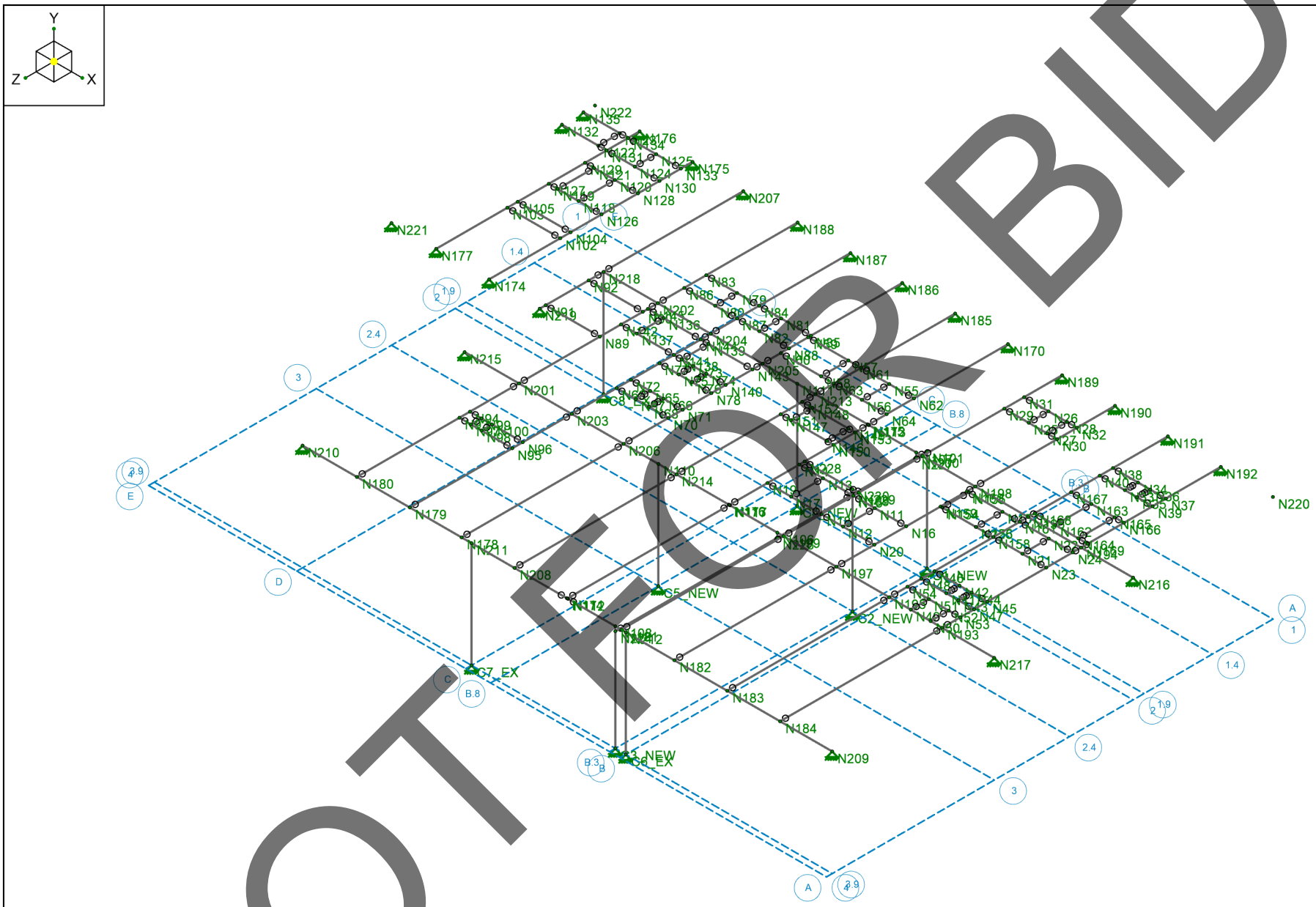
77-711 Flora Road, Suite 219
Palm Desert, CA 92211
Phone: (760) 285-3033

Minimum tensile strength, base plate	F_y = **36** ksi
Minimum tensile strength, column	F_{yCol} = **50** ksi
Compressive strength of concrete	f'_c = **3** ksi
Safety factors	
Compression	Ω_c = **2.50**
Flexure	Ω_b = **1.67**
Weld shear	Ω_v = **2.00**
Plate cantilever dimensions	
Minimum distance to edge of concrete	$l_{min} = \min(\min(x_{ce1}, x_{ce2}) - N / 2 , \min(y_{ce1}, y_{ce2}) - B / 2)$ = **20.000** in
Area of base plate	$A_1 = B \times N$ = **64.000** in^2
Maximum area of supporting surface	$A_2 = (N + 2 \times l_{min})^2 \times (B / N)$ = **2304.000** in^2
Nominal strength of concrete under base plate	$P_p = 0.85 \times f'_c \times A_1 \times \min(\sqrt{(A_2 / A_1)}, 2)$ = **326.4** kips
Bending line cantilever distance m	$m = (N - 0.95 \times d) / 2$ = **2.338** in
Bending line cantilever distance n	$n = (B - 0.95 \times b_f) / 2$ = **2.338** in
Maximum bending line cantilever	$l = \max(m, n)$ = **2.338** in
Plate thickness	
Required plate thickness	$t_{p,req} = l \times \sqrt{((2 \times \Omega_b \times P_u) / (F_y \times B \times N))}$ = **0.471** in
Specified plate thickness	t_p = **0.750** in
	PASS - Thickness of plate exceeds required thickness
Design bearing strength (AISC 360-05-J8)	
Design bearing strength	P_p = **326.40** kips
Factored bearing strength	P_p/Ω_c = **130.56** kips
	PASS - Allowable bearing stress exceeds applied bearing stress
Flange weld	
Flange weld leg length	t_{wf} = **0.1875** in
Tension capacity of flange	$P_{tf} = b_f \times t \times F_{yCol}$ = **61.1** kips
Force in tension flange	$F_{tf} = M_u / (d - t) - P_u \times (b_f \times t) / A_{col}$ = **-8.4** kips
Critical force in flange	$F_f = \min(P_{tf}, \max(F_{tf}, 0\text{kips}))$ = **0.0** kips
Flange weld force per in	$R_{wf} = F_f / b_f$ = **0.0** kips/in
Electrode classification number	F_{EXX} = **70.0** ksi
Design weld stress	$F_{nw}on\Omega = 0.60 \times F_{EXX} \times (1.0 + 0.5 \times (\sin(90\text{deg}))^{1.5}) / \Omega_v$ = **31.500**ksi
Design strength of weld per in	$R_{nf}on\Omega = F_{nw}on\Omega \times t_{wf} / \sqrt{(2)}$ = **4.2** kips/in
	PASS - Available strength of flange weld exceeds force in flange weld

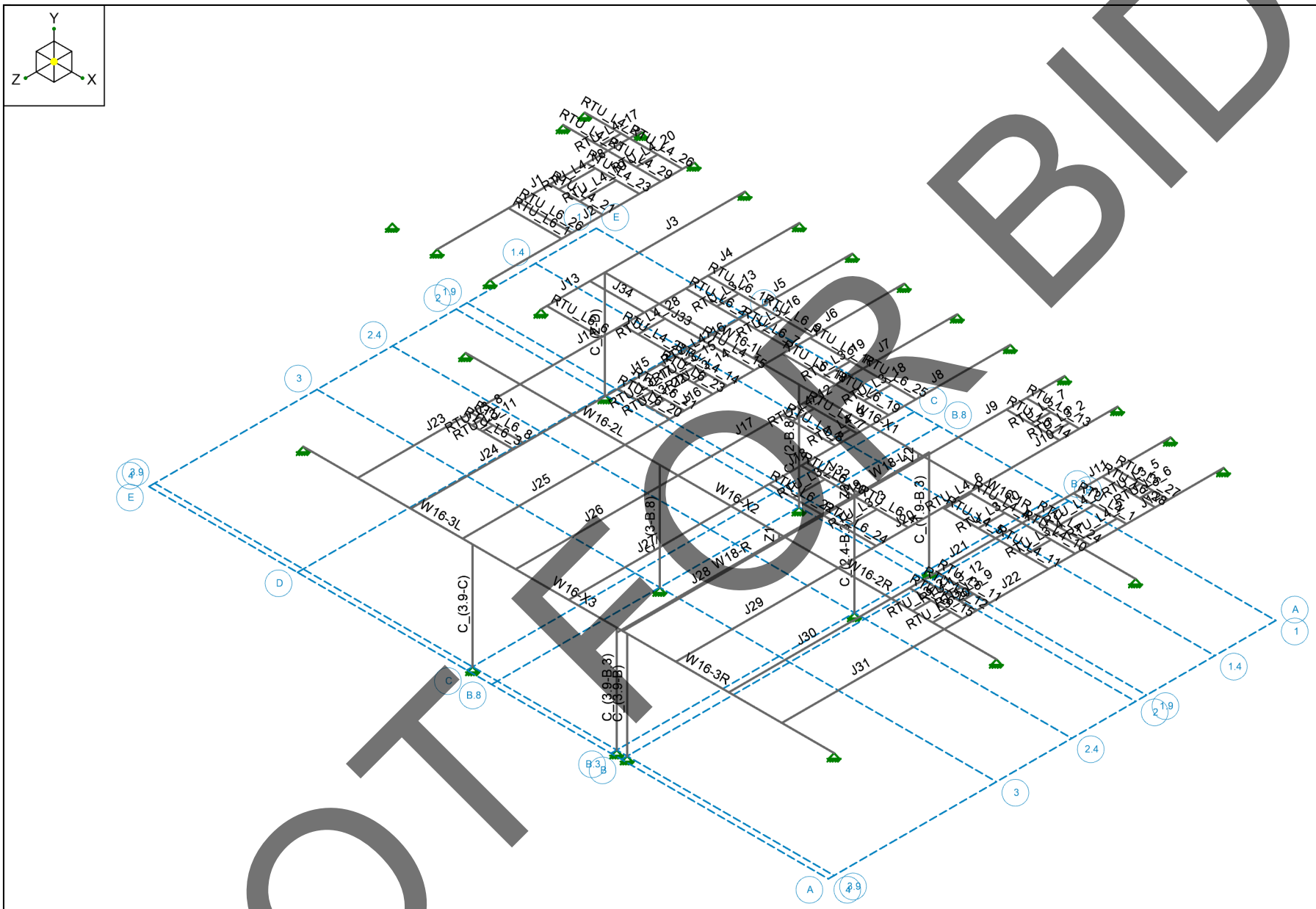
DESIGN OF GRAVITY LOAD RESISTANCE SYSTEM



WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 34
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	3D Model	



WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 35
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Node Numbers	


Y
Z
X
W16-2L
W16-3L
W16-X1
W16-X2
W16-X3
W16-2R
W16-3R
W18-L1
W18-R1
C_(3.9-C)
C_(3.9-B.8)
C_(2.4-B.8)
C_(1.9-B.3)
J1
J2
J3
J4
J5
J6
J7
J8
J9
J10
J11
J12
J13
J14
J15
J16
J17
J18
J19
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J28
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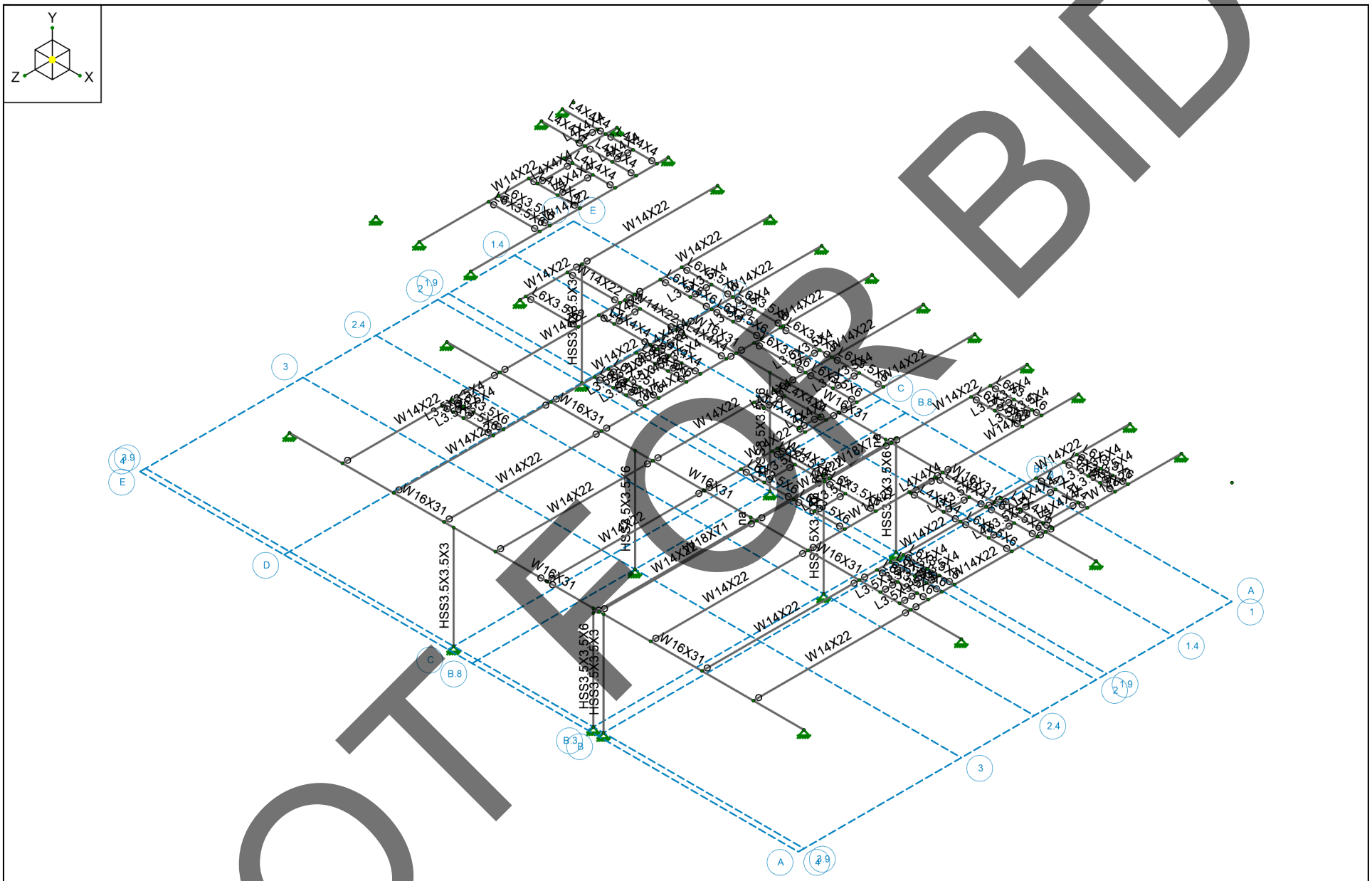
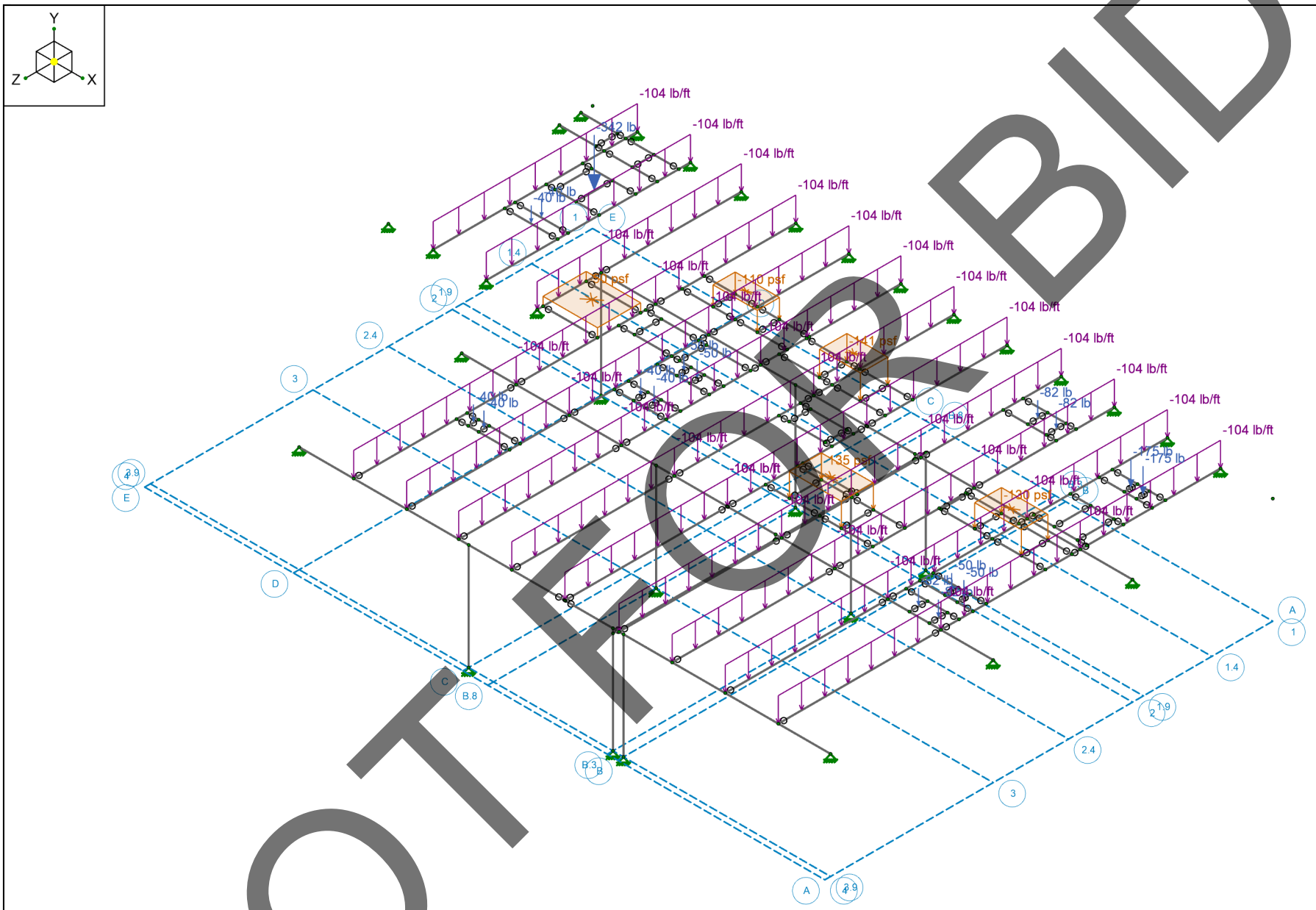
J30
J31
J32
J33
J34

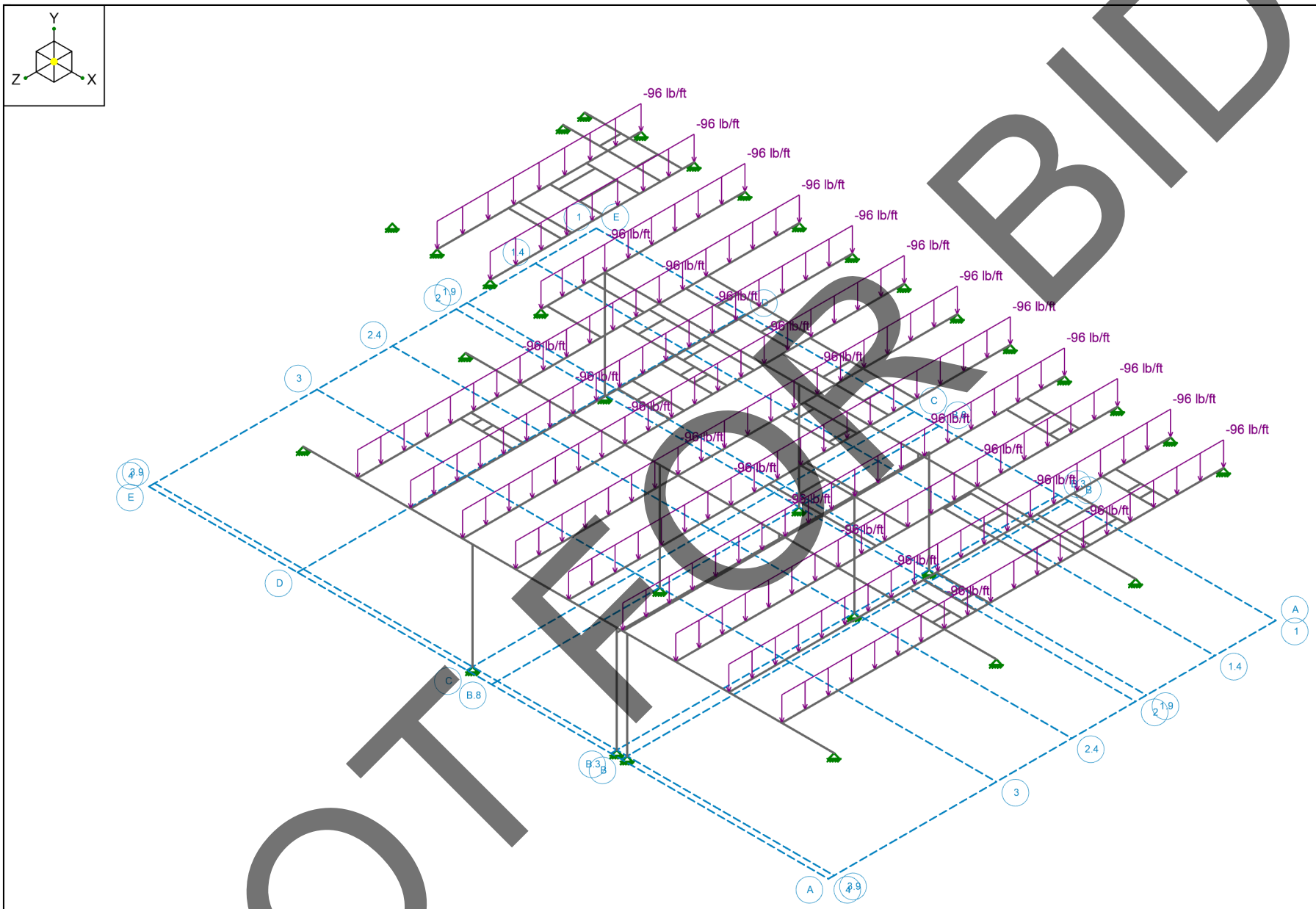


WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 37
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Member Shapes	



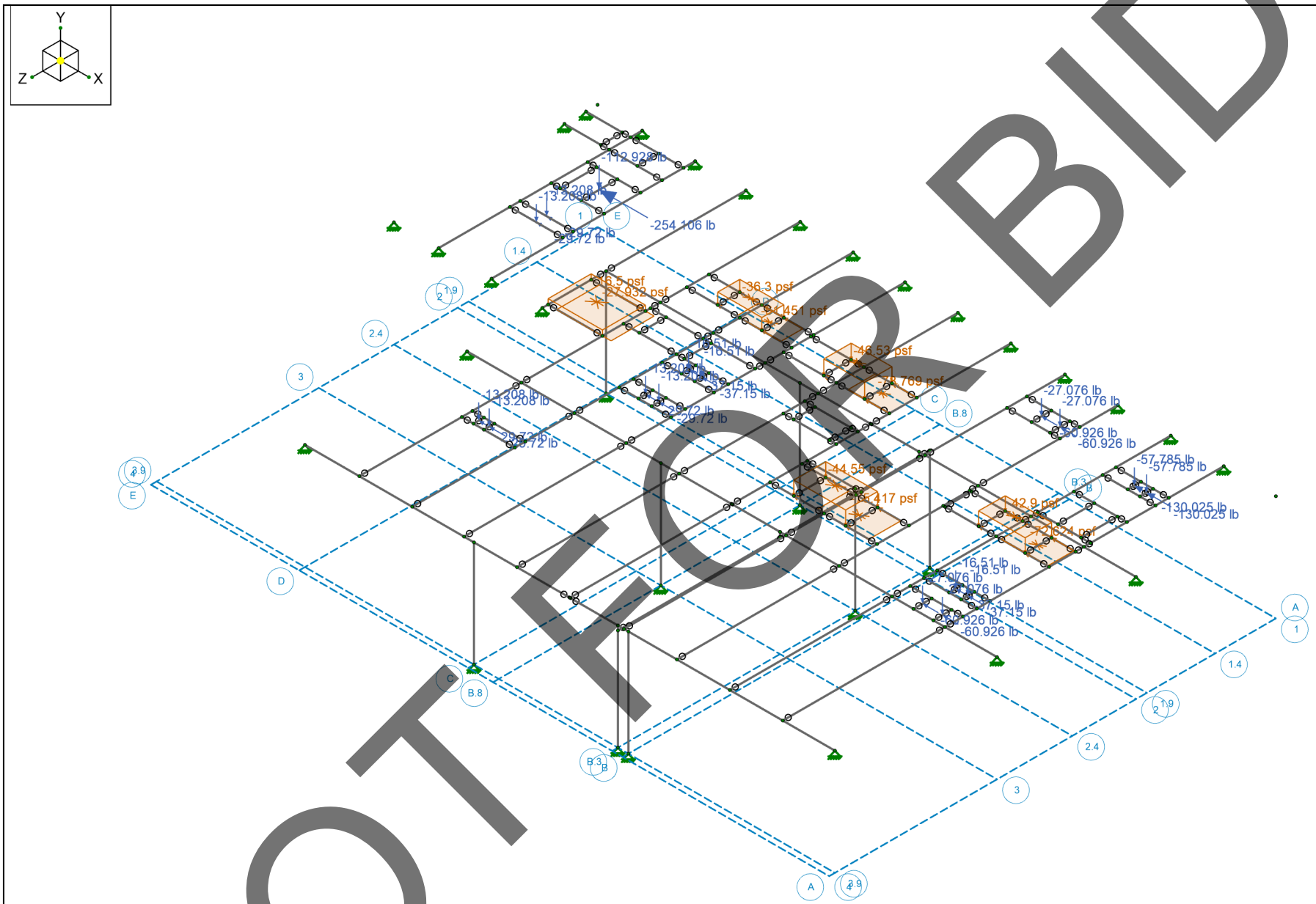
Loads: BLC 1, Dead Load

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 38
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Dead Load	



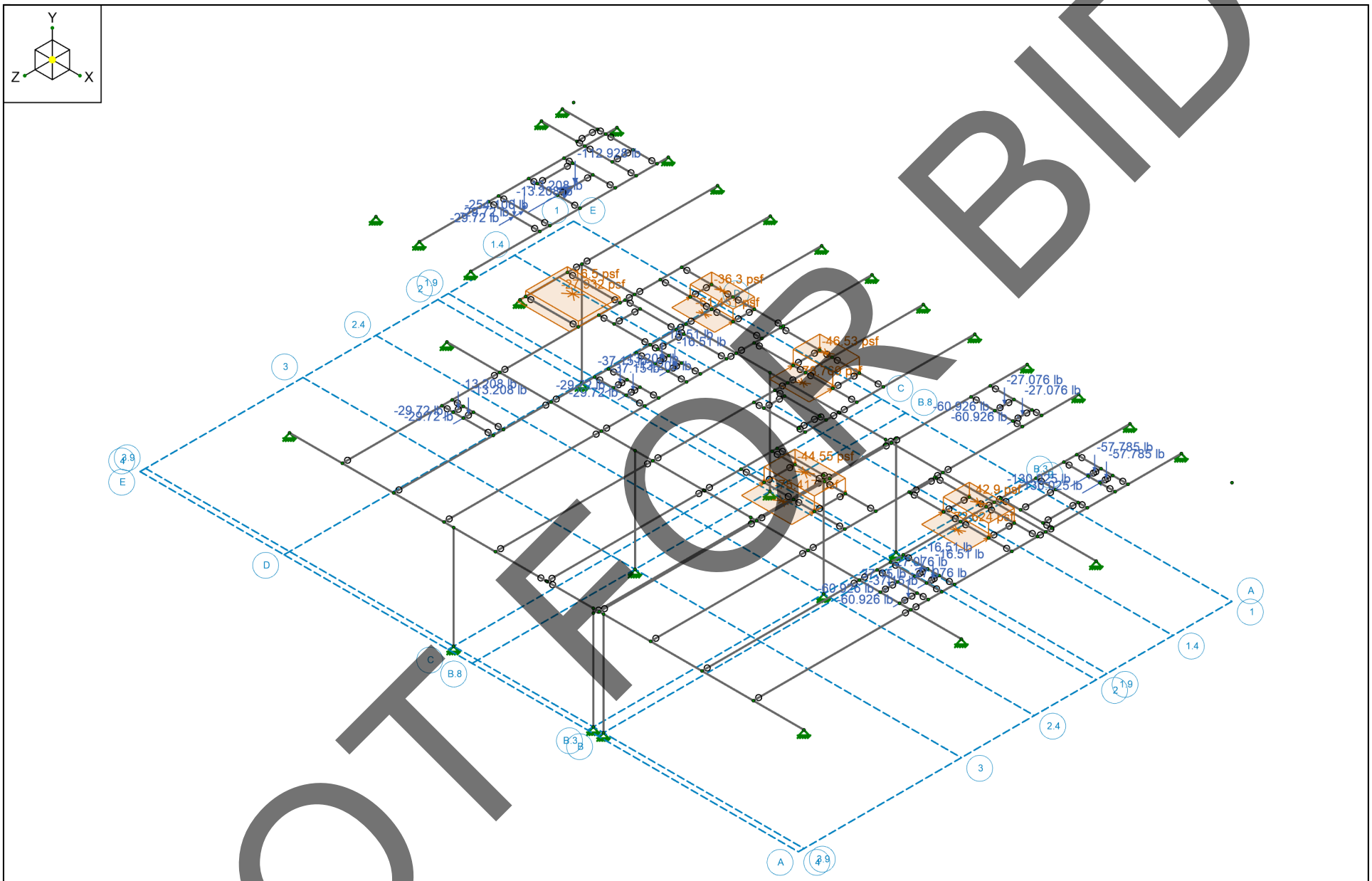
Loads: BLC 4, Roof Live Load

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 39
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Roof Live Load	



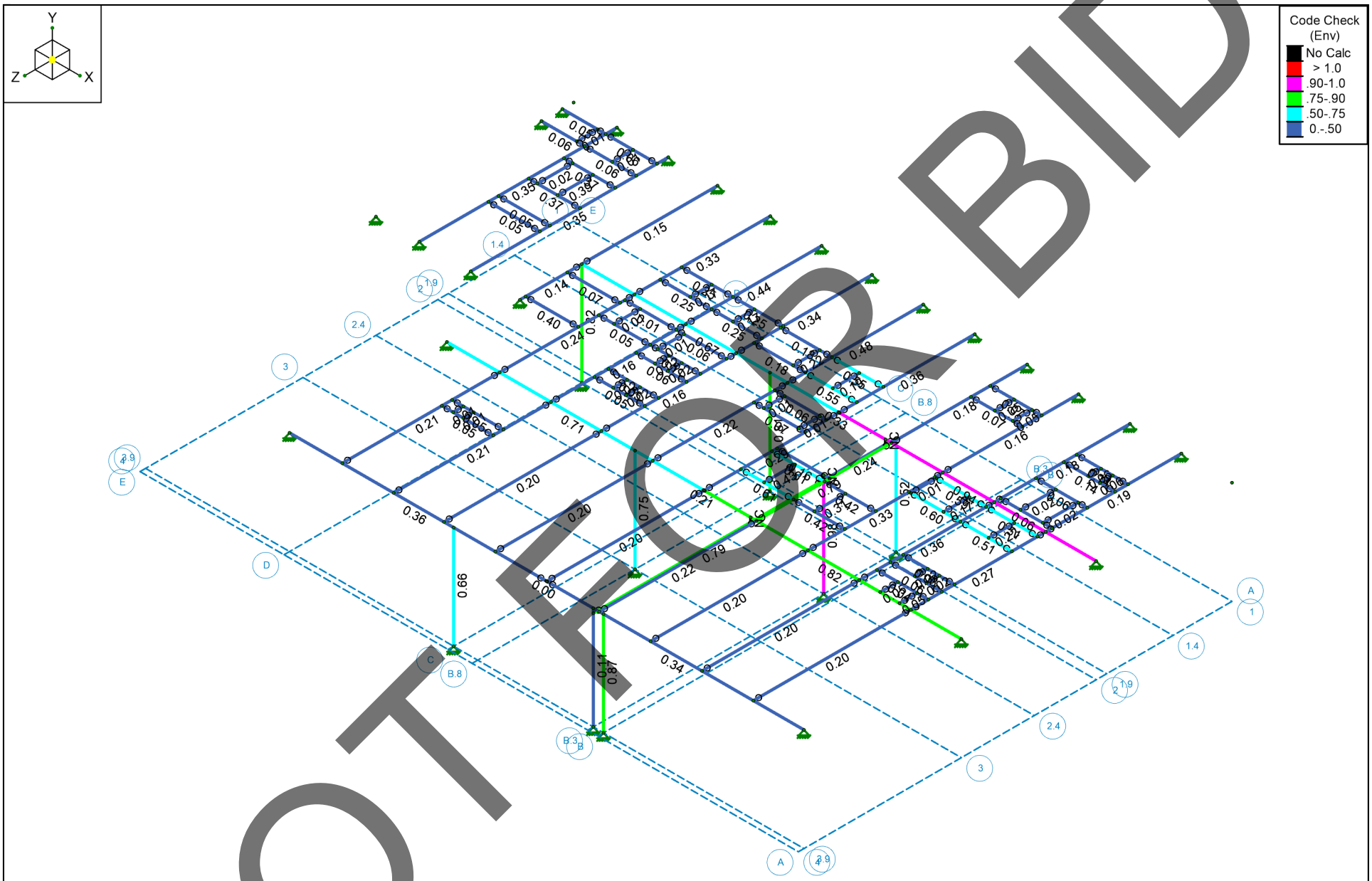
Loads: BLC 14, Earthquake Load X

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 40
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	RTU Seismic Load X-Direction	



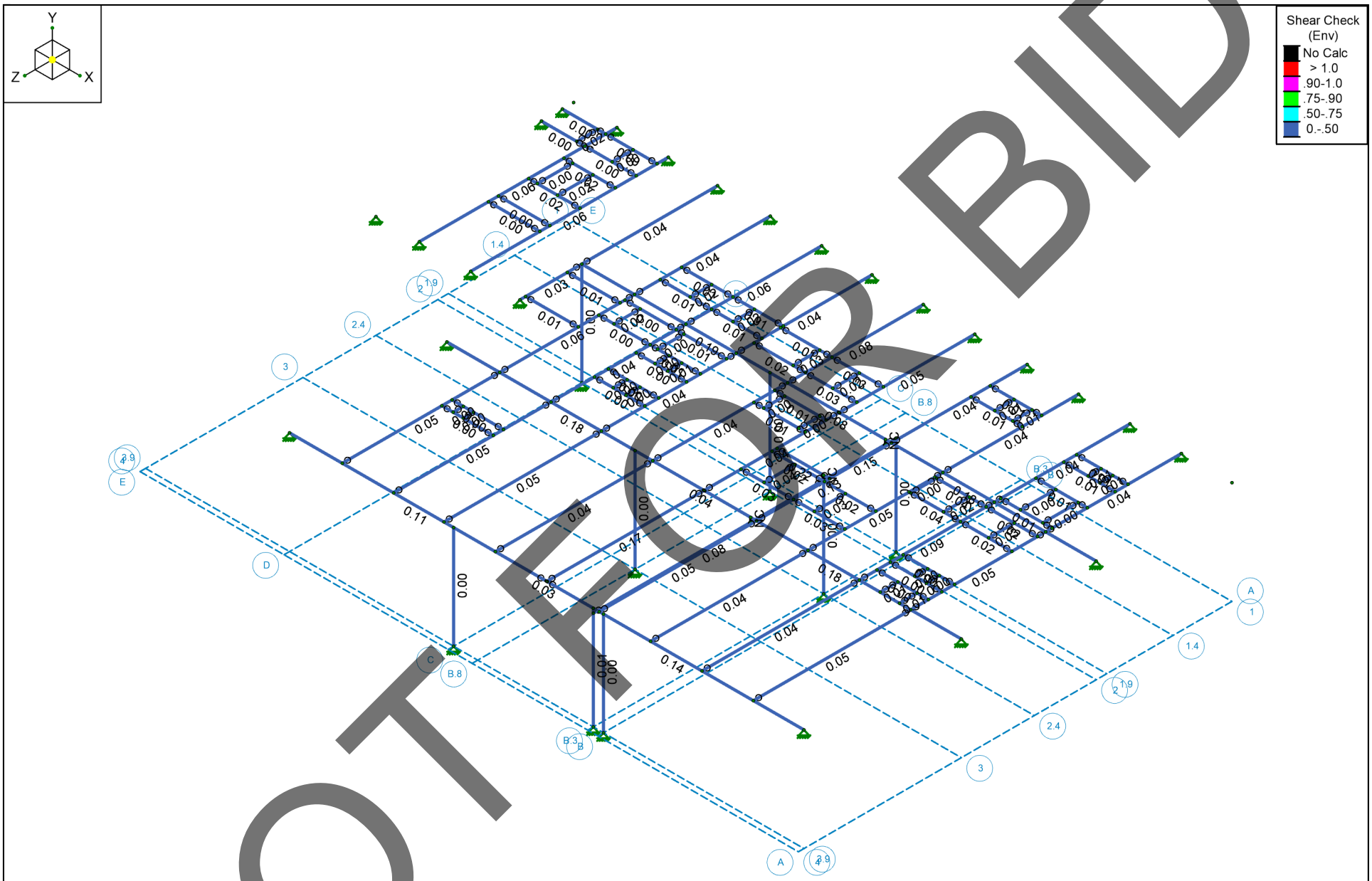
Loads: BLC 17, Earthquake Load Z

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 41
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	RTU Seismic Load Z-Direction	



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 42
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Member Stress Ratios (Bending)	



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

WT Group	The W-T Group, LLC.	Sheriff's Lab	Page - 43
	CJS		Sheriff's Lab Remodel_MODIFICATION…
	J2300064	Member Stress Ratios (Shear)	

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B RECT	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A500 Gr.C RND	29000	11154	0.3	0.65	0.527	46	1.4	62	1.3
7	A500 Gr.C RECT	29000	11154	0.3	0.65	0.527	50	1.4	62	1.3
8	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
9	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
10	A913 Gr.65	29000	11154	0.3	0.65	0.49	65	1.1	80	1.1

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1	HSS3.5X3.5X3	HSS3.5X3.5X3	Column	Tube	A500 Gr.B RECT	S1_NEW	2.24	4.05	4.05	6.56
2	HSS3.5X3.5X6	HSS3.5X3.5X6	Column	Tube	A500 Gr.C RECT	S1_NEW	4.09	6.49	6.49	11.2
3	L3.5X3.5X4	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW	1.7	2	2	0.039
4	L4X4X4	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW	1.93	3	3	0.044
5	L4X3.5X5	L4X3.5X5	Beam	Single Angle	A572 Gr.50	S1_NEW	2.25	2.52	3.53	0.078
6	L6X3.5X6	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW	3.44	3.33	12.9	0.168
7	W14X22	W14X22	Beam	Wide Flange	A992	S1_NEW	6.49	7	199	0.208
8	W16X26	W16X26	Beam	Wide Flange	A36 Gr.36	S1_NEW	7.68	9.59	301	0.262
9	W16X31	W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW	9.13	12.4	375	0.461
10	W18X71	W18X71	Beam	Wide Flange	A992	S1_NEW	20.9	60.3	1170	3.49

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	C_(1.9-B.3)	C1_NEW	N101		HSS3.5X3.5X6	Column	Tube	A500 Gr.C RECT	S1_NEW
2	C_(2-B.8)	C4_NEW	N111		HSS3.5X3.5X6	Column	Tube	A500 Gr.C RECT	S1_NEW
3	C_(2-D)	C8_EX	N218		HSS3.5X3.5X3	Column	Tube	A500 Gr.B RECT	S1_NEW
4	C_(2.4-B.3)	C2_NEW	N109		HSS3.5X3.5X6	Column	Tube	A500 Gr.C RECT	S1_NEW
5	C_(3-B.8)	C5_NEW	N110		HSS3.5X3.5X6	Column	Tube	A500 Gr.C RECT	S1_NEW
6	C_(3.9-B)	C6_EX	N212		HSS3.5X3.5X3	Column	Tube	A500 Gr.B RECT	S1_NEW
7	C_(3.9-B.3)	C3_NEW	N108		HSS3.5X3.5X6	Column	Tube	A500 Gr.C RECT	S1_NEW
8	C_(3.9-C)	C7_EX	N211		HSS3.5X3.5X3	Column	Tube	A500 Gr.B RECT	S1_NEW
9	J1	N176	N177		W14X22	Beam	Wide Flange	A992	S1_NEW
10	J2	N175	N174		W14X22	Beam	Wide Flange	A992	S1_NEW
11	J3	N207	N218		W14X22	Beam	Wide Flange	A992	S1_NEW
12	J4	N188	N202		W14X22	Beam	Wide Flange	A992	S1_NEW
13	J5	N187	N204		W14X22	Beam	Wide Flange	A992	S1_NEW
14	J6	N186	N205		W14X22	Beam	Wide Flange	A992	S1_NEW
15	J7	N185	N213		W14X22	Beam	Wide Flange	A992	S1_NEW
16	J8	N170	N172		W14X22	Beam	Wide Flange	A992	S1_NEW
17	J9	N189	N200		W14X22	Beam	Wide Flange	A992	S1_NEW
18	J10	N190	N198		W14X22	Beam	Wide Flange	A992	S1_NEW
19	J11	N191	N196		W14X22	Beam	Wide Flange	A992	S1_NEW
20	J12	N192	N194		W14X22	Beam	Wide Flange	A992	S1_NEW
21	J13	N218	N219		W14X22	Beam	Wide Flange	A992	S1_NEW
22	J14	N202	N201		W14X22	Beam	Wide Flange	A992	S1_NEW
23	J15	N204	N203		W14X22	Beam	Wide Flange	A992	S1_NEW
24	J16	N205	N206		W14X22	Beam	Wide Flange	A992	S1_NEW
25	J17	N213	N214		W14X22	Beam	Wide Flange	A992	S1_NEW
26	J18	N173	N172		W14X22	Beam	Wide Flange	A992	S1_NEW

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
27	J19	N200	N199		W14X22	Beam	Wide Flange	A992	S1_NEW
28	J20	N198	N197		W14X22	Beam	Wide Flange	A992	S1_NEW
29	J21	N196	N195		W14X22	Beam	Wide Flange	A992	S1_NEW
30	J22	N194	N193		W14X22	Beam	Wide Flange	A992	S1_NEW
31	J23	N201	N180		W14X22	Beam	Wide Flange	A992	S1_NEW
32	J24	N203	N179		W14X22	Beam	Wide Flange	A992	S1_NEW
33	J25	N206	N178		W14X22	Beam	Wide Flange	A992	S1_NEW
34	J26	N214	N208		W14X22	Beam	Wide Flange	A992	S1_NEW
35	J27	N173	N171		W14X22	Beam	Wide Flange	A992	S1_NEW
36	J28	N199	N181		W14X22	Beam	Wide Flange	A992	S1_NEW
37	J29	N197	N182		W14X22	Beam	Wide Flange	A992	S1_NEW
38	J30	N195	N183		W14X22	Beam	Wide Flange	A992	S1_NEW
39	J31	N193	N184		W14X22	Beam	Wide Flange	A992	S1_NEW
40	J32	N228	N229		W14X22	Beam	Wide Flange	A992	S1_NEW
41	J33	N145	N144	180	W14X22	Beam	Wide Flange	A992	S1_NEW
42	J34	N92	N90	180	W14X22	Beam	Wide Flange	A992	S1_NEW
43	RTU_L3_1	N13	N17	180	L4X3.5X5	Beam	Single Angle	A572 Gr.50	S1_NEW
44	RTU_L3_2	N28	N27	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
45	RTU_L3_3	N11	N12	180	L4X3.5X5	Beam	Single Angle	A572 Gr.50	S1_NEW
46	RTU_L3_4	N22	N21	180	L4X3.5X5	Beam	Single Angle	A572 Gr.50	S1_NEW
47	RTU_L3_5	N34	N33	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
48	RTU_L3_6	N36	N35	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
49	RTU_L3_7	N26	N25	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
50	RTU_L3_8	N99	N97	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
51	RTU_L3_9	N44	N43	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
52	RTU_L3_10	N157	N156	180	L4X3.5X5	Beam	Single Angle	A572 Gr.50	S1_NEW
53	RTU_L3_11	N100	N98	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
54	RTU_L3_12	N42	N41	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
55	RTU_L3_13	N79	N80	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
56	RTU_L3_14	N74	N76	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
57	RTU_L3_15	N73	N75	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
58	RTU_L3_16	N81	N82	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
59	RTU_L3_17	N65	N67	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
60	RTU_L3_18	N55	N56	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
61	RTU_L3_19	N57	N58	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
62	RTU_L3_20	N52	N50	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
63	RTU_L3_21	N51	N49	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
64	RTU_L3_22	N66	N68	180	L3.5X3.5X4	Beam	Single Angle	A572 Gr.50	S1_NEW
65	RTU_L4_1	N167	N166	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
66	RTU_L4_2	N165	N164	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
67	RTU_L4_3	N163	N162	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
68	RTU_L4_4	N160	N161	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
69	RTU_L4_5	N159	N158	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
70	RTU_L4_6	N154	N155	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
71	RTU_L4_7	N152	N153	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
72	RTU_L4_8	N151	N150	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
73	RTU_L4_9	N149	N146	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
74	RTU_L4_10	N161	N24	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
75	RTU_L4_11	N158	N23	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
76	RTU_L4_12	N148	N147	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
77	RTU_L4_14	N141	N140	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
78	RTU_L4_15	N144	N143	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
79	RTU_L4_16	N139	N138	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
80	RTU_L4_17	N123	N122	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
81	RTU_L4_18	N121	N119	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
82	RTU_L4_19	N120	N118	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
83	RTU_L4_20	N125	N124	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
84	RTU_L4_21	N127	N126	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
85	RTU_L4_22	N141	N142	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
86	RTU_L4_23	N129	N128	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
87	RTU_L4_24	N168	N169	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
88	RTU_L4_25	N132	N131	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
89	RTU_L4_26	N134	N133	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
90	RTU_L4_27	N135	N134	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
91	RTU_L4_28	N136	N137	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
92	RTU_L4_29	N131	N130	180	L4X4X4	Beam	Single Angle	A36 Gr.36	S1_NEW
93	RTU_L6_1	N103	N102	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
94	RTU_L6_2	N86	N87	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
95	RTU_L6_3	N93	N95	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
96	RTU_L6_4	N15	N16	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
97	RTU_L6_6	N91	N89	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
98	RTU_L6_7	N87	N88	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
99	RTU_L6_8	N94	N96	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
100	RTU_L6_9	N84	N85	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
101	RTU_L6_10	N14	N15	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
102	RTU_L6_11	N46	N45	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
103	RTU_L6_12	N48	N47	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
104	RTU_L6_13	N31	N32	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
105	RTU_L6_14	N29	N30	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
106	RTU_L6_15	N54	N53	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
107	RTU_L6_16	N59	N61	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
108	RTU_L6_17	N83	N84	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
109	RTU_L6_18	N60	N63	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
110	RTU_L6_19	N63	N64	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
111	RTU_L6_20	N69	N70	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
112	RTU_L6_21	N72	N71	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
113	RTU_L6_22	N19	N18	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
114	RTU_L6_23	N77	N78	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
115	RTU_L6_24	N18	N20	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
116	RTU_L6_25	N61	N62	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
117	RTU_L6_26	N105	N104	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
118	RTU_L6_27	N38	N37	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
119	RTU_L6_28	N40	N39	180	L6X3.5X6	Beam	Single Angle	A572 Gr.50	S1_NEW
120	W16-1L	N218	N115		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
121	W16-1R	N113	N216		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
122	W16-2L	N215	N116		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
123	W16-2R	N117	N217		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
124	W16-3L	N210	N114		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
125	W16-3R	N112	N209		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
126	W16-X1	N115	N113		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
127	W16-X2	N116	N117		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
128	W16-X3	N114	N112		W16X31	Beam	Wide Flange	A36 Gr.36	S1_NEW
129	W18-L	N101	N109		W18X71	Beam	Wide Flange	A992	S1_NEW
130	W18-R	N109	N224		W18X71	Beam	Wide Flange	A992	S1_NEW
131	Z1	N226	N106		RIGID	None	None	RIGID	S1_NEW
132	Z2	N227	N107		RIGID	None	None	RIGID	S1_NEW
133	Z3	N109	N230		RIGID	None	None	RIGID	S1_NEW

Basic Load Cases

	BLC Description	Category	Y Gravity	Point	Distributed	Area(Member)
1	Dead Load	DL	-1	27	31	5
2	Live Load	LL				
3	Live Load Special (public assemb	LLS				
4	Roof Live Load	RLL			31	
5	Snow Load	SL				
6	Snow Load Nonshedding	SLN				
7	Rain Load	RL				
8	Wind Load X	WLX				
9	Partial X Wind Load 1	WLXP1				
10	Partial X Wind Load 2	WLXP2				
11	Wind Load Z	WLZ				
12	Partial Z Wind Load 1	WLZP1				
13	Partial Z Wind Load 2	WLZP2				
14	Earthquake Load X	ELX		54		10
15	Earthquake Load X Plus Z Eccentr	ELX+Z				
16	Earthquake Load X Minus Z Eccent	ELX-Z				
17	Earthquake Load Z	ELZ		54		10
18	Earthquake Load Z Plus X Eccentr	ELZ+X				
19	Earthquake Load Z Minus X Eccent	ELZ-X				
20	Other Load 1	OL1				
21	Other Load 2	OL2				
22	Other Load 3	OL3				
23	Other Load 4	OL4				
24	Wind Load Roof +X	WLX+R				
25	Wind Load Roof -X	WLX-R				
26	Wind Load Roof +Z	WLZ+R				
27	Wind Load Roof -Z	WLZ-R				
28	Semi-Rigid Wind Load +X	WL+X				
29	Semi-Rigid Wind Load -X	WL-X				
30	Semi-Rigid Wind Load +Z	WL+Z				
31	Semi-Rigid Wind Load -Z	WL-Z				
32	Semi-Rigid Wind Load +XP1	WL+XP1				
33	Semi-Rigid Wind Load +XP2	WL+XP2				
34	Semi-Rigid Wind Load -XP1	WL-XP1				
35	Semi-Rigid Wind Load -XP2	WL-XP2				
36	Semi-Rigid Wind Load +ZP1	WL+ZP1				
37	Semi-Rigid Wind Load +ZP2	WL+ZP2				
38	Semi-Rigid Wind Load -ZP1	WL-ZP1				
39	Semi-Rigid Wind Load -ZP2	WL-ZP2				
40	BLC 1 Transient Area Loads	None			96	
41	BLC 14 Transient Area Loads	None			192	
42	BLC 17 Transient Area Loads	None			192	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	Deflection 1	Yes	Y	DL	1						
2	Deflection 2	Yes	Y	RLL	1						
3	Deflection 3	Yes	Y	DL	1	LL	1				
4	IBC 21/ASCE ASD 1	Yes	Y	DL	1						
5	IBC 21/ASCE ASD 2	Yes	Y	DL	1	LL	1	LLS	1		
6	IBC 21/ASCE ASD 3 (a)	Yes	Y	DL	1	RLL	1				
7	IBC 21/ASCE ASD 4 (a)	Yes	Y	DL	1	LL	0.75	LLS	0.75	RLL	0.75
8	IBC 21/ASCE Strength 6 (a)	Yes	Y	DL	1.2	ELX	1	LL	0.5	LLS	1
9	IBC 21/ASCE Strength 6 (b)	Yes	Y	DL	1.2	ELZ	1	LL	0.5	LLS	1

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
10	IBC 21/ASCE Strength 6 (c)	Yes	Y	DL	1.2	ELX	-1	LL	0.5	LLS	1
11	IBC 21/ASCE Strength 6 (d)	Yes	Y	DL	1.2	ELZ	-1	LL	0.5	LLS	1
12	IBC 21/ASCE Strength 7 (a)	Yes	Y	DL	0.9	ELX	1				
13	IBC 21/ASCE Strength 7 (b)	Yes	Y	DL	0.9	ELZ	1				
14	IBC 21/ASCE Strength 7 (c)	Yes	Y	DL	0.9	ELX	-1				
15	IBC 21/ASCE Strength 7 (d)	Yes	Y	DL	0.9	ELZ	-1				

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	C8_EX	max	68.492	6	11209.473	6	0.01	11	0	15	0	15	0	15
2		min	21.524	2	3643.507	2	-0.011	9	0	1	0	1	0	1
3	C6_EX	max	21.516	6	13620.485	6	2.016	10	0	15	0	15	0	15
4		min	8.635	2	5209.192	2	0.231	12	0	1	0	1	0	1
5	C7_EX	max	2.812	6	10851.475	6	0.096	11	0	15	0	15	0	15
6		min	1.296	2	4222.548	2	0.01	9	0	1	0	1	0	1
7	C4_NEW	max	-20.006	2	19642.937	6	0.32	10	0	15	0	15	0	15
8		min	-62.122	6	6118.868	2	-0.385	8	0	1	0	1	0	1
9	C5_NEW	max	-10.153	12	19479.975	6	0.473	8	0	15	0	15	0	15
10		min	-22.479	6	7530.41	2	0.118	14	0	1	0	1	0	1
11	C2_NEW	max	49.199	10	27946.25	6	14.168	8	0	15	0	15	0	15
12		min	-78.805	8	8148.918	2	1.971	14	0	1	0	1	0	1
13	C3_NEW	max	28.023	6	3024.938	8	16.442	6	0	15	0	15	0	15
14		min	11.396	2	620.268	2	5.48	2	0	1	0	1	0	1
15	C1_NEW	max	29.268	6	14136.519	6	0.29	14	0	15	LOCKED		0	15
16		min	10.109	2	4608.624	2	-1.794	8	0	1	LOCKED		0	1
17	N217	max	1472.592	8	7985.07	6	5.897	15	0	15	0	15	0	15
18		min	-1445.515	10	2942.351	2	-13.706	9	0	1	0	1	0	1
19	N187	max	164.806	8	2920.022	6	1153.266	13	0	15	0	15	0	15
20		min	-164.036	10	1014.587	2	-1158.22	11	0	1	0	1	0	1
21	N185	max	163.724	8	3039.167	6	1527.288	13	0	15	0	15	0	15
22		min	-161.85	10	1014.407	2	-1552.267	11	0	1	0	1	0	1
23	N175	max	37.433	8	3698.251	6	102.998	13	0	15	0	15	0	15
24		min	-37.433	14	1477.008	2	-102.998	11	0	1	0	1	0	1
25	N170	max	163.928	12	2522.417	6	896.806	9	0	15	0	15	0	15
26		min	-167.529	14	1014.465	2	-856.563	15	0	1	0	1	0	1
27	N216	max	6269.776	8	8046.306	6	2.145	8	0	15	0	15	0	15
28		min	-6304.173	10	2516.209	2	-0.737	14	0	1	0	1	0	1
29	N186	max	166.952	12	2497.086	6	321.124	9	0	15	0	15	0	15
30		min	-166.658	14	1014.486	2	-299.643	15	0	1	0	1	0	1
31	N192	max	72.793	8	2539.033	6	674.594	9	0	15	0	15	0	15
32		min	-72.767	10	1014.394	2	-672.742	15	0	1	0	1	0	1
33	N209	max	13.204	14	3660.376	6	1.676	11	0	15	0	15	0	15
34		min	-62.137	8	1407.597	2	-0.754	13	0	1	0	1	0	1
35	N207	max	0	9	2346.873	6	100.262	13	0	15	0	15	0	15
36		min	0	11	1014.48	2	-100.291	11	0	1	0	1	0	1
37	N191	max	72.808	12	2499.808	6	1706.016	9	0	15	0	15	0	15
38		min	-72.836	14	1014.556	2	-1678.146	15	0	1	0	1	0	1
39	N188	max	167.484	8	2442.4	6	926.02	9	0	15	0	15	0	15
40		min	-166.825	10	1014.456	2	-925.108	15	0	1	0	1	0	1
41	N190	max	39.916	8	2492.342	6	452.381	13	0	15	0	15	0	15
42		min	-40.115	10	1014.65	2	-529.464	11	0	1	0	1	0	1
43	N176	max	63.335	8	3737.076	6	82.686	9	0	15	0	15	0	15
44		min	-63.334	10	1477.029	2	-82.548	15	0	1	0	1	0	1
45	N189	max	40.157	12	2455.271	6	2129.944	13	0	15	0	15	0	15
46		min	-39.935	14	1014.339	2	-2151.28	11	0	1	0	1	0	1

Envelope Node Reactions (Continued)

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
47	N210	max	-5.873	14	2223.282	6	0.82	13	0	15	0	15	0	15
48		min	-28.637	8	812.051	2	-1.025	11	0	1	0	1	0	1
49	N135	max	486.046	10	29.69	8	0.25	8	0	15	0	15	0	15
50		min	-486.047	8	-0.203	2	0.067	14	0	1	0	1	0	1
51	N132	max	648.614	8	33.204	10	-0.067	14	0	15	0	15	0	15
52		min	-648.613	10	0.203	2	-0.25	8	0	1	0	1	0	1
53	N174	max	25.109	8	3604.346	6	69.657	9	0	15	0	15	0	15
54		min	-25.108	14	1477.008	2	-69.657	15	0	1	0	1	0	1
55	N177	max	25.103	12	3602.573	6	58.225	13	0	15	0	15	0	15
56		min	-25.103	10	1476.987	2	-58.363	11	0	1	0	1	0	1
57	N219	max	944.455	8	1971.98	9	645.192	13	0	15	0	15	0	15
58		min	-944.618	10	462.748	2	-645.254	11	0	1	0	1	0	1
59	N215	max	897.348	8	5627.917	6	1.007	9	0	15	0	15	0	15
60		min	-872.687	10	2138.544	2	-0.822	15	0	1	0	1	0	1
61	N221	max	0	15	0	15	0	15	0	15	0	15	0	15
62		min	0	1	0	1	0	1	0	1	0	1	0	1
63	N127	max	NC		NC		NC		NC		NC		LOCKED	
64		min	NC		NC		NC		NC		NC		LOCKED	
65	N126	max	NC		NC		NC		NC		NC		LOCKED	
66		min	NC		NC		NC		NC		NC		LOCKED	
67	Totals:	max	10837.662	12	189725.771	6	10837.627	13						
68		min	-10837.662	10	66434.684	2	-10837.627	11						

Envelope AISC 15TH (360-16): ASD Member Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
1	C_(1.9-B.3)	HSS3.5X3.5X6	0.521	184	6	0.001	184	y	6	28813.095	122455.09	11.702	11.702	1.667	H1-1a
2	C (2-B.8)	HSS3.5X3.5X6	0.809	192	6	0.002	192	y	6	26462.027	122455.09	11.702	11.702	1.667	H1-1a
3	C (2-D)	HSS3.5X3.5X3	0.825	192	6	0.004	192	y	6	16513.283	61700.599	6.335	6.335	1.667	H1-1a
4	C_(2.4-B.3)	HSS3.5X3.5X6	0.981	184	6	0.001	184	y	10	28813.095	122455.09	11.702	11.702	1.667	H1-1a
5	C (3-B.8)	HSS3.5X3.5X6	0.755	192	6	0.001	192	y	6	26462.027	122455.09	11.702	11.702	1.667	H1-1a
6	C (3.9-B)	HSS3.5X3.5X3	0.868	192	6	0.001	192	y	6	16513.283	61700.599	6.335	6.335	1.667	H1-1a
7	C_(3.9-B.3)	HSS3.5X3.5X6	0.114	0	8	0.013	192	z	6	26462.027	122455.09	11.702	11.702	1.704	H1-1b*
8	C (3.9-C)	HSS3.5X3.5X3	0.657	0	6	0	192	y	6	16513.283	61700.599	6.335	6.335	1.667	H1-1a*
9	J1	W14X22	0.346	180.78	6	0.059	0	y	6	7716.728	194311.377	10.953	82.834	1	H1-1b
10	J2	W14X22	0.346	180.78	6	0.059	0	y	6	7716.728	194311.377	10.953	82.834	1	H1-1b
11	J3	W14X22	0.15	126.81	6	0.037	253.62	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
12	J4	W14X22	0.325	166.438	8	0.041	253.62	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
13	J5	W14X22	0.444	169.08	8	0.063	253.62	y	9	16357.311	194311.377	10.953	82.834	1	H1-1b
14	J6	W14X22	0.34	166.438	8	0.044	253.62	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
15	J7	W14X22	0.48	171.722	8	0.081	253.62	y	9	16357.311	194311.377	10.953	82.834	1	H1-1b
16	J8	W14X22	0.36	169.08	8	0.047	253.62	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
17	J9	W14X22	0.176	121.526	9	0.039	0	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
18	J10	W14X22	0.16	121.526	6	0.04	0	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
19	J11	W14X22	0.181	121.526	8	0.04	253.62	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
20	J12	W14X22	0.187	124.168	8	0.041	253.62	y	6	16357.311	194311.377	10.953	82.834	1	H1-1b
21	J13	W14X22	0.136	71.066	8	0.031	115.632	y	9	78496.659	194311.377	10.953	82.834	1	H1-1b
22	J14	W14X22	0.238	65.625	8	0.057	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b
23	J15	W14X22	0.163	126	6	0.042	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b
24	J16	W14X22	0.161	126	6	0.041	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b
25	J17	W14X22	0.215	68.25	8	0.04	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b
26	J18	W14X22	0.294	91.875	8	0.038	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b
27	J19	W14X22	0.792	115.5	8	0.127	118.125	y	8	46762.356	194311.377	10.953	47.505	1	H1-1b
28	J20	W14X22	0.332	183.75	8	0.046	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b
29	J21	W14X22	0.358	63	8	0.087	0	y	9	16568.295	194311.377	10.953	82.834	1	H1-1b
30	J22	W14X22	0.271	63	8	0.05	0	y	6	16568.295	194311.377	10.953	82.834	1	H1-1b

Envelope AISC 15TH (360-16): ASD Member Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
31	J23	W14X22	0.209	143.938	6	0.046	0	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
32	J24	W14X22	0.207	143.938	6	0.045	0	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
33	J25	W14X22	0.202	147	6	0.045	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
34	J26	W14X22	0.201	147	6	0.044	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
35	J27	W14X22	0.202	147	6	0.165	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
36	J28	W14X22	0.22	147	6	0.046	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
37	J29	W14X22	0.201	147	6	0.045	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
38	J30	W14X22	0.202	147	6	0.044	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
39	J31	W14X22	0.201	147	6	0.047	294	y	6	12172.625	194311.377	10.953	82.834	1	H1-1b
40	J32	W14X22	0.159	86.77	6	0.22	87.791	y	6	99284.55	194311.377	10.953	82.834	1.553	H1-1b
41	J33	W14X22	0.011	29	10	0.004	0	y	8	101523.941	194311.377	10.953	70.573	1.133	H1-1b
42	J34	W14X22	0.073	49.247	9	0.013	98.494	y	8	98730.841	194311.377	10.953	72.016	1.175	H1-1b
43	RTU_L3_1	L4X3.5X5	0.427	28.938	9	0.044	57.876	y	8	42055.636	67365.269	2.847	5.907	1.155	H2-1
44	RTU_L3_2	L3.5X3.5X4	0.049	18	9	0.008	36	y	9	36232.38	50898.204	2.232	4.553	1.3	H2-1
45	RTU_L3_3	L4X3.5X5	0.306	28.938	9	0.033	57.876	y	8	42055.636	67365.269	2.847	5.906	1.155	H2-1
46	RTU_L3_4	L4X3.5X5	0.216	24	9	0.027	48	y	8	48679.574	67365.269	2.847	6.154	1.153	H2-1
47	RTU_L3_5	L3.5X3.5X4	0.065	12	9	0.01	24	y	9	38241.127	50898.204	2.232	4.832	1.311	H2-1
48	RTU_L3_6	L3.5X3.5X4	0.065	12	9	0.01	24	y	9	38241.127	50898.204	2.232	4.832	1.311	H2-1
49	RTU_L3_7	L3.5X3.5X4	0.049	18	9	0.008	36	y	9	36232.38	50898.204	2.232	4.553	1.3	H2-1
50	RTU_L3_8	L3.5X3.5X4	0.013	9.498	9	0.003	18.996	y	9	38833.308	50898.204	2.232	4.832	1.299	H2-1
51	RTU_L3_9	L3.5X3.5X4	0.02	12	9	0.003	24	y	9	38241.127	50898.204	2.232	4.832	1.299	H2-1
52	RTU_L3_10	L4X3.5X5	0.165	24	9	0.018	48	y	9	48679.574	67365.269	2.847	6.163	1.163	H2-1
53	RTU_L3_11	L3.5X3.5X4	0.013	9.498	9	0.003	18.996	y	9	38833.308	50898.204	2.232	4.832	1.299	H2-1
54	RTU_L3_12	L3.5X3.5X4	0.02	12	9	0.003	24	y	9	38241.127	50898.204	2.232	4.832	1.299	H2-1
55	RTU_L3_13	L3.5X3.5X4	0.168	19.581	9	0.024	39.996	y	8	35375.825	50898.204	2.232	4.36	1.155	H2-1
56	RTU_L3_14	L3.5X3.5X4	0.022	13.002	9	0.005	26.004	y	9	37963.878	50898.204	2.232	4.797	1.297	H2-1
57	RTU_L3_15	L3.5X3.5X4	0.021	12.731	9	0.004	26.004	y	9	37963.878	50898.204	2.232	4.797	1.297	H2-1
58	RTU_L3_16	L3.5X3.5X4	0.168	19.581	9	0.024	39.996	y	9	35375.825	50898.204	2.232	4.36	1.155	H2-1
59	RTU_L3_17	L3.5X3.5X4	0.018	13.002	9	0.003	26.004	y	9	37963.878	50898.204	2.232	4.795	1.293	H2-1
60	RTU_L3_18	L3.5X3.5X4	0.186	24.293	9	0.017	49.62	y	9	32927.008	50898.204	2.232	4.181	1.188	H2-1
61	RTU_L3_19	L3.5X3.5X4	0.223	24.293	9	0.032	49.62	y	9	32927.008	50898.204	2.232	4.136	1.136	H2-1
62	RTU_L3_20	L3.5X3.5X4	0.045	16.5	9	0.011	33	y	6	36813.504	50898.204	2.232	4.624	1.301	H2-1
63	RTU_L3_21	L3.5X3.5X4	0.045	16.5	9	0.007	33	y	9	36813.504	50898.204	2.232	4.624	1.301	H2-1
64	RTU_L3_22	L3.5X3.5X4	0.018	13.002	9	0.003	26.004	y	9	37963.878	50898.204	2.232	4.795	1.293	H2-1
65	RTU_L4_1	L4X4X4	0.062	41	8	0.007	96	y	9	18856.548	41604.79	2.088	3.559	1.142	H2-1
66	RTU_L4_2	L4X4X4	0.015	33	9	0.004	66	y	8	27731.038	41604.79	2.088	3.95	1.136	H2-1
67	RTU_L4_3	L4X4X4	0.015	33	9	0.004	66	y	9	27731.038	41604.79	2.088	3.95	1.136	H2-1
68	RTU_L4_4	L4X4X4	0.594	64	9	0.042	96	y	8	18856.548	41604.79	2.088	3.724	1.324	H2-1
69	RTU_L4_5	L4X4X4	0.597	64	9	0.043	96	y	8	18856.548	41604.79	2.088	3.723	1.323	H2-1
70	RTU_L4_6	L4X4X4	0.008	24	9	0.002	48	y	8	30531.297	41604.79	2.088	4.233	1.136	H2-1
71	RTU_L4_7	L4X4X4	0.063	47.001	10	0.005	96.001	y	8	18856.198	41604.79	2.088	3.521	1.105	H2-1
72	RTU_L4_8	L4X4X4	0.072	47	8	0.006	96.001	y	8	18856.257	41604.79	2.088	3.521	1.105	H2-1
73	RTU_L4_9	L4X4X4	0.005	19.5	9	0.003	39	y	8	31589.865	41604.79	2.088	4.395	1.136	H2-1
74	RTU_L4_10	L6X3.5X6	0.507	52	9	0.024	0	y	9	32662.236	102994.012	3.698	11.213	1.217	H2-1
75	RTU_L4_11	L6X3.5X6	0.507	52	9	0.023	0	y	8	32662.236	102994.012	3.698	11.215	1.218	H2-1
76	RTU_L4_12	L4X4X4	0.005	19.5	8	0.003	39	y	8	31589.865	41604.79	2.088	4.395	1.136	H2-1
77	RTU_L4_14	L4X4X4	0.109	43.083	9	0.008	0	y	8	19481.984	41604.79	2.088	3.564	1.122	H2-1
78	RTU_L4_15	L4X4X4	0.059	42.104	10	0.005	13.708	z	9	19481.984	41604.79	2.088	3.579	1.138	H2-1
79	RTU_L4_16	L4X4X4	0.01	24.39	9	0.004	48.78	y	9	30428.818	41604.79	2.088	4.22	1.136	H2-1
80	RTU_L4_17	L4X4X4	0.005	19.5	8	0.016	39	y	6	31589.865	41604.79	2.088	4.395	1.136	H2-1
81	RTU_L4_18	L4X4X4	0.015	33	9	0.002	66	y	9	27731.038	41604.79	2.088	3.95	1.136	H2-1
82	RTU_L4_19	L4X4X4	0.387	33	9	0.022	66	y	9	27731.038	41604.79	2.088	4.08	1.308	H2-1
83	RTU_L4_20	L4X4X4	0.005	19.5	8	0.001	39	y	11	31589.865	41604.79	2.088	4.395	1.136	H2-1
84	RTU_L4_21	L4X4X4	0.372	54	9	0.015	96	y	9	18856.548	41604.79	2.088	3.707	1.303	H2-1
85	RTU_L4_22	L4X4X4	0.054	52	8	0.005	96	y	8	18856.548	41604.79	2.088	3.61	1.194	H2-1

Envelope AISC 15TH (360-16): ASD Member Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	Pnc/om [lb]	Pnt/om [lb]	Mnyy/om [k-ft]	Mnzz/om [k-ft]	Cb	Eqn
86	RTU_L4_23	L4X4X4	0.372	54	9	0.015	96	y	9	18856.548	41604.79	2.088	3.707	1.303	H2-1
87	RTU_L4_24	L4X4X4	0.065	41	10	0.007	96	y	9	18856.548	41604.79	2.088	3.562	1.145	H2-1
88	RTU_L4_25	L4X4X4	0.056	44.719	8	0.003	81	y	8	23684.918	41604.79	2.088	3.724	1.117	H2-1
89	RTU_L4_26	L4X4X4	0.059	51	10	0.003	96	y	10	18856.548	41604.79	2.088	3.606	1.189	H2-1
90	RTU_L4_27	L4X4X4	0.048	43.875	10	0.003	81	y	10	23684.918	41604.79	2.088	3.728	1.121	H2-1
91	RTU_L4_28	L4X4X4	0.009	24.39	11	0.002	48.78	y	8	30428.818	41604.79	2.088	4.22	1.136	H2-1
92	RTU_L4_29	L4X4X4	0.064	51	8	0.003	96	y	8	18856.548	41604.79	2.088	3.606	1.189	H2-1
93	RTU_L6_1	L6X3.5X6	0.054	48	9	0.002	96	y	9	32662.236	102994.012	3.698	11.208	1.215	H2-1
94	RTU_L6_2	L6X3.5X6	0.254	56	9	0.013	96	y	8	32662.236	102994.012	3.698	11.385	1.293	H2-1
95	RTU_L6_3	L6X3.5X6	0.048	40	9	0.003	0	y	9	32662.236	102994.012	3.698	11.135	1.185	H2-1
96	RTU_L6_4	L6X3.5X6	0.423	39	9	0.021	0	y	8	32662.236	102994.012	3.698	11.42	1.31	H2-1
97	RTU_L6_6	L6X3.5X6	0.401	49.247	9	0.014	98.494	y	8	31029.38	102994.012	3.698	11.016	1.177	H2-1
98	RTU_L6_7	L6X3.5X6	0.249	40.146	9	0.012	0	y	9	34066.916	102994.012	3.698	11.448	1.286	H2-1
99	RTU_L6_8	L6X3.5X6	0.048	40	9	0.003	0	y	9	32662.236	102994.012	3.698	11.136	1.185	H2-1
100	RTU_L6_9	L6X3.5X6	0.249	40.146	9	0.013	0	y	9	34066.916	102994.012	3.698	11.448	1.286	H2-1
101	RTU_L6_10	L6X3.5X6	0.613	42.875	9	0.023	97.999	y	8	31343.079	102994.012	3.698	11.195	1.243	H2-1
102	RTU_L6_11	L6X3.5X6	0.057	46	9	0.003	96	y	6	32662.236	102994.012	3.698	11.107	1.173	H2-1
103	RTU_L6_12	L6X3.5X6	0.057	46	9	0.003	96	y	9	32662.236	102994.012	3.698	11.107	1.173	H2-1
104	RTU_L6_13	L6X3.5X6	0.072	45	9	0.009	96	y	9	32662.236	102994.012	3.698	11.121	1.179	H2-1
105	RTU_L6_14	L6X3.5X6	0.072	45	9	0.009	96	y	9	32662.236	102994.012	3.698	11.115	1.177	H2-1
106	RTU_L6_15	L6X3.5X6	0.038	40	9	0.004	96	y	9	32662.236	102994.012	3.698	11.06	1.155	H2-1
107	RTU_L6_16	L6X3.5X6	0.176	73	9	0.014	96	y	9	32662.236	102994.012	3.698	11.366	1.284	H2-1
108	RTU_L6_17	L6X3.5X6	0.254	56	9	0.011	96	y	8	32662.236	102994.012	3.698	11.384	1.293	H2-1
109	RTU_L6_18	L6X3.5X6	0.176	73	9	0.016	96	y	9	32662.236	102994.012	3.698	11.372	1.287	H2-1
110	RTU_L6_19	L6X3.5X6	0.547	39	9	0.033	0	y	9	32661.643	102994.012	3.698	11.169	1.199	H2-1
111	RTU_L6_20	L6X3.5X6	0.048	47	9	0.003	0	y	9	34066.916	102994.012	3.698	11.155	1.16	H2-1
112	RTU_L6_21	L6X3.5X6	0.048	47	9	0.003	94	y	9	34066.916	102994.012	3.698	11.155	1.16	H2-1
113	RTU_L6_22	L6X3.5X6	0.613	42.875	9	0.029	98	y	8	31342.896	102994.012	3.698	11.198	1.244	H2-1
114	RTU_L6_23	L6X3.5X6	0.058	57.771	9	0.004	0	y	9	34066.916	102994.012	3.698	11.166	1.164	H2-1
115	RTU_L6_24	L6X3.5X6	0.424	39	9	0.027	0	y	8	32662.236	102994.012	3.698	11.422	1.311	H2-1
116	RTU_L6_25	L6X3.5X6	0.548	39	9	0.031	0	y	9	32662.019	102994.012	3.698	11.169	1.199	H2-1
117	RTU_L6_26	L6X3.5X6	0.054	48	9	0.002	96	y	9	32662.236	102994.012	3.698	11.208	1.215	H2-1
118	RTU_L6_27	L6X3.5X6	0.141	46	9	0.008	96	y	9	32662.236	102994.012	3.698	11.155	1.193	H2-1
119	RTU_L6_28	L6X3.5X6	0.141	46	9	0.008	96	y	9	32662.236	102994.012	3.698	11.155	1.193	H2-1
120	W16-1L	W16X31	0.674	349.486	10	0.189	349.486	y	6	8113.294	196814.371	12.629	84.755	1	H1-1a
121	W16-1R	W16X31	0.944	89.869	10	0.177	99.854	y	6	75034.498	196814.371	12.629	88.646	1	H1-1b
122	W16-2L	W16X31	0.713	349.485	6	0.18	349.485	y	6	8113.336	196814.371	12.629	84.755	1	H1-1b
123	W16-2R	W16X31	0.817	289.579	6	0.184	89.869	y	6	75034.439	196814.371	12.629	97.006	1	H1-1b
124	W16-3L	W16X31	0.358	309.543	6	0.108	304.55	y	6	8113.39	196814.371	12.629	84.755	1	H1-1b
125	W16-3R	W16X31	0.338	289.58	6	0.143	99.855	y	6	8112.978	196814.371	12.629	97.006	1	H1-1b
126	W16-X1	W16X31	0.33	2.4	8	0.076	2.4	y	6	185309.071	196814.371	12.629	97.006	1.011	H1-1b
127	W16-X2	W16X31	0.211	2.4	6	0.044	0	y	6	185309.071	196814.371	12.629	97.006	1.009	H1-1b
128	W16-X3	W16X31	0.002	1.2	6	0.033	2.4	y	6	185309.071	196814.371	12.629	97.006	1.462	H1-1b
129	W18-L	W18X71	0.24	19.724	10	0.147	0	y	6	393608.244	625748.503	61.627	309.157	1	H1-1b
130	W18-R	W18X71	0.787	134.49	10	0.082	0	y	6	48934.847	625748.503	61.627	164.533	1	H1-1b

Envelope Member Section Deflections - Service

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
1	C_(1.9-B.3)	1	max	0	7	0	7	0	7	0	7	NC	7	NC	7
2			min	0	1	0	1	0	1	0	1	NC	1	NC	1
3		2	max	-0.002	2	0.051	6	-0.001	2	0	7	NC	2	NC	7
4			min	-0.005	6	0.016	2	-0.002	6	0	1	4272.654	6	NC	1
5		3	max	-0.004	2	0.085	6	-0.001	2	0	7	8453.776	2	NC	7
6			min	-0.011	6	0.027	2	-0.004	6	0	1	2670.408	6	NC	1
7		4	max	-0.005	2	0.085	6	-0.002	2	0	7	9661.459	2	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
8			min	-0.016	6	0.027	2	-0.006	6	0	1	3051.895	6	NC	1
9		5	max	-0.007	2	0.033	6	-0.003	2	0	7	NC	7	NC	7
10			min	-0.022	6	0.01	2	-0.009	6	0	1	NC	1	NC	1
11	C (2-B.8)	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
12			min	0	1	0	1	0	1	0	6	NC	1	NC	1
13		2	max	-0.002	2	-0.029	2	0	2	0	2	6532.794	2	NC	7
14			min	-0.008	6	-0.091	6	0	6	0	6	2103.757	6	NC	1
15		3	max	-0.005	2	-0.047	2	0	2	0	2	4082.996	2	NC	7
16			min	-0.016	6	-0.146	6	0	6	0	6	1314.848	6	NC	1
17		4	max	-0.007	2	-0.041	2	0	2	0	2	4666.282	2	NC	7
18			min	-0.024	6	-0.128	6	-0.001	6	0	6	1502.684	6	NC	1
19		5	max	-0.01	2	0	2	0	2	0	2	NC	7	NC	7
20			min	-0.032	6	0	6	-0.001	6	0	6	NC	1	NC	1
21	C (2-D)	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
22			min	0	1	0	1	0	1	0	6	NC	1	NC	1
23		2	max	-0.003	2	0.161	6	0	2	0	2	3789.521	2	NC	7
24			min	-0.008	6	0.051	2	0	6	0	6	1191.035	6	NC	1
25		3	max	-0.005	2	0.258	6	0	2	0	2	2368.451	2	NC	7
26			min	-0.016	6	0.081	2	0	6	0	6	744.397	6	NC	1
27		4	max	-0.008	2	0.226	6	0	2	0	2	2706.801	2	NC	7
28			min	-0.025	6	0.071	2	0	6	0	6	850.739	6	NC	1
29		5	max	-0.011	2	0	2	0	7	0	2	NC	7	NC	7
30			min	-0.033	6	0	6	0	1	0	6	NC	1	NC	1
31	C (2.4-B.3)	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
32			min	0	1	0	1	0	1	0	6	NC	1	NC	1
33		2	max	-0.003	2	0.009	6	-0.006	2	0	2	NC	7	NC	7
34			min	-0.011	6	0.001	2	-0.02	6	0	6	NC	1	NC	1
35		3	max	-0.006	2	0.019	6	-0.01	2	0	2	NC	5	NC	2
36			min	-0.022	6	0.003	2	-0.032	6	0	6	9458.581	6	6626.339	6
37		4	max	-0.009	2	0.033	6	-0.01	2	0	2	NC	2	NC	5
38			min	-0.032	6	0.008	2	-0.031	6	0	6	5573.353	6	7572.959	6
39		5	max	-0.013	2	0.051	6	-0.003	2	0	2	NC	2	NC	7
40			min	-0.043	6	0.017	2	-0.009	6	0	6	3595.4	6	NC	1
41	C (3-B.8)	1	max	0	7	0	7	0	7	0	6	NC	7	NC	7
42			min	0	1	0	1	0	1	0	2	NC	1	NC	1
43		2	max	-0.003	2	-0.015	2	0	2	0	6	NC	5	NC	7
44			min	-0.008	6	-0.033	6	0	6	0	2	5815.191	6	NC	1
45		3	max	-0.006	2	-0.024	2	0	2	0	6	7845.983	2	NC	7
46			min	-0.016	6	-0.053	6	0	6	0	2	3634.494	6	NC	1
47		4	max	-0.009	2	-0.021	2	0	2	0	6	8966.837	2	NC	7
48			min	-0.024	6	-0.046	6	0	6	0	2	4153.708	6	NC	1
49		5	max	-0.012	2	0	6	0.001	6	0	6	NC	7	NC	7
50			min	-0.031	6	0	2	0	2	0	2	NC	1	NC	1
51	C (3.9-B)	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
52			min	0	1	0	1	0	1	0	6	NC	1	NC	1
53		2	max	-0.004	2	0.051	6	-0.001	2	0	2	9446.248	2	NC	7
54			min	-0.01	6	0.02	2	-0.002	6	0	6	3791.795	6	NC	1
55		3	max	-0.008	2	0.081	6	-0.001	2	0	2	5903.905	2	NC	7
56			min	-0.02	6	0.033	2	-0.003	6	0	6	2369.872	6	NC	1
57		4	max	-0.012	2	0.071	6	0	2	0	2	6747.32	2	NC	7
58			min	-0.03	6	0.028	2	-0.001	6	0	6	2708.425	6	NC	1
59		5	max	-0.015	2	0	2	0.004	6	0	2	NC	7	NC	7
60			min	-0.04	6	0	6	0.001	2	0	6	NC	1	NC	1
61	C (3.9-B.3)	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
62			min	0	1	0	1	0	1	0	6	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
63		2	max	0	2	0.042	6	-0.008	2	0	2	NC	2	NC	5
64			min	-0.001	6	0.017	2	-0.025	6	0	6	4611.097	6	7845.538	6
65		3	max	-0.001	2	0.067	6	-0.013	2	0	2	7154.137	2	NC	2
66			min	-0.002	6	0.027	2	-0.04	6	0	6	2882.422	6	4904.111	6
67		4	max	-0.001	2	0.058	6	-0.012	2	0	2	8180.364	2	NC	2
68			min	-0.003	6	0.023	2	-0.035	6	0	6	3296.118	6	5607.241	6
69		5	max	-0.001	2	0	2	0	2	0	2	NC	7	NC	7
70			min	-0.004	6	0	6	-0.001	6	0	6	NC	1	NC	1
71	C_(3.9-C)	1	max	0	7	0	7	0	7	0	6	NC	7	NC	7
72			min	0	1	0	1	0	1	0	2	NC	1	NC	1
73		2	max	-0.003	2	0.007	6	0	2	0	6	NC	7	NC	7
74			min	-0.008	6	0.003	2	0	6	0	2	NC	1	NC	1
75		3	max	-0.006	2	0.011	6	0	2	0	6	NC	7	NC	7
76			min	-0.016	6	0.005	2	-0.001	6	0	2	NC	1	NC	1
77		4	max	-0.009	2	0.009	6	0	2	0	6	NC	7	NC	7
78			min	-0.024	6	0.004	2	-0.001	6	0	2	NC	1	NC	1
79		5	max	-0.012	2	0	2	0	2	0	6	NC	7	NC	7
80			min	-0.032	6	0	6	-0.001	6	0	2	NC	1	NC	1
81	J1	1	max	0	7	0	7	0	7	0	7	NC	7	NC	7
82			min	0	1	0	1	0	1	0	1	NC	1	NC	1
83		2	max	0	6	-0.242	2	0	7	0	7	1525.387	2	NC	7
84			min	0	2	-0.61	6	0	1	0	1	604.96	6	NC	1
85		3	max	0	6	-0.339	2	0	7	0	7	1087.669	2	NC	7
86			min	0	2	-0.854	6	0	1	0	1	432.315	6	NC	1
87		4	max	0	6	-0.242	2	0	7	0	7	1527.776	2	NC	7
88			min	0	2	-0.606	6	0	1	0	1	609.281	6	NC	1
89		5	max	0	7	0	7	0	7	0	7	NC	7	NC	7
90			min	0	1	0	1	0	1	0	1	NC	1	NC	1
91	J2	1	max	0	7	0	7	0	7	0	7	NC	7	NC	7
92			min	0	1	0	1	0	1	0	1	NC	1	NC	1
93		2	max	0	7	-0.242	2	0	7	0	7	1525.327	2	NC	7
94			min	0	1	-0.61	6	0	1	0	1	605.23	6	NC	1
95		3	max	0	7	-0.34	2	0	7	0	7	1087.633	2	NC	7
96			min	0	1	-0.854	6	0	1	0	1	432.238	6	NC	1
97		4	max	0	7	-0.242	2	0	7	0	7	1527.731	2	NC	7
98			min	0	1	-0.606	6	0	1	0	1	609.084	6	NC	1
99		5	max	0	7	0	7	0	7	0	7	NC	7	NC	7
100			min	0	1	0	1	0	1	0	1	NC	1	NC	1
101	J3	1	max	0	7	0	7	0	7	-0.002	2	NC	7	NC	7
102			min	0	1	0	1	0	1	-0.007	6	NC	1	NC	1
103		2	max	0	7	-0.056	2	0	2	-0.002	2	4766.361	2	NC	7
104			min	0	1	-0.131	6	0	6	-0.007	6	2060.349	6	NC	1
105		3	max	0	7	-0.08	2	0	2	-0.002	2	3396.032	2	NC	7
106			min	0	1	-0.189	6	0	6	-0.007	6	1467.999	6	NC	1
107		4	max	0	7	-0.061	2	0	2	-0.002	2	4766.361	2	NC	7
108			min	0	1	-0.148	6	0	6	-0.007	6	2060.349	6	NC	1
109		5	max	0	7	-0.011	2	0	2	-0.002	2	NC	7	NC	7
110			min	0	1	-0.033	6	0	6	-0.007	6	NC	1	NC	1
111	J4	1	max	0	7	0	7	0	7	-0.001	2	NC	7	NC	7
112			min	0	1	0	1	0	1	-0.004	6	NC	1	NC	1
113		2	max	0	2	-0.106	2	0	2	-0.001	2	2398.373	2	NC	7
114			min	0	6	-0.299	6	0	6	-0.004	6	848.703	6	NC	1
115		3	max	0	2	-0.18	2	0	2	-0.001	2	1410.917	2	NC	7
116			min	0	6	-0.52	6	0	6	-0.004	6	487.711	6	NC	1
117		4	max	0	2	-0.21	2	0	2	-0.001	2	1206.377	2	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
118			min	0	6	-0.632	6	0	6	-0.004	6	401.291	6	NC	1
119		5	max	0	2	-0.207	2	0	2	-0.001	2	1222.517	2	NC	7
120			min	0	6	-0.658	6	0	6	-0.004	6	385.513	6	NC	1
121	J5	1	max	0	7	0	7	0	7	0.002	6	NC	7	NC	7
122			min	0	1	0	1	0	1	0.001	2	NC	1	NC	1
123		2	max	0	6	-0.115	2	0	2	0.002	6	2205.96	2	NC	7
124			min	0	2	-0.376	6	0	6	0.001	2	673.708	6	NC	1
125		3	max	0	6	-0.198	2	0	2	0.002	6	1279.635	2	NC	7
126			min	0	2	-0.654	6	0	6	0.001	2	387.699	6	NC	1
127		4	max	0	6	-0.238	2	0	2	0.002	6	1066.159	2	NC	7
128			min	0	2	-0.78	6	0	6	0.001	2	325.119	6	NC	1
129		5	max	0	6	-0.244	2	0	2	0.002	6	1038.108	2	NC	7
130			min	0	2	-0.773	6	0	6	0.001	2	328.267	6	NC	1
131	J6	1	max	0	7	0	7	0	7	0.006	6	NC	7	NC	7
132			min	0	1	0	1	0	1	0.002	2	NC	1	NC	1
133		2	max	0	2	-0.084	2	0	2	0.006	6	3033.444	2	NC	7
134			min	0	6	-0.233	6	0	6	0.002	2	1089.148	6	NC	1
135		3	max	0	2	-0.135	2	0	2	0.006	6	1872.063	2	NC	7
136			min	0	6	-0.386	6	0	6	0.002	2	657.627	6	NC	1
137		4	max	0	2	-0.144	2	0	2	0.006	6	1763.466	2	NC	7
138			min	0	6	-0.424	6	0	6	0.002	2	597.594	6	NC	1
139		5	max	0	2	-0.119	2	0	2	0.006	6	2132.641	2	NC	7
140			min	0	6	-0.372	6	0	6	0.002	2	682.531	6	NC	1
141	J7	1	max	0	7	0	7	0	7	0.003	6	NC	7	NC	7
142			min	0	1	0	1	0	1	0.001	2	NC	1	NC	1
143		2	max	0	6	-0.048	2	0	2	0.003	6	5277.582	2	NC	7
144			min	0	2	-0.179	6	0	6	0.001	2	1420.658	6	NC	1
145		3	max	0	6	-0.064	2	0	2	0.003	6	3939.555	2	NC	7
146			min	0	2	-0.253	6	0	6	0.001	2	1002.261	6	NC	1
147		4	max	0	6	-0.037	2	0	2	0.003	6	6806.84	2	NC	7
148			min	0	2	-0.165	6	0	6	0.001	2	1534.396	6	NC	1
149		5	max	0	6	0.071	6	0	2	0.003	6	NC	2	NC	7
150			min	0	2	0.023	2	0	6	0.001	2	3593.721	6	NC	1
151	J8	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
152			min	0	1	0	1	0	1	-0.001	6	NC	1	NC	1
153		2	max	0	2	-0.041	2	0	2	0	2	6242.199	2	NC	7
154			min	0	6	-0.101	6	0	6	-0.001	6	2519.813	6	NC	1
155		3	max	0	2	-0.05	2	0	2	0	2	5121.301	2	NC	7
156			min	0	6	-0.12	6	0	6	-0.001	6	2111.305	6	NC	1
157		4	max	0	2	-0.009	5	0	2	0	2	NC	7	NC	7
158			min	0	6	-0.023	6	0	6	-0.001	6	NC	1	NC	1
159		5	max	0	2	0.168	6	0	2	0	2	4800.992	2	NC	7
160			min	0	6	0.053	2	0	6	-0.001	6	1512.225	6	NC	1
161	J9	1	max	0	7	0	7	0	7	-0.002	2	NC	7	NC	7
162			min	0	1	0	1	0	1	-0.006	6	NC	1	NC	1
163		2	max	0	6	-0.062	2	0	2	-0.002	2	4068.843	2	NC	7
164			min	0	2	-0.157	6	0	6	-0.006	6	1616.212	6	NC	1
165		3	max	0	6	-0.092	2	0	2	-0.002	2	2767.666	2	NC	7
166			min	0	2	-0.233	6	0	6	-0.006	6	1088.844	6	NC	1
167		4	max	0	6	-0.077	2	0	2	-0.002	2	3300.959	2	NC	7
168			min	0	2	-0.202	6	0	6	-0.006	6	1256.055	6	NC	1
169		5	max	0	6	-0.03	2	0	2	-0.002	2	8375.312	2	NC	7
170			min	0	2	-0.095	6	0	6	-0.006	6	2670.953	6	NC	1
171	J10	1	max	0	7	0	7	0	7	-0.002	2	NC	7	NC	7
172			min	0	1	0	1	0	1	-0.007	6	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
173		2	max	0	6	-0.116	2	0	2	-0.002	2	2182.366	2	NC	7
174			min	0	2	-0.331	6	0	6	-0.007	6	766.338	6	NC	1
175		3	max	0	6	-0.199	2	0	2	-0.002	2	1271.924	2	NC	7
176			min	0	2	-0.579	6	0	6	-0.007	6	437.657	6	NC	1
177		4	max	0	6	-0.238	2	0	2	-0.002	2	1063.416	2	NC	7
178			min	0	2	-0.719	6	0	6	-0.007	6	352.513	6	NC	1
179		5	max	0	6	-0.246	2	0	2	-0.002	2	1031.565	2	NC	7
180			min	0	2	-0.783	6	0	6	-0.007	6	324.037	6	NC	1
181	J11	1	max	0	7	0	7	0	7	0	2	NC	7	NC	7
182			min	0	1	0	1	0	1	-0.001	6	NC	1	NC	1
183		2	max	0	2	-0.146	2	0	2	0	2	1734.663	2	NC	7
184			min	0	6	-0.433	6	0	6	-0.001	6	585.123	6	NC	1
185		3	max	0	2	-0.26	2	0	2	0	2	974.54	2	NC	7
186			min	0	6	-0.786	6	0	6	-0.001	6	322.801	6	NC	1
187		4	max	0	2	-0.33	2	0	2	0	2	768.385	2	NC	7
188			min	0	6	-1.025	6	0	6	-0.001	6	247.354	6	NC	1
189		5	max	0	2	-0.367	2	0	2	0	2	690.389	2	NC	7
190			min	0	6	-1.183	6	0	6	-0.001	6	214.3	6	NC	1
191	J12	1	max	0	7	0	7	0	7	0.007	6	NC	7	NC	7
192			min	0	1	0	1	0	1	0.002	2	NC	1	NC	1
193		2	max	0	2	-0.122	2	0	2	0.007	6	2079.448	2	NC	7
194			min	0	1	-0.358	6	0	6	0.002	2	709.029	6	NC	1
195		3	max	0	2	-0.212	2	0	2	0.007	6	1197.626	2	NC	7
196			min	0	1	-0.632	6	0	6	0.002	2	401.009	6	NC	1
197		4	max	0	2	-0.257	2	0	2	0.007	6	985.476	2	NC	7
198			min	0	1	-0.792	6	0	6	0.002	2	320.237	6	NC	1
199		5	max	0	2	-0.27	2	0	2	0.007	6	937.903	2	NC	7
200			min	0	1	-0.868	6	0	6	0.002	2	292.039	6	NC	1
201	J13	1	max	0	7	-0.011	2	0	2	-0.002	2	NC	7	NC	7
202			min	0	1	-0.033	6	0	6	-0.007	6	NC	1	NC	1
203		2	max	0	7	-0.011	2	0	2	-0.002	2	NC	7	NC	7
204			min	0	1	-0.035	6	0	6	-0.007	6	NC	1	NC	1
205		3	max	0	7	-0.009	2	0	2	-0.002	2	NC	5	NC	7
206			min	0	1	-0.03	6	0	6	-0.007	6	8437.408	6	NC	1
207		4	max	0	7	-0.005	2	0	2	-0.002	2	NC	7	NC	7
208			min	0	1	-0.018	6	0	6	-0.007	6	NC	1	NC	1
209		5	max	0	7	0	7	0	7	-0.002	2	NC	7	NC	7
210			min	0	1	0	1	0	1	-0.007	6	NC	1	NC	1
211	J14	1	max	0	2	-0.207	2	0	2	-0.001	2	NC	7	NC	7
212			min	0	6	-0.658	6	0	6	-0.004	6	NC	1	NC	1
213		2	max	0	2	-0.256	2	0	2	-0.001	2	4718.24	2	NC	7
214			min	0	6	-0.782	6	0	6	-0.004	6	1474.698	6	NC	1
215		3	max	0	2	-0.272	2	0	6	-0.001	2	3379.378	2	NC	7
216			min	0	6	-0.797	6	0	2	-0.004	6	1084.177	6	NC	1
217		4	max	0	2	-0.245	2	0	6	-0.001	2	4777.163	2	NC	7
218			min	0	6	-0.678	6	0	2	-0.003	6	1569.485	6	NC	1
219		5	max	0	2	-0.187	2	0	6	-0.001	2	NC	7	NC	7
220			min	0	6	-0.471	6	0	2	-0.003	6	NC	1	NC	1
221	J15	1	max	0	6	-0.244	2	0	2	0.002	6	NC	7	NC	7
222			min	0	2	-0.773	6	0	6	0.001	2	NC	1	NC	1
223		2	max	0	6	-0.29	2	0	2	0.002	6	4727.358	2	NC	7
224			min	0	2	-0.849	6	0	6	0.001	2	1847.937	6	NC	1
225		3	max	0	6	-0.304	2	0	2	0.002	6	3373.675	2	NC	7
226			min	0	2	-0.844	6	0	1	0.001	2	1322.96	6	NC	1
227		4	max	0	6	-0.275	2	0	6	0.002	6	4733.308	2	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
228			min	0	2	-0.729	6	0	2	0.001	2	1862.354	6	NC	1
229		5	max	0	6	-0.214	2	0	6	0.002	6	NC	7	NC	7
230			min	0	2	-0.534	6	0	2	0.001	2	NC	1	NC	1
231	J16	1	max	0	2	-0.119	2	0	2	0.006	6	NC	7	NC	7
232			min	0	6	-0.372	6	0	6	0.002	2	NC	1	NC	1
233		2	max	0	2	-0.166	2	0	2	0.005	6	4727.383	2	NC	7
234			min	0	6	-0.47	6	0	6	0.002	2	1882.856	6	NC	1
235		3	max	0	2	-0.182	2	0	2	0.005	6	3373.696	2	NC	7
236			min	0	6	-0.489	6	0	1	0.002	2	1343.979	6	NC	1
237		4	max	0	2	-0.155	2	0	6	0.004	6	4733.351	2	NC	7
238			min	0	6	-0.4	6	0	2	0.002	2	1888.585	6	NC	1
239		5	max	0	2	-0.095	2	0	6	0.004	6	NC	7	NC	7
240			min	0	6	-0.232	6	0	2	0.002	2	NC	1	NC	1
241	J17	1	max	0	6	0.071	6	0	2	0.003	6	NC	7	NC	7
242			min	0	2	0.023	2	0	6	0.001	2	NC	1	NC	1
243		2	max	0	6	-0.037	2	0.036	6	0.002	6	4706.036	2	NC	5
244			min	0	2	-0.078	6	0.012	2	0.001	2	2005.713	6	7034.236	6
245		3	max	0	6	-0.064	2	0.045	6	0.001	6	3409.323	2	NC	2
246			min	0	2	-0.148	6	0.015	2	0	2	1456.017	6	5634.576	6
247		4	max	0	6	-0.05	2	0.029	6	0	6	4806.79	2	NC	5
248			min	0	2	-0.121	6	0.01	2	0	1	2055.577	6	8806.836	6
249		5	max	0	6	-0.004	2	0	6	0	2	NC	7	NC	7
250			min	0	2	-0.021	6	0	2	0	6	NC	1	NC	1
251	J18	1	max	0	2	-0.069	2	0	2	0.003	6	NC	7	NC	7
252			min	0	6	-0.23	6	0	6	0.001	2	NC	1	NC	1
253		2	max	0	2	-0.075	2	-0.013	2	0.003	6	6938.36	2	NC	5
254			min	0	6	-0.232	6	-0.039	6	0.001	2	2492.698	6	6543.269	6
255		3	max	0	2	-0.058	2	-0.019	2	0.002	6	5110.302	2	NC	2
256			min	0	1	-0.166	6	-0.055	6	0.001	2	1872.419	6	4560.902	6
257		4	max	0	6	-0.013	2	-0.012	2	0.001	6	7101.474	2	NC	5
258			min	0	1	-0.027	6	-0.036	6	0	2	2655.322	6	7015.714	6
259		5	max	0	6	0.168	6	0	6	0.001	6	NC	7	NC	7
260			min	0	2	0.053	2	0	2	0	2	NC	1	NC	1
261	J19	1	max	0	6	-0.03	2	0	2	-0.002	2	NC	7	NC	7
262			min	0	2	-0.095	6	0	6	-0.006	6	NC	1	NC	1
263		2	max	0.001	6	-0.003	2	0.039	6	-0.002	2	3180.955	2	NC	5
264			min	0	2	-0.01	6	0.013	2	-0.006	6	1063.14	6	6540.095	6
265		3	max	0.001	6	-0.02	2	0.055	6	-0.002	2	2217.253	2	NC	2
266			min	0	2	-0.073	6	0.019	2	-0.006	6	771.418	6	4566.845	6
267		4	max	0.002	6	-0.113	2	0.039	6	-0.002	2	3466.181	2	NC	5
268			min	0.001	2	-0.357	6	0.013	2	-0.006	6	1288.615	6	6537.117	6
269		5	max	0.003	6	-0.237	2	0	6	-0.002	2	NC	7	NC	7
270			min	0.001	2	-0.705	6	0	2	-0.007	6	NC	1	NC	1
271	J20	1	max	0	6	-0.246	2	0	2	-0.002	2	NC	7	NC	7
272			min	0	2	-0.783	6	0	6	-0.007	6	NC	1	NC	1
273		2	max	0	6	-0.358	2	0.03	6	-0.002	2	4728.437	2	NC	5
274			min	0	2	-1.076	6	0.01	2	-0.006	6	1696.073	6	8259.042	6
275		3	max	0	6	-0.439	2	0.055	6	-0.002	2	3373.016	2	NC	2
276			min	0	2	-1.28	6	0.019	2	-0.006	6	1207.219	6	4567.544	6
277		4	max	0	6	-0.476	2	0.038	6	-0.002	2	4727.441	2	NC	5
278			min	0	2	-1.365	6	0.013	2	-0.006	6	1691.611	6	6564.437	6
279		5	max	0	6	-0.482	2	0	6	-0.002	2	NC	7	NC	7
280			min	0	2	-1.361	6	0	2	-0.005	6	NC	1	NC	1
281	J21	1	max	0	2	-0.367	2	0	2	0	2	NC	7	NC	7
282			min	0	6	-1.183	6	0	6	-0.001	6	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
283		2	max	0	2	-0.471	2	0.03	6	0	2	4729.378	2	NC	5
284			min	0	6	-1.475	6	0.01	2	0	6	1312.71	6	8299.838	6
285		3	max	0	2	-0.543	2	0.038	6	0	6	3388.926	2	NC	5
286			min	0	6	-1.638	6	0.013	2	0	2	988.683	6	6677.142	6
287		4	max	0	2	-0.573	2	0.024	6	0.001	6	4729.021	2	NC	7
288			min	0	6	-1.66	6	0.008	2	0	2	1423.114	6	NC	1
289		5	max	0	2	-0.571	2	0	6	0.001	6	NC	7	NC	7
290			min	0	6	-1.583	6	0	2	0	2	NC	1	NC	1
291	J22	1	max	0	2	-0.27	2	0	2	0.007	6	NC	7	NC	7
292			min	0	1	-0.868	6	0	6	0.002	2	NC	1	NC	1
293		2	max	0	2	-0.353	2	0.03	6	0.007	6	4729.477	2	NC	5
294			min	0	1	-1.064	6	0.01	2	0.002	2	1720.562	6	8312.053	6
295		3	max	0	2	-0.403	2	0.038	6	0.008	6	3389.191	2	NC	5
296			min	0	1	-1.169	6	0.013	2	0.003	2	1248.196	6	6684.096	6
297		4	max	0	2	-0.411	2	0.024	6	0.008	6	4729.554	2	NC	7
298			min	0	1	-1.16	6	0.008	2	0.003	2	1750.082	6	NC	1
299		5	max	0	2	-0.387	2	0	6	0.009	6	NC	7	NC	7
300			min	0	1	-1.065	6	0	2	0.003	2	NC	1	NC	1
301	J23	1	max	0	2	-0.187	2	0	6	-0.001	2	NC	7	NC	7
302			min	0	6	-0.471	6	0	2	-0.003	6	NC	1	NC	1
303		2	max	0	2	-0.251	2	0	6	-0.001	2	2992.253	2	NC	7
304			min	0	6	-0.623	6	0	2	-0.002	6	1239.587	6	NC	1
305		3	max	0	2	-0.255	2	0	2	-0.001	2	2143.872	2	NC	7
306			min	0	6	-0.631	6	0	6	-0.002	6	890.891	6	NC	1
307		4	max	0	2	-0.181	2	0	2	0	2	3023.944	2	NC	7
308			min	0	6	-0.449	6	0	6	-0.001	6	1261.009	6	NC	1
309		5	max	0	2	-0.05	2	0	2	0	2	NC	7	NC	7
310			min	0	6	-0.131	6	0	6	-0.001	6	NC	1	NC	1
311	J24	1	max	0	6	-0.214	2	0	6	0.002	6	NC	7	NC	7
312			min	0	2	-0.534	6	0	2	0.001	2	NC	1	NC	1
313		2	max	0	6	-0.27	2	0	6	0.001	6	2992.194	2	NC	7
314			min	0	2	-0.664	6	0	2	0.001	2	1251.188	6	NC	1
315		3	max	0	6	-0.266	2	0	2	0.001	6	2143.804	2	NC	7
316			min	0	2	-0.652	6	0	6	0	2	898.615	6	NC	1
317		4	max	0	6	-0.184	2	0	2	0.001	6	3023.844	2	NC	7
318			min	0	2	-0.451	6	0	6	0	2	1270.978	6	NC	1
319		5	max	0	6	-0.044	2	0	2	0.001	6	NC	7	NC	7
320			min	0	2	-0.115	6	0	6	0	2	NC	1	NC	1
321	J25	1	max	0	2	-0.095	2	0	6	0.004	6	NC	7	NC	7
322			min	0	6	-0.232	6	0	2	0.002	2	NC	1	NC	1
323		2	max	0	2	-0.171	2	0	6	0.003	6	3059.817	2	NC	7
324			min	0	6	-0.405	6	0	2	0.001	2	1322.663	6	NC	1
325		3	max	0	2	-0.189	2	0	2	0.002	6	2180.12	2	NC	7
326			min	0	6	-0.445	6	0	6	0.001	2	942.398	6	NC	1
327		4	max	0	2	-0.13	2	0	2	0.001	6	3059.817	2	NC	7
328			min	0	6	-0.306	6	0	6	0	2	1322.663	6	NC	1
329		5	max	0	2	-0.013	2	0	2	0	6	NC	7	NC	7
330			min	0	6	-0.034	6	0	6	0	2	NC	1	NC	1
331	J26	1	max	0	6	-0.004	2	0	6	0	2	NC	7	NC	7
332			min	0	2	-0.021	6	0	2	0	6	NC	1	NC	1
333		2	max	0	6	-0.113	2	0	6	0	2	3059.817	2	NC	7
334			min	0	2	-0.273	6	0	2	-0.001	6	1322.663	6	NC	1
335		3	max	0	6	-0.165	2	0	2	0	2	2180.12	2	NC	7
336			min	0	2	-0.392	6	0	6	-0.001	6	942.398	6	NC	1
337		4	max	0	6	-0.139	2	0	2	-0.001	2	3059.817	2	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
338			min	0	2	-0.331	6	0	6	-0.002	6	1322.663	6	NC	1
339		5	max	0	6	-0.056	2	0	2	-0.001	2	NC	7	NC	7
340			min	0	2	-0.138	6	0	6	-0.002	6	NC	1	NC	1
341	J27	1	max	0	6	-0.069	2	0	6	-0.001	2	NC	7	NC	7
342			min	0	2	-0.23	6	0	2	-0.003	6	NC	1	NC	1
343		2	max	0	6	-0.16	2	0	2	0.045	6	3059.817	2	NC	7
344			min	0	2	-0.424	6	0	1	0.018	2	1322.663	6	NC	1
345		3	max	0	6	-0.193	2	0	2	0.093	6	2180.12	2	NC	7
346			min	0	2	-0.486	6	0	6	0.038	2	942.398	6	NC	1
347		4	max	0	6	-0.149	2	0	2	0.14	6	3059.817	2	NC	7
348			min	0	2	-0.368	6	0	6	0.057	2	1322.663	6	NC	1
349		5	max	0	6	-0.048	2	0	2	0.188	6	NC	7	NC	7
350			min	0	2	-0.117	6	0	6	0.077	2	NC	1	NC	1
351	J28	1	max	0.003	6	-0.237	2	0	6	-0.002	2	NC	7	NC	7
352			min	0.001	2	-0.705	6	0	2	-0.007	6	NC	1	NC	1
353		2	max	0.003	6	-0.276	2	0	2	-0.002	2	3059.817	2	NC	7
354			min	0.001	2	-0.757	6	0	6	-0.005	6	1322.663	6	NC	1
355		3	max	0.002	6	-0.258	2	0	2	-0.002	2	2180.12	2	NC	7
356			min	0.001	2	-0.676	6	0	6	-0.004	6	942.398	6	NC	1
357		4	max	0.002	6	-0.162	2	0	2	-0.001	2	3059.817	2	NC	7
358			min	0.001	2	-0.417	6	0	6	-0.003	6	1322.663	6	NC	1
359		5	max	0.002	6	-0.009	2	0	2	-0.001	2	NC	7	NC	7
360			min	0.001	2	-0.024	6	0	6	-0.002	6	NC	1	NC	1
361	J29	1	max	0	6	-0.482	2	0	6	-0.002	2	NC	7	NC	7
362			min	0	2	-1.361	6	0	2	-0.005	6	NC	1	NC	1
363		2	max	0	6	-0.488	2	0	2	-0.002	2	3059.817	2	NC	7
364			min	0	2	-1.319	6	0	6	-0.005	6	1322.663	6	NC	1
365		3	max	0	6	-0.436	2	0	2	-0.002	2	2180.12	2	NC	7
366			min	0	2	-1.144	6	0	6	-0.004	6	942.398	6	NC	1
367		4	max	0	6	-0.307	2	0	2	-0.001	2	3059.817	2	NC	7
368			min	0	2	-0.79	6	0	6	-0.003	6	1322.663	6	NC	1
369		5	max	0	6	-0.12	2	0	2	-0.001	2	NC	7	NC	7
370			min	0	2	-0.303	6	0	6	-0.003	6	NC	1	NC	1
371	J30	1	max	0	2	-0.571	2	0	6	0.001	6	NC	7	NC	7
372			min	0	6	-1.583	6	0	2	0	2	NC	1	NC	1
373		2	max	0	2	-0.572	2	0	6	0.001	6	3059.817	2	NC	7
374			min	0	6	-1.53	6	0	2	0	2	1322.663	6	NC	1
375		3	max	0	2	-0.516	2	0	2	0.001	6	2180.12	2	NC	7
376			min	0	6	-1.344	6	0	6	0	2	942.398	6	NC	1
377		4	max	0	2	-0.382	2	0	2	0	5	3059.817	2	NC	7
378			min	0	6	-0.979	6	0	6	0	2	1322.663	6	NC	1
379		5	max	0	2	-0.191	2	0	2	0	2	NC	7	NC	7
380			min	0	6	-0.482	6	0	6	0	6	NC	1	NC	1
381	J31	1	max	0	2	-0.387	2	0	6	0.009	6	NC	7	NC	7
382			min	0	1	-1.065	6	0	2	0.003	2	NC	1	NC	1
383		2	max	0	2	-0.422	2	0	6	0.007	6	3059.817	2	NC	7
384			min	0	1	-1.112	6	0	2	0.003	2	1322.663	6	NC	1
385		3	max	0	2	-0.4	2	0	2	0.006	6	2180.12	2	NC	7
386			min	0	1	-1.026	6	0	6	0.002	2	942.398	6	NC	1
387		4	max	0	2	-0.301	2	0	2	0.004	6	3059.817	2	NC	7
388			min	0	1	-0.761	6	0	6	0.002	2	1322.663	6	NC	1
389		5	max	0	2	-0.144	2	0	2	0.003	6	NC	7	NC	7
390			min	0	1	-0.363	6	0	6	0.001	2	NC	1	NC	1
391	J32	1	max	-0.019	2	-0.052	2	0	5	0.002	6	NC	7	NC	7
392			min	-0.055	6	-0.147	6	0	2	0.001	2	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
393		2	max	-0.019	2	-0.039	2	-0.002	2	0.002	6	NC	5	NC	7
394			min	-0.055	6	-0.11	6	-0.005	6	0	2	8933.114	6	NC	1
395		3	max	-0.019	2	-0.027	2	-0.003	2	0.001	6	NC	2	NC	7
396			min	-0.055	6	-0.077	6	-0.007	6	0	2	5446.373	6	NC	1
397		4	max	-0.019	2	-0.017	2	-0.002	2	0.001	6	NC	2	NC	7
398			min	-0.055	6	-0.052	6	-0.006	6	0	2	5758.854	6	NC	1
399		5	max	-0.019	2	-0.011	2	0.001	6	0.002	6	NC	7	NC	7
400			min	-0.055	6	-0.043	6	0	2	0.001	2	NC	1	NC	1
401	J33	1	max	0	6	0.7	6	0	6	0.002	6	NC	7	NC	7
402			min	0	2	0.223	2	0	2	0.001	2	NC	1	NC	1
403		2	max	0	6	0.725	6	0	2	0.002	6	NC	7	NC	7
404			min	0	2	0.232	2	-0.001	1	0.001	2	NC	1	NC	1
405		3	max	0	6	0.75	6	0	2	0.002	6	NC	7	NC	7
406			min	0	2	0.241	2	-0.002	1	0.001	2	NC	1	NC	1
407		4	max	0	6	0.775	6	0	2	0.002	6	NC	7	NC	7
408			min	0	2	0.25	2	-0.001	6	0.001	1	NC	1	NC	1
409		5	max	0	6	0.799	6	0	2	0.001	6	NC	7	NC	7
410			min	0	2	0.259	2	0	6	0.001	1	NC	1	NC	1
411	J34	1	max	0	6	0.035	6	0	7	0	5	NC	7	NC	7
412			min	0	2	0.011	2	0	1	0	6	NC	1	NC	1
413		2	max	0	6	0.208	6	0	6	0	6	NC	7	NC	7
414			min	0	2	0.066	2	0	2	0	2	NC	1	NC	1
415		3	max	0	6	0.38	6	0	6	0.001	6	NC	7	NC	7
416			min	0	2	0.121	2	0	2	0	2	NC	1	NC	1
417		4	max	0	6	0.55	6	0	6	0.002	6	NC	7	NC	7
418			min	0	2	0.176	2	0	2	0.001	2	NC	1	NC	1
419		5	max	0	6	0.719	6	0	6	0.002	6	NC	7	NC	7
420			min	0	2	0.23	2	0	2	0.001	2	NC	1	NC	1
421	RTU_L3_1	1	max	0	2	0.193	6	-0.019	2	0	6	NC	7	NC	7
422			min	-0.079	1	0.04	2	-0.055	6	0	1	NC	1	NC	1
423		2	max	0	2	0.266	6	-0.008	5	0	2	NC	2	NC	2
424			min	-0.079	1	0.052	2	-0.026	6	0	1	1611.603	7	1788.231	6
425		3	max	0	2	0.318	6	0.005	5	0	2	NC	2	NC	2
426			min	-0.079	1	0.064	2	-0.017	2	-0.001	1	1142.548	6	1163.616	6
427		4	max	0	2	0.341	6	-0.003	5	0	2	NC	2	8121.23	2
428			min	-0.079	1	0.075	2	-0.019	6	-0.001	6	1611.603	6	1251.942	6
429		5	max	0	2	0.342	6	-0.014	2	0	2	NC	7	6090.922	2
430			min	-0.079	1	0.087	2	-0.041	6	-0.001	6	NC	1	2087.274	6
431	RTU_L3_2	1	max	0	2	0.327	6	0	6	-0.001	2	NC	7	NC	7
432			min	-0.007	1	0.114	2	0	2	-0.002	6	NC	1	NC	1
433		2	max	0	2	0.362	6	0.001	6	-0.001	2	NC	7	NC	7
434			min	-0.007	1	0.126	2	0	2	-0.002	6	NC	1	NC	1
435		3	max	0	2	0.396	6	0.001	6	-0.001	2	NC	7	NC	7
436			min	-0.007	1	0.137	2	0	2	-0.002	6	NC	1	NC	1
437		4	max	0	2	0.428	6	0.001	6	-0.001	2	NC	7	NC	7
438			min	-0.007	1	0.148	2	0	2	-0.002	6	NC	1	NC	1
439		5	max	0	2	0.459	6	0	6	-0.001	2	NC	7	NC	7
440			min	-0.007	1	0.159	2	0	2	-0.003	6	NC	1	NC	1
441	RTU_L3_3	1	max	0	2	0.606	6	-0.019	2	-0.004	2	NC	7	NC	7
442			min	-0.05	1	0.189	2	-0.055	6	-0.013	6	NC	1	NC	1
443		2	max	0	2	0.678	6	-0.015	5	-0.004	2	NC	2	NC	2
444			min	-0.05	1	0.205	2	-0.033	6	-0.012	6	2247.409	1	2303.564	6
445		3	max	0	2	0.735	6	-0.005	5	-0.004	2	NC	2	NC	2
446			min	-0.05	1	0.221	2	-0.023	6	-0.012	6	1593.395	6	1465.325	6
447		4	max	0	2	0.771	6	-0.011	5	-0.004	2	NC	2	8174.593	2

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
448			min	-0.05	1	0.237	2	-0.027	6	-0.012	6	2247.409	7	1487.89	6
449		5	max	0	2	0.791	6	-0.014	2	-0.004	2	NC	7	6130.945	2
450			min	-0.05	1	0.253	2	-0.041	6	-0.011	6	NC	1	2100.994	6
451	RTU_L3_4	1	max	0	2	1.132	6	-0.003	2	0.004	6	NC	7	NC	7
452			min	-0.065	1	0.338	2	-0.008	6	0.001	2	NC	1	NC	1
453		2	max	0	2	1.188	6	0	5	0.004	6	NC	2	NC	7
454			min	-0.065	1	0.355	2	-0.005	2	0.001	2	3772.444	6	NC	1
455		3	max	0	2	1.238	6	0	5	0.004	6	NC	2	NC	5
456			min	-0.065	1	0.372	2	-0.007	2	0.001	2	2673.87	7	4947.697	6
457		4	max	0	2	1.277	6	-0.007	5	0.004	6	NC	2	4154.127	2
458			min	-0.065	1	0.389	2	-0.016	6	0.001	2	3768.087	7	1951.166	6
459		5	max	0	2	1.308	6	-0.01	2	0.005	6	NC	7	3115.596	2
460			min	-0.065	1	0.407	2	-0.03	6	0.001	2	NC	1	1070.724	6
461	RTU_L3_5	1	max	0	2	0.608	6	0	6	0.001	6	NC	7	NC	7
462			min	-0.019	6	0.199	2	0	2	0	2	NC	1	NC	1
463		2	max	0	2	0.636	6	0.001	6	0.001	6	NC	7	NC	7
464			min	-0.019	6	0.207	2	0	2	0	2	NC	1	NC	1
465		3	max	0	2	0.664	6	0.001	6	0.001	6	NC	7	NC	7
466			min	-0.019	6	0.216	2	0	2	0	2	NC	1	NC	1
467		4	max	0	2	0.691	6	0.001	6	0.001	6	NC	7	NC	7
468			min	-0.019	6	0.225	2	0	2	0	2	NC	1	NC	1
469		5	max	0	2	0.717	6	0	6	0.001	6	NC	7	NC	7
470			min	-0.019	6	0.233	2	0	2	0	2	NC	1	NC	1
471	RTU_L3_6	1	max	0	2	0.578	6	0	6	0.002	6	NC	7	NC	7
472			min	-0.016	6	0.19	2	0	2	0	2	NC	1	NC	1
473		2	max	0	2	0.604	6	0.001	6	0.002	6	NC	7	NC	7
474			min	-0.016	6	0.198	2	0	2	0	2	NC	1	NC	1
475		3	max	0	2	0.63	6	0.001	6	0.002	6	NC	7	NC	7
476			min	-0.016	6	0.206	2	0	2	0	2	NC	1	NC	1
477		4	max	0	2	0.655	6	0.001	6	0.002	6	NC	7	NC	7
478			min	-0.016	6	0.214	2	0	2	0	2	NC	1	NC	1
479		5	max	0	2	0.68	6	0	6	0.002	6	NC	7	NC	7
480			min	-0.016	6	0.222	2	0	2	0	2	NC	1	NC	1
481	RTU_L3_7	1	max	0	2	0.265	6	0	6	-0.001	2	NC	7	NC	7
482			min	-0.011	1	0.094	2	0	2	-0.002	6	NC	1	NC	1
483		2	max	0	2	0.291	6	0.001	6	-0.001	2	NC	7	NC	7
484			min	-0.011	1	0.102	2	0	2	-0.002	6	NC	1	NC	1
485		3	max	0	2	0.316	6	0.001	6	-0.001	2	NC	7	NC	7
486			min	-0.011	1	0.111	2	0	2	-0.003	6	NC	1	NC	1
487		4	max	0	2	0.34	6	0.001	6	-0.001	2	NC	7	NC	7
488			min	-0.011	1	0.119	2	0	2	-0.003	6	NC	1	NC	1
489		5	max	0	2	0.362	6	0	6	-0.001	2	NC	7	NC	7
490			min	-0.011	1	0.128	2	0	2	-0.003	6	NC	1	NC	1
491	RTU_L3_8	1	max	0	2	0.653	6	0	5	0	2	NC	7	NC	7
492			min	-0.005	1	0.262	2	0	6	-0.001	6	NC	1	NC	1
493		2	max	0	2	0.656	6	0	5	0	2	NC	7	NC	7
494			min	-0.005	1	0.263	2	0	2	-0.001	6	NC	1	NC	1
495		3	max	0	2	0.658	6	0	5	0	2	NC	7	NC	7
496			min	-0.005	1	0.264	2	0	2	-0.001	6	NC	1	NC	1
497		4	max	0	2	0.66	6	0	5	0	2	NC	7	NC	7
498			min	-0.005	1	0.265	2	0	2	-0.001	6	NC	1	NC	1
499		5	max	0	2	0.663	6	0	5	0	2	NC	7	NC	7
500			min	-0.005	1	0.266	2	0	6	-0.001	6	NC	1	NC	1
501	RTU_L3_9	1	max	0	2	1.328	6	-0.01	2	0.005	6	NC	7	NC	7
502			min	-0.008	6	0.459	2	-0.03	6	0.002	2	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
503		2	max	0	2	1.324	6	-0.01	2	0.005	6	NC	7	NC	2
504			min	-0.008	6	0.459	2	-0.028	6	0.002	2	NC	1	6216.126	6
505		3	max	0	2	1.32	6	-0.009	2	0.005	6	NC	7	9492.107	2
506			min	-0.008	6	0.459	2	-0.026	6	0.002	2	NC	1	3149.152	6
507		4	max	0	2	1.315	6	-0.008	2	0.005	6	NC	7	6328.071	2
508			min	-0.008	6	0.459	2	-0.024	6	0.002	2	NC	1	2139.456	6
509		5	max	0	2	1.311	6	-0.008	2	0.005	6	NC	7	4746.053	2
510			min	-0.008	6	0.459	2	-0.022	6	0.002	2	NC	1	1631.127	6
511	RTU_L3_10	1	max	0	2	1.237	6	-0.003	2	-0.001	2	NC	7	NC	7
512			min	-0.066	1	0.354	2	-0.008	6	-0.003	6	NC	1	NC	1
513		2	max	0	2	1.301	6	-0.002	5	-0.001	2	NC	2	NC	7
514			min	-0.066	1	0.374	2	-0.007	6	-0.003	6	4980.165	6	NC	1
515		3	max	0	2	1.359	6	-0.003	5	-0.001	2	NC	2	9834.07	5
516			min	-0.066	1	0.394	2	-0.009	6	-0.003	6	3518.791	1	3726.735	6
517		4	max	0	2	1.409	6	-0.009	2	-0.001	2	NC	2	4130.955	2
518			min	-0.066	1	0.414	2	-0.018	6	-0.002	6	4968.888	7	1779.791	6
519		5	max	0	2	1.454	6	-0.01	2	-0.001	2	NC	7	3098.216	2
520			min	-0.066	1	0.434	2	-0.03	6	-0.002	6	NC	1	1064.75	6
521	RTU_L3_11	1	max	0	2	0.663	6	0	5	0	2	NC	7	NC	7
522			min	-0.008	1	0.265	2	0	6	0	6	NC	1	NC	1
523		2	max	0	2	0.665	6	0	5	0	2	NC	7	NC	7
524			min	-0.008	1	0.266	2	0	2	0	6	NC	1	NC	1
525		3	max	0	2	0.667	6	0	5	0	2	NC	7	NC	7
526			min	-0.008	1	0.267	2	0	2	0	6	NC	1	NC	1
527		4	max	0	2	0.669	6	0	5	0	2	NC	7	NC	7
528			min	-0.008	1	0.268	2	0	2	0	6	NC	1	NC	1
529		5	max	0	2	0.671	6	0	5	0	2	NC	7	NC	7
530			min	-0.008	1	0.269	2	0	6	0	6	NC	1	NC	1
531	RTU_L3_12	1	max	0	2	1.442	6	-0.01	2	0.005	6	NC	7	NC	7
532			min	-0.01	6	0.495	2	-0.03	6	0.002	2	NC	1	NC	1
533		2	max	0	2	1.439	6	-0.01	2	0.005	6	NC	7	NC	2
534			min	-0.01	6	0.495	2	-0.028	6	0.002	2	NC	1	6216.026	6
535		3	max	0	2	1.435	6	-0.009	2	0.005	6	NC	7	9491.946	2
536			min	-0.01	6	0.496	2	-0.026	6	0.002	2	NC	1	3149.101	6
537		4	max	0	2	1.431	6	-0.008	2	0.005	6	NC	7	6327.964	2
538			min	-0.01	6	0.496	2	-0.024	6	0.002	2	NC	1	2139.421	6
539		5	max	0	2	1.427	6	-0.008	2	0.005	6	NC	7	4745.973	2
540			min	-0.01	6	0.496	2	-0.022	6	0.002	2	NC	1	1631.099	6
541	RTU_L3_13	1	max	0	2	0.717	6	0	6	0	2	NC	7	NC	7
542			min	-0.032	1	0.218	2	0	2	-0.001	6	NC	1	NC	1
543		2	max	0	2	0.735	6	0.005	6	0	2	NC	2	NC	2
544			min	-0.032	1	0.221	2	0	2	-0.001	6	4644.444	6	7763.437	6
545		3	max	0	2	0.749	6	0.007	6	0	2	NC	2	NC	2
546			min	-0.032	1	0.223	2	0	2	-0.001	6	3292.812	6	5501.845	6
547		4	max	0	2	0.755	6	0.005	6	0	2	NC	2	NC	2
548			min	-0.032	1	0.226	2	0	2	-0.001	6	4644.444	1	7748.166	6
549		5	max	0	2	0.756	6	0	6	0	2	NC	7	NC	7
550			min	-0.032	1	0.229	2	0	2	-0.001	6	NC	1	NC	1
551	RTU_L3_14	1	max	0	2	0.639	6	0	6	0.004	6	NC	7	NC	7
552			min	-0.011	6	0.214	2	0	2	0.001	2	NC	1	NC	1
553		2	max	0	2	0.639	6	0	6	0.004	6	NC	7	NC	7
554			min	-0.011	6	0.217	2	0	2	0.001	2	NC	1	NC	1
555		3	max	0	2	0.639	6	0	6	0.004	6	NC	7	NC	7
556			min	-0.011	6	0.22	2	0	2	0.001	2	NC	1	NC	1
557		4	max	0	2	0.638	6	0	6	0.004	6	NC	7	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
558			min	-0.011	6	0.222	2	0	2	0.001	2	NC	1	NC	1
559		5	max	0	2	0.637	6	0	6	0.004	6	NC	7	NC	7
560			min	-0.011	6	0.225	2	0	2	0.001	2	NC	1	NC	1
561	RTU_L3_15	1	max	0	2	0.736	6	0	6	0.004	6	NC	7	NC	7
562			min	-0.011	6	0.246	2	0	2	0.001	2	NC	1	NC	1
563		2	max	0	2	0.735	6	0	6	0.004	6	NC	7	NC	7
564			min	-0.011	6	0.249	2	0	2	0.001	2	NC	1	NC	1
565		3	max	0	2	0.734	6	0	6	0.004	6	NC	7	NC	7
566			min	-0.011	6	0.251	2	0	2	0.001	2	NC	1	NC	1
567		4	max	0	2	0.733	6	0	6	0.004	6	NC	7	NC	7
568			min	-0.011	6	0.254	2	0	2	0.001	2	NC	1	NC	1
569		5	max	0	2	0.731	6	0	6	0.004	6	NC	7	NC	7
570			min	-0.011	6	0.256	2	0	2	0.001	2	NC	1	NC	1
571	RTU_L3_16	1	max	0	2	0.638	6	0	6	0.003	6	NC	7	NC	7
572			min	-0.03	6	0.193	2	0	2	0.001	2	NC	1	NC	1
573		2	max	0	2	0.652	6	0.005	6	0.003	6	NC	2	NC	2
574			min	-0.03	6	0.194	2	0	2	0.001	2	4644.444	7	7763.746	6
575		3	max	0	2	0.66	6	0.007	6	0.004	6	NC	2	NC	2
576			min	-0.03	6	0.196	2	0	2	0.001	2	3292.812	1	5502.156	6
577		4	max	0	2	0.661	6	0.005	6	0.004	6	NC	2	NC	2
578			min	-0.03	6	0.197	2	0	2	0.001	2	4644.444	1	7749.089	6
579		5	max	0	2	0.657	6	0	6	0.004	6	NC	7	NC	7
580			min	-0.03	6	0.198	2	0	2	0.001	2	NC	1	NC	1
581	RTU_L3_17	1	max	0	2	0.698	6	0	5	0.004	6	NC	7	NC	7
582			min	-0.008	6	0.255	2	0	6	0.001	2	NC	1	NC	1
583		2	max	0	2	0.688	6	0	5	0.004	6	NC	7	NC	7
584			min	-0.008	6	0.252	2	0	2	0.001	2	NC	1	NC	1
585		3	max	0	2	0.677	6	0	5	0.004	6	NC	7	NC	7
586			min	-0.008	6	0.249	2	0	2	0.001	2	NC	1	NC	1
587		4	max	0	2	0.666	6	0	5	0.004	6	NC	7	NC	7
588			min	-0.008	6	0.246	2	0	2	0.001	2	NC	1	NC	1
589		5	max	0	2	0.655	6	0	2	0.003	6	NC	7	NC	7
590			min	-0.008	6	0.243	2	0	6	0.001	2	NC	1	NC	1
591	RTU_L3_18	1	max	0	2	0.197	6	0	6	0.002	6	NC	7	NC	7
592			min	-0.071	6	0.04	2	0	2	0	2	NC	1	NC	1
593		2	max	0	2	0.178	6	0.008	6	0.002	6	NC	2	NC	2
594			min	-0.071	6	0.029	2	0	2	0	2	3554.842	1	5945.523	6
595		3	max	0	2	0.15	6	0.012	6	0.002	6	NC	2	NC	2
596			min	-0.071	6	0.019	2	0	2	0	2	2496.588	6	4174.882	6
597		4	max	0	2	0.11	6	0.008	6	0.002	6	NC	2	NC	2
598			min	-0.071	6	0.008	2	0	2	0	2	3554.842	1	5940.631	6
599		5	max	0	2	0.065	5	0	6	0.002	6	NC	7	NC	7
600			min	-0.071	6	-0.002	2	0	2	0	2	NC	1	NC	1
601	RTU_L3_19	1	max	0	2	0.278	6	0	6	0.003	6	NC	7	NC	7
602			min	-0.017	1	0.073	2	0	2	0.001	2	NC	1	NC	1
603		2	max	0	2	0.267	6	0.011	6	0.003	6	NC	2	NC	2
604			min	-0.017	1	0.065	2	0	2	0.001	2	2800.325	6	4683.935	6
605		3	max	0	2	0.245	6	0.015	6	0.003	6	NC	2	NC	2
606			min	-0.017	1	0.057	2	0	2	0.001	2	1995.231	1	3336.827	6
607		4	max	0	2	0.209	6	0.011	6	0.004	6	NC	2	NC	2
608			min	-0.017	1	0.049	2	0	2	0.001	2	2800.325	6	4680.787	6
609		5	max	0	2	0.163	6	0	6	0.004	6	NC	7	NC	7
610			min	-0.017	1	0.041	2	0	2	0.001	2	NC	1	NC	1
611	RTU_L3_20	1	max	0	2	1.238	6	-0.005	2	0.005	6	NC	7	NC	7
612			min	-0.001	6	0.44	2	-0.013	6	0.002	2	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
613		2	max	0	2	1.239	6	-0.003	2	0.006	6	NC	7	NC	2
614			min	-0.001	6	0.442	2	-0.009	6	0.002	2	NC	1	4454.787	6
615		3	max	0	2	1.24	6	-0.002	2	0.006	6	NC	7	7223.852	2
616			min	-0.001	6	0.445	2	-0.006	6	0.002	2	NC	1	2292.343	6
617		4	max	0	2	1.24	6	-0.001	2	0.007	6	NC	7	4815.901	2
618			min	-0.001	6	0.447	2	-0.003	6	0.002	2	NC	1	1594.2	6
619		5	max	0	2	1.239	6	0	2	0.007	6	NC	7	3611.926	2
620			min	-0.001	6	0.45	2	0	6	0.003	2	NC	1	1241.322	6
621	RTU_L3_21	1	max	0	2	1.431	6	-0.005	2	0.005	6	NC	7	NC	7
622			min	-0.001	6	0.505	2	-0.013	6	0.002	2	NC	1	NC	1
623		2	max	0	2	1.44	6	-0.003	2	0.005	6	NC	7	NC	2
624			min	-0.001	6	0.511	2	-0.009	6	0.002	2	NC	1	4455.127	6
625		3	max	0	2	1.447	6	-0.002	2	0.005	6	NC	7	7224.387	2
626			min	-0.001	6	0.517	2	-0.006	6	0.002	2	NC	1	2292.523	6
627		4	max	0	2	1.454	6	-0.001	2	0.005	6	NC	7	4816.258	2
628			min	-0.001	6	0.523	2	-0.003	6	0.002	2	NC	1	1594.33	6
629		5	max	0	2	1.46	6	0	2	0.005	6	NC	7	3612.193	2
630			min	-0.001	6	0.529	2	0	6	0.002	2	NC	1	1241.428	6
631	RTU_L3_22	1	max	0	2	0.61	6	0	5	0.004	6	NC	7	NC	7
632			min	-0.008	6	0.224	2	0	6	0.001	2	NC	1	NC	1
633		2	max	0	2	0.6	6	0	5	0.004	6	NC	7	NC	7
634			min	-0.008	6	0.221	2	0	2	0.001	2	NC	1	NC	1
635		3	max	0	2	0.59	6	0	5	0.004	6	NC	7	NC	7
636			min	-0.008	6	0.218	2	0	2	0.001	2	NC	1	NC	1
637		4	max	0	2	0.579	6	0	5	0.004	6	NC	7	NC	7
638			min	-0.008	6	0.215	2	0	2	0.001	2	NC	1	NC	1
639		5	max	0	2	0.569	6	0	2	0.004	6	NC	7	NC	7
640			min	-0.008	6	0.212	2	0	6	0.001	2	NC	1	NC	1
641	RTU_L4_1	1	max	0	6	0.98	6	0	6	0.003	6	NC	7	NC	7
642			min	0	2	0.318	2	0	2	0.001	2	NC	1	NC	1
643		2	max	0	6	0.94	6	0.008	6	0.003	6	NC	2	NC	7
644			min	0	2	0.301	2	0	2	0.001	2	6839.689	6	NC	1
645		3	max	0	6	0.892	6	0.012	6	0.003	6	NC	2	NC	2
646			min	0	2	0.284	2	0	2	0.001	2	4846.421	6	8066.112	1
647		4	max	0	6	0.833	6	0.009	6	0.002	6	NC	2	NC	7
648			min	0	2	0.267	2	0	2	0.001	2	6749.92	6	NC	1
649		5	max	0	6	0.765	6	0	5	0.002	6	NC	7	NC	7
650			min	0	2	0.251	2	0	2	0.001	2	NC	1	NC	1
651	RTU_L4_2	1	max	0	2	0.814	6	0	6	0.003	6	NC	7	NC	7
652			min	-0.006	1	0.263	2	0	2	0.001	2	NC	1	NC	1
653		2	max	0	2	0.842	6	0.001	6	0.003	6	NC	7	NC	7
654			min	-0.006	1	0.268	2	0	2	0.001	2	NC	1	NC	1
655		3	max	0	2	0.87	6	0.001	6	0.003	6	NC	7	NC	7
656			min	-0.006	1	0.274	2	0	2	0.001	2	NC	1	NC	1
657		4	max	0	2	0.896	6	0.001	6	0.003	6	NC	7	NC	7
658			min	-0.006	1	0.28	2	0	2	0.001	2	NC	1	NC	1
659		5	max	0	2	0.921	6	0	6	0.004	6	NC	7	NC	7
660			min	-0.006	1	0.286	2	0	2	0.001	2	NC	1	NC	1
661	RTU_L4_3	1	max	0	2	0.916	6	0	6	0.002	6	NC	7	NC	7
662			min	-0.011	6	0.292	2	0	2	0.001	2	NC	1	NC	1
663		2	max	0	2	0.953	6	0.001	6	0.002	6	NC	7	NC	7
664			min	-0.011	6	0.3	2	0	2	0.001	2	NC	1	NC	1
665		3	max	0	2	0.99	6	0.001	6	0.002	6	NC	7	NC	7
666			min	-0.011	6	0.309	2	0	2	0.001	2	NC	1	NC	1
667		4	max	0	2	1.026	6	0.001	6	0.003	6	NC	7	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
668			min	-0.011	6	0.318	2	0	2	0.001	2	NC	1	NC	1
669		5	max	0	2	1.06	6	0	6	0.003	6	NC	7	NC	7
670			min	-0.011	6	0.326	2	0	2	0.001	2	NC	1	NC	1
671	RTU_L4_4	1	max	-0.003	2	0.857	6	0	2	0.005	6	NC	7	NC	7
672			min	-0.008	6	0.274	2	0	6	0.002	2	NC	1	NC	1
673		2	max	-0.003	2	1.034	6	0.046	5	0.005	6	NC	2	NC	2
674			min	-0.008	6	0.304	2	0	2	0.002	2	1258.062	6	2079.378	6
675		3	max	-0.003	2	1.176	6	0.071	5	0.005	6	NC	2	NC	2
676			min	-0.008	6	0.334	2	0	2	0.002	2	816.335	6	1350.879	6
677		4	max	-0.003	2	1.252	6	0.056	5	0.005	6	NC	2	NC	2
678			min	-0.008	6	0.364	2	0	2	0.002	2	1039.033	6	1720.66	6
679		5	max	-0.003	2	1.26	6	0	6	0.005	6	NC	7	NC	7
680			min	-0.008	6	0.394	2	0	2	0.002	2	NC	1	NC	1
681	RTU_L4_5	1	max	-0.01	2	1.076	6	0	2	0.004	6	NC	7	NC	7
682			min	-0.03	6	0.358	2	0	6	0.002	2	NC	1	NC	1
683		2	max	-0.01	2	1.252	6	0.046	5	0.004	6	NC	2	NC	2
684			min	-0.03	6	0.387	2	0	2	0.002	2	1250.462	1	2080.212	6
685		3	max	-0.01	2	1.394	6	0.071	5	0.004	6	NC	2	NC	2
686			min	-0.03	6	0.415	2	0	2	0.002	2	811.378	1	1350.96	6
687		4	max	-0.01	2	1.468	6	0.056	5	0.004	6	NC	2	NC	2
688			min	-0.03	6	0.443	2	0	2	0.001	2	1033.427	1	1721.68	6
689		5	max	-0.01	2	1.475	6	0	6	0.004	6	NC	7	NC	7
690			min	-0.03	6	0.471	2	0	2	0.001	2	NC	1	NC	1
691	RTU_L4_6	1	max	0.007	5	1.101	6	0.03	6	0.008	6	NC	7	NC	7
692			min	0	2	0.362	2	0.01	2	0.001	2	NC	1	NC	1
693		2	max	0.007	5	1.047	6	0.025	6	0.008	6	NC	7	NC	2
694			min	0	2	0.341	2	0.009	2	0.001	2	NC	1	4340.725	6
695		3	max	0.007	5	0.992	6	0.02	6	0.008	6	NC	7	6150.556	2
696			min	0	2	0.32	2	0.007	2	0.001	2	NC	1	2153.159	6
697		4	max	0.007	5	0.937	6	0.014	6	0.008	6	NC	7	4100.37	2
698			min	0	2	0.299	2	0.005	2	0.001	2	NC	1	1421.52	6
699		5	max	0.007	5	0.882	6	0.008	6	0.008	6	NC	7	3075.278	2
700			min	0	2	0.278	2	0.003	2	0.001	2	NC	1	1056.867	6
701	RTU_L4_7	1	max	-0.005	2	0.002	2	0	2	0.002	6	NC	7	NC	7
702			min	-0.015	6	-0.011	1	0	6	0.001	2	NC	1	NC	1
703		2	max	-0.005	2	-0.005	2	0.006	5	0.003	6	NC	2	NC	7
704			min	-0.015	6	-0.019	6	0	2	0.001	2	9261.72	1	NC	1
705		3	max	-0.005	2	-0.012	2	0.009	6	0.003	6	NC	2	NC	7
706			min	-0.015	6	-0.035	6	0	2	0.001	2	6709.656	1	NC	1
707		4	max	-0.005	2	-0.019	2	0.006	6	0.003	6	NC	2	NC	7
708			min	-0.015	6	-0.059	6	0	2	0.001	2	9380.537	1	NC	1
709		5	max	-0.005	2	-0.026	2	0	6	0.003	6	NC	7	NC	7
710			min	-0.015	6	-0.09	6	0	2	0.001	2	NC	1	NC	1
711	RTU_L4_8	1	max	-0.012	2	0.078	6	0	2	0.002	6	NC	7	NC	7
712			min	-0.036	6	0.037	2	0	6	0.001	2	NC	1	NC	1
713		2	max	-0.012	2	0.076	6	0.006	5	0.002	6	NC	2	NC	7
714			min	-0.036	6	0.031	2	0	2	0.001	2	9255.65	6	NC	1
715		3	max	-0.012	2	0.067	6	0.009	6	0.002	6	NC	2	NC	7
716			min	-0.036	6	0.025	2	0	2	0.001	2	6699.322	6	NC	1
717		4	max	-0.012	2	0.05	6	0.006	6	0.002	6	NC	2	NC	7
718			min	-0.036	6	0.019	2	0	2	0.001	2	9353.738	6	NC	1
719		5	max	-0.012	2	0.027	6	0	6	0.003	6	NC	7	NC	7
720			min	-0.036	6	0.013	2	0	1	0.001	2	NC	1	NC	1
721	RTU_L4_9	1	max	0	2	-0.023	2	-0.005	2	0.001	6	NC	7	NC	7
722			min	-0.003	6	-0.074	6	-0.015	6	0	2	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
723		2	max	0	2	-0.013	2	-0.007	2	0.001	6	NC	7	NC	2
724			min	-0.003	6	-0.046	6	-0.02	6	0	2	NC	1	3744.531	6
725		3	max	0	2	-0.003	2	-0.009	2	0.001	6	NC	7	5382.35	2
726			min	-0.003	6	-0.017	6	-0.025	6	0	2	NC	1	1865.369	6
727		4	max	0	2	0.011	6	-0.011	2	0.001	6	NC	7	3588.234	2
728			min	-0.003	6	0.004	1	-0.03	6	0	2	NC	1	1237.947	6
729		5	max	0	2	0.039	6	-0.012	2	0.001	6	NC	7	2691.175	2
730			min	-0.003	6	0.016	2	-0.036	6	0	2	NC	1	924.671	6
731	RTU_L4_10	1	max	-0.003	2	1.26	6	0	6	0.005	6	NC	7	NC	7
732			min	-0.008	6	0.394	2	0	2	0.002	2	NC	1	NC	1
733		2	max	-0.003	2	1.217	6	0.047	6	0.005	6	NC	2	NC	2
734			min	-0.008	6	0.368	2	0	2	0.002	2	2301.654	6	2031.044	1
735		3	max	-0.003	2	1.148	6	0.066	6	0.004	6	NC	2	NC	2
736			min	-0.008	6	0.343	2	0	2	0.002	2	1640.755	6	1453.077	1
737		4	max	-0.003	2	1.045	6	0.045	5	0.004	6	NC	2	NC	2
738			min	-0.008	6	0.317	2	0	2	0.001	2	2406.156	6	2128.446	1
739		5	max	-0.003	2	0.92	6	0	5	0.003	6	NC	7	NC	7
740			min	-0.008	6	0.292	2	0	2	0.001	2	NC	1	NC	1
741	RTU_L4_11	1	max	-0.01	2	1.475	6	0	6	0.004	6	NC	7	NC	7
742			min	-0.03	6	0.471	2	0	2	0.001	2	NC	1	NC	1
743		2	max	-0.01	2	1.414	6	0.047	6	0.003	6	NC	2	NC	2
744			min	-0.03	6	0.442	2	0	2	0.001	2	2298.04	1	2032.04	1
745		3	max	-0.01	2	1.328	6	0.066	5	0.003	6	NC	2	NC	2
746			min	-0.03	6	0.412	2	0	2	0.001	2	1637.224	1	1453.153	1
747		4	max	-0.01	2	1.207	6	0.045	5	0.003	6	NC	2	NC	2
748			min	-0.03	6	0.383	2	0	2	0.001	2	2399.984	1	2127.804	1
749		5	max	-0.01	2	1.064	6	0	5	0.002	6	NC	7	NC	7
750			min	-0.03	6	0.353	2	0	2	0.001	2	NC	1	NC	1
751	RTU_L4_12	1	max	0	2	-0.003	2	-0.005	2	0	6	NC	7	NC	7
752			min	-0.005	1	-0.016	6	-0.015	6	0	1	NC	1	NC	1
753		2	max	0	2	0.007	6	-0.007	2	0	6	NC	7	NC	2
754			min	-0.005	1	0.002	1	-0.02	6	0	1	NC	1	3763.244	6
755		3	max	0	2	0.031	6	-0.009	2	0	6	NC	7	5408.943	2
756			min	-0.005	1	0.015	2	-0.025	6	0	1	NC	1	1874.657	6
757		4	max	0	2	0.054	6	-0.011	2	0	2	NC	7	3605.962	2
758			min	-0.005	1	0.024	2	-0.03	6	0	1	NC	1	1244.082	6
759		5	max	0	2	0.077	6	-0.012	2	0	2	NC	7	2704.471	2
760			min	-0.005	1	0.033	2	-0.036	6	0	1	NC	1	929.235	6
761	RTU_L4_14	1	max	0	6	0.852	6	0	2	0.001	6	NC	7	NC	7
762			min	0	2	0.292	2	0	6	0	1	NC	1	NC	1
763		2	max	0	6	0.776	6	0.008	6	0.001	6	NC	2	NC	7
764			min	0	2	0.261	2	0	2	0	1	5049.891	6	NC	1
765		3	max	0	6	0.689	6	0.012	6	0.001	6	NC	2	NC	2
766			min	0	2	0.23	2	0	2	0	1	3577.555	6	7854.786	6
767		4	max	0	6	0.587	6	0.009	6	0.001	6	NC	2	NC	7
768			min	0	2	0.199	2	0	2	0	1	5085.431	6	NC	1
769		5	max	0	6	0.474	6	0	6	0.001	6	NC	7	NC	7
770			min	0	2	0.168	2	0	2	0	1	NC	1	NC	1
771	RTU_L4_15	1	max	0	6	0.799	6	0	2	0.001	6	NC	7	NC	7
772			min	0	2	0.259	2	0	6	0.001	1	NC	1	NC	1
773		2	max	0	6	0.711	6	0.008	6	0.001	6	NC	2	NC	7
774			min	0	2	0.228	2	0	2	0.001	1	9124.016	1	NC	1
775		3	max	0	6	0.615	6	0.01	6	0.002	6	NC	2	NC	2
776			min	0	2	0.197	2	0	2	0.001	1	6858.215	1	9309.042	6
777		4	max	0	6	0.512	6	0.007	6	0.002	6	NC	2	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
778			min	0	2	0.165	2	0	2	0.001	2	9936.531	1	NC	1
779		5	max	0	6	0.404	6	0	6	0.002	6	NC	7	NC	7
780			min	0	2	0.134	2	0	2	0.001	2	NC	1	NC	1
781	RTU_L4_16	1	max	0	2	0.747	6	0	6	0.004	6	NC	7	NC	7
782			min	-0.005	1	0.24	2	0	2	0.001	2	NC	1	NC	1
783		2	max	0	2	0.762	6	0	6	0.004	6	NC	7	NC	7
784			min	-0.005	1	0.249	2	0	2	0.001	2	NC	1	NC	1
785		3	max	0	2	0.778	6	0	6	0.004	6	NC	7	NC	7
786			min	-0.005	1	0.257	2	0	2	0.001	2	NC	1	NC	1
787		4	max	0	2	0.793	6	0	6	0.003	6	NC	7	NC	7
788			min	-0.005	1	0.265	2	0	2	0.001	2	NC	1	NC	1
789		5	max	0	2	0.807	6	0	6	0.003	6	NC	7	NC	7
790			min	-0.005	1	0.274	2	0	2	0.001	2	NC	1	NC	1
791	RTU_L4_17	1	max	0	2	0.13	6	0	6	-0.001	2	NC	7	NC	7
792			min	-0.002	1	0.05	2	0	1	-0.002	6	NC	1	NC	1
793		2	max	0	2	0.185	6	0	7	-0.001	2	NC	7	NC	7
794			min	-0.002	1	0.072	2	0	2	-0.003	6	NC	1	NC	1
795		3	max	0	2	0.24	6	0	7	-0.001	2	NC	7	NC	7
796			min	-0.002	1	0.094	2	0	2	-0.003	6	NC	1	NC	1
797		4	max	0	2	0.295	6	0	7	-0.002	2	NC	7	NC	7
798			min	-0.002	6	0.115	2	0	2	-0.004	6	NC	1	NC	1
799		5	max	0	2	0.35	6	0	5	-0.002	2	NC	7	NC	7
800			min	-0.002	6	0.137	2	0	2	-0.005	6	NC	1	NC	1
801	RTU_L4_18	1	max	0	2	0.68	6	0	7	0	2	NC	7	NC	7
802			min	-0.022	1	0.255	2	0	1	-0.002	6	NC	1	NC	1
803		2	max	0	2	0.732	6	0.001	6	0	2	NC	7	NC	7
804			min	-0.022	1	0.275	2	0	2	-0.002	6	NC	1	NC	1
805		3	max	0	2	0.783	6	0.001	5	0	2	NC	7	NC	7
806			min	-0.022	1	0.295	2	0	2	-0.002	6	NC	1	NC	1
807		4	max	0	2	0.832	6	0.001	7	0	2	NC	7	NC	7
808			min	-0.022	1	0.315	2	0	2	-0.002	6	NC	1	NC	1
809		5	max	0	2	0.88	6	0	7	0	2	NC	7	NC	7
810			min	-0.022	1	0.335	2	0	6	-0.002	6	NC	1	NC	1
811	RTU_L4_19	1	max	0	2	0.719	6	0	7	0	5	NC	7	NC	7
812			min	-0.045	1	0.255	2	0	1	0	2	NC	1	NC	1
813		2	max	0	2	0.796	6	0.017	6	0	5	NC	2	NC	2
814			min	-0.045	1	0.275	2	0	2	0	2	2416.72	1	3990.765	6
815		3	max	0	2	0.858	6	0.024	7	0	5	NC	2	NC	2
816			min	-0.045	1	0.295	2	0	2	0	2	1665.236	1	2749.829	7
817		4	max	0	2	0.896	6	0.017	7	0	5	NC	2	NC	2
818			min	-0.045	1	0.315	2	0	2	0	2	2416.72	1	3990.765	7
819		5	max	0	2	0.919	6	0	7	0	5	NC	7	NC	7
820			min	-0.045	1	0.335	2	0	1	0	2	NC	1	NC	1
821	RTU_L4_20	1	max	0	2	0.17	6	0	6	0	5	NC	7	NC	7
822			min	-0.009	1	0.062	2	0	1	0	2	NC	1	NC	1
823		2	max	0	2	0.237	6	0	5	0	5	NC	7	NC	7
824			min	-0.009	1	0.088	2	0	2	0	2	NC	1	NC	1
825		3	max	0	2	0.305	6	0	6	0	5	NC	7	NC	7
826			min	-0.009	1	0.115	2	0	2	0	2	NC	1	NC	1
827		4	max	0	2	0.372	6	0	7	0	5	NC	7	NC	7
828			min	-0.009	1	0.142	2	0	2	0	2	NC	1	NC	1
829		5	max	0	2	0.439	6	0	7	0	5	NC	7	NC	7
830			min	-0.009	1	0.168	2	0	1	0	2	NC	1	NC	1
831	RTU_L4_21	1	max	0	7	0.843	6	0	2	0.001	6	NC	7	NC	7
832			min	0	1	0.335	2	0	6	0	2	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
833		2	max	0	7	0.895	6	0.031	5	0.001	6	NC	2	NC	2
834			min	0	1	0.335	2	0	2	0	2	1849.478	1	3070.974	6
835		3	max	0	7	0.92	6	0.046	5	0.001	6	NC	2	NC	2
836			min	0	1	0.335	2	0	2	0	2	1258.7	1	2092.564	6
837		4	max	0	7	0.898	6	0.033	5	0.001	6	NC	2	NC	2
838			min	0	1	0.335	2	0	2	0	2	1771.205	1	2942.455	6
839		5	max	0	7	0.843	6	0	6	0.001	6	NC	7	NC	7
840			min	0	1	0.335	2	0	2	0	2	NC	1	NC	1
841	RTU_L4_22	1	max	0	2	0.852	6	0	6	0	5	NC	7	NC	7
842			min	0	6	0.292	2	0	2	-0.001	6	NC	1	NC	1
843		2	max	0	2	0.843	6	0.002	6	0	5	NC	7	NC	7
844			min	0	6	0.284	2	0	2	-0.001	6	NC	1	NC	1
845		3	max	0	2	0.83	6	0.002	6	0	5	NC	2	NC	7
846			min	0	6	0.275	2	0	2	-0.001	6	8958.321	1	NC	1
847		4	max	0	2	0.811	6	0.001	5	0	5	NC	7	NC	7
848			min	0	6	0.266	2	0	2	-0.001	6	NC	1	NC	1
849		5	max	0	2	0.787	6	0	2	-0.001	2	NC	7	NC	7
850			min	0	6	0.258	2	0	6	-0.001	6	NC	1	NC	1
851	RTU_L4_23	1	max	0	7	0.643	6	0	2	0.005	6	NC	7	NC	7
852			min	0	1	0.255	2	0	6	0.002	2	NC	1	NC	1
853		2	max	0	7	0.695	6	0.031	5	0.005	6	NC	2	NC	2
854			min	0	1	0.255	2	0	2	0.002	2	1849.472	6	3070.968	6
855		3	max	0	7	0.72	6	0.046	5	0.005	6	NC	2	NC	2
856			min	0	1	0.255	2	0	2	0.002	2	1258.696	6	2092.561	6
857		4	max	0	7	0.697	6	0.033	5	0.005	6	NC	2	NC	2
858			min	0	1	0.255	2	0	2	0.002	2	1771.198	6	2942.447	6
859		5	max	0	7	0.643	6	0	2	0.005	6	NC	7	NC	7
860			min	0	1	0.255	2	0	1	0.002	2	NC	1	NC	1
861	RTU_L4_24	1	max	0	6	1.157	6	0	6	0.002	6	NC	7	NC	7
862			min	0	2	0.362	2	0	2	0.001	2	NC	1	NC	1
863		2	max	0	6	1.096	6	0.008	6	0.002	6	NC	2	NC	7
864			min	0	2	0.338	2	0	2	0	2	6857.195	1	NC	1
865		3	max	0	6	1.027	6	0.012	6	0.002	6	NC	2	NC	2
866			min	0	2	0.315	2	0	2	0	2	4854.886	1	8069.494	1
867		4	max	0	6	0.946	6	0.009	6	0.001	6	NC	2	NC	7
868			min	0	2	0.292	2	0	2	0	2	6763.155	1	NC	1
869		5	max	0	6	0.857	6	0	5	0.001	6	NC	7	NC	7
870			min	0	2	0.269	2	0	2	0	2	NC	1	NC	1
871	RTU_L4_25	1	max	0	7	0	7	0	7	0.006	6	NC	7	NC	7
872			min	0	1	0	1	0	1	0.002	2	NC	1	NC	1
873		2	max	0	7	0.111	6	0.003	6	0.006	6	NC	7	NC	7
874			min	0	1	0.042	2	0	2	0.002	2	NC	1	NC	1
875		3	max	0	7	0.219	6	0.004	6	0.006	6	NC	7	NC	7
876			min	0	1	0.084	2	0	2	0.002	2	NC	1	NC	1
877		4	max	0	7	0.323	6	0.003	6	0.006	6	NC	7	NC	7
878			min	0	1	0.126	2	0	2	0.002	2	NC	1	NC	1
879		5	max	0	7	0.424	6	0	2	0.006	6	NC	7	NC	7
880			min	0	1	0.168	2	0	6	0.002	2	NC	1	NC	1
881	RTU_L4_26	1	max	0	7	0.155	6	0	6	0.007	6	NC	7	NC	7
882			min	0	1	0.062	2	0	2	0.003	2	NC	1	NC	1
883		2	max	0	7	0.166	6	0.006	5	0.007	6	NC	2	NC	7
884			min	0	1	0.062	2	0	2	0.003	2	9336.508	1	NC	1
885		3	max	0	7	0.17	6	0.009	5	0.007	6	NC	2	NC	7
886			min	0	1	0.062	2	0	2	0.003	2	6557.266	1	NC	1
887		4	max	0	7	0.166	6	0.006	5	0.007	6	NC	2	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
888			min	0	1	0.062	2	0	2	0.003	2	9255.286	1	NC	1
889		5	max	0	7	0.155	6	0	2	0.007	6	NC	7	NC	7
890			min	0	1	0.062	2	0	6	0.003	2	NC	1	NC	1
891	RTU_L4_27	1	max	0	7	0	7	0	7	0.007	6	NC	7	NC	7
892			min	0	1	0	1	0	1	0.003	2	NC	1	NC	1
893		2	max	0	7	0.043	6	0.003	5	0.007	6	NC	7	NC	7
894			min	0	1	0.015	2	0	2	0.003	2	NC	1	NC	1
895		3	max	0	7	0.084	6	0.004	5	0.007	6	NC	7	NC	7
896			min	0	1	0.031	2	0	2	0.003	2	NC	1	NC	1
897		4	max	0	7	0.121	6	0.003	5	0.007	6	NC	7	NC	7
898			min	0	1	0.046	2	0	2	0.003	2	NC	1	NC	1
899		5	max	0	7	0.155	6	0	6	0.007	6	NC	7	NC	7
900			min	0	1	0.062	2	0	2	0.003	2	NC	1	NC	1
901	RTU_L4_28	1	max	0.002	5	0.73	6	0	6	0	2	NC	7	NC	7
902			min	0	2	0.234	2	0	2	-0.001	6	NC	1	NC	1
903		2	max	0.002	5	0.751	6	0	6	0	2	NC	7	NC	7
904			min	0	2	0.242	2	0	2	-0.001	6	NC	1	NC	1
905		3	max	0.002	5	0.773	6	0	6	0	2	NC	7	NC	7
906			min	0	2	0.251	2	0	2	-0.001	6	NC	1	NC	1
907		4	max	0.002	5	0.794	6	0	6	0	2	NC	7	NC	7
908			min	0	2	0.259	2	0	2	-0.001	6	NC	1	NC	1
909		5	max	0.002	5	0.815	6	0	6	0	2	NC	7	NC	7
910			min	0	2	0.268	2	0	2	-0.001	6	NC	1	NC	1
911	RTU_L4_29	1	max	0	7	0.424	6	0	2	0.006	6	NC	7	NC	7
912			min	0	1	0.168	2	0	6	0.002	2	NC	1	NC	1
913		2	max	0	7	0.434	6	0.006	5	0.006	6	NC	2	NC	7
914			min	0	1	0.168	2	0	2	0.002	2	9336.55	6	NC	1
915		3	max	0	7	0.439	6	0.009	5	0.006	6	NC	2	NC	7
916			min	0	1	0.168	2	0	2	0.002	2	6557.265	6	NC	1
917		4	max	0	7	0.434	6	0.006	5	0.006	6	NC	2	NC	7
918			min	0	1	0.168	2	0	2	0.002	2	9255.226	6	NC	1
919		5	max	0	7	0.424	6	0	2	0.006	6	NC	7	NC	7
920			min	0	1	0.168	2	0	1	0.002	2	NC	1	NC	1
921	RTU_L6_1	1	max	0	7	0.762	6	0	2	-0.001	2	NC	7	NC	7
922			min	0	1	0.304	2	0	6	-0.003	6	NC	1	NC	1
923		2	max	0	7	0.767	6	0.006	5	-0.001	2	NC	7	NC	7
924			min	0	1	0.304	2	0	2	-0.003	6	NC	1	NC	1
925		3	max	0	7	0.77	6	0.008	5	-0.001	2	NC	7	NC	7
926			min	0	1	0.304	2	0	2	-0.003	6	NC	1	NC	1
927		4	max	0	7	0.768	6	0.006	5	-0.001	2	NC	7	NC	7
928			min	0	1	0.304	2	0	2	-0.003	6	NC	1	NC	1
929		5	max	0	7	0.762	6	0	6	-0.001	2	NC	7	NC	7
930			min	0	1	0.304	2	0	2	-0.003	6	NC	1	NC	1
931	RTU_L6_2	1	max	0	6	0.644	6	0	6	0.001	6	NC	7	NC	7
932			min	0	2	0.212	2	0	2	0	2	NC	1	NC	1
933		2	max	0	6	0.699	6	0.021	6	0.001	6	NC	2	NC	2
934			min	0	2	0.219	2	0	2	0	2	5123.028	6	4527.436	1
935		3	max	0	6	0.744	6	0.032	5	0	6	NC	2	NC	2
936			min	0	2	0.227	2	0	2	0	2	3388.661	6	3003.572	1
937		4	max	0	6	0.773	6	0.024	5	0	6	NC	2	NC	2
938			min	0	2	0.234	2	0	2	0	2	4539.579	6	4021.028	1
939		5	max	0	6	0.787	6	0	2	0	6	NC	7	NC	7
940			min	0	2	0.242	2	0	6	0	1	NC	1	NC	1
941	RTU_L6_3	1	max	0	5	0.651	6	0	6	0	6	NC	7	NC	7
942			min	0	6	0.263	2	0	2	0	1	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
943		2	max	0	5	0.664	6	0.006	5	0	6	NC	7	NC	7
944			min	0	6	0.267	2	0	2	0	1	NC	1	NC	1
945		3	max	0	5	0.674	6	0.008	5	0	6	NC	7	NC	7
946			min	0	6	0.27	2	0	2	0	1	NC	1	NC	1
947		4	max	0	5	0.679	6	0.006	5	0	2	NC	7	NC	7
948			min	0	6	0.274	2	0	2	0	1	NC	1	NC	1
949		5	max	0	5	0.682	6	0	2	0	2	NC	7	NC	7
950			min	0	6	0.278	2	0	6	0	6	NC	1	NC	1
951	RTU_L6_4	1	max	-0.019	2	0.07	6	0	2	0.003	6	NC	7	NC	7
952			min	-0.055	6	0.019	2	-0.001	6	0.001	2	NC	1	NC	1
953		2	max	-0.019	2	0.406	6	0.038	5	0.003	6	NC	2	NC	2
954			min	-0.055	6	0.124	2	0	2	0.001	2	2811.718	1	2459.144	6
955		3	max	-0.019	2	0.72	6	0.051	5	0.003	6	NC	2	NC	2
956			min	-0.055	6	0.228	2	0	2	0.001	2	2118.233	1	1838.881	6
957		4	max	-0.019	2	1.006	6	0.033	5	0.002	6	NC	2	NC	2
958			min	-0.055	6	0.333	2	0	2	0.001	2	3226.681	1	2711.449	6
959		5	max	-0.019	2	1.278	6	0	2	0.002	6	NC	7	NC	7
960			min	-0.055	6	0.438	2	0	6	0.001	2	NC	1	NC	1
961	RTU_L6_6	1	max	0	6	0.007	6	0	2	0	2	NC	7	NC	7
962			min	0	2	0.002	2	0	6	-0.001	6	NC	1	NC	1
963		2	max	0	6	0.243	6	0.04	6	0	2	NC	2	NC	2
964			min	0	2	0.069	2	0	2	0	6	2800.229	1	2452.039	6
965		3	max	0	6	0.457	6	0.057	6	0	2	NC	2	NC	2
966			min	0	2	0.137	2	0	2	0	6	1973.444	1	1728.011	6
967		4	max	0	6	0.643	6	0.04	6	0	2	NC	2	NC	2
968			min	0	2	0.204	2	0	2	0	1	2800.229	1	2451.706	6
969		5	max	0	6	0.808	6	0	6	0	2	NC	7	NC	7
970			min	0	2	0.271	2	0	2	0	1	NC	1	NC	1
971	RTU_L6_7	1	max	0	6	0.787	6	0	2	0	6	NC	7	NC	7
972			min	0	2	0.242	2	0	6	0	1	NC	1	NC	1
973		2	max	0	6	0.715	6	0.022	5	0	2	NC	2	NC	2
974			min	0	2	0.216	2	0	2	0	1	4724.499	1	4183.483	6
975		3	max	0	6	0.629	6	0.03	6	0	2	NC	2	NC	2
976			min	0	2	0.191	2	0	2	0	6	3510.648	6	3111.552	6
977		4	max	0	6	0.528	6	0.02	6	0	2	NC	2	NC	2
978			min	0	2	0.165	2	0	2	0	6	5299.318	6	4678.261	6
979		5	max	0	6	0.418	6	0	6	0	5	NC	7	NC	7
980			min	0	2	0.14	2	0	2	-0.001	6	NC	1	NC	1
981	RTU_L6_8	1	max	0	5	0.64	6	0	6	0.001	6	NC	7	NC	7
982			min	0	6	0.258	2	0	2	0	2	NC	1	NC	1
983		2	max	0	5	0.655	6	0.006	5	0.001	6	NC	7	NC	7
984			min	0	6	0.262	2	0	2	0	2	NC	1	NC	1
985		3	max	0	5	0.666	6	0.008	5	0.001	6	NC	7	NC	7
986			min	0	6	0.267	2	0	2	0	2	NC	1	NC	1
987		4	max	0	5	0.673	6	0.006	5	0.001	6	NC	7	NC	7
988			min	0	6	0.271	2	0	2	0	2	NC	1	NC	1
989		5	max	0	5	0.677	6	0	2	0.001	6	NC	7	NC	7
990			min	0	6	0.276	2	0	6	0	2	NC	1	NC	1
991	RTU_L6_9	1	max	0	6	0.751	6	0	2	0.002	6	NC	7	NC	7
992			min	0	2	0.228	2	0	6	0.001	2	NC	1	NC	1
993		2	max	0	6	0.689	6	0.022	6	0.001	6	NC	2	NC	2
994			min	0	2	0.207	2	0	2	0	2	4724.417	6	4183.245	6
995		3	max	0	6	0.614	6	0.03	6	0.001	6	NC	2	NC	2
996			min	0	2	0.187	2	0	2	0	2	3511.073	1	3112.065	6
997		4	max	0	6	0.523	6	0.02	6	0.001	6	NC	2	NC	2

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
998			min	0	2	0.166	2	0	2	0	2	5300.35	1	4680.264	6
999		5	max	0	6	0.424	6	0	6	0	6	NC	7	NC	7
1000			min	0	2	0.146	2	0	2	0	2	NC	1	NC	1
1001	RTU_L6_10	1	max	-0.019	2	0.164	6	0	2	0.002	6	NC	7	NC	7
1002			min	-0.055	6	0.057	2	0	1	0.001	2	NC	1	NC	1
1003		2	max	-0.019	2	0.19	6	0.056	5	0.002	6	NC	2	NC	2
1004			min	-0.055	6	0.048	2	0	2	0.001	2	1972.759	1	1760.828	1
1005		3	max	-0.019	2	0.189	6	0.081	5	0.002	6	NC	2	NC	2
1006			min	-0.055	6	0.038	2	0	2	0.001	2	1364.93	1	1222.854	1
1007		4	max	-0.019	2	0.144	6	0.057	5	0.003	6	NC	2	NC	2
1008			min	-0.055	6	0.029	2	0	2	0.001	2	1935.995	1	1749.208	1
1009		5	max	-0.019	2	0.07	6	0	2	0.003	6	NC	7	NC	7
1010			min	-0.055	6	0.019	2	-0.001	6	0.001	2	NC	1	NC	1
1011	RTU_L6_11	1	max	-0.01	2	1.667	6	0	6	0	2	NC	7	NC	7
1012			min	-0.03	6	0.569	2	0	2	0	1	NC	1	NC	1
1013		2	max	-0.01	2	1.55	6	0.007	6	0	2	NC	7	NC	7
1014			min	-0.03	6	0.53	2	0	2	0	1	NC	1	NC	1
1015		3	max	-0.01	2	1.429	6	0.01	6	0	2	NC	7	NC	2
1016			min	-0.03	6	0.491	2	0	2	0	1	NC	1	9980.563	1
1017		4	max	-0.01	2	1.304	6	0.007	6	0	2	NC	7	NC	7
1018			min	-0.03	6	0.452	2	0	2	0	1	NC	1	NC	1
1019		5	max	-0.01	2	1.174	6	0	5	0	2	NC	7	NC	7
1020			min	-0.03	6	0.413	2	0	2	0	6	NC	1	NC	1
1021	RTU_L6_12	1	max	-0.008	2	1.657	6	0	6	0	2	NC	7	NC	7
1022			min	-0.022	6	0.574	2	0	2	-0.001	1	NC	1	NC	1
1023		2	max	-0.008	2	1.537	6	0.007	6	0	2	NC	7	NC	7
1024			min	-0.022	6	0.533	2	0	2	-0.001	1	NC	1	NC	1
1025		3	max	-0.008	2	1.414	6	0.01	6	0	2	NC	7	NC	2
1026			min	-0.022	6	0.492	2	0	2	-0.001	6	NC	1	9979.705	1
1027		4	max	-0.008	2	1.287	6	0.007	6	0	2	NC	7	NC	7
1028			min	-0.022	6	0.451	2	0	2	-0.001	6	NC	1	NC	1
1029		5	max	-0.008	2	1.155	6	0	5	0	2	NC	7	NC	7
1030			min	-0.022	6	0.41	2	0	2	-0.001	6	NC	1	NC	1
1031	RTU_L6_13	1	max	0	6	0.168	6	0	2	0.002	6	NC	7	NC	7
1032			min	0	2	0.067	2	0	6	0.001	2	NC	1	NC	1
1033		2	max	0	6	0.222	6	0.008	5	0.003	6	NC	7	NC	7
1034			min	0	2	0.081	2	0	2	0.001	2	NC	1	NC	1
1035		3	max	0	6	0.273	6	0.011	5	0.003	6	NC	2	NC	2
1036			min	0	2	0.096	2	0	2	0.001	2	9502.663	1	8419.122	1
1037		4	max	0	6	0.317	6	0.008	5	0.004	6	NC	7	NC	7
1038			min	0	2	0.111	2	0	2	0.001	2	NC	1	NC	1
1039		5	max	0	6	0.357	6	0	2	0.005	6	NC	7	NC	7
1040			min	0	2	0.125	2	0	6	0.002	2	NC	1	NC	1
1041	RTU_L6_14	1	max	0	6	0.219	6	0	2	0.001	6	NC	7	NC	7
1042			min	0	2	0.087	2	0	6	0	2	NC	1	NC	1
1043		2	max	0	6	0.298	6	0.008	5	0.002	6	NC	7	NC	7
1044			min	0	2	0.109	2	0	2	0.001	2	NC	1	NC	1
1045		3	max	0	6	0.373	6	0.011	5	0.002	6	NC	2	NC	2
1046			min	0	2	0.131	2	0	2	0.001	2	9479.95	6	8419.938	1
1047		4	max	0	6	0.442	6	0.008	5	0.003	6	NC	7	NC	7
1048			min	0	2	0.154	2	0	2	0.001	2	NC	1	NC	1
1049		5	max	0	6	0.507	6	0	2	0.004	6	NC	7	NC	7
1050			min	0	2	0.176	2	0	6	0.001	2	NC	1	NC	1
1051	RTU_L6_15	1	max	-0.005	2	1.631	6	0	6	0	2	NC	7	NC	7
1052			min	-0.013	6	0.575	2	0	2	-0.001	6	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
1053		2	max	-0.005	2	1.509	6	0.001	6	0	2	NC	7	NC	7
1054			min	-0.013	6	0.532	2	0	2	-0.001	6	NC	1	NC	1
1055		3	max	-0.005	2	1.384	6	0.001	6	0	2	NC	7	NC	7
1056			min	-0.013	6	0.488	2	0	2	-0.001	6	NC	1	NC	1
1057		4	max	-0.005	2	1.254	6	0.001	6	0	2	NC	7	NC	7
1058			min	-0.013	6	0.445	2	0	2	-0.001	6	NC	1	NC	1
1059		5	max	-0.005	2	1.122	6	0	5	0	2	NC	7	NC	7
1060			min	-0.013	6	0.402	2	0	2	-0.001	6	NC	1	NC	1
1061	RTU_L6_16	1	max	0	6	0.425	6	0	6	0	6	NC	7	NC	7
1062			min	0	2	0.146	2	0	2	0	2	NC	1	NC	1
1063		2	max	0	6	0.384	6	0.014	6	0	2	NC	2	NC	2
1064			min	0	2	0.122	2	0	2	0	6	7790.125	6	6878.721	1
1065		3	max	0	6	0.337	6	0.021	5	0	2	NC	2	NC	2
1066			min	0	2	0.098	2	0	2	-0.001	6	5076.028	6	4492.642	1
1067		4	max	0	6	0.281	6	0.017	5	0	2	NC	2	NC	2
1068			min	0	2	0.074	2	0	2	-0.001	6	6305.722	6	5629.587	1
1069		5	max	0	6	0.212	6	0	2	-0.001	2	NC	7	NC	7
1070			min	0	2	0.05	2	0	6	-0.002	6	NC	1	NC	1
1071	RTU_L6_17	1	max	0	6	0.602	6	0	6	0.002	6	NC	7	NC	7
1072			min	0	2	0.204	2	0	2	0	2	NC	1	NC	1
1073		2	max	0	6	0.658	6	0.021	5	0.002	6	NC	2	NC	2
1074			min	0	2	0.21	2	0	2	0	2	5122.764	1	4527.211	1
1075		3	max	0	6	0.705	6	0.032	5	0.002	6	NC	2	NC	2
1076			min	0	2	0.216	2	0	2	0	2	3388.549	1	3003.484	1
1077		4	max	0	6	0.735	6	0.024	5	0.002	6	NC	2	NC	2
1078			min	0	2	0.222	2	0	2	0.001	2	4539.597	1	4021.031	1
1079		5	max	0	6	0.751	6	0	2	0.002	6	NC	7	NC	7
1080			min	0	2	0.228	2	0	6	0.001	2	NC	1	NC	1
1081	RTU_L6_18	1	max	0	6	0.407	6	0	6	0	2	NC	7	NC	7
1082			min	0	2	0.135	2	0	2	-0.001	6	NC	1	NC	1
1083		2	max	0	6	0.334	6	0.014	6	-0.001	2	NC	2	NC	2
1084			min	0	2	0.104	2	0	2	-0.002	6	7801.107	1	6882.109	1
1085		3	max	0	6	0.255	6	0.021	5	-0.001	2	NC	2	NC	2
1086			min	0	2	0.073	2	0	2	-0.002	6	5082.949	1	4494.844	1
1087		4	max	0	6	0.167	6	0.017	5	-0.001	2	NC	2	NC	2
1088			min	0	2	0.042	2	0	2	-0.003	6	6312.462	1	5632.069	1
1089		5	max	0	6	0.066	6	0	2	-0.001	2	NC	7	NC	7
1090			min	0	2	0.011	2	0	6	-0.004	6	NC	1	NC	1
1091	RTU_L6_19	1	max	0	6	0.066	6	0	2	-0.001	2	NC	7	NC	7
1092			min	0	2	0.011	2	0	6	-0.004	6	NC	1	NC	1
1093		2	max	0	6	0.082	6	0.054	5	-0.001	2	NC	2	NC	2
1094			min	0	2	0.005	2	0	2	-0.004	6	2016.443	1	1779.474	6
1095		3	max	0	6	0.069	5	0.072	6	-0.001	2	NC	2	NC	2
1096			min	0	2	-0.002	2	0	2	-0.003	6	1510.702	1	1338.309	6
1097		4	max	0	6	0.022	5	0.048	6	-0.001	2	NC	2	NC	2
1098			min	0	2	-0.008	2	0	2	-0.003	6	2280.804	6	2014.802	6
1099		5	max	0	6	-0.015	2	0	6	-0.001	2	NC	7	NC	7
1100			min	0	2	-0.059	6	0	2	-0.003	6	NC	1	NC	1
1101	RTU_L6_20	1	max	0	2	0.773	6	0	2	-0.001	2	NC	7	NC	7
1102			min	0	6	0.288	2	0	6	-0.002	6	NC	1	NC	1
1103		2	max	0	2	0.694	6	0.006	6	-0.001	2	NC	7	NC	7
1104			min	0	6	0.258	2	0	2	-0.002	6	NC	1	NC	1
1105		3	max	0	2	0.612	6	0.008	6	-0.001	2	NC	7	NC	7
1106			min	0	6	0.227	2	0	2	-0.002	6	NC	1	NC	1
1107		4	max	0	2	0.526	6	0.006	6	-0.001	2	NC	7	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
1108			min	0	6	0.197	2	0	2	-0.002	6	NC	1	NC	1
1109		5	max	0	2	0.437	6	0	6	-0.001	2	NC	7	NC	7
1110			min	0	6	0.167	2	0	2	-0.002	6	NC	1	NC	1
1111	RTU_L6_21	1	max	0	5	0.821	6	0	2	0	2	NC	7	NC	7
1112			min	0	6	0.3	2	0	6	-0.001	6	NC	1	NC	1
1113		2	max	0	5	0.739	6	0.006	6	0	2	NC	7	NC	7
1114			min	0	6	0.269	2	0	2	-0.001	6	NC	1	NC	1
1115		3	max	0	5	0.655	6	0.008	6	0	2	NC	7	NC	7
1116			min	0	6	0.239	2	0	2	-0.001	6	NC	1	NC	1
1117		4	max	0	5	0.566	6	0.006	6	0	2	NC	7	NC	7
1118			min	0	6	0.209	2	0	2	-0.001	6	NC	1	NC	1
1119		5	max	0	5	0.474	6	0	6	0	2	NC	7	NC	7
1120			min	0	6	0.178	2	0	2	-0.001	6	NC	1	NC	1
1121	RTU_L6_22	1	max	-0.014	2	0.229	6	0	2	0.001	6	NC	7	NC	7
1122			min	-0.041	6	0.075	2	0	6	0	2	NC	1	NC	1
1123		2	max	-0.014	2	0.303	6	0.056	5	0.002	6	NC	2	NC	2
1124			min	-0.041	6	0.082	2	0	2	0.001	2	1970.323	6	1762.378	1
1125		3	max	-0.014	2	0.349	6	0.081	5	0.003	6	NC	2	NC	2
1126			min	-0.041	6	0.088	2	0	2	0.001	2	1363.79	6	1226.13	1
1127		4	max	-0.014	2	0.352	6	0.056	5	0.004	6	NC	2	NC	2
1128			min	-0.041	6	0.095	2	0	2	0.001	2	1934.85	6	1764.672	1
1129		5	max	-0.014	2	0.325	6	-0.001	2	0.005	6	NC	7	NC	7
1130			min	-0.041	6	0.102	2	-0.002	6	0.002	2	NC	1	NC	1
1131	RTU_L6_23	1	max	0	6	0.86	6	0	2	0	2	NC	7	NC	7
1132			min	0	2	0.302	2	0	6	0	1	NC	1	NC	1
1133		2	max	0	6	0.774	6	0.008	6	0	2	NC	7	NC	7
1134			min	0	2	0.271	2	0	2	0	1	NC	1	NC	1
1135		3	max	0	6	0.685	6	0.012	6	0	2	NC	7	NC	2
1136			min	0	2	0.24	2	0	2	0	1	NC	1	7872.51	6
1137		4	max	0	6	0.591	6	0.008	6	0	2	NC	7	NC	7
1138			min	0	2	0.21	2	0	2	0	1	NC	1	NC	1
1139		5	max	0	6	0.492	6	0	6	0	6	NC	7	NC	7
1140			min	0	2	0.179	2	0	2	0	1	NC	1	NC	1
1141	RTU_L6_24	1	max	-0.014	2	0.325	6	-0.001	2	0.005	6	NC	7	NC	7
1142			min	-0.041	6	0.102	2	-0.002	6	0.002	2	NC	1	NC	1
1143		2	max	-0.014	2	0.619	6	0.038	5	0.004	6	NC	2	NC	2
1144			min	-0.041	6	0.195	2	0	2	0.001	2	2805.458	6	2422.194	6
1145		3	max	-0.014	2	0.889	6	0.051	5	0.003	6	NC	2	NC	2
1146			min	-0.041	6	0.288	2	0	2	0.001	2	2112.218	6	1802.456	6
1147		4	max	-0.014	2	1.133	6	0.033	5	0.002	6	NC	2	NC	2
1148			min	-0.041	6	0.381	2	0	2	0.001	2	3216.653	6	2618.44	6
1149		5	max	-0.014	2	1.362	6	0	2	0.001	6	NC	7	NC	7
1150			min	-0.041	6	0.474	2	0	6	0	1	NC	1	NC	1
1151	RTU_L6_25	1	max	0	6	0.212	6	0	2	-0.001	2	NC	7	NC	7
1152			min	0	2	0.05	2	0	6	-0.002	6	NC	1	NC	1
1153		2	max	0	6	0.223	6	0.054	5	-0.001	2	NC	2	NC	2
1154			min	0	2	0.045	2	0	2	-0.002	6	2016.478	6	1779.686	6
1155		3	max	0	6	0.203	6	0.072	6	-0.001	2	NC	2	NC	2
1156			min	0	2	0.04	2	0	2	-0.002	6	1510.683	6	1338.513	6
1157		4	max	0	6	0.145	6	0.048	6	-0.001	2	NC	2	NC	2
1158			min	0	2	0.035	2	0	2	-0.002	6	2280.69	6	2015.51	6
1159		5	max	0	6	0.066	6	0	6	-0.001	2	NC	7	NC	7
1160			min	0	2	0.03	2	0	2	-0.002	6	NC	1	NC	1
1161	RTU_L6_26	1	max	0	7	0.813	6	0	2	-0.001	2	NC	7	NC	7
1162			min	0	1	0.324	2	0	6	-0.002	6	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
1163		2	max	0	7	0.819	6	0.006	5	-0.001	2	NC	7	NC	7
1164			min	0	1	0.324	2	0	2	-0.002	6	NC	1	NC	1
1165		3	max	0	7	0.821	6	0.008	5	-0.001	2	NC	7	NC	7
1166			min	0	1	0.324	2	0	2	-0.002	6	NC	1	NC	1
1167		4	max	0	7	0.819	6	0.006	5	-0.001	2	NC	7	NC	7
1168			min	0	1	0.324	2	0	2	-0.002	6	NC	1	NC	1
1169		5	max	0	7	0.814	6	0	6	-0.001	2	NC	7	NC	7
1170			min	0	1	0.324	2	0	2	-0.002	6	NC	1	NC	1
1171	RTU_L6_27	1	max	0	6	0.648	6	0	6	0.005	6	NC	7	NC	7
1172			min	0	2	0.217	2	0	2	0.002	2	NC	1	NC	1
1173		2	max	0	6	0.63	6	0.013	6	0.005	6	NC	2	NC	2
1174			min	0	2	0.207	2	0	2	0.002	2	8328.886	6	7366.36	1
1175		3	max	0	6	0.605	6	0.019	6	0.005	6	NC	2	NC	2
1176			min	0	2	0.198	2	0	2	0.002	2	5674.56	6	5031.705	1
1177		4	max	0	6	0.571	6	0.014	6	0.005	6	NC	2	NC	2
1178			min	0	2	0.188	2	0	2	0.001	2	7828.121	6	6945.794	1
1179		5	max	0	6	0.529	6	0	5	0.004	6	NC	7	NC	7
1180			min	0	2	0.179	2	0	2	0.001	2	NC	1	NC	1
1181	RTU_L6_28	1	max	0	6	0.771	6	0	6	0.005	6	NC	7	NC	7
1182			min	0	2	0.256	2	0	2	0.001	2	NC	1	NC	1
1183		2	max	0	6	0.745	6	0.013	6	0.004	6	NC	2	NC	2
1184			min	0	2	0.244	2	0	2	0.001	2	8334.766	1	7367.816	1
1185		3	max	0	6	0.713	6	0.019	6	0.004	6	NC	2	NC	2
1186			min	0	2	0.232	2	0	2	0.001	2	5677.29	1	5032.324	1
1187		4	max	0	6	0.671	6	0.014	6	0.004	6	NC	2	NC	2
1188			min	0	2	0.22	2	0	2	0.001	2	7829.858	1	6947.05	1
1189		5	max	0	6	0.621	6	0	5	0.004	6	NC	7	NC	7
1190			min	0	2	0.208	2	0	2	0.001	2	NC	1	NC	1
1191	W16-1L	1	max	0	6	-0.011	2	0	7	0	7	NC	7	NC	7
1192			min	0	2	-0.033	6	0	1	0	1	NC	1	NC	1
1193		2	max	0	6	-0.231	2	0	2	0	6	2026.086	2	NC	7
1194			min	0	2	-0.734	6	0	6	0	2	638.193	6	NC	1
1195		3	max	0	6	-0.198	2	0	6	0	6	2188.574	2	NC	7
1196			min	0	2	-0.623	6	0	2	0	2	694.152	6	NC	1
1197		4	max	0	6	0	2	0	2	0	6	NC	7	NC	7
1198			min	0	2	-0.002	6	-0.001	6	0	2	NC	1	NC	1
1199		5	max	0	6	0.168	6	0	6	0	6	7512.726	2	NC	7
1200			min	0	2	0.053	2	0	2	0	2	2381.668	6	NC	1
1201	W16-1R	1	max	0	6	0.167	6	0	2	0	6	9102.362	2	NC	7
1202			min	0	2	0.053	2	0	6	0	2	2866.613	6	NC	1
1203		2	max	0	6	-0.077	2	0.006	6	0	6	6205.744	2	NC	7
1204			min	0	2	-0.244	6	0.002	2	0	2	1966.442	6	NC	1
1205		3	max	0	6	-0.328	2	-0.001	2	0	6	1463.43	2	NC	7
1206			min	0	2	-1.05	6	-0.002	6	0	2	456.405	6	NC	1
1207		4	max	0	6	-0.317	2	0	6	0	6	1511.072	2	NC	7
1208			min	0	2	-1.02	6	0	2	0	2	469.812	6	NC	1
1209		5	max	0	7	0	7	0	7	0	6	NC	7	NC	7
1210			min	0	1	0	1	0	1	0	2	NC	1	NC	1
1211	W16-2L	1	max	0	7	0	7	0	7	0	6	NC	7	NC	7
1212			min	0	1	0	1	0	1	0	2	NC	1	NC	1
1213		2	max	0	2	-0.208	2	0	6	0	6	2508.301	2	NC	7
1214			min	0	6	-0.524	6	0	2	0	2	1025.744	6	NC	1
1215		3	max	0	2	-0.168	2	0	2	0	6	3585.144	2	NC	7
1216			min	0	6	-0.413	6	0	6	0	2	1595.433	6	NC	1
1217		4	max	0	2	-0.008	2	0.001	6	0	6	NC	7	NC	7

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
1218			min	0	6	-0.023	6	0	2	0	2	NC	1	NC	1
1219		5	max	0	2	-0.068	2	0	2	0.001	6	7057.616	2	NC	7
1220			min	0	6	-0.226	6	0	6	0	2	2123.991	6	NC	1
1221	W16-2R	1	max	0	2	-0.071	2	0	6	0.001	6	6776.994	2	NC	7
1222			min	0	6	-0.234	6	0	2	0	2	2048.239	6	NC	1
1223		2	max	0	2	-0.297	2	-0.002	2	0.002	6	1615.542	2	NC	7
1224			min	0	6	-0.866	6	-0.005	6	0.001	2	553.317	6	NC	1
1225		3	max	0	2	-0.555	2	0.002	6	0.002	6	863.377	2	NC	7
1226			min	0	6	-1.551	6	0.001	2	0.001	2	309.099	6	NC	1
1227		4	max	0	2	-0.461	2	0	2	0.002	6	1039.592	2	NC	7
1228			min	0	6	-1.271	6	-0.001	6	0.001	2	377.234	6	NC	1
1229		5	max	0	7	0	7	0	7	0.002	6	NC	7	NC	7
1230			min	0	1	0	1	0	1	0.001	2	NC	1	NC	1
1231	W16-3L	1	max	0	7	0	7	0	7	0	6	NC	7	NC	7
1232			min	0	1	0	1	0	1	0	2	NC	1	NC	1
1233		2	max	0	6	-0.053	2	0	2	0	6	NC	5	NC	7
1234			min	0	2	-0.14	6	0	6	0	2	8886.717	6	NC	1
1235		3	max	0	6	-0.026	2	0	6	0	6	NC	2	NC	7
1236			min	0	2	-0.07	6	0	2	0	2	4703.815	6	NC	1
1237		4	max	0	6	-0.037	2	0	2	0	6	NC	2	NC	7
1238			min	0	2	-0.092	6	-0.001	6	0	2	5236.626	6	NC	1
1239		5	max	0	6	-0.14	2	0.017	6	0.001	6	3430.738	2	NC	7
1240			min	0	2	-0.344	6	0.006	2	0	2	1394.709	6	NC	1
1241	W16-3R	1	max	0	6	0.109	6	-0.006	2	0.001	6	NC	2	NC	7
1242			min	0	2	0.045	2	-0.017	6	0	2	4407.894	6	NC	1
1243		2	max	0	6	-0.031	2	0.005	6	0	6	7461.526	2	NC	7
1244			min	0	2	-0.079	6	0.002	2	0	2	2993.177	6	NC	1
1245		3	max	0	6	-0.166	2	0	2	0	6	2539.953	2	NC	7
1246			min	0	2	-0.419	6	-0.001	6	0	2	1011.493	6	NC	1
1247		4	max	0	6	-0.168	2	0	6	0	6	2674.894	2	NC	7
1248			min	0	2	-0.424	6	0	2	0	2	1062.231	6	NC	1
1249		5	max	0	7	0	7	0	7	0	6	NC	7	NC	7
1250			min	0	1	0	1	0	1	0	2	NC	1	NC	1
1251	W16-X1	1	max	0	6	0.168	6	0	6	0	6	NC	7	NC	7
1252			min	0	2	0.053	2	0	2	0	2	NC	1	NC	1
1253		2	max	0	6	0.168	6	0	6	0	6	NC	7	NC	7
1254			min	0	2	0.053	2	0	2	0	2	NC	1	NC	1
1255		3	max	0	6	0.168	6	0	2	0	6	NC	7	NC	7
1256			min	0	2	0.053	2	0	6	0	2	NC	1	NC	1
1257		4	max	0	6	0.167	6	0	2	0	6	NC	7	NC	7
1258			min	0	2	0.053	2	0	6	0	2	NC	1	NC	1
1259		5	max	0	6	0.167	6	0	2	0	6	NC	7	NC	7
1260			min	0	2	0.053	2	0	6	0	2	NC	1	NC	1
1261	W16-X2	1	max	0	2	-0.068	2	0	2	0.001	6	NC	7	NC	7
1262			min	0	6	-0.226	6	0	6	0	2	NC	1	NC	1
1263		2	max	0	2	-0.069	2	0	2	0.001	6	NC	7	NC	7
1264			min	0	6	-0.228	6	0	6	0	2	NC	1	NC	1
1265		3	max	0	2	-0.069	2	0	6	0.001	6	NC	7	NC	7
1266			min	0	6	-0.23	6	0	2	0	2	NC	1	NC	1
1267		4	max	0	2	-0.07	2	0	6	0.001	6	NC	7	NC	7
1268			min	0	6	-0.232	6	0	2	0	2	NC	1	NC	1
1269		5	max	0	2	-0.071	2	0	6	0.001	6	NC	7	NC	7
1270			min	0	6	-0.234	6	0	2	0	2	NC	1	NC	1
1271	W16-X3	1	max	0	6	-0.14	2	0.017	6	0.001	6	NC	7	NC	7
1272			min	0	2	-0.344	6	0.006	2	0	2	NC	1	NC	1

Envelope Member Section Deflections - Service (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [rad]	LC	(n) L/y' Ratio	LC	(n) L/z' Ratio	LC
1273		2	max	0	6	-0.094	2	0.009	6	0.001	6	NC	7	NC	7
1274			min	0	2	-0.231	6	0.003	2	0	2	NC	1	NC	1
1275		3	max	0	6	-0.048	2	0	6	0.001	6	NC	7	NC	7
1276			min	0	2	-0.117	6	0	2	0	2	NC	1	NC	1
1277		4	max	0	6	-0.002	2	-0.003	2	0.001	6	NC	7	NC	7
1278			min	0	2	-0.004	6	-0.009	6	0	2	NC	1	NC	1
1279		5	max	0	6	0.109	6	-0.006	2	0.001	6	NC	7	NC	7
1280			min	0	2	0.045	2	-0.017	6	0	2	NC	1	NC	1
1281	W18-L	1	max	-0.003	2	-0.007	2	0.033	6	-0.001	2	NC	7	NC	7
1282			min	-0.009	6	-0.022	6	0.01	2	-0.002	6	NC	1	NC	1
1283		2	max	-0.003	2	-0.012	2	0.043	6	-0.001	2	NC	7	NC	7
1284			min	-0.009	6	-0.039	6	0.014	2	-0.004	6	NC	1	NC	1
1285		3	max	-0.003	2	-0.014	2	0.049	6	-0.001	2	NC	7	NC	7
1286			min	-0.009	6	-0.046	6	0.016	2	-0.003	6	NC	1	NC	1
1287		4	max	-0.003	2	-0.014	2	0.051	6	0	2	NC	7	NC	7
1288			min	-0.009	6	-0.046	6	0.017	2	-0.001	6	NC	1	NC	1
1289		5	max	-0.003	2	-0.013	2	0.051	6	0	6	NC	7	NC	7
1290			min	-0.009	6	-0.043	6	0.017	2	0	1	NC	1	NC	1
1291	W18-R	1	max	-0.003	2	-0.013	2	0.051	6	0	6	NC	7	NC	7
1292			min	-0.009	6	-0.043	6	0.017	2	0	1	NC	1	NC	1
1293		2	max	-0.003	2	-0.182	2	0.056	6	-0.002	2	2491.302	2	NC	7
1294			min	-0.009	6	-0.548	6	0.02	2	-0.005	6	837.205	6	NC	1
1295		3	max	-0.003	2	-0.226	2	0.03	6	-0.002	2	1963.913	2	NC	7
1296			min	-0.009	6	-0.683	6	0.012	2	-0.005	6	653.021	6	NC	1
1297		4	max	-0.003	2	-0.144	2	0.018	6	-0.001	2	3062.118	2	NC	7
1298			min	-0.009	6	-0.442	6	0.007	2	-0.003	6	1005.429	6	NC	1
1299		5	max	-0.003	2	-0.001	2	0.014	6	-0.001	2	NC	7	NC	7
1300			min	-0.009	6	-0.004	6	0.006	2	-0.002	6	NC	1	NC	1