STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: www.ct.gov/csc

VIA ELECTRONIC MAIL

July 8, 2020

Allison Hebel
Centerline Communications, LLC
Site Acquisition Consultant
750 West Center Street, Ste 301
West Bridgewater, MA 02379

RE: **EM-CING-025-200617** – New Cingular Wireless PCS, LLC (AT&T) notice of intent to modify an existing telecommunications facility located at 751 Higgins Road, Cheshire, Connecticut.

Dear Ms. Hebel:

The Connecticut Siting Council (Council) is in receipt of your correspondence of June 30, 2020 submitted in response to the Council's June 26, 2020 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

s/ Melanie A. Bachman

Melanie A. Bachman
Executive Director

MAB/IN/emr

From: Allison Hebel <ahebel@clinellc.com>
Sent: Tuesday, June 30, 2020 4:34 PM
To: Robidoux, Evan <Evan.Robidoux@ct.gov>
Cc: CSC-DL Siting Council <Siting.Council@ct.gov>
Subject: RE: Council Incomplete Letter for EM-CING-025-200617 (Higgins Road) // CT2036

Hi Evan,
Please see the attached documents revised to reflect the requirements of the council. Please let me know if you need anything else.

Allison Hebel | Site Acquisition Consultant
750 West Center St. Suite 301 | West Bridgewater, MA 02379
Phone: 215.588.7035 Fax: 508.819.3017
ahebel@clinellc.com | www.centerlinecommunications.com

Centerline Communications, LLC
95 Ryan Drive, Suite #1
Raynham, MA 02767
(508) 633-9116

Chad Burton
520 South Main Street, Suite 2531
Akron, OH 44311
(216) 413-5941
cburton@gpdgroup.com

GPD# 2020701.98
June 30, 2020

STRUCTURAL ANALYSIS REPORT

AT&T DESIGNATION:	**Site USID:**	**TAG0053**	**26014**
	Site FA:	**10136365**	**10034996**
	Site Name:	**CHESHIRE**	**CHESHIRE SW**
	Client Number:	**CT2036**	

ANALYSIS CRITERIA:	**Codes:**	**TIA-222-G, 2018 Connecticut State Building Code & 2015 IBC** **135-mph Ultimate 3-second gust with 0" ice** **105-mph Nominal 3-second gust with 0" ice** **50-mph 3-second gust with 3/4" ice**
SITE DATA:		**751 Higgins Road, Cheshire, CT 06410, New Haven County** **Latitude 41° 29' 14.870" N, Longitude 72° 55' 45.595" W** **Market: NEW ENGLAND** **250' Radio Relay Towers Self Support Tower**

Ms. Meredith Paynter,

GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

Analysis Results

Tower Stress Level with Proposed Equipment:	78.9%	Pass
Building Pedestal Ratio with Proposed Equipment:	Adequate	Pass

We at GPD appreciate the opportunity of providing our continuing professional services to you and Centerline Communications, LLC. If you have any questions or need further assistance on this or any other projects, please do not hesitate to call.

Respectfully submitted,

Christopher J. Scheks, P.E.
Connecticut #: 0030026

STATE OF CONNECTICUT
CHRISTOPHER J. SCHEKS
No. 30026
LICENSED
PROFESSIONAL ENGINEER

6/30/2020

SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing modified structure is capable of carrying the proposed loading configuration as specified by AT&T Mobility to Centerline Communications, LLC. This report was commissioned by Ms. Meredith Paynter of Centerline Communications, LLC.

This analysis has been performed in accordance with the 2018 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 135 mph converted to a nominal 3-second gust wind speed of 105 mph per Section 1609.3 and Appendix N as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category B with a maximum topographic factor, K_{zt}, of 1.0 and Risk Category III were used in this analysis.

Detailed foundation and geotechnical information for the building were not available or provided for this report. Therefore, the in place capacities could not be verified. However, based on the reserve capacity of the supporting pedestals, it is our opinion that the supporting building and foundations will be adequate for the proposed loading configuration.

Modifications designed by GPD (Project #: 2012856.05, dated 7/25/2012) have been installed and were considered in this analysis.

Mount modifications designed by All-Points (File #: CT141EB9400 Rev. 7, dated 2/10/2020) and the mount analysis by All-Points (File #: CT141EB9400, dated 2/10/2020) have been considered in this analysis.

This analysis has been completed based on the proposed elevation site orientation plan completed by Dewberry (Project #: 5093723/50110969, dated 1/7/2020). This plan sketch details the proposed location of the AT&T mobility and Verizon loading at the 252.0′ loading elevation. It also includes a proposed standoff frame. The weight and wind area of the mentioned frames have been assumed for the purpose of this analysis.

TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Legs	76.8%	Pass
Leg Bolts	77.6%	Pass
Diagonals	67.0%	Pass
Horizontals	55.8%	Pass
Redundant Members	75.9%	Pass
Internal Bracing	75.0%	Pass
Member Bolts	78.9%	Pass
Anchor Rods	38.9%	Pass
Building Pedestals	23.8%	Pass
Foundation	Adequate	Pass

ANALYSIS METHOD

RISA-3D (Version17.0.2), TNX Tower (Version 8.0.5.0), and EnerCalc (Version 12.19.8.30), commercially available software programs, were used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information and is being completed without the benefit of a recent detailed site visit.

DOCUMENTS PROVIDED

Document	Remarks	Source
RF Data Sheet	RFDS Name #: CTV2036, dated 6/6/2018	Centerline
Loading Elevation Sketch	Dewberry Project #: 5093723/50110969, dated 1/7/2020	Centerline
Tower Design	AT&T Co. Drawing #: NA4J03-902 Rev 3, dated 6/5/1967	AT&T
Building Drawings	AT&T Co. L-4 Junction Building, dated 12/1/1965	AT&T
Tower Mapping	GPD Project #: 2013723.01.TAG0053.03, 1/17/2014	AT&T
Ground Mapping	GPD Project #: 2013723.01.TAG0053.01, dated 6/14/2013	AT&T
Foundation Mapping	FDH Project #: 11-12049E-N1, dated 12/20/2011	AT&T
Geotechnical Report	Not Provided	N/A
Modification Drawings	GPD Project #: 2012856.05, dated 7/25/2012	AT&T
Post Modification Inspection	Centek Project #: 12033.OO40, dated 4/24/2013	AT&T
Mount Analysis	Dewberry Project #: 50123202, dated 4/28/2020	Centerline
Previous Structural Analysis	GPD Project #: 2019736.27, dated 2/28/2020	AT&T

ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower member sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations.
6. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
7. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
8. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
9. All prior structural modifications are assumed to be as per data supplied/available and to have been properly installed.
10. Loading interpreted from photos is accurate to $\pm$5' AGL, antenna size accurate to $\pm$3.3 sf, and coax equal to the number of existing antennas without reserve.
11. All existing loading was obtained from the RF Data Sheet (RFDS Name #: CTV2036, dated 6/6/2018), the previous structural analysis by GPD (Project #: 2019736.27, dated 2/28/2020), site photos, and the provided Loading Elevation Sketch and is assumed to be accurate.
12. The final loading configuration has been modeled based on the provided RF Data Sheet (RFDS Name #: CTV2036, dated 6/6/2018) and is assumed to be accurate.
13. Face A azimuth of 105° assumed based on the tower mapping by GPD (Project #: 2013723.01.TAG0053.03, 1/17/2014).

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD should be allowed to review any new information to determine its effect on the structural integrity of the tower.

DISCLAIMER OF WARRANTIES

GPD has not performed a recent site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

This analysis is limited to the designated maximum wind and seismic conditions per the governing tower standards and code. Wind forces resulting in tower vibrations near the structure's resonant frequencies were not considered in this analysis and are outside the scope of this analysis. Lateral loading from any dynamic response was not evaluated under a time-domain based fatigue analysis.

GPD does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the capability of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

Towers are designed to carry gravity, wind, and ice loads. All members, legs, diagonals, struts, and redundant members provide structural stability to the tower with little redundancy. Absence or removal of a member can trigger catastrophic failure unless a substitute is provided before any removal. Legs carry axial loads and derive their strength from shorter unbraced lengths by the presence of redundant members and their connection to the diagonals with bolts or welds. If the bolts or welds are removed without providing any substitute to the frame, the leg is subjected to a higher unbraced length that immediately reduces its load carrying capacity. If a diagonal is also removed in addition to the connection, the unbraced length of the leg is greatly increased, jeopardizing its load carrying capacity. Failure of one leg can result in a tower collapse because there is no redundancy. Redundant members and diagonals are critical to the stability of the tower.

GPD makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of GPD pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Tower Analysis Summary Form

Tower Analysis Summary Form

General Info

Site Name	CHESHIRE
Site Number	TAG0053
FA Number	10136365
Date of Analysis	6/30/2020
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Tower Info	Description	Date
Tower Type (G, SST, MP)	SST	
Tower Height (top of steel AGL)	250'	
Tower Manufacturer	Radio Relay Towers	
Tower Model	Type "J"	
Tower Design	AT&T Co. Drawing #: NA4J03-902 Rev 3	6/5/1967
Building Drawings	AT&T Co. L-4 Junction Building	12/1/1965
Tower Mapping	TEP Project #: 111343	4/8/2011
Tower Mapping	Hudson Design Group	2/4/2013
Tower Mapping	GPD Project #: 2013723.01.TAG0053.03	1/17/2014
Ground Mapping	GPD Project #: 2013723.01.TAG0053.01	6/14/2013
Foundation Mapping	FDH Project #: 11-12049E-N1	12/20/2011
Modification Drawings	GPD Project #: 2012856.05	7/25/2012
Post Modification Inspection	Centek Project #: 12033.OO40	4/24/2013
Mount Analysis	Dewberry Project #: 50123202	4/28/2020
Previous Structural Analysis	GPD Project #: 2019736.27	2/28/2020

Design Parameters

Design Code Used	TIA-222-G & 2015 IBC 2018 CT Building Code
Location of Tower (County, State)	New Haven, CT
Nominal Wind Speed (mph)	105-3 Second Gust
Ice Thickness (in)	0.75
Risk Category (I, II, III)	III
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	1

Structural modifications designed by GPD (Project #: 2012856.05, dated 7/25/2012) have been installed and were considered in this analysis.

Analysis Results (% Maximum Usage)

Existing/Reserved + Future + Proposed Condition	
Tower (%)	78.9%
Anchor Rods (%)	38.9%
Foundation (%)	Adequate
Foundation Adequate?	YES

Steel Yield Strength (ksi)

Legs	36
Bracing	36
Member Bolts	A307
Anchor Rods	C-1015

Note: Material grades assumed based on previous analysis.

Existing / Reserved Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face
Unknown	252	265	1	Rod	Unknown	4' Lightning Rod		1	Unknown	Top Platform	1	Unknown	5/8"	Face A
Unknown	252	263	1	Beacon	Unknown	Flash Beacon				on the same mount				
AT&T Mobility	252	255	2	Panel	KMW	AM-X-CD-16-65-00T-RET	154/270			on the same mount	6	Unknown	1-5/8"	Face D
AT&T Mobility	252	255	1	Panel	Andrew	SBNH-1D6565C	15			on the same mount	6	DC Power	5/8"	Face D
AT&T Mobility	252	255	3	Panel	CCI	HPA-65R-BUU-H8	15/154/270			on the same mount	3	Fiber	1.34"	Face D
AT&T Mobility	252	255	3	TMA	CCI	DTMABP7819VG12A				on the same mount				
AT&T Mobility	252	255	3	Diplexer	Powerwave	CM1007-DBPXBC-003				on the same mount				
AT&T Mobility	252	255	3	RRU	Ericsson	RRUS 11 B12				on the same mount				
AT&T Mobility	252	255	3	RRU	Ericsson	RRUS 32 B2				on the same mount				
AT&T Mobility	252	255	3	Surge	Raycap	DC6-48-60-18-8F				on the same mount				
Verizon	252	254	6	Panel	Andrew	JAHH-65C-R3B	30/140/260	3	Commscope	BSAMNT-SBS-2-3	12	Unknown	1-5/8"	Face D
Verizon	252	254	2	Panel	Antel	LPA 80063/6CF	30/140/260	3	Unknown	8' P2.5 STD Mount Pipe	3	Fiber	1-5/8"	Face D
Verizon	252	254	2	Panel	Antel	LPA 80080/6CF	260	9	Site Pro	SCP10W Clamp Set				
Verizon	252	254	1	Panel	Amphenol	BXA-70063-6CF	140			on the same mounts				
Verizon	252	254	3	Diplexer	Commscope	CBC78T-DS-43-2X				on the same mounts				
Verizon	252	254	3	RRU	Samsung	B5/B13 RRH				on the same mounts				
Verizon	252	254	3	RRU	Samsung	B2/B66A RRH				on the same mounts				
Verizon	252	254	3	Surge	Raycap	RxxDC-3315-PF-48				on the same mounts				
Verizon	252	254	1	GPS	Lucen	GPS				on the same mounts				
Town of Cheshire	249	255	1	Dipole	RFI	0A20-41 DIN		1	Unknown	6' Sidearm	1	Unknown	7/8"	Face D
Town of Cheshire	249	252.5	1	Dipole	RFI	0A20-67 DIN		1	Unknown	6' Sidearm	1	Unknown	7/8"	Face D
Town of Cheshire	240	240	1	Dish	RFS	SC3-W100AC		1	Unknown	Mount Pipe	1	RFS	E105	Face D
Misc.	239.5							1	Unknown	Platform				
Sprint	225	225.5	3	Panel	Celwave	APXVTM14-ALU-120	30/130/210	8	Unknown	20' Pipe Mounts	4	Hybrid	1"	Face D
Sprint	225	225.5	3	Panel	Comscope	NNVV-65B-R4	30/130/210			on the same mounts				
Sprint	225	225.5	3	RRU	Alcatel Lucent	TD-RRH 8x25				on the same mounts				
Sprint	225	225.5	6	RRU	Alcatel Lucent	800 MHz 2x50W				on the same mounts				
Sprint	225	225.5	3	RRU	Alcatel Lucent	1900 MHz 4x45				on the same mounts				
Nextel	210	212	6	Panel	Decibel	DB844H90E-XY	30/255	2	Unknown	14' Sector Frames	6	Unknown	1-5/8"	Face D
T-Mobile	210	212	2	Panel	Ericsson	AIR21 B4A/B2P	60/140	2	Unknown	14' Sector Frames	2	Hybrid	7/8"	Face B
T-Mobile	210	212	2	Panel	Ericsson	KRC 118 048/1 B4A/B12P-B8P	60/140			on the same mounts				
T-Mobile	210	212	2	RRU	Ericsson	RRUS11 B12				on the same mounts				
T-Mobile	210	212	2	RRU	Ericsson	RRUS11 B2				on the same mounts				
Unknown	210	207	1	Panel	Unknown	26"x26"x2" Flat Panel	160			on the same mounts	1	Unknown	1/2"	Face A
Nextel	198	200	3	Panel	Decibel	DB844H90E-XY	135	1	Unknown	14' Sector Frame	3	Unknown	1-5/8"	Face D
SGI	190	196	2	Omni	Unknown	PG1-NOF-0091		2	Unknown	5' Standoffs	2	Unknown	7/8"	Face D
SGI	171	177	1	Omni	Unknown	PG1-DOF-0093		1	Unknown	5' Standoff	1	Unknown	7/8"	Face D
Misc.	139.5							1	Unknown	Platforms w/ Rails				
AT&T Internet Services	85	88	1	Yagi	Wade	WL 7-13/S		3	Unknown	Standoffs	7	Unknown	5/8"	Face D
AT&T Internet Services	85	85	1	Yagi	Wade	WL 14-69/S				on the same mounts				
AT&T Internet Services	85	84	1	Yagi	Wade	WL 14-69/S				on the same mounts				
AT&T Internet Services	85	83	1	Yagi	Wade	WL 14-69/S				on the same mounts				
AT&T Internet Services	85	81	1	Yagi	Wade	WL 14-69/S				on the same mounts				
Unknown	37	37	1	Camera	Vicon	Camera - V8300H		1	Unknown	2.5' Box Mount	1	Conduit	1"	Face A
Unknown	36.5	36.5	1	GPS	Lucent	407517689		1	Unknown	3' Side Arm	1	Unknown	1/2"	Face D
Unknown	21	21	2	Junction	Unknown	Junction Box		1	Unknown	Platform	1	Conduit	1"	Face A
Unknown	21	21	1	RRU	Unknown	28" x 15.5" x 10" RRU				on the same mount				

Proposed Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face
AT&T Mobility	252	255	1	Panel	Kathrein	800-10966	15	2	Unknown	Standoff Frames	6	DC Power	5/8"	Face D
AT&T Mobility	252	255	2	Panel	Kathrein	800-10965	154/270			on the same mounts	3	Fiber	1.34"	Face D
AT&T Mobility	252	255	3	RRU	Ericsson	RRUS 32 B30				on the same mounts				
AT&T Mobility	252	255	3	RRU	Ericsson	RRUS 4478 B14				on the same mounts				

Note: The proposed loading shall be installed in addition to the existing loading at the same elevation. All proposed coax shall be installed with the existing coax on Face D for the analysis results to be valid.

Future Loading

Antenna								Mount			Transmission Line			
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Manufacturer	Type	Quantity	Model	Size	Attachment Leg/Face

APPENDIX B

Software Output Files and Calculations

Tower Input Data

The main tower is a 4x free standing tower with an overall height of 250.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 33.50 ft at the top and 37.00 ft at the base.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

Tower is located in New Haven County, Connecticut.
ASCE 7-10 Wind Data is used (wind speeds converted to nominal values).
Basic wind speed of 105 mph.
Structure Class III.
Exposure Category B.
Topographic Category 1.
Crest Height 0.00 ft.
Nominal ice thickness of 0.7500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	*Face or Leg*	*Allow Shield*	*Exclude From Torque Calculation*	*Component Type*	*Placement ft*	*Face Offset in*	*Lateral Offset (Frac FW)*	*#*	*# Per Row*	*Clear Spacing in*	*Width or Diameter in*	*Perimeter in*	*Weight plf*
***													
Climbing Ladder (Af)	C	No	No	Af (CaAa)	250.00 - 8.00	-24.0000	0.44	1	1	3.8400	3.8400		4.81
Safety Line 3/8	C	No	No	Ar (CaAa)	250.00 - 8.00	-24.0000	0.44	1	1	0.3750	0.3750		0.22
2-1/4" Conduit	C	No	No	Ar (CaAa)	250.00 - 8.00	0.0000	0.35	1	1	2.2500	2.2500		0.32
5/8" Power Cable	C	No	No	Ar (CaAa)	250.00 - 8.00	0.0000	0.35	1	1	0.6300	0.5000		0.15
***													
Feedline Ladder Af	D	No	No	Af (CaAa)	250.00 - 8.00	0.0000	0.02	1	1	2.5000	2.5000		7.00
Feedline Ladder Af	C	No	No	Af (CaAa)	212.00 - 8.00	2.0000	-0.042	1	1	2.5000	2.5000		7.00
Feedline Ladder Af	B	No	No	Af (CaAa)	209.00 - 8.00	0.0000	0.45	1	1	2.5000	2.5000		7.00
Feedline Ladder Af	D	No	No	Af (CaAa)	209.00 - 8.00	0.0000	0.43	1	1	2.5000	2.5000		7.00
***													
LDF7-50A (1-5/8 FOAM)	D	No	No	Ar (CaAa)	250.00 - 8.00	0.0000	0.02	18	6	1.0000	1.9800		0.82

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
5/8" DC cable	D	No	No	Ar (CaAa)	250.00 - 8.00	5.0000	0.02	6	6	0.6250	0.6250		0.30
5/8" DC cable	D	No	No	Ar (CaAa)	250.00 - 8.00	5.0000	0.02	6	6	0.6250	0.6250		0.30
1.34" Fiber Cable	D	No	No	Ar (CaAa)	250.00 - 8.00	5.0000	0.02	3	3	1.0000	1.3400		0.82
1.34" Fiber Cable	D	No	No	Ar (CaAa)	250.00 - 8.00	5.0000	0.02	3	3	1.0000	1.3400		0.82
1-5/8" Fiber Cable ***	D	No	No	Ar (CaAa)	250.00 - 8.00	0.0000	0.02	3	3	1.0000	1.6250		0.82
LDF5-50A (7/8 FOAM) ***	D	No	No	Ar (CaAa)	249.00 - 8.00	0.0000	-0.02	2	2	1.0000	1.0900		0.33
E105 ***	D	No	No	Ar (CaAa)	240.00 - 8.00	0.0000	-0.02	1	1	1.0000	1.3000		0.40
1" Fiber Cable	D	No	No	Ar (CaAa)	225.00 - 8.00	0.0000	0.05	2	1	0.8800	0.8800		0.60
1" Fiber Cable ***	D	No	No	Ar (CaAa)	225.00 - 8.00	0.0000	-0.05	2	1	0.8800	0.8800		0.60
LDF7-50A (1-5/8 FOAM)	D	No	No	Ar (CaAa)	210.00 - 198.00	0.0000	0.45	6	6	1.0000	1.9800		0.82
LDF7-50A (1-5/8 FOAM) ***	D	No	No	Ar (CaAa)	198.00 - 8.00	0.0000	0.45	9	9	1.0000	1.9800		0.82
7/8" Hybrid Cable	B	No	No	Ar (CaAa)	210.00 - 8.00	0.0000	0.45	2	2	0.8750	0.8750		0.28
LDF4RN-50A (1/2 FOAM) ***	C	No	No	Ar (CaAa)	210.00 - 8.00	0.0000	-0.35	1	1	0.6300	0.6300		0.15
LDF5-50A (7/8 FOAM)	D	No	No	Ar (CaAa)	190.00 - 171.00	8.0000	0	2	2	1.0000	1.0900		0.33
LDF5-50A (7/8 FOAM) ***	D	No	No	Ar (CaAa)	171.00 - 8.00	8.0000	0	3	3	1.0000	1.0900		0.33
LDF4.5-50 (5/8 FOAM) ***	D	No	No	Ar (CaAa)	85.00 - 8.00	6.0000	0	7	4	0.8700	0.8700		0.15
1" Rigid Conduit	C	No	No	Ar (CaAa)	37.00 - 21.00	0.0000	-0.3	1	1	1.0000	1.0000		0.50
1" Rigid Conduit ***	C	No	No	Ar (CaAa)	21.00 - 8.00	0.0000	-0.3	2	2	1.0000	1.0000		0.50
LDF4-50A (1/2 FOAM) ***	D	No	No	Ar (CaAa)	36.50 - 8.00	0.0000	0.055	1	1	0.6300	0.6300		0.15

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
***									
Lighting Rod 5/8" x 4'	B	None		0.0000	265.00	No Ice	0.25	0.25	31.00
						1/2" Ice	0.66	0.66	33.82
						1" Ice	0.97	0.97	39.29
Flash Beacon Lighting	B	None		0.0000	263.00	No Ice	2.70	2.70	50.00
						1/2" Ice	3.10	3.10	70.00
						1" Ice	3.50	3.50	90.00
13' I-Beam Mast Mount	B	None		0.0000	256.50	No Ice	13.00	13.00	300.00
						1/2" Ice	14.14	14.14	550.00
						1" Ice	15.08	15.08	800.00
***									
AM-X-CD-16-65-00T-RET w/ Mount Pipe	B	From Face	4.00 -7.00 3.00	-7.0000	252.00	No Ice	8.31	6.65	89.03
						1/2" Ice	8.85	7.68	157.32
						1" Ice	9.37	8.56	234.42
AM-X-CD-16-65-00T-RET w/ Mount Pipe	C	From Face	4.00 -7.50 3.00	42.0000	252.00	No Ice	8.31	6.65	89.03
						1/2" Ice	8.85	7.68	157.32
						1" Ice	9.37	8.56	234.42
SBNH-1D6565C w/ Mount Pipe	D	From Face	4.00 -20.75 3.00	68.0000	252.00	No Ice	11.45	9.36	86.35
						1/2" Ice	12.06	10.68	170.71
						1" Ice	12.69	11.71	264.63
80010966 w/ Mount Pipe	B	From Face	4.00 -10.00 3.00	-7.0000	252.00	No Ice	17.60	9.64	147.45
						1/2" Ice	18.33	11.15	263.33
						1" Ice	19.07	12.70	389.66
80010965 w/ Mount Pipe	C	From Face	4.00 -10.50 3.00	42.0000	252.00	No Ice	14.05	7.63	125.19
						1/2" Ice	14.69	8.90	221.67
						1" Ice	15.30	9.96	327.18
80010965 w/ Mount Pipe	D	From Face	4.00 -20.75 3.00	68.0000	252.00	No Ice	14.05	7.63	125.19
						1/2" Ice	14.69	8.90	221.67
						1" Ice	15.30	9.96	327.18
HPA-65R-BUU-H8 w/ Mount Pipe	B	From Face	4.00 -13.00 3.00	-7.0000	252.00	No Ice	13.05	9.42	94.20
						1/2" Ice	13.66	10.82	189.07
						1" Ice	14.27	12.07	293.65
HPA-65R-BUU-H8 w/ Mount Pipe	C	From Face	4.00 -13.50 3.00	42.0000	252.00	No Ice	13.05	9.42	94.20
						1/2" Ice	13.66	10.82	189.07
						1" Ice	14.27	12.07	293.65
HPA-65R-BUU-H8 w/ Mount Pipe	D	From Face	4.00 -20.75 3.00	68.0000	252.00	No Ice	13.05	9.42	94.20
						1/2" Ice	13.66	10.82	189.07
						1" Ice	14.27	12.07	293.65
DTMABP7819VG12A	B	From Face	4.00 -10.00 3.00	-7.0000	252.00	No Ice	0.98	0.34	19.18
						1/2" Ice	1.10	0.42	26.48
						1" Ice	1.23	0.51	35.63
DTMABP7819VG12A	C	From Face	4.00 -10.50 3.00	42.0000	252.00	No Ice	0.98	0.34	19.18
						1/2" Ice	1.10	0.42	26.48
						1" Ice	1.23	0.51	35.63
DTMABP7819VG12A	D	From Face	4.00 -20.75 3.00	68.0000	252.00	No Ice	0.98	0.34	19.18
						1/2" Ice	1.10	0.42	26.48
						1" Ice	1.23	0.51	35.63
CM1007-DBPXBC-003	B	From Face	4.00 -10.00 3.00	-7.0000	252.00	No Ice	0.37	0.13	6.50
						1/2" Ice	0.45	0.18	9.99
						1" Ice	0.54	0.24	14.78
CM1007-DBPXBC-003	C	From Face	4.00 -10.50 3.00	42.0000	252.00	No Ice	0.37	0.13	6.50
						1/2" Ice	0.45	0.18	9.99
						1" Ice	0.54	0.24	14.78
CM1007-DBPXBC-003	D	From Face	4.00	68.0000	252.00	No Ice	0.37	0.13	6.50

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			-20.75			1/2" Ice	0.45	0.18	9.99
			3.00			1" Ice	0.54	0.24	14.78
RRUS 11 B12	B	From Face	4.00	-7.0000	252.00	No Ice	2.83	1.18	50.70
			-10.00			1/2" Ice	3.04	1.33	71.57
			3.00			1" Ice	3.26	1.48	95.49
RRUS 11 B12	C	From Face	4.00	42.0000	252.00	No Ice	2.83	1.18	50.70
			-10.50			1/2" Ice	3.04	1.33	71.57
			3.00			1" Ice	3.26	1.48	95.49
RRUS 11 B12	D	From Face	4.00	68.0000	252.00	No Ice	2.83	1.18	50.70
			-20.75			1/2" Ice	3.04	1.33	71.57
			3.00			1" Ice	3.26	1.48	95.49
RRUS 32 B2	B	From Face	4.00	-7.0000	252.00	No Ice	2.73	1.67	52.90
			-10.00			1/2" Ice	2.95	1.86	73.96
			3.00			1" Ice	3.18	2.05	98.21
RRUS 32 B2	C	From Face	4.00	42.0000	252.00	No Ice	2.73	1.67	52.90
			-10.50			1/2" Ice	2.95	1.86	73.96
			3.00			1" Ice	3.18	2.05	98.21
RRUS 32 B2	D	From Face	4.00	68.0000	252.00	No Ice	2.73	1.67	52.90
			-20.75			1/2" Ice	2.95	1.86	73.96
			3.00			1" Ice	3.18	2.05	98.21
RRUS 32 B30	B	From Face	4.00	-7.0000	252.00	No Ice	2.69	1.57	60.00
			-10.00			1/2" Ice	2.91	1.76	80.40
			3.00			1" Ice	3.14	1.95	103.95
RRUS 32 B30	C	From Face	4.00	42.0000	252.00	No Ice	2.69	1.57	60.00
			-10.50			1/2" Ice	2.91	1.76	80.40
			3.00			1" Ice	3.14	1.95	103.95
RRUS 32 B30	D	From Face	4.00	68.0000	252.00	No Ice	2.69	1.57	60.00
			-20.75			1/2" Ice	2.91	1.76	80.40
			3.00			1" Ice	3.14	1.95	103.95
RRUS 4478 B14	B	From Face	4.00	-7.0000	252.00	No Ice	1.84	1.06	59.90
			-10.00			1/2" Ice	2.01	1.20	75.78
			3.00			1" Ice	2.19	1.34	94.29
RRUS 4478 B14	C	From Face	4.00	42.0000	252.00	No Ice	1.84	1.06	59.90
			-10.50			1/2" Ice	2.01	1.20	75.78
			3.00			1" Ice	2.19	1.34	94.29
RRUS 4478 B14	D	From Face	4.00	68.0000	252.00	No Ice	1.84	1.06	59.90
			-20.75			1/2" Ice	2.01	1.20	75.78
			3.00			1" Ice	2.19	1.34	94.29
DC6-48-60-18-8F Surge Suppression Unit	B	From Face	4.00	-7.0000	252.00	No Ice	0.92	0.92	18.90
			-10.00			1/2" Ice	1.46	1.46	36.62
			3.00			1" Ice	1.64	1.64	56.82
DC6-48-60-18-8F Surge Suppression Unit	C	From Face	4.00	42.0000	252.00	No Ice	0.92	0.92	18.90
			-10.50			1/2" Ice	1.46	1.46	36.62
			3.00			1" Ice	1.64	1.64	56.82
DC6-48-60-18-8F Surge Suppression Unit	D	From Face	4.00	68.0000	252.00	No Ice	0.92	0.92	18.90
			-20.75			1/2" Ice	1.46	1.46	36.62
			3.00			1" Ice	1.64	1.64	56.82
10' In-Face Frame	C	From Face	4.00	0.0000	252.00	No Ice	12.84	1.42	250.00
			-21.00			1/2" Ice	15.40	1.70	325.00
			3.00			1" Ice	17.96	1.98	400.00
10' In-Face Frame	D	From Face	4.00	0.0000	252.00	No Ice	12.84	1.42	250.00
			-21.00			1/2" Ice	15.40	1.70	325.00
			3.00			1" Ice	17.96	1.98	400.00
Tower Top Platform	B	None		0.0000	252.00	No Ice	85.00	85.00	4425.00
						1/2" Ice	97.00	97.00	5752.50
						1" Ice	110.00	110.00	7080.00

***

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(2) JAHH-65C-R3B w/ Mount Pipe	A	From Face	4.00 11.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	13.05 13.75 14.46	10.61 12.13 13.67	112.96 212.34 321.83
(2) JAHH-65C-R3B w/ Mount Pipe	B	From Face	4.00 11.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	13.05 13.75 14.46	10.61 12.13 13.67	112.96 212.34 321.83
(2) JAHH-65C-R3B w/ Mount Pipe	C	From Face	4.00 20.75 2.00	28.0000	252.00	No Ice 1/2" Ice 1" Ice	13.05 13.75 14.46	10.61 12.13 13.67	112.96 212.34 321.83
LPA-80080/6CF w/ Mount Pipe	A	From Face	4.00 8.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	4.35 4.79 5.25	10.04 11.00 11.83	42.90 107.03 178.83
LPA-80080/6CF w/ Mount Pipe	A	From Face	4.00 14.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	4.35 4.79 5.25	10.04 11.00 11.83	42.90 107.03 178.83
LPA-80063/6CF w/ Mount Pipe	B	From Face	4.00 8.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	9.83 10.40 10.93	10.22 11.38 12.27	52.22 144.64 245.54
LPA-80063/6CF w/ Mount Pipe	B	From Face	4.00 14.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	9.83 10.40 10.93	10.22 11.38 12.27	52.22 144.64 245.54
BXA-70063-6CF w/ Mounbt Pipe	C	From Face	4.00 16.25 2.00	-55.0000	252.00	No Ice 1/2" Ice 1" Ice	7.57 8.02 8.47	4.16 4.60 5.04	17.00 59.49 107.83
CBC78T-DS-43-2X	A	From Face	4.00 11.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	0.37 0.45 0.53	0.51 0.60 0.70	20.70 27.04 35.07
CBC78T-DS-43-2X	B	From Face	4.00 11.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	0.37 0.45 0.53	0.51 0.60 0.70	20.70 27.04 35.07
CBC78T-DS-43-2X	C	From Face	4.00 20.75 2.00	28.0000	252.00	No Ice 1/2" Ice 1" Ice	0.37 0.45 0.53	0.51 0.60 0.70	20.70 27.04 35.07
B5/B13 RRH	A	From Face	4.00 11.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	70.30 86.73 105.83
B5/B13 RRH	B	From Face	4.00 11.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	70.30 86.73 105.83
B5/B13 RRH	C	From Face	4.00 20.75 2.00	28.0000	252.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	70.30 86.73 105.83
B2/B66A RRH	A	From Face	4.00 11.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	1.85 2.02 2.20	1.25 1.39 1.54	97.50 115.71 136.71
B2/B66A RRH	B	From Face	4.00 11.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	1.85 2.02 2.20	1.25 1.39 1.54	97.50 115.71 136.71
B2/B66A RRH	C	From Face	4.00 20.75 2.00	28.0000	252.00	No Ice 1/2" Ice 1" Ice	1.85 2.02 2.20	1.25 1.39 1.54	97.50 115.71 136.71
RxxDC-3315-PF-48	A	From Face	4.00 11.00 2.00	-32.0000	252.00	No Ice 1/2" Ice 1" Ice	2.51 2.71 2.92	1.64 1.81 1.98	32.00 54.87 80.86
RxxDC-3315-PF-48	B	From Face	4.00 11.00 2.00	8.0000	252.00	No Ice 1/2" Ice 1" Ice	2.51 2.71 2.92	1.64 1.81 1.98	32.00 54.87 80.86

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
RxxDC-3315-PF-48	C	From Face	4.00	28.0000	252.00	No Ice	2.51	1.64	32.00
			20.75			1/2" Ice	2.71	1.81	54.87
			2.00			1" Ice	2.92	1.98	80.86
GPS	A	From Face	4.00	-32.0000	252.00	No Ice	0.11	0.11	0.87
			11.00			1/2" Ice	0.21	0.21	3.85
			2.00			1" Ice	0.28	0.28	7.85
BSAMNT-SBS-2-3 Mount with SCP10W Clamp Set	A	From Face	4.00	-32.0000	252.00	No Ice	0.11	0.00	110.10
			11.00			1/2" Ice	0.15	0.03	110.71
			2.00			1" Ice	0.21	0.08	111.95
BSAMNT-SBS-2-3 Mount with SCP10W Clamp Set	B	From Face	4.00	8.0000	252.00	No Ice	0.11	0.00	110.10
			11.00			1/2" Ice	0.15	0.03	110.71
			2.00			1" Ice	0.21	0.08	111.95
BSAMNT-SBS-2-3 Mount with SCP10W Clamp Set	C	From Face	4.00	28.0000	252.00	No Ice	0.11	0.00	110.10
			20.75			1/2" Ice	0.15	0.03	110.71
			2.00			1" Ice	0.21	0.08	111.95
Pipe Mount 8'x2.375"	A	From Face	4.00	-32.0000	252.00	No Ice	1.90	1.90	33.70
			11.00			1/2" Ice	2.73	2.73	48.04
			2.00			1" Ice	3.40	3.40	67.66
Pipe Mount 8'x2.375"	B	From Face	4.00	8.0000	252.00	No Ice	1.90	1.90	33.70
			11.00			1/2" Ice	2.73	2.73	48.04
			2.00			1" Ice	3.40	3.40	67.66
Pipe Mount 8'x2.375"	C	From Face	4.00	28.0000	252.00	No Ice	1.90	1.90	33.70
			20.75			1/2" Ice	2.73	2.73	48.04
			2.00			1" Ice	3.40	3.40	67.66
***									
OA20-67-DIN	A	From Leg	6.00	0.0000	249.00	No Ice	1.31	1.31	9.00
			0.00			1/2" Ice	2.03	2.03	19.35
			3.50			1" Ice	2.60	2.60	34.28
6' Standoff	A	From Leg	3.00	0.0000	249.00	No Ice	2.72	12.93	145.70
			0.00			1/2" Ice	4.11	17.82	223.26
			0.00			1" Ice	5.50	22.71	300.83
OA20-41-DIN	C	From Leg	6.00	0.0000	249.00	No Ice	3.73	3.73	28.00
			0.00			1/2" Ice	5.21	5.21	56.62
			6.00			1" Ice	6.42	6.42	92.76
6' Standoff	C	From Leg	3.00	0.0000	249.00	No Ice	2.72	12.93	145.70
			0.00			1/2" Ice	4.11	17.82	223.26
			0.00			1" Ice	5.50	22.71	300.83
***									
Pipe Mount 4'x4.5"	A	From Leg	0.50	0.0000	240.00	No Ice	1.10	1.10	43.20
			0.00			1/2" Ice	1.58	1.58	56.19
			0.00			1" Ice	1.84	1.84	72.23
***									
Platform	B	None		0.0000	239.50	No Ice	75.38	75.38	10500.00
						1/2" Ice	94.22	94.22	13000.00
						1" Ice	113.06	113.06	15500.00
***									
10' x 2.5" Mount Pipe	B	From Face	1.00	0.0000	225.60	No Ice	2.50	2.50	50.00
			-10.00			1/2" Ice	3.53	3.53	68.64
			0.00			1" Ice	4.58	4.58	93.79
10' x 2.5" Mount Pipe	D	From Face	1.00	0.0000	225.60	No Ice	2.50	2.50	50.00
			-15.00			1/2" Ice	3.53	3.53	68.64
			0.00			1" Ice	4.58	4.58	93.79
APXVTM14-ALU-I20 w/ 10' x 2" Mount Pipe	B	From Face	1.00	0.0000	225.60	No Ice	7.60	5.98	92.72
			15.00			1/2" Ice	8.52	7.37	158.56
			0.60			1" Ice	9.46	8.78	231.95
APXVTM14-ALU-I20 w/ 10' x 2" Mount Pipe	C	From Face	1.00	0.0000	225.60	No Ice	7.60	5.98	92.72
			-15.00			1/2" Ice	8.52	7.37	158.56

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
			0.60			1" Ice	9.46	8.78	231.95
APXVTM14-ALU-I20 w/ 10' x 2" Mount Pipe	D	From Face	1.00	0.0000	225.60	No Ice	7.60	5.98	92.72
			10.00			1/2" Ice	8.52	7.37	158.56
			0.60			1" Ice	9.46	8.78	231.95
NNVV-65B-R4 w/ Mount Pipe	B	From Face	1.00	0.0000	225.60	No Ice	12.27	7.17	99.30
			15.00			1/2" Ice	12.77	8.13	187.33
			0.60			1" Ice	13.27	8.97	283.67
NNVV-65B-R4 w/ Mount Pipe	C	From Face	1.00	0.0000	225.60	No Ice	12.27	7.17	99.30
			-15.00			1/2" Ice	12.77	8.13	187.33
			0.60			1" Ice	13.27	8.97	283.67
NNVV-65B-R4 w/ Mount Pipe	D	From Face	1.00	0.0000	225.60	No Ice	12.27	7.17	99.30
			10.00			1/2" Ice	12.77	8.13	187.33
			0.60			1" Ice	13.27	8.97	283.67
TD-RRH8x20-25	B	From Face	1.00	0.0000	225.60	No Ice	3.70	1.29	66.00
			15.00			1/2" Ice	3.95	1.46	89.94
			0.60			1" Ice	4.20	1.64	117.22
TD-RRH8x20-25	C	From Face	1.00	0.0000	225.60	No Ice	3.70	1.29	66.00
			-15.00			1/2" Ice	3.95	1.46	89.94
			0.60			1" Ice	4.20	1.64	117.22
TD-RRH8x20-25	D	From Face	1.00	0.0000	225.60	No Ice	3.70	1.29	66.00
			10.00			1/2" Ice	3.95	1.46	89.94
			0.60			1" Ice	4.20	1.64	117.22
(2) 800 MHz 2x50W	B	From Face	1.00	0.0000	225.60	No Ice	2.09	1.73	53.00
			15.00			1/2" Ice	2.27	1.90	73.74
			0.60			1" Ice	2.46	2.08	97.45
(2) 800 MHz 2x50W	C	From Face	1.00	0.0000	225.60	No Ice	2.09	1.73	53.00
			-15.00			1/2" Ice	2.27	1.90	73.74
			0.60			1" Ice	2.46	2.08	97.45
(2) 800 MHz 2x50W	D	From Face	1.00	0.0000	225.60	No Ice	2.09	1.73	53.00
			10.00			1/2" Ice	2.27	1.90	73.74
			0.60			1" Ice	2.46	2.08	97.45
1900 4x45 65 MHz RRU	B	From Face	1.00	0.0000	225.60	No Ice	2.08	1.99	53.00
			15.00			1/2" Ice	2.27	2.18	74.10
			0.60			1" Ice	2.47	2.37	98.26
1900 4x45 65 MHz RRU	C	From Face	1.00	0.0000	225.60	No Ice	2.08	1.99	53.00
			-15.00			1/2" Ice	2.27	2.18	74.10
			0.60			1" Ice	2.47	2.37	98.26
1900 4x45 65 MHz RRU	D	From Face	1.00	0.0000	225.60	No Ice	2.08	1.99	53.00
			10.00			1/2" Ice	2.27	2.18	74.10
			0.60			1" Ice	2.47	2.37	98.26
***									
(3) DB844H90E-XY w/Mount Pipe	A	From Leg	1.00	60.0000	210.00	No Ice	2.24	3.34	43.38
			0.00			1/2" Ice	2.61	3.73	78.61
			2.00			1" Ice	2.99	4.13	121.53
(3) DB844H90E-XY w/Mount Pipe	D	From Leg	1.00	15.0000	210.00	No Ice	2.24	3.34	43.38
			0.00			1/2" Ice	2.61	3.73	78.61
			2.00			1" Ice	2.99	4.13	121.53
14' Sector Frame	A	From Leg	0.50	60.0000	210.00	No Ice	18.21	0.00	492.00
			0.00			1/2" Ice	23.76	0.00	690.25
			0.00			1" Ice	29.31	0.00	888.50
14' Sector Frame	D	From Leg	0.50	15.0000	210.00	No Ice	18.21	0.00	492.00
			0.00			1/2" Ice	23.76	0.00	690.25
			0.00			1" Ice	29.31	0.00	888.50
***									
AIR21 B4A/B2P w/ mount pipe	B	From Leg	1.00	0.0000	210.00	No Ice	6.13	5.54	101.25
			0.00			1/2" Ice	6.52	6.20	156.43
			2.00			1" Ice	6.92	6.87	218.21

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
AIR21 B4A/B2P w/ mount pipe	C	From Leg	1.00 0.00 2.00	-10.0000	210.00	No Ice 1/2" Ice 1" Ice	6.13 6.52 6.92	5.54 6.20 6.87	101.25 156.43 218.21
KRC 118 048/1 B4A/B12P-B8P w/ Mount Pipe	B	From Leg	1.00 0.00 2.00	0.0000	210.00	No Ice 1/2" Ice 1" Ice	11.54 12.16 12.79	10.68 12.09 13.33	154.59 246.84 348.90
KRC 118 048/1 B4A/B12P-B8P w/ Mount Pipe	C	From Leg	1.00 0.00 2.00	-10.0000	210.00	No Ice 1/2" Ice 1" Ice	11.54 12.16 12.79	10.68 12.09 13.33	154.59 246.84 348.90
RRUS 11 B12	B	From Leg	1.00 0.00 2.00	0.0000	210.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	50.70 71.57 95.49
RRUS 11 B12	C	From Leg	1.00 0.00 2.00	-10.0000	210.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	50.70 71.57 95.49
RRUS 11 B2	B	From Leg	1.00 0.00 2.00	0.0000	210.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	50.70 71.57 95.49
RRUS 11 B2	C	From Leg	1.00 0.00 2.00	-10.0000	210.00	No Ice 1/2" Ice 1" Ice	2.83 3.04 3.26	1.18 1.33 1.48	50.70 71.57 95.49
26"x 26" Flat Panel	C	From Leg	1.00 0.00 -3.00	0.0000	210.00	No Ice 1/2" Ice 1" Ice	5.60 5.92 6.24	0.52 0.67 0.83	15.00 38.43 65.30
14' Sector Frame	B	From Leg	0.50 0.00 0.00	0.0000	210.00	No Ice 1/2" Ice 1" Ice	18.21 23.76 29.31	0.00 0.00 0.00	492.00 690.25 888.50
14' Sector Frame	C	From Leg	0.50 0.00 0.00	-10.0000	210.00	No Ice 1/2" Ice 1" Ice	18.21 23.76 29.31	0.00 0.00 0.00	492.00 690.25 888.50
***									
(3) DB844H90E-XY w/Mount Pipe	C	From Leg	1.00 0.00 2.00	-15.0000	198.00	No Ice 1/2" Ice 1" Ice	2.24 2.61 2.99	3.34 3.73 4.13	43.38 78.61 121.53
14' Sector Frame	C	From Leg	0.50 0.00 0.00	-15.0000	198.00	No Ice 1/2" Ice 1" Ice	18.21 23.76 29.31	0.00 0.00 0.00	492.00 690.25 888.50
***									
PG1-NOF-0091	A	From Leg	3.50 -3.50 6.00	-45.0000	190.00	No Ice 1/2" Ice 1" Ice	1.40 2.23 3.07	1.40 2.23 3.07	7.50 18.71 35.15
5' Standoff	A	From Leg	1.75 -1.75 0.00	-45.0000	190.00	No Ice 1/2" Ice 1" Ice	2.72 4.11 5.50	12.93 17.82 22.71	145.70 223.26 300.83
PG1-NOF-0091	B	From Leg	3.50 3.50 6.00	45.0000	190.00	No Ice 1/2" Ice 1" Ice	1.40 2.23 3.07	1.40 2.23 3.07	7.50 18.71 35.15
5' Standoff	B	From Leg	1.75 1.75 0.00	45.0000	190.00	No Ice 1/2" Ice 1" Ice	2.72 4.11 5.50	12.93 17.82 22.71	145.70 223.26 300.83
***									
PG1-DOF-0093	B	From Leg	3.50 3.50 0.00	45.0000	177.00	No Ice 1/2" Ice 1" Ice	1.40 2.23 3.07	1.40 2.23 3.07	7.50 18.71 35.15
5' Standoff	B	From Leg	1.75 1.75 0.00	45.0000	177.00	No Ice 1/2" Ice 1" Ice	2.72 4.11 5.50	12.93 17.82 22.71	145.70 223.26 300.83

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
***									
Catwalk	B	From Face	0.00	0.0000	139.50	No Ice	75.38	4.08	1250.00
			0.00			1/2" Ice	94.22	5.09	1600.00
			0.00			1" Ice	113.06	6.11	1950.00
***									
WL7-13	D	From Leg	1.00	-32.0000	85.00	No Ice	2.88	2.88	25.00
			0.00			1/2" Ice	3.73	3.73	32.50
			3.00			1" Ice	4.59	4.59	40.00
WL14-69/S	B	From Leg	1.00	-28.0000	85.00	No Ice	2.88	2.88	5.00
			0.00			1/2" Ice	3.74	3.74	6.50
			0.00			1" Ice	4.61	4.61	8.45
WL14-69/S	D	From Leg	1.00	-32.0000	85.00	No Ice	2.88	2.88	5.00
			0.00			1/2" Ice	3.74	3.74	6.50
			-1.00			1" Ice	4.61	4.61	8.45
WL14-69/S	C	From Leg	1.00	-39.0000	85.00	No Ice	2.88	2.88	5.00
			0.00			1/2" Ice	3.74	3.74	6.50
			-2.00			1" Ice	4.61	4.61	8.45
WL14-69/S	B	From Leg	1.00	-28.0000	85.00	No Ice	2.88	2.88	5.00
			0.00			1/2" Ice	3.74	3.74	6.50
			-4.00			1" Ice	4.61	4.61	8.45
***									
Camera	B	From Leg	1.50	0.0000	37.00	No Ice	0.11	0.05	2.00
			0.00			1/2" Ice	0.16	0.08	3.30
			0.00			1" Ice	0.21	0.12	5.42
2.5' Box Mount	B	From Leg	0.75	0.0000	37.00	No Ice	1.36	1.36	20.00
			0.00			1/2" Ice	2.45	2.45	40.00
			0.00			1" Ice	3.50	3.50	64.00
***									
GPS	D	From Face	3.00	0.0000	36.50	No Ice	0.12	0.12	0.87
			0.00			1/2" Ice	0.21	0.21	3.85
			0.00			1" Ice	0.28	0.28	7.85
3' Side Arm	D	From Face	1.50	0.0000	36.50	No Ice	0.93	0.93	44.94
			0.00			1/2" Ice	1.13	1.13	54.87
			0.00			1" Ice	1.37	1.37	67.25
***									
Junction Box (40"x14"x9")	B	From Face	0.00	0.0000	21.00	No Ice	3.88	2.50	50.00
			10.00			1/2" Ice	3.88	2.50	50.00
			0.00			1" Ice	3.88	2.50	50.00
RRU (28" x 15.5" x 10")	B	From Face	0.00	0.0000	21.00	No Ice	3.62	2.36	65.00
			10.00			1/2" Ice	3.86	2.57	94.93
			0.00			1" Ice	4.11	2.78	128.52
Platform	B	From Face	0.00	0.0000	21.00	No Ice	0.00	0.00	0.00
			10.00			1/2" Ice	0.00	0.00	0.00
			0.00			1" Ice	0.00	0.00	0.00
***									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight lb
***											
SC3-W100AC	A	Paraboloid w/Shroud (HP)	From Leg	1.00 0.00 0.00	74.0000		240.00	3.00	No Ice 1/2" Ice 1" Ice	7.07 7.47 7.86	400.00 440.00 480.00
***											

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E5 F)	Density[k/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36	29000	11200	.295	.65	.49	36	1.5	58	1.2

General Material Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (\1E5 F)	Density[k/ft^3]
1	A36_Gen	29000	11153.846	.3	.65	.49
2	A36_Gen_1	29000	11153.846	.3	.65	.49
3	A36_Gen_2	29000	11153.846	.3	.65	.49

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TWR_LEG_T1	L6x6x1/2	Column	Single Angle	A36	Typical	5.75	19.908	19.908	.479
2	TWR_LEG_OUTER_T1	2L2 1/2x2 1/2x1/...	Column	Single Angle	A36	Typical	2.38	3.347	1.41	.049
3	TWR_TOP_GIRT_T1	2L3x4x5/16x3/8	Beam	Wide Flange	A36	Typical	4.18	15.508	3.29	.136
4	TWR_DIAG_T1	2L3x4x5/16x3/8	Column	None	A36	Typical	4.18	15.508	3.29	.136
5	TWR_DIAG_OUTER_T1	2L3 1/2x4x5/16x...	Column	None	A36	Typical	4.49	15.551	5.1	.146
6	TWR_RED_HORZ_T1	L2 1/2x2 1/2x3/16	Beam	None	A36	Typical	.902	.547	.547	.011
7	TWR_RED_HORZ_2_T1	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
8	TWR_HORZ_OUTER_T1	W12X26	Beam	None	A36	Typical	7.65	17.3	204	.3
9	TWR_RED_HORZ_3_T1	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
10	TWR_RED_HORZ_4_T1	L2 1/2x2 1/2x3/16	Beam	None	A36	Typical	.902	.547	.547	.011
11	TWR_RED_DIAG_T1	L2 1/2x2 1/2x3/16	Column	Single Angle	A36	Typical	.902	.547	.547	.011
12	TWR_LEG_T2	W6X20	Column	Wide Flange	A36	Typical	5.87	13.3	41.4	.24
13	TWR_DIAG_T2	2L3x2 1/2x3/8x3/8	Column	None	A36	Typical	3.84	5.153	3.31	.18
14	TWR_RED_HORZ_T2	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
15	TWR_RED_HORZ_2_T2	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
16	TWR_RED_DIAG_T2	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
17	TWR_RED_HORZ_3_T2	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
18	TWR_RED_DIAG_2_T2	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
19	TWR_RED_DIAG_3_T2	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
20	TWR_RED_HIP_T2	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
21	TWR_RED_HIP_2_T2	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
22	TWR_RED_HIPDIA_T2	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
23	TWR_RED_HIPDIA_2_T2	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
24	TWR_INNER_SUPP_T2	W10X30	Beam	Wide Flange	A36	Typical	8.84	16.7	170	.622
25	TWR_INNER_SQ_T2	W8X13	Beam	Wide Flange	A36	Typical	3.84	2.73	39.6	.087
26	TWR_INNER_CORNER_T2	W8X13	Beam	Wide Flange	A36	Typical	3.84	2.73	39.6	.087
27	TWR_LEG_T3	W6X20	Column	Wide Flange	A36	Typical	5.87	13.3	41.4	.24
28	TWR_HORZ_T3	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
29	TWR_DIAG_T3	2L3x2 1/2x3/8x3/8	Column	None	A36	Typical	3.84	5.153	3.31	.18
30	TWR_RED_HORZ_T3	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
31	TWR_RED_HORZ_2_T3	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
32	TWR_RED_DIAG_T3	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
33	TWR_RED_HORZ_3_T3	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
34	TWR_RED_DIAG_2_T3	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
35	TWR_RED_DIAG_3_T3	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
36	TWR_RED_HIP_T3	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
37	TWR_RED_HIP_2_T3	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
38	TWR_RED_HIPDIA_T3	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
39	TWR_RED_HIPDIA_2_T3	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
40	TWR_INNER_SUPP_T3	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
41	TWR_INNER_SQ_T3	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
42	TWR_INNER_CORNER_T3	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
43	TWR_INNER_TRI_T3	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
44	TWR_INNER_BRACE_T3	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
45	TWR_INNER_LADDER_T3	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
46	TWR_LEG_T4	W6X25	Column	Wide Flange	A36	Typical	7.34	17.1	53.4	.461
47	TWR_HORZ_T4	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
48	TWR_DIAG_T4	2L3x2-1/2x1/2x3/8	Column	None	A36	Typical	5	6.999	4.167	.417
49	TWR_RED_HORZ_T4	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
50	TWR_RED_HORZ_2_T4	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
51	TWR_RED_DIAG_T4	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
52	TWR_RED_HORZ_3_T4	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
53	TWR_RED_DIAG_2_T4	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
54	TWR_RED_DIAG_3_T4	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
55	TWR_RED_HIP_T4	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
56	TWR_RED_HIP_2_T4	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
57	TWR_RED_HIPDIA_T4	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
58	TWR_RED_HIPDIA_2_T4	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
59	TWR_INNER_SUPP_T4	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
60	TWR_INNER_SQ_T4	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
61	TWR_INNER_CORNER_T4	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
62	TWR_INNER_TRI_T4	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
63	TWR_INNER_BRACE_T4	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
64	TWR_INNER_LADDER_T4	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
65	TWR_LEG_T5	W8X31	Column	Wide Flange	A36	Typical	9.13	37.1	110	.536
66	TWR_HORZ_T5	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
67	TWR_DIAG_T5	2L3x2-1/2x1/2x3/8	Column	None	A36	Typical	5	6.999	4.167	.417
68	TWR_RED_HORZ_T5	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
69	TWR_RED_HORZ_2_T5	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
70	TWR_RED_DIAG_T5	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
71	TWR_RED_HORZ_3_T5	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
72	TWR_RED_DIAG_2_T5	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
73	TWR_RED_DIAG_3_T5	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
74	TWR_RED_HIP_T5	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
75	TWR_RED_HIP_2_T5	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
76	TWR_RED_HIPDIA_T5	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
77	TWR_RED_HIPDIA_2_T5	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
78	TWR_INNER_SUPP_T5	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
79	TWR_INNER_SQ_T5	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
80	TWR_INNER_CORNER_T5	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
81	TWR_INNER_TRI_T5	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
82	TWR_INNER_BRACE_T5	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
83	TWR_INNER_LADDER_T5	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
84	TWR_LEG_T6	W8X40	Column	Wide Flange	A36	Typical	11.7	49.1	146	1.12
85	TWR_HORZ_T6	2L3x2 1/2x5/16x...	Beam	None	A36	Typical	3.242	4.255	2.845	.106
86	TWR_DIAG_T6	2L4x3x3/8x3/8	Column	None	A36	Typical	4.97	8.508	7.93	.233
87	TWR_RED_HORZ_T6	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
88	TWR_RED_HORZ_2_T6	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
89	TWR_RED_DIAG_T6	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
90	TWR_RED_HORZ_3_T6	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
91	TWR_RED_DIAG_2_T6	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
92	TWR_RED_DIAG_3_T6	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
93	TWR_RED_HIP_T6	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
94	TWR_RED_HIP_2_T6	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
95	TWR_RED_HIPDIA_T6	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
96	TWR_RED_HIPDIA_2_T6	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
97	TWR_INNER_SUPP_T6	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
98	TWR_INNER_SQ_T6	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
99	TWR_INNER_CORNER_T6	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
100	TWR_INNER_TRI_T6	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
101	TWR_INNER_BRACE_T6	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
102	TWR_INNER_LADDER_T6	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
103	TWR_LEG_T7	W10X54	Column	Wide Flange	A36	Typical	15.8	103	303	1.82
104	TWR_HORZ_T7	2L3x2 1/2x3/8x3/8	Beam	None	A36	Typical	3.84	5.153	3.31	.18
105	TWR_DIAG_T7	2L4x3x3/8x3/8	Column	None	A36	Typical	4.97	8.508	7.93	.233
106	TWR_RED_HORZ_T7	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
107	TWR_RED_HORZ_2_T7	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
108	TWR_RED_DIAG_T7	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
109	TWR_RED_HORZ_3_T7	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
110	TWR_RED_DIAG_2_T7	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
111	TWR_RED_DIAG_3_T7	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
112	TWR_RED_HIP_T7	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
113	TWR_RED_HIP_2_T7	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
114	TWR_RED_HIPDIA_T7	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
115	TWR_RED_HIPDIA_2_T7	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
116	TWR_INNER_SUPP_T7	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
117	TWR_INNER_SQ_T7	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
118	TWR_INNER_CORNER_T7	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
119	TWR_INNER_TRI_T7	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
120	TWR_INNER_BRACE_T7	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
121	TWR_INNER_LADDER_T7	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
122	TWR_LEG_T8	W10X60	Column	Wide Flange	A36	Typical	17.7	116	341	2.48
123	TWR_HORZ_T8	2L3x2 1/2x3/8x3/8	Beam	None	A36	Typical	3.84	5.153	3.31	.18
124	TWR_DIAG_T8	2L4x3x1/2x3/8	Column	None	A36	Typical	6.5	11.536	10.1	.542
125	TWR_RED_HORZ_T8	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
126	TWR_RED_HORZ_2_T8	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
127	TWR_RED_DIAG_T8	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
128	TWR_RED_HORZ_3_T8	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
129	TWR_RED_DIAG_2_T8	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
130	TWR_RED_DIAG_3_T8	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
131	TWR_RED_HIP_T8	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
132	TWR_RED_HIP_2_T8	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
133	TWR_RED_HIPDIA_T8	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
134	TWR_RED_HIPDIA_2_T8	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
135	TWR_INNER_SUPP_T8	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
136	TWR_INNER_SQ_T8	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
137	TWR_INNER_CORNER_T8	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
138	TWR_INNER_TRI_T8	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
139	TWR_INNER_BRACE_T8	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
140	TWR_INNER_LADDER_T8	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
141	TWR_LEG_T9	W10X68	Column	Wide Flange	A36	Typical	19.9	134	394	3.56
142	TWR_HORZ_T9	2L3x2 1/2x3/8x3/8	Beam	None	A36	Typical	3.84	5.153	3.31	.18
143	TWR_DIAG_T9	2L4x3x1/2x3/8	Column	None	A36	Typical	6.5	11.536	10.1	.542
144	TWR_RED_HORZ_T9	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
145	TWR_RED_HORZ_2_T9	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
146	TWR_RED_DIAG_T9	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
147	TWR_RED_HORZ_3_T9	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
148	TWR_RED_DIAG_2_T9	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
149	TWR_RED_DIAG_3_T9	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
150	TWR_RED_HIP_T9	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
151	TWR_RED_HIP_2_T9	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
152	TWR_RED_HIPDIA_T9	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
153	TWR_REDHIPDIA_2_T9	2L2 1/2x2 1/2x3/...	Column	None	A36	Typical	1.8	2.499	1.09	.021
154	TWR_INNER_SUPP_T9	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
155	TWR_INNER_SQ_T9	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
156	TWR_INNER_CORNER_T9	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
157	TWR_INNER_TRI_T9	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021

Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
158	TWR_INNER_BRACE_T9	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
159	TWR_INNER_LADDER_T9	2L3x2 1/2x1/4x3/8	Beam	None	A36	Typical	2.63	3.373	2.35	.055
160	TWR_LEG_T10	W12X79	Column	Wide Flange	A36	Typical	23.2	216	662	3.84
161	TWR_HORZ_T10	2L4x3x1/2x3/8	Beam	None	A36	Typical	6.5	11.536	10.1	.542
162	TWR_DIAG_T10	2L4x4x1/2x3/8	Column	None	A36	Typical	7.5	25.217	11.1	.625
163	TWR_RED_HORZ_T10	L3x3x3/16_HRA	Beam	None	A36	Typical	1.09	.96	.96	.014
164	TWR_RED_HORZ_2_T10	2L2 1/2x2 1/2x3/...	Beam	None	A36	Typical	1.8	2.499	1.09	.021
165	TWR_RED_DIAG_T10	L3x3x3/16_HRA	Column	None	A36	Typical	1.09	.96	.96	.014
166	TWR_RED_HORZ_3_T10	2L2 1/2x2 1/2x1/...	Beam	None	A36	Typical	2.38	3.347	1.41	.049
167	TWR_RED_DIAG_2_T10	2L2 1/2x2 1/2x1/...	Column	None	A36	Typical	2.38	3.347	1.41	.049
168	TWR_RED_HORZ_4_T10	2L3x3x1/4x3/8	Beam	None	A36	Typical	2.88	5.535	2.49	.06
169	TWR_RED_DIAG_3_T10	2L2 1/2x2 1/2x1/...	Column	None	A36	Typical	2.38	3.347	1.41	.049
170	TWR_RED_DIAG_4_T10	2L2 1/2x2 1/2x1/...	Column	None	A36	Typical	2.38	3.347	1.41	.049
171	TWR_RED_DIAG_0_T10	L2.5x2.5x8	Column	None	A36	Typical	2.26	1.22	1.22	.188
172	TWR_RED_HORZ_0_T10	L2.5x2.5x3	Column	None	A36	Typical	.901	.535	.535	.011
173	TWR_RED_HIP_1_T10	LL4x4x8x3	Column	None	A36	Typical	7.5	25.1	11	.644
174	TWR_RED_HIP_3_T10	LL3x3x3x3	Column	None	A36	Typical	2.18	4.09	1.9	.027
175	TWR_RED_HIPDIA_1_T10	LL3x3x3x3	Column	None	A36	Typical	2.18	4.09	1.9	.027
176	TWR_RED_HIPDIA_3_T10	LL3x3x3x3	Column	None	A36	Typical	2.18	4.09	1.9	.027
177	TWR_INNER_GIRT_T10	C4x7.2	Column	None	A36	Typical	2.13	.425	4.58	.082

General Section Sets

	Label	Shape	Type	Material	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	TWR_INNER_SUP...	2C12x20.7x0.375_GMA	Beam	A36_Gen	12.18	17.311	258	.74
2	TWR_HORZ_T2	2C10x20x0.375_GMA	Beam	A36_Gen	11.76	13.025	157.8	.74
3	TWR_INNER_SUP...	2C12x20.7x0.375_GMA	Beam	A36_Gen	12.18	17.311	258	.74
4	TWR_INNER_SUP...	2C4x7.25x0.375_GMA	Beam	A36_Gen	4.26	2.647	9.18	.16
5	TWR_INNER_SQ_...	2C4x7.25x0.375_GMA	Beam	A36_Gen	4.26	2.647	9.18	.16
6	TWR_INNER_COR...	2C4x7.25x0.375_GMA	Beam	A36_Gen	4.26	2.647	9.18	.16
7	TWR_INNER_LAD...	2C4x7.25x0.375_GMA	Beam	A36_Gen	4.26	2.647	9.18	.16
8	TWR_INNER_TRI_...	2C4x7.25x0.375_GMA	Beam	A36_Gen	4.26	2.647	9.18	.16
9	TWR_INNER_BRA...	2C4x7.25x0.375_GMA	Beam	A36_Gen	4.26	2.647	9.18	.16

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
1	M1274	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
2	M1275	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
3	M1276	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
4	M1277	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
5	M1278	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
6	M1279	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
7	M1280	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
8	M1281	TWR_DIAG_OUTER_T1	18.039	18.039	18.039	18.039	18.039	18.039	1.04	1		Late...
9	M1282	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
10	M1283	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
11	M1284	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
12	M1285	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
13	M1286	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
14	M1287	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
15	M1288	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
16	M1289	TWR_DIAG_OUTER_T1	15.569	15.569	15.569	15.569	15.569	15.569	1.05	1		Late...
17	M15	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
18	M18	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
19	M22	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
20	M25	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
21	M29	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
22	M32	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
23	M36	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
24	M39	TWR_DIAG_T1	18.298	18.298	18.298	18.298	18.298	18.298	1.05	1		Late...
25	M51	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
26	M59	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
27	M67	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
28	M75	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
29	M83	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
30	M91	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
31	M99	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
32	M107	TWR_DIAG_T2	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
33	M124	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
34	M132	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
35	M141	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
36	M149	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
37	M158	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
38	M166	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
39	M175	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
40	M183	TWR_DIAG_T3	30.093	10.031	7.523	7.523	7.523	7.523	1.09	1		Late...
41	M205	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
42	M213	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
43	M222	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
44	M230	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
45	M239	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
46	M247	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
47	M256	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
48	M264	TWR_DIAG_T4	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
49	M286	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
50	M294	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
51	M303	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
52	M311	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
53	M320	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
54	M328	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
55	M337	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
56	M345	TWR_DIAG_T5	30.093	10.031	7.523	7.523	7.523	7.523	1.1	1		Late...
57	M367	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
58	M375	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
59	M384	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
60	M392	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
61	M401	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
62	M409	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
63	M418	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
64	M426	TWR_DIAG_T6	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
65	M448	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
66	M456	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
67	M465	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
68	M473	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
69	M482	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
70	M490	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
71	M499	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
72	M507	TWR_DIAG_T7	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
73	M529	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
74	M537	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
75	M546	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
76	M554	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
77	M563	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
78	M571	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
79	M580	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
80	M588	TWR_DIAG_T8	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
81	M610	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
82	M618	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
83	M627	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
84	M635	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
85	M644	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
86	M652	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
87	M661	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
88	M669	TWR_DIAG_T9	30.093	10.031	7.523	7.523	7.523	7.523	1.08	1		Late...
89	M691	TWR_DIAG_T10	41.787	13.929	6.965	6.965	6.965	6.965	1.02	1		Late...
90	M701	TWR_DIAG_T10	41.787	13.929	6.965	6.965	6.965	6.965	1.02	1		Late...
91	M712	TWR_DIAG_T10	41.451	13.817	6.909	6.909	6.909	6.909	1.02	1		Late...
92	M722	TWR_DIAG_T10	41.451	13.817	6.909	6.909	6.909	6.909	1.02	1		Late...
93	M733	TWR_DIAG_T10	41.787	13.929	6.965	6.965	6.965	6.965	1.02	1		Late...
94	M743	TWR_DIAG_T10	41.787	13.929	6.965	6.965	6.965	6.965	1.02	1		Late...
95	M754	TWR_DIAG_T10	41.451	13.817	6.909	6.909	6.909	6.909	1.02	1		Late...
96	M764	TWR_DIAG_T10	41.451	13.817	6.909	6.909	6.909	6.909	1.02	1		Late...
97	M1270	TWR_HORZ_OUTER_T1	41.5	8.75	20.75	20.75	20.75	20.75	1	1		Late...
98	M1271	TWR_HORZ_OUTER_T1	41.5	8.75	20.75	20.75	20.75	20.75	1	1		Late...
99	M1272	TWR_HORZ_OUTER_T1	41.5	8.75	20.75	20.75	20.75	20.75	1	1		Late...
100	M1273	TWR_HORZ_OUTER_T1	41.5	8.75	20.75	20.75	20.75	20.75	1	1		Late...
101	M123	TWR_HORZ_T3	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
102	M140	TWR_HORZ_T3	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
103	M157	TWR_HORZ_T3	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
104	M174	TWR_HORZ_T3	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
105	M204	TWR_HORZ_T4	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
106	M221	TWR_HORZ_T4	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
107	M238	TWR_HORZ_T4	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
108	M255	TWR_HORZ_T4	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
109	M285	TWR_HORZ_T5	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
110	M302	TWR_HORZ_T5	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
111	M319	TWR_HORZ_T5	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
112	M336	TWR_HORZ_T5	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
113	M366	TWR_HORZ_T6	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
114	M383	TWR_HORZ_T6	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
115	M400	TWR_HORZ_T6	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
116	M417	TWR_HORZ_T6	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
117	M447	TWR_HORZ_T7	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
118	M464	TWR_HORZ_T7	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
119	M481	TWR_HORZ_T7	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
120	M498	TWR_HORZ_T7	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
121	M528	TWR_HORZ_T8	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
122	M545	TWR_HORZ_T8	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
123	M562	TWR_HORZ_T8	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
124	M579	TWR_HORZ_T8	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
125	M609	TWR_HORZ_T9	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
126	M626	TWR_HORZ_T9	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
127	M643	TWR_HORZ_T9	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
128	M660	TWR_HORZ_T9	33.5	8.375	8.375	8.375	8.375	8.375	1.13	1		Late...
129	M690	TWR_HORZ_T10	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
130	M711	TWR_HORZ_T10	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
131	M732	TWR_HORZ_T10	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
132	M753	TWR_HORZ_T10	33.5	8.375	8.375	8.375	8.375	8.375	1.12	1		Late...
133	M1221	TWR_INNER_BRACE_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
134	M1222	TWR_INNER_BRACE_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
135	M1223	TWR_INNER_BRACE_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
136	M1224	TWR_INNER_BRACE_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
137	M1225	TWR_INNER_BRACE_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
138	M1226	TWR_INNER_BRACE_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
139	M1169	TWR_INNER_BRACE_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
140	M1170	TWR_INNER_BRACE_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
141	M1171	TWR_INNER_BRACE_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
142	M1172	TWR_INNER_BRACE_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
143	M1173	TWR_INNER_BRACE_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
144	M1174	TWR_INNER_BRACE_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
145	M1117	TWR_INNER_BRACE_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
146	M1118	TWR_INNER_BRACE_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
147	M1119	TWR_INNER_BRACE_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
148	M1120	TWR_INNER_BRACE_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
149	M1121	TWR_INNER_BRACE_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
150	M1122	TWR_INNER_BRACE_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
151	M1065	TWR_INNER_BRACE_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
152	M1066	TWR_INNER_BRACE_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
153	M1067	TWR_INNER_BRACE_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
154	M1068	TWR_INNER_BRACE_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
155	M1069	TWR_INNER_BRACE_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
156	M1070	TWR_INNER_BRACE_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
157	M1013	TWR_INNER_BRACE_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
158	M1014	TWR_INNER_BRACE_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
159	M1015	TWR_INNER_BRACE_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
160	M1016	TWR_INNER_BRACE_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
161	M1017	TWR_INNER_BRACE_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
162	M1018	TWR_INNER_BRACE_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
163	M961	TWR_INNER_BRACE_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
164	M962	TWR_INNER_BRACE_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
165	M963	TWR_INNER_BRACE_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
166	M964	TWR_INNER_BRACE_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
167	M965	TWR_INNER_BRACE_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
168	M966	TWR_INNER_BRACE_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
169	M909	TWR_INNER_BRACE_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
170	M910	TWR_INNER_BRACE_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
171	M911	TWR_INNER_BRACE_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
172	M912	TWR_INNER_BRACE_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
173	M913	TWR_INNER_BRACE_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
174	M914	TWR_INNER_BRACE_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
175	M1258	TWR_INNER_CORNER_T2	11.844			Lbyy			1	1		Late...
176	M1259	TWR_INNER_CORNER_T2	11.844			Lbyy			1	1		Late...
177	M1260	TWR_INNER_CORNER_T2	11.844			Lbyy			1	1		Late...
178	M1261	TWR_INNER_CORNER_T2	11.844			Lbyy			1	1		Late...
179	M1206	TWR_INNER_CORNER_T3	11.844			Lbyy			1.03	1		Late...
180	M1207	TWR_INNER_CORNER_T3	11.844			Lbyy			1.03	1		Late...
181	M1208	TWR_INNER_CORNER_T3	11.844			Lbyy			1.03	1		Late...
182	M1154	TWR_INNER_CORNER_T4	11.844			Lbyy			1.03	1		Late...
183	M1155	TWR_INNER_CORNER_T4	11.844			Lbyy			1.03	1		Late...
184	M1156	TWR_INNER_CORNER_T4	11.844			Lbyy			1.03	1		Late...
185	M1102	TWR_INNER_CORNER_T5	11.844			Lbyy			1.03	1		Late...
186	M1103	TWR_INNER_CORNER_T5	11.844			Lbyy			1.03	1		Late...
187	M1104	TWR_INNER_CORNER_T5	11.844			Lbyy			1.03	1		Late...
188	M1050	TWR_INNER_CORNER_T6	11.844			Lbyy			1.03	1		Late...
189	M1051	TWR_INNER_CORNER_T6	11.844			Lbyy			1.03	1		Late...
190	M1052	TWR_INNER_CORNER_T6	11.844			Lbyy			1.03	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
191	M998	TWR_INNER_CORNER_T7	11.844			Lbyy			1.03	1		Late...
192	M999	TWR_INNER_CORNER_T7	11.844			Lbyy			1.03	1		Late...
193	M1000	TWR_INNER_CORNER_T7	11.844			Lbyy			1.03	1		Late...
194	M946	TWR_INNER_CORNER_T8	11.844			Lbyy			1.03	1		Late...
195	M947	TWR_INNER_CORNER_T8	11.844			Lbyy			1.03	1		Late...
196	M948	TWR_INNER_CORNER_T8	11.844			Lbyy			1.03	1		Late...
197	M894	TWR_INNER_CORNER_T9	11.844			Lbyy			1.03	1		Late...
198	M895	TWR_INNER_CORNER_T9	11.844			Lbyy			1.03	1		Late...
199	M896	TWR_INNER_CORNER_T9	11.844			Lbyy			1.03	1		Late...
200	M845	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
201	M846	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
202	M847	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
203	M848	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
204	M849	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
205	M850	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
206	M851	TWR_INNER_GIRT_T10	5.375	5.375	5.375	5.375	5.375	5.375	1	1		Late...
207	M852	TWR_INNER_GIRT_T10	5.375	5.375	5.375	5.375	5.375	5.375	1	1		Late...
208	M859	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
209	M860	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
210	M861	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
211	M862	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
212	M863	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
213	M864	TWR_INNER_GIRT_T10	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
214	M865	TWR_INNER_GIRT_T10	4.243	4.243	4.243	4.243	4.243	4.243	1	1		Late...
215	M1227	TWR_INNER_LADDER_T3	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
216	M1228	TWR_INNER_LADDER_T3	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
217	M1229	TWR_INNER_LADDER_T3	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
218	M1175	TWR_INNER_LADDER_T4	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
219	M1176	TWR_INNER_LADDER_T4	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
220	M1177	TWR_INNER_LADDER_T4	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
221	M1123	TWR_INNER_LADDER_T5	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
222	M1124	TWR_INNER_LADDER_T5	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
223	M1125	TWR_INNER_LADDER_T5	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
224	M1071	TWR_INNER_LADDER_T6	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
225	M1072	TWR_INNER_LADDER_T6	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
226	M1073	TWR_INNER_LADDER_T6	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
227	M1019	TWR_INNER_LADDER_T7	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
228	M1020	TWR_INNER_LADDER_T7	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
229	M1021	TWR_INNER_LADDER_T7	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
230	M967	TWR_INNER_LADDER_T8	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
231	M968	TWR_INNER_LADDER_T8	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
232	M969	TWR_INNER_LADDER_T8	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
233	M915	TWR_INNER_LADDER_T9	8.485	8.485	8.485	8.485	8.485	8.485	1.12	1		Late...
234	M916	TWR_INNER_LADDER_T9	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
235	M917	TWR_INNER_LADDER_T9	8.705	8.705	8.705	8.705	8.705	8.705	1.12	1		Late...
236	M1254	TWR_INNER_SQ_T2	16.75	8.375	16.75	16.75	16.75	16.75	1	1		Late...
237	M1255	TWR_INNER_SQ_T2	16.75	8.375	16.75	16.75	16.75	16.75	1	1		Late...
238	M1256	TWR_INNER_SQ_T2	16.75	8.375	16.75	16.75	16.75	16.75	1	1		Late...
239	M1257	TWR_INNER_SQ_T2	16.75	8.375	16.75	16.75	16.75	16.75	1	1		Late...
240	M1202	TWR_INNER_SQ_T3	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
241	M1203	TWR_INNER_SQ_T3	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
242	M1204	TWR_INNER_SQ_T3	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
243	M1205	TWR_INNER_SQ_T3	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
244	M1150	TWR_INNER_SQ_T4	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
245	M1151	TWR_INNER_SQ_T4	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
246	M1152	TWR_INNER_SQ_T4	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
247	M1153	TWR_INNER_SQ_T4	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
248	M1098	TWR_INNER_SQ_T5	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
249	M1099	TWR_INNER_SQ_T5	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
250	M1100	TWR_INNER_SQ_T5	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
251	M1101	TWR_INNER_SQ_T5	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
252	M1046	TWR_INNER_SQ_T6	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
253	M1047	TWR_INNER_SQ_T6	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
254	M1048	TWR_INNER_SQ_T6	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
255	M1049	TWR_INNER_SQ_T6	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
256	M994	TWR_INNER_SQ_T7	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
257	M995	TWR_INNER_SQ_T7	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
258	M996	TWR_INNER_SQ_T7	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
259	M997	TWR_INNER_SQ_T7	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
260	M942	TWR_INNER_SQ_T8	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
261	M943	TWR_INNER_SQ_T8	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
262	M944	TWR_INNER_SQ_T8	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
263	M945	TWR_INNER_SQ_T8	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
264	M890	TWR_INNER_SQ_T9	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
265	M891	TWR_INNER_SQ_T9	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
266	M892	TWR_INNER_SQ_T9	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
267	M893	TWR_INNER_SQ_T9	16.75	8.375	16.75	16.75	16.75	16.75	1.06	1		Late...
268	M42	TWR_INNER_SUPP_T2	23.688	5.922	11.844	11.844	11.844	11.844	1	1		Late...
269	M43	TWR_INNER_SUPP_T2	23.688	5.922	11.844	11.844	11.844	11.844	1	1		Late...
270	M44	TWR_INNER_SUPP_T2	23.688	5.922	11.844	11.844	11.844	11.844	1	1		Late...
271	M45	TWR_INNER_SUPP_T2	23.688	5.922	11.844	11.844	11.844	11.844	1	1		Late...
272	M46	TWR_INNER_SUPP_T2	33.5	33.5	33.5	33.5	33.5	33.5	1	1		Late...
273	M115	TWR_INNER_SUPP_T2	11.844	11.844	11.844	11.844	11.844	11.844	1	1		Late...
274	M116	TWR_INNER_SUPP_T2	11.844	11.844	11.844	11.844	11.844	11.844	1	1		Late...
275	M117	TWR_INNER_SUPP_T2	11.844	11.844	11.844	11.844	11.844	11.844	1	1		Late...
276	M118	TWR_INNER_SUPP_T2	11.844	11.844	11.844	11.844	11.844	11.844	1	1		Late...
277	M191	TWR_INNER_SUPP_T3	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
278	M192	TWR_INNER_SUPP_T3	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
279	M193	TWR_INNER_SUPP_T3	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
280	M194	TWR_INNER_SUPP_T3	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
281	M195	TWR_INNER_SUPP_T3	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
282	M196	TWR_INNER_SUPP_T3	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
283	M197	TWR_INNER_SUPP_T3	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
284	M198	TWR_INNER_SUPP_T3	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
285	M199	TWR_INNER_SUPP_T3	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
286	M272	TWR_INNER_SUPP_T4	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
287	M273	TWR_INNER_SUPP_T4	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
288	M274	TWR_INNER_SUPP_T4	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
289	M275	TWR_INNER_SUPP_T4	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
290	M276	TWR_INNER_SUPP_T4	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
291	M277	TWR_INNER_SUPP_T4	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
292	M278	TWR_INNER_SUPP_T4	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
293	M279	TWR_INNER_SUPP_T4	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
294	M280	TWR_INNER_SUPP_T4	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
295	M353	TWR_INNER_SUPP_T5	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
296	M354	TWR_INNER_SUPP_T5	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
297	M355	TWR_INNER_SUPP_T5	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
298	M356	TWR_INNER_SUPP_T5	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
299	M357	TWR_INNER_SUPP_T5	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
300	M358	TWR_INNER_SUPP_T5	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
301	M359	TWR_INNER_SUPP_T5	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
302	M360	TWR_INNER_SUPP_T5	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
303	M361	TWR_INNER_SUPP_T5	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
304	M434	TWR_INNER_SUPP_T6	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
305	M435	TWR_INNER_SUPP_T6	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
306	M436	TWR_INNER_SUPP_T6	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
307	M437	TWR_INNER_SUPP_T6	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
308	M438	TWR_INNER_SUPP_T6	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
309	M439	TWR_INNER_SUPP_T6	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
310	M440	TWR_INNER_SUPP_T6	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
311	M441	TWR_INNER_SUPP_T6	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
312	M442	TWR_INNER_SUPP_T6	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
313	M515	TWR_INNER_SUPP_T7	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
314	M516	TWR_INNER_SUPP_T7	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
315	M517	TWR_INNER_SUPP_T7	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
316	M518	TWR_INNER_SUPP_T7	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
317	M519	TWR_INNER_SUPP_T7	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
318	M520	TWR_INNER_SUPP_T7	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
319	M521	TWR_INNER_SUPP_T7	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
320	M522	TWR_INNER_SUPP_T7	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
321	M523	TWR_INNER_SUPP_T7	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
322	M596	TWR_INNER_SUPP_T8	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
323	M597	TWR_INNER_SUPP_T8	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
324	M598	TWR_INNER_SUPP_T8	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
325	M599	TWR_INNER_SUPP_T8	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
326	M600	TWR_INNER_SUPP_T8	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
327	M601	TWR_INNER_SUPP_T8	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
328	M602	TWR_INNER_SUPP_T8	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
329	M603	TWR_INNER_SUPP_T8	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
330	M604	TWR_INNER_SUPP_T8	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
331	M677	TWR_INNER_SUPP_T9	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
332	M678	TWR_INNER_SUPP_T9	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
333	M679	TWR_INNER_SUPP_T9	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
334	M680	TWR_INNER_SUPP_T9	23.688	5.922	11.844	11.844	11.844	11.844	1.24	1		Late...
335	M681	TWR_INNER_SUPP_T9	33.5	33.5	33.5	33.5	33.5	33.5	1.01	1		Late...
336	M682	TWR_INNER_SUPP_T9	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
337	M683	TWR_INNER_SUPP_T9	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
338	M684	TWR_INNER_SUPP_T9	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
339	M685	TWR_INNER_SUPP_T9	11.844	11.844	11.844	11.844	11.844	11.844	1.06	1		Late...
340	M1209	TWR_INNER_TRI_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
341	M1210	TWR_INNER_TRI_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
342	M1211	TWR_INNER_TRI_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
343	M1212	TWR_INNER_TRI_T3	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
344	M1213	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
345	M1214	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
346	M1215	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
347	M1216	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
348	M1217	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
349	M1218	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
350	M1219	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
351	M1220	TWR_INNER_TRI_T3	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
352	M1157	TWR_INNER_TRI_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
353	M1158	TWR_INNER_TRI_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
354	M1159	TWR_INNER_TRI_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
355	M1160	TWR_INNER_TRI_T4	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
356	M1161	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
357	M1162	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
358	M1163	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
359	M1164	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
360	M1165	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
361	M1166	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
362	M1167	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
363	M1168	TWR_INNER_TRI_T4	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
364	M1105	TWR_INNER_TRI_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
365	M1106	TWR_INNER_TRI_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
366	M1107	TWR_INNER_TRI_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
367	M1108	TWR_INNER_TRI_T5	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
368	M1109	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
369	M1110	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
370	M1111	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
371	M1112	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
372	M1113	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
373	M1114	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
374	M1115	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
375	M1116	TWR_INNER_TRI_T5	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
376	M1053	TWR_INNER_TRI_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
377	M1054	TWR_INNER_TRI_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
378	M1055	TWR_INNER_TRI_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
379	M1056	TWR_INNER_TRI_T6	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
380	M1057	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
381	M1058	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
382	M1059	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
383	M1060	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
384	M1061	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
385	M1062	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
386	M1063	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
387	M1064	TWR_INNER_TRI_T6	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
388	M1001	TWR_INNER_TRI_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
389	M1002	TWR_INNER_TRI_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
390	M1003	TWR_INNER_TRI_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
391	M1004	TWR_INNER_TRI_T7	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
392	M1005	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
393	M1006	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
394	M1007	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
395	M1008	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
396	M1009	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
397	M1010	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
398	M1011	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
399	M1012	TWR_INNER_TRI_T7	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
400	M949	TWR_INNER_TRI_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
401	M950	TWR_INNER_TRI_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
402	M951	TWR_INNER_TRI_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
403	M952	TWR_INNER_TRI_T8	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
404	M953	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
405	M954	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
406	M955	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
407	M956	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
408	M957	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
409	M958	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
410	M959	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
411	M960	TWR_INNER_TRI_T8	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
412	M897	TWR_INNER_TRI_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
413	M898	TWR_INNER_TRI_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
414	M899	TWR_INNER_TRI_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
415	M900	TWR_INNER_TRI_T9	8.375	8.375	8.375	8.375	8.375	8.375	1.06	1		Late...
416	M901	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
417	M902	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
418	M903	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
419	M904	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
420	M905	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
421	M906	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
422	M907	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
423	M908	TWR_INNER_TRI_T9	5.922	5.922	5.922	5.922	5.922	5.922	1.12	1		Late...
424	M1266	TWR_LEG_OUTER_T1	13.72	13.72	13.72	13.72	13.72	13.72	1.02	1		Late...
425	M1267	TWR_LEG_OUTER_T1	13.72	13.72	13.72	13.72	13.72	13.72	1.02	1		Late...
426	M1268	TWR_LEG_OUTER_T1	13.72	13.72	13.72	13.72	13.72	13.72	1.02	1		Late...
427	M1269	TWR_LEG_OUTER_T1	13.72	13.72	13.72	13.72	13.72	13.72	1.02	1		Late...
428	M1	TWR_LEG_T1	13.72	13.72	13.72	13.72	13.72	13.72	1	1		Late...
429	M2	TWR_LEG_T1	13.72	13.72	13.72	13.72	13.72	13.72	1	1		Late...
430	M3	TWR_LEG_T1	13.72	13.72	13.72	13.72	13.72	13.72	1	1		Late...
431	M4	TWR_LEG_T1	13.72	13.72	13.72	13.72	13.72	13.72	1	1		Late...
432	M47	TWR_LEG_T2	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
433	M48	TWR_LEG_T2	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
434	M49	TWR_LEG_T2	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
435	M50	TWR_LEG_T2	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
436	M119	TWR_LEG_T3	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
437	M120	TWR_LEG_T3	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
438	M121	TWR_LEG_T3	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
439	M122	TWR_LEG_T3	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
440	M200	TWR_LEG_T4	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
441	M201	TWR_LEG_T4	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
442	M202	TWR_LEG_T4	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
443	M203	TWR_LEG_T4	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
444	M281	TWR_LEG_T5	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
445	M282	TWR_LEG_T5	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
446	M283	TWR_LEG_T5	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
447	M284	TWR_LEG_T5	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
448	M362	TWR_LEG_T6	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
449	M363	TWR_LEG_T6	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
450	M364	TWR_LEG_T6	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
451	M365	TWR_LEG_T6	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
452	M443	TWR_LEG_T7	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
453	M444	TWR_LEG_T7	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
454	M445	TWR_LEG_T7	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
455	M446	TWR_LEG_T7	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
456	M524	TWR_LEG_T8	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
457	M525	TWR_LEG_T8	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
458	M526	TWR_LEG_T8	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
459	M527	TWR_LEG_T8	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
460	M605	TWR_LEG_T9	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
461	M606	TWR_LEG_T9	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
462	M607	TWR_LEG_T9	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
463	M608	TWR_LEG_T9	25	6.25	6.25	6.25	6.25	6.25	1	1		Late...
464	M686	TWR_LEG_T10	37.546	Segment	Segment	Segment	Segment	Segment	1	1		Late...
465	M687	TWR_LEG_T10	37.546	Segment	Segment	Segment	Segment	Segment	1	1		Late...
466	M688	TWR_LEG_T10	37.546	Segment	Segment	Segment	Segment	Segment	1	1		Late...
467	M689	TWR_LEG_T10	37.546	Segment	Segment	Segment	Segment	Segment	1	1		Late...
468	M882	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
469	M883	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
470	M884	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
471	M885	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
472	M886	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
473	M887	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
474	M888	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
475	M889	TWR_REDHIPDIA_2_T9	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
476	M791	TWR_RED_DIAG_0_T10	6.795	6.795	6.795	6.795	6.795	6.795	1	1		Late...
477	M792	TWR_RED_DIAG_0_T10	6.738	6.738	6.738	6.738	6.738	6.738	1	1		Late...
478	M793	TWR_RED_DIAG_0_T10	6.795	6.795	6.795	6.795	6.795	6.795	1	1		Late...
479	M794	TWR_RED_DIAG_0_T10	6.738	6.738	6.738	6.738	6.738	6.738	1	1		Late...
480	M795	TWR_RED_DIAG_0_T10	6.738	6.738	6.738	6.738	6.738	6.738	1	1		Late...
481	M796	TWR_RED_DIAG_0_T10	6.795	6.795	6.795	6.795	6.795	6.795	1	1		Late...
482	M797	TWR_RED_DIAG_0_T10	6.795	6.795	6.795	6.795	6.795	6.795	1	1		Late...
483	M798	TWR_RED_DIAG_0_T10	6.738	6.738	6.738	6.738	6.738	6.738	1	1		Late...
484	M56	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
485	M64	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
486	M72	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
487	M80	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
488	M88	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
489	M96	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
490	M104	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
491	M112	TWR_RED_DIAG_2_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
492	M129	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
493	M137	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
494	M146	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
495	M154	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
496	M163	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
497	M171	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
498	M180	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
499	M188	TWR_RED_DIAG_2_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
500	M210	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
501	M218	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
502	M227	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
503	M235	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
504	M244	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
505	M252	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
506	M261	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
507	M269	TWR_RED_DIAG_2_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
508	M291	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
509	M299	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
510	M308	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
511	M316	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
512	M325	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
513	M333	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
514	M342	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
515	M350	TWR_RED_DIAG_2_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
516	M372	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
517	M380	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
518	M389	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
519	M397	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
520	M406	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
521	M414	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
522	M423	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
523	M431	TWR_RED_DIAG_2_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
524	M453	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
525	M461	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
526	M470	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
527	M478	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
528	M487	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
529	M495	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
530	M504	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
531	M512	TWR_RED_DIAG_2_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
532	M534	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
533	M542	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
534	M551	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
535	M559	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
536	M568	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
537	M576	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
538	M585	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
539	M593	TWR_RED_DIAG_2_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
540	M615	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
541	M623	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
542	M632	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
543	M640	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
544	M649	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
545	M657	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
546	M666	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
547	M674	TWR_RED_DIAG_2_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
548	M696	TWR_RED_DIAG_2_T10	10.23	9.44	9.44	9.44	9.44	9.44	1.05	1		Late...
549	M706	TWR_RED_DIAG_2_T10	10.23	9.44	9.44	9.44	9.44	9.44	1.05	1		Late...
550	M717	TWR_RED_DIAG_2_T10	10.343	9.553	9.553	9.553	9.553	9.553	1.05	1		Late...
551	M727	TWR_RED_DIAG_2_T10	10.343	9.553	9.553	9.553	9.553	9.553	1.05	1		Late...
552	M738	TWR_RED_DIAG_2_T10	10.23	9.44	9.44	9.44	9.44	9.44	1.05	1		Late...
553	M748	TWR_RED_DIAG_2_T10	10.23	9.44	9.44	9.44	9.44	9.44	1.05	1		Late...
554	M759	TWR_RED_DIAG_2_T10	10.343	9.553	9.553	9.553	9.553	9.553	1.05	1		Late...
555	M769	TWR_RED_DIAG_2_T10	10.343	9.553	9.553	9.553	9.553	9.553	1.05	1		Late...
556	M57	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
557	M58	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
558	M65	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
559	M66	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
560	M73	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
561	M74	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
562	M81	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
563	M82	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
564	M89	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
565	M90	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
566	M97	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
567	M98	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
568	M105	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
569	M106	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
570	M113	TWR_RED_DIAG_3_T2	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
571	M114	TWR_RED_DIAG_3_T2	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
572	M130	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
573	M131	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
574	M138	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
575	M139	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
576	M147	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
577	M148	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
578	M155	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
579	M156	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
580	M164	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
581	M165	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
582	M172	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
583	M173	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
584	M181	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
585	M182	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
586	M189	TWR_RED_DIAG_3_T3	10.45	10.13	10.13	10.13	10.13	10.13	1.04	1		Late...
587	M190	TWR_RED_DIAG_3_T3	7.523	7.203	7.203	7.203	7.203	7.203	1.08	1		Late...
588	M211	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
589	M212	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
590	M219	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
591	M220	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
592	M228	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
593	M229	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
594	M236	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
595	M237	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
596	M245	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
597	M246	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
598	M253	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
599	M254	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
600	M262	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
601	M263	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
602	M270	TWR_RED_DIAG_3_T4	10.45	10.12	10.12	10.12	10.12	10.12	1.04	1		Late...
603	M271	TWR_RED_DIAG_3_T4	7.523	7.193	7.193	7.193	7.193	7.193	1.08	1		Late...
604	M292	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
605	M293	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
606	M300	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
607	M301	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
608	M309	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
609	M310	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
610	M317	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
611	M318	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
612	M326	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
613	M327	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
614	M334	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
615	M335	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
616	M343	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
617	M344	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
618	M351	TWR_RED_DIAG_3_T5	10.45	10.03	10.03	10.03	10.03	10.03	1.04	1		Late...
619	M352	TWR_RED_DIAG_3_T5	7.523	7.103	7.103	7.103	7.103	7.103	1.09	1		Late...
620	M373	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
621	M374	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
622	M381	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
623	M382	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
624	M390	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
625	M391	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
626	M398	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
627	M399	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
628	M407	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
629	M408	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
630	M415	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
631	M416	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
632	M424	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
633	M425	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
634	M432	TWR_RED_DIAG_3_T6	10.45	10.02	10.02	10.02	10.02	10.02	1.04	1		Late...
635	M433	TWR_RED_DIAG_3_T6	7.523	7.093	7.093	7.093	7.093	7.093	1.09	1		Late...
636	M454	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
637	M455	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
638	M462	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
639	M463	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
640	M471	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
641	M472	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
642	M479	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
643	M480	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
644	M488	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
645	M489	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
646	M496	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
647	M497	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
648	M505	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
649	M506	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
650	M513	TWR_RED_DIAG_3_T7	10.45	9.93	9.93	9.93	9.93	9.93	1.05	1		Late...
651	M514	TWR_RED_DIAG_3_T7	7.523	7.003	7.003	7.003	7.003	7.003	1.09	1		Late...
652	M535	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
653	M536	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
654	M543	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
655	M544	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
656	M552	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
657	M553	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
658	M560	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
659	M561	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
660	M569	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
661	M570	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
662	M577	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
663	M578	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
664	M586	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
665	M587	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
666	M594	TWR_RED_DIAG_3_T8	10.45	9.92	9.92	9.92	9.92	9.92	1.05	1		Late...
667	M595	TWR_RED_DIAG_3_T8	7.523	6.993	6.993	6.993	6.993	6.993	1.09	1		Late...
668	M616	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
669	M617	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
670	M624	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
671	M625	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
672	M633	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
673	M634	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
674	M641	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
675	M642	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
676	M650	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
677	M651	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
678	M658	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
679	M659	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
680	M667	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
681	M668	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
682	M675	TWR_RED_DIAG_3_T9	10.45	9.91	9.91	9.91	9.91	9.91	1.05	1		Late...
683	M676	TWR_RED_DIAG_3_T9	7.523	6.983	6.983	6.983	6.983	6.983	1.09	1		Late...
684	M698	TWR_RED_DIAG_3_T10	12.556	11.896	11.896	11.896	11.896	11.896	1.03	1		Late...
685	M708	TWR_RED_DIAG_3_T10	12.556	11.896	11.896	11.896	11.896	11.896	1.03	1		Late...
686	M719	TWR_RED_DIAG_3_T10	12.679	12.019	12.019	12.019	12.019	12.019	1.03	1		Late...
687	M729	TWR_RED_DIAG_3_T10	12.679	12.019	12.019	12.019	12.019	12.019	1.03	1		Late...
688	M740	TWR_RED_DIAG_3_T10	12.556	11.896	11.896	11.896	11.896	11.896	1.03	1		Late...
689	M750	TWR_RED_DIAG_3_T10	12.556	11.896	11.896	11.896	11.896	11.896	1.03	1		Late...
690	M761	TWR_RED_DIAG_3_T10	12.679	12.266	12.266	12.266	12.266	12.266	1.03	1		Late...
691	M771	TWR_RED_DIAG_3_T10	12.679	12.019	12.019	12.019	12.019	12.019	1.03	1		Late...
692	M699	TWR_RED_DIAG_4_T10	10.675	9.995	9.995	9.995	9.995	9.995	1.05	1		Late...
693	M700	TWR_RED_DIAG_4_T10	8.199	7.519	7.519	7.519	7.519	7.519	1.08	1		Late...
694	M709	TWR_RED_DIAG_4_T10	10.675	9.995	9.995	9.995	9.995	9.995	1.05	1		Late...
695	M710	TWR_RED_DIAG_4_T10	8.199	7.519	7.519	7.519	7.519	7.519	1.08	1		Late...
696	M720	TWR_RED_DIAG_4_T10	10.565	9.885	9.885	9.885	9.885	9.885	1.05	1		Late...
697	M721	TWR_RED_DIAG_4_T10	8.293	7.613	7.613	7.613	7.613	7.613	1.08	1		Late...
698	M730	TWR_RED_DIAG_4_T10	10.565	9.885	9.885	9.885	9.885	9.885	1.05	1		Late...
699	M731	TWR_RED_DIAG_4_T10	8.293	7.613	7.613	7.613	7.613	7.613	1.08	1		Late...
700	M741	TWR_RED_DIAG_4_T10	10.675	9.995	9.995	9.995	9.995	9.995	1.05	1		Late...
701	M742	TWR_RED_DIAG_4_T10	8.199	7.519	7.519	7.519	7.519	7.519	1.08	1		Late...
702	M751	TWR_RED_DIAG_4_T10	10.675	9.995	9.995	9.995	9.995	9.995	1.05	1		Late...
703	M752	TWR_RED_DIAG_4_T10	8.199	7.519	7.519	7.519	7.519	7.519	1.08	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
704	M762	TWR_RED_DIAG_4_T10	10.565	9.885	9.885	9.885	9.885	9.885	1.05	1		Late...
705	M763	TWR_RED_DIAG_4_T10	8.293	7.613	7.613	7.613	7.613	7.613	1.08	1		Late...
706	M772	TWR_RED_DIAG_4_T10	10.565	9.885	9.885	9.885	9.885	9.885	1.05	1		Late...
707	M773	TWR_RED_DIAG_4_T10	8.293	7.613	7.613	7.613	7.613	7.613	1.08	1		Late...
708	M17	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
709	M20	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
710	M24	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
711	M27	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
712	M31	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
713	M34	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
714	M38	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
715	M41	TWR_RED_DIAG_T1	9.149	8.839	8.839	8.839	8.839	8.839	1	1		Late...
716	M54	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
717	M62	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
718	M70	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
719	M78	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
720	M86	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
721	M94	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
722	M102	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
723	M110	TWR_RED_DIAG_T2	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
724	M127	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
725	M135	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
726	M144	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
727	M152	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
728	M161	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
729	M169	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
730	M178	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
731	M186	TWR_RED_DIAG_T3	7.523	7.06	7.06	7.06	7.06	7.06	1	1		Late...
732	M208	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
733	M216	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
734	M225	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
735	M233	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
736	M242	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
737	M250	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
738	M259	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
739	M267	TWR_RED_DIAG_T4	7.523	7.05	7.05	7.05	7.05	7.05	1	1		Late...
740	M289	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
741	M297	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
742	M306	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
743	M314	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
744	M323	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
745	M331	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
746	M340	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
747	M348	TWR_RED_DIAG_T5	7.523	6.92	6.92	6.92	6.92	6.92	1	1		Late...
748	M370	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
749	M378	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
750	M387	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
751	M395	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
752	M404	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
753	M412	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
754	M421	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
755	M429	TWR_RED_DIAG_T6	7.523	6.91	6.91	6.91	6.91	6.91	1	1		Late...
756	M451	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
757	M459	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
758	M468	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
759	M476	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
760	M485	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
761	M493	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
762	M502	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
763	M510	TWR_RED_DIAG_T7	7.523	6.77	6.77	6.77	6.77	6.77	1	1		Late...
764	M532	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
765	M540	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
766	M549	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
767	M557	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
768	M566	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
769	M574	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
770	M583	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
771	M591	TWR_RED_DIAG_T8	7.523	6.76	6.76	6.76	6.76	6.76	1	1		Late...
772	M613	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
773	M621	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
774	M630	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
775	M638	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
776	M647	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
777	M655	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
778	M664	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
779	M672	TWR_RED_DIAG_T9	7.523	6.74	6.74	6.74	6.74	6.74	1	1		Late...
780	M694	TWR_RED_DIAG_T10	8.199	6.809	6.809	6.809	6.809	6.809	1	1		Late...
781	M704	TWR_RED_DIAG_T10	8.199	6.809	6.809	6.809	6.809	6.809	1	1		Late...
782	M715	TWR_RED_DIAG_T10	8.293	6.903	6.903	6.903	6.903	6.903	1	1		Late...
783	M725	TWR_RED_DIAG_T10	8.293	6.903	6.903	6.903	6.903	6.903	1	1		Late...
784	M736	TWR_RED_DIAG_T10	8.199	6.809	6.809	6.809	6.809	6.809	1	1		Late...
785	M746	TWR_RED_DIAG_T10	8.199	6.809	6.809	6.809	6.809	6.809	1	1		Late...
786	M757	TWR_RED_DIAG_T10	8.293	6.903	6.903	6.903	6.903	6.903	1	1		Late...
787	M767	TWR_RED_DIAG_T10	8.293	6.903	6.903	6.903	6.903	6.903	1	1		Late...
788	M807	TWR_RED_HIPDIA_1_T10	13.929	13.929	13.929	13.929	13.929	13.929	1.02	1		Late...
789	M808	TWR_RED_HIPDIA_1_T10	13.817	13.817	13.817	13.817	13.817	13.817	1.02	1		Late...
790	M809	TWR_RED_HIPDIA_1_T10	13.817	13.817	13.817	13.817	13.817	13.817	1.02	1		Late...
791	M810	TWR_RED_HIPDIA_1_T10	13.929	13.929	13.929	13.929	13.929	13.929	1.02	1		Late...
792	M811	TWR_RED_HIPDIA_1_T10	13.929	13.929	13.929	13.929	13.929	13.929	1.02	1		Late...
793	M812	TWR_RED_HIPDIA_1_T10	13.817	13.817	13.817	13.817	13.817	13.817	1.02	1		Late...
794	M813	TWR_RED_HIPDIA_1_T10	13.817	13.817	13.817	13.817	13.817	13.817	1.02	1		Late...
795	M814	TWR_RED_HIPDIA_1_T10	13.929	13.929	13.929	13.929	13.929	13.929	1.02	1		Late...
796	M1246	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
797	M1247	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
798	M1248	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
799	M1249	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
800	M1250	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
801	M1251	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
802	M1252	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
803	M1253	TWR_RED_HIPDIA_2_T2	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
804	M1194	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
805	M1195	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
806	M1196	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
807	M1197	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
808	M1198	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
809	M1199	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
810	M1200	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
811	M1201	TWR_RED_HIPDIA_2_T3	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
812	M1142	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
813	M1143	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
814	M1144	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
815	M1145	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
816	M1146	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
817	M1147	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
818	M1148	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
819	M1149	TWR_RED_HIPDIA_2_T4	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
820	M1090	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
821	M1091	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
822	M1092	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
823	M1093	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
824	M1094	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
825	M1095	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
826	M1096	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
827	M1097	TWR_RED_HIPDIA_2_T5	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
828	M1038	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
829	M1039	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
830	M1040	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
831	M1041	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
832	M1042	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
833	M1043	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
834	M1044	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
835	M1045	TWR_RED_HIPDIA_2_T6	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
836	M986	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
837	M987	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
838	M988	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
839	M989	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
840	M990	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
841	M991	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
842	M992	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
843	M993	TWR_RED_HIPDIA_2_T7	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
844	M934	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
845	M935	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
846	M936	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
847	M937	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
848	M938	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
849	M939	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
850	M940	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
851	M941	TWR_RED_HIPDIA_2_T8	12.14	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
852	M815	TWR_RED_HIPDIA_3_T10	15.567	15.567	15.567	15.567	15.567	15.567	1.02	1		Late...
853	M816	TWR_RED_HIPDIA_3_T10	15.366	15.366	15.366	15.366	15.366	15.366	1.02	1		Late...
854	M817	TWR_RED_HIPDIA_3_T10	15.366	15.366	15.366	15.366	15.366	15.366	1.02	1		Late...
855	M818	TWR_RED_HIPDIA_3_T10	15.567	15.567	15.567	15.567	15.567	15.567	1.02	1		Late...
856	M819	TWR_RED_HIPDIA_3_T10	15.567	15.567	15.567	15.567	15.567	15.567	1.02	1		Late...
857	M820	TWR_RED_HIPDIA_3_T10	15.366	15.366	15.366	15.366	15.366	15.366	1.02	1		Late...
858	M821	TWR_RED_HIPDIA_3_T10	15.366	15.366	15.366	15.366	15.366	15.366	1.02	1		Late...
859	M822	TWR_RED_HIPDIA_3_T10	15.567	15.567	15.567	15.567	15.567	15.567	1.02	1		Late...
860	M1238	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
861	M1239	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
862	M1240	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
863	M1241	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
864	M1242	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
865	M1243	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
866	M1244	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
867	M1245	TWR_RED_HIPDIA_T2	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
868	M1186	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
869	M1187	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
870	M1188	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
871	M1189	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
872	M1190	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
873	M1191	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
874	M1192	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
875	M1193	TWR_RED_HIPDIA_T3	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
876	M1134	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
877	M1135	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
878	M1136	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
879	M1137	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
880	M1138	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
881	M1139	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
882	M1140	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
883	M1141	TWR_RED_HIPDIA_T4	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
884	M1082	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
885	M1083	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
886	M1084	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
887	M1085	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
888	M1086	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
889	M1087	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
890	M1088	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
891	M1089	TWR_RED_HIPDIA_T5	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
892	M1030	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
893	M1031	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
894	M1032	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
895	M1033	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
896	M1034	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
897	M1035	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
898	M1036	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
899	M1037	TWR_RED_HIPDIA_T6	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
900	M978	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
901	M979	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
902	M980	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
903	M981	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
904	M982	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
905	M983	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
906	M984	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
907	M985	TWR_RED_HIPDIA_T7	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
908	M926	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
909	M927	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
910	M928	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
911	M929	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
912	M930	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
913	M931	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
914	M932	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
915	M933	TWR_RED_HIPDIA_T8	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
916	M874	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
917	M875	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
918	M876	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
919	M877	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
920	M878	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
921	M879	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
922	M880	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
923	M881	TWR_RED_HIPDIA_T9	10.031	10.031	10.031	10.031	10.031	10.031	1.04	1		Late...
924	M799	TWR_RED_HIP_1_T10	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
925	M800	TWR_RED_HIP_1_T10	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
926	M801	TWR_RED_HIP_1_T10	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
927	M806	TWR_RED_HIP_1_T10	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
928	M1234	TWR_RED_HIP_2_T2	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
929	M1235	TWR_RED_HIP_2_T2	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
930	M1236	TWR_RED_HIP_2_T2	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
931	M1237	TWR_RED_HIP_2_T2	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
932	M1182	TWR_RED_HIP_2_T3	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
933	M1183	TWR_RED_HIP_2_T3	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
934	M1184	TWR_RED_HIP_2_T3	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
935	M1185	TWR_RED_HIP_2_T3	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
936	M1130	TWR_RED_HIP_2_T4	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
937	M1131	TWR_RED_HIP_2_T4	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
938	M1132	TWR_RED_HIP_2_T4	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
939	M1133	TWR_RED_HIP_2_T4	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
940	M1078	TWR_RED_HIP_2_T5	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
941	M1079	TWR_RED_HIP_2_T5	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
942	M1080	TWR_RED_HIP_2_T5	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
943	M1081	TWR_RED_HIP_2_T5	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
944	M1026	TWR_RED_HIP_2_T6	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
945	M1027	TWR_RED_HIP_2_T6	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
946	M1028	TWR_RED_HIP_2_T6	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
947	M1029	TWR_RED_HIP_2_T6	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
948	M974	TWR_RED_HIP_2_T7	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
949	M975	TWR_RED_HIP_2_T7	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
950	M976	TWR_RED_HIP_2_T7	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
951	M977	TWR_RED_HIP_2_T7	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
952	M922	TWR_RED_HIP_2_T8	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
953	M923	TWR_RED_HIP_2_T8	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
954	M924	TWR_RED_HIP_2_T8	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
955	M925	TWR_RED_HIP_2_T8	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
956	M870	TWR_RED_HIP_2_T9	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
957	M871	TWR_RED_HIP_2_T9	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
958	M872	TWR_RED_HIP_2_T9	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
959	M873	TWR_RED_HIP_2_T9	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
960	M802	TWR_RED_HIP_3_T10	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
961	M803	TWR_RED_HIP_3_T10	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
962	M804	TWR_RED_HIP_3_T10	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
963	M805	TWR_RED_HIP_3_T10	15.792	15.792	15.792	15.792	15.792	15.792	1.02	1		Late...
964	M1230	TWR_RED_HIP_T2	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
965	M1231	TWR_RED_HIP_T2	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
966	M1232	TWR_RED_HIP_T2	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
967	M1233	TWR_RED_HIP_T2	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
968	M1178	TWR_RED_HIP_T3	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
969	M1179	TWR_RED_HIP_T3	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
970	M1180	TWR_RED_HIP_T3	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
971	M1181	TWR_RED_HIP_T3	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
972	M1126	TWR_RED_HIP_T4	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
973	M1127	TWR_RED_HIP_T4	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
974	M1128	TWR_RED_HIP_T4	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
975	M1129	TWR_RED_HIP_T4	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
976	M1074	TWR_RED_HIP_T5	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
977	M1075	TWR_RED_HIP_T5	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
978	M1076	TWR_RED_HIP_T5	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
979	M1077	TWR_RED_HIP_T5	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
980	M1022	TWR_RED_HIP_T6	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
981	M1023	TWR_RED_HIP_T6	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
982	M1024	TWR_RED_HIP_T6	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
983	M1025	TWR_RED_HIP_T6	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
984	M970	TWR_RED_HIP_T7	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
985	M971	TWR_RED_HIP_T7	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
986	M972	TWR_RED_HIP_T7	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
987	M973	TWR_RED_HIP_T7	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
988	M918	TWR_RED_HIP_T8	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
989	M919	TWR_RED_HIP_T8	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
990	M920	TWR_RED_HIP_T8	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
991	M921	TWR_RED_HIP_T8	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
992	M866	TWR_RED_HIP_T9	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
993	M867	TWR_RED_HIP_T9	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
994	M868	TWR_RED_HIP_T9	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
995	M869	TWR_RED_HIP_T9	7.896	7.896	7.896	7.896	7.896	7.896	1.07	1		Late...
996	M783	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
997	M784	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
998	M785	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
999	M786	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
1000	M787	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
1001	M788	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
1002	M789	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
1003	M790	TWR_RED_HORZ_0_T10	2.792	2.792	2.792	2.792	2.792	2.792	1	1		Late...
1004	M1262	TWR_RED_HORZ_2_T1	12.75	12.75	12.75	12.75	12.75	12.75	1.03	1		Late...
1005	M1263	TWR_RED_HORZ_2_T1	12.75	12.75	12.75	12.75	12.75	12.75	1.03	1		Late...
1006	M1264	TWR_RED_HORZ_2_T1	12.75	12.75	12.75	12.75	12.75	12.75	1.03	1		Late...
1007	M1265	TWR_RED_HORZ_2_T1	12.75	12.75	12.75	12.75	12.75	12.75	1.03	1		Late...
1008	M53	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1009	M61	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1010	M69	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1011	M77	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1012	M85	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1013	M93	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1014	M101	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1015	M109	TWR_RED_HORZ_2_T2	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1016	M126	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1017	M134	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1018	M143	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1019	M151	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1020	M160	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1021	M168	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1022	M177	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1023	M185	TWR_RED_HORZ_2_T3	8.375	8.12	8.12	8.12	8.12	8.12	1.07	1		Late...
1024	M207	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1025	M215	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1026	M224	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1027	M232	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1028	M241	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1029	M249	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1030	M258	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1031	M266	TWR_RED_HORZ_2_T4	8.375	8.11	8.11	8.11	8.11	8.11	1.07	1		Late...
1032	M288	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1033	M296	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1034	M305	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1035	M313	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1036	M322	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1037	M330	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1038	M339	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1039	M347	TWR_RED_HORZ_2_T5	8.375	8.04	8.04	8.04	8.04	8.04	1.07	1		Late...
1040	M369	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1041	M377	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1042	M386	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1043	M394	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1044	M403	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1045	M411	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
1046	M420	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1047	M428	TWR_RED_HORZ_2_T6	8.375	8.03	8.03	8.03	8.03	8.03	1.07	1		Late...
1048	M450	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1049	M458	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1050	M467	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1051	M475	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1052	M484	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1053	M492	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1054	M501	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1055	M509	TWR_RED_HORZ_2_T7	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1056	M531	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1057	M539	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1058	M548	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1059	M556	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1060	M565	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1061	M573	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1062	M582	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1063	M590	TWR_RED_HORZ_2_T8	8.375	7.95	7.95	7.95	7.95	7.95	1.07	1		Late...
1064	M612	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1065	M620	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1066	M629	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1067	M637	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1068	M646	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1069	M654	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1070	M663	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1071	M671	TWR_RED_HORZ_2_T9	8.375	7.94	7.94	7.94	7.94	7.94	1.07	1		Late...
1072	M693	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1073	M703	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1074	M714	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1075	M724	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1076	M735	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1077	M745	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1078	M756	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1079	M766	TWR_RED_HORZ_2_T10	8.375	7.855	7.855	7.855	7.855	7.855	1.07	1		Late...
1080	M1290	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1081	M1291	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1082	M1292	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1083	M1293	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1084	M1294	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1085	M1295	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1086	M1296	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1087	M1297	TWR_RED_HORZ_3_T1	10.375	10.375	10.375	10.375	10.375	10.375	1.04	1		Late...
1088	M55	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1089	M63	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1090	M71	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1091	M79	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1092	M87	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1093	M95	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1094	M103	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1095	M111	TWR_RED_HORZ_3_T2	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1096	M128	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1097	M136	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1098	M145	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1099	M153	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1100	M162	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1101	M170	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1102	M179	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
1103	M187	TWR_RED_HORZ_3_T3	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1104	M209	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1105	M217	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1106	M226	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1107	M234	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1108	M243	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1109	M251	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1110	M260	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1111	M268	TWR_RED_HORZ_3_T4	12.563	12.3	12.3	12.3	12.3	12.3	1.03	1		Late...
1112	M290	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1113	M298	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1114	M307	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1115	M315	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1116	M324	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1117	M332	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1118	M341	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1119	M349	TWR_RED_HORZ_3_T5	12.563	12.23	12.23	12.23	12.23	12.23	1.03	1		Late...
1120	M371	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1121	M379	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1122	M388	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1123	M396	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1124	M405	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1125	M413	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1126	M422	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1127	M430	TWR_RED_HORZ_3_T6	12.563	12.22	12.22	12.22	12.22	12.22	1.03	1		Late...
1128	M452	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1129	M460	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1130	M469	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1131	M477	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1132	M486	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1133	M494	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1134	M503	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1135	M511	TWR_RED_HORZ_3_T7	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1136	M533	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1137	M541	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1138	M550	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1139	M558	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1140	M567	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1141	M575	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1142	M584	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1143	M592	TWR_RED_HORZ_3_T8	12.563	12.14	12.14	12.14	12.14	12.14	1.03	1		Late...
1144	M614	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1145	M622	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1146	M631	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1147	M639	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1148	M648	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1149	M656	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1150	M665	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1151	M673	TWR_RED_HORZ_3_T9	12.563	12.13	12.13	12.13	12.13	12.13	1.03	1		Late...
1152	M695	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1153	M705	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1154	M716	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1155	M726	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1156	M737	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1157	M747	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1158	M758	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...
1159	M768	TWR_RED_HORZ_3_T10	11.167	10.647	10.647	10.647	10.647	10.647	1.04	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
1160	M1298	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1161	M1299	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1162	M1300	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1163	M1301	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1164	M1302	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1165	M1303	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1166	M1304	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1167	M1305	TWR_RED_HORZ_4_T1	4.188	4.188	4.188	4.188	4.188	4.188	1	1		Late...
1168	M1306	TWR_RED_HORZ_4_T1	8.375	8.375	8.375	8.375	8.375	8.375	1	1		Late...
1169	M1307	TWR_RED_HORZ_4_T1	8.375	8.375	8.375	8.375	8.375	8.375	1	1		Late...
1170	M1308	TWR_RED_HORZ_4_T1	8.375	8.375	8.375	8.375	8.375	8.375	1	1		Late...
1171	M1309	TWR_RED_HORZ_4_T1	8.375	8.375	8.375	8.375	8.375	8.375	1	1		Late...
1172	M697	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1173	M707	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1174	M718	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1175	M728	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1176	M739	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1177	M749	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1178	M760	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1179	M770	TWR_RED_HORZ_4_T10	13.958	13.438	13.438	13.438	13.438	13.438	1.02	1		Late...
1180	M16	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1181	M19	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1182	M23	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1183	M26	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1184	M30	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1185	M33	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1186	M37	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1187	M40	TWR_RED_HORZ_T1	8.375	8.13	8.13	8.13	8.13	8.13	1	1		Late...
1188	M52	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1189	M60	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1190	M68	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1191	M76	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1192	M84	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1193	M92	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1194	M100	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1195	M108	TWR_RED_HORZ_T2	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1196	M125	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1197	M133	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1198	M142	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1199	M150	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1200	M159	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1201	M167	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1202	M176	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1203	M184	TWR_RED_HORZ_T3	4.188	3.93	3.93	3.93	3.93	3.93	1	1		Late...
1204	M206	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1205	M214	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1206	M223	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1207	M231	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1208	M240	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1209	M248	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1210	M257	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1211	M265	TWR_RED_HORZ_T4	4.188	3.92	3.92	3.92	3.92	3.92	1	1		Late...
1212	M287	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1213	M295	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1214	M304	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1215	M312	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1216	M321	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp b...	L-torqu...	Kyy	Kzz	Cb	Fun...
1217	M329	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1218	M338	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1219	M346	TWR_RED_HORZ_T5	4.188	3.85	3.85	3.85	3.85	3.85	1	1		Late...
1220	M368	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1221	M376	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1222	M385	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1223	M393	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1224	M402	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1225	M410	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1226	M419	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1227	M427	TWR_RED_HORZ_T6	4.188	3.84	3.84	3.84	3.84	3.84	1	1		Late...
1228	M449	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1229	M457	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1230	M466	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1231	M474	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1232	M483	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1233	M491	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1234	M500	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1235	M508	TWR_RED_HORZ_T7	4.188	3.77	3.77	3.77	3.77	3.77	1	1		Late...
1236	M530	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1237	M538	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1238	M547	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1239	M555	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1240	M564	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1241	M572	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1242	M581	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1243	M589	TWR_RED_HORZ_T8	4.188	3.76	3.76	3.76	3.76	3.76	1	1		Late...
1244	M611	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1245	M619	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1246	M628	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1247	M636	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1248	M645	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1249	M653	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1250	M662	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1251	M670	TWR_RED_HORZ_T9	4.188	3.75	3.75	3.75	3.75	3.75	1	1		Late...
1252	M692	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1253	M702	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1254	M713	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1255	M723	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1256	M734	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1257	M744	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1258	M755	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1259	M765	TWR_RED_HORZ_T10	5.583	5.063	5.063	5.063	5.063	5.063	1	1		Late...
1260	M5	TWR_TOP_GIRT_T1	25.5	12.5	12.5	12.5	12.5	12.5	1.11	1		Late...
1261	M6	TWR_TOP_GIRT_T1	25.5	12.5	12.5	12.5	12.5	12.5	1.11	1		Late...
1262	M7	TWR_TOP_GIRT_T1	25.5	12.5	12.5	12.5	12.5	12.5	1.11	1		Late...
1263	M8	TWR_TOP_GIRT_T1	25.5	12.5	12.5	12.5	12.5	12.5	1.11	1		Late...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Dead	None		-1		40	483	40		
2	No Ice Wind 0 deg	None				40	1320	120		
3	No Ice Wind 45 deg	None				80	1272	160		
4	No Ice Wind 90 deg	None				40	1326	120		
5	No Ice Wind 135 deg	None				80	1270	160		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
6	No Ice Wind 180 deg	None				40	1320	120		
7	No Ice Wind 225 deg	None				80	1272	160		
8	No Ice Wind 270 deg	None				40	1326	120		
9	No Ice Wind 315 deg	None				80	1270	160		
10	Ice	None				40	482	822		
11	Temperature Drop	None						782		
12	Ice Wind 0 deg	None				40	1320	112		
13	Ice Wind 45 deg	None				80	1224	160		
14	Ice Wind 90 deg	None				40	1338	120		
15	Ice Wind 135 deg	None				80	1222	160		
16	Ice Wind 180 deg	None				40	1320	112		
17	Ice Wind 225 deg	None				80	1224	160		
18	Ice Wind 270 deg	None				40	1338	120		
19	Ice Wind 315 deg	None				80	1222	160		
20	Service Wind 0 deg	None				40	1286	112		
21	Service Wind 45 deg	None				80	1192	160		
22	Service Wind 90 deg	None				40	1282	120		
23	Service Wind 135 deg	None				80	1190	160		
24	Service Wind 180 deg	None				40	1286	112		
25	Service Wind 225 deg	None				80	1192	160		
26	Service Wind 270 deg	None				40	1282	120		
27	Service Wind 315 deg	None				80	1190	160		

Load Combinations

	Description	Solve	PDelta	SR...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	Dead Only	Yes			1	1	28	1	29	1														
2	1.2 Dead+1.6 Wind 0 deg -...	Yes			1	1.2	2	1.6	28	1.2	29	1												
3	0.9 Dead+1.6 Wind 0 deg -...	Yes			1	.9	2	1.6	28	.9	29	1												
4	1.2 Dead+1.6 Wind 45 deg...	Yes			1	1.2	3	1.6	28	1.2	29	1												
5	0.9 Dead+1.6 Wind 45 deg...	Yes			1	.9	3	1.6	28	.9	29	1												
6	1.2 Dead+1.6 Wind 90 deg...	Yes			1	1.2	4	1.6	28	1.2	29	1												
7	0.9 Dead+1.6 Wind 90 deg...	Yes			1	.9	4	1.6	28	.9	29	1												
8	1.2 Dead+1.6 Wind 135 de...	Yes			1	1.2	5	1.6	28	1.2	29	1												
9	0.9 Dead+1.6 Wind 135 de...	Yes			1	.9	5	1.6	28	.9	29	1												
10	1.2 Dead+1.6 Wind 180 de...	Yes			1	1.2	6	1.6	28	1.2	29	1												
11	0.9 Dead+1.6 Wind 180 de...	Yes			1	.9	6	1.6	28	.9	29	1												
12	1.2 Dead+1.6 Wind 225 de...	Yes			1	1.2	7	1.6	28	1.2	29	1												
13	0.9 Dead+1.6 Wind 225 de...	Yes			1	.9	7	1.6	28	.9	29	1												
14	1.2 Dead+1.6 Wind 270 de...	Yes			1	1.2	8	1.6	28	1.2	29	1												
15	0.9 Dead+1.6 Wind 270 de...	Yes			1	.9	8	1.6	28	.9	29	1												
16	1.2 Dead+1.6 Wind 315 de...	Yes			1	1.2	9	1.6	28	1.2	29	1												
17	0.9 Dead+1.6 Wind 315 de...	Yes			1	.9	9	1.6	28	.9	29	1												
18	1.2 Dead+1.0 Ice+1.0 Temp	Yes			1	1.2	10	1	11	1	28	1.2	29	1										
19	1.2 Dead+1.0 Wind 0 deg+...	Yes			1	1.2	12	1	10	1	11	1	28	1.2	29	1								
20	1.2 Dead+1.0 Wind 45 deg...	Yes			1	1.2	13	1	10	1	11	1	28	1.2	29	1								
21	1.2 Dead+1.0 Wind 90 deg...	Yes			1	1.2	14	1	10	1	11	1	28	1.2	29	1								
22	1.2 Dead+1.0 Wind 135 de...	Yes			1	1.2	15	1	10	1	11	1	28	1.2	29	1								
23	1.2 Dead+1.0 Wind 180 de...	Yes			1	1.2	16	1	10	1	11	1	28	1.2	29	1								
24	1.2 Dead+1.0 Wind 225 de...	Yes			1	1.2	17	1	10	1	11	1	28	1.2	29	1								
25	1.2 Dead+1.0 Wind 270 de...	Yes			1	1.2	18	1	10	1	11	1	28	1.2	29	1								
26	1.2 Dead+1.0 Wind 315 de...	Yes			1	1.2	19	1	10	1	11	1	28	1.2	29	1								
27	Dead+Wind 0 deg - Service	Yes			1	1	20	1	28	1	29	1												
28	Dead+Wind 45 deg - Servi...	Yes			1	1	21	1	28	1	29	1												
29	Dead+Wind 90 deg - Servi...	Yes			1	1	22	1	28	1	29	1												
30	Dead+Wind 135 deg - Ser...	Yes			1	1	23	1	28	1	29	1												

Load Combinations (Continued)

	Description	Solve	PDelta	SR...	B...	Fa...	B...	Fa...	B...	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
31	Dead+Wind 180 deg - Ser...	Yes			1	1	24	1	28	1	29	1												
32	Dead+Wind 225 deg - Ser...	Yes			1	1	25	1	28	1	29	1												
33	Dead+Wind 270 deg - Ser...	Yes			1	1	26	1	28	1	29	1												
34	Dead+Wind 315 deg - Ser...	Yes			1	1	27	1	28	1	29	1												

Envelope AISC 14th(360-10): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
1	M1274	2L3 1/2x4x5/...	.071	0	21	.002	9.0...	y	4	24.588	145.476	16.043	8.582	1	H1-1b*
2	M1275	2L3 1/2x4x5/...	.080	18.039	23	.002	9.0...	y	14	24.588	145.476	16.043	8.582	1	H1-1b*
3	M1276	2L3 1/2x4x5/...	.076	0	25	.002	9.0...	y	2	24.588	145.476	16.043	8.582	1	H1-1b*
4	M1277	2L3 1/2x4x5/...	.083	18.039	23	.002	9.0...	y	8	24.588	145.476	16.043	8.582	1	H1-1b*
5	M1278	2L3 1/2x4x5/...	.080	0	19	.002	9.0...	y	4	24.588	145.476	16.043	8.582	1	H1-1b*
6	M1279	2L3 1/2x4x5/...	.078	18.039	25	.002	9.0...	y	10	24.588	145.476	16.043	8.582	1	H1-1b*
7	M1280	2L3 1/2x4x5/...	.073	0	21	.002	9.0...	y	10	24.588	145.476	16.043	8.582	1	H1-1b*
8	M1281	2L3 1/2x4x5/...	.077	18.039	19	.002	9.0...	y	14	24.588	145.476	16.043	8.582	1	H1-1b*
9	M1282	2L3 1/2x4x5/...	.072	0	10	.002	7.7...	y	25	33.009	145.476	16.043	8.582	1	H1-1b*
10	M1283	2L3 1/2x4x5/...	.072	15.569	2	.002	7.7...	y	25	33.009	145.476	16.043	8.582	1	H1-1b*
11	M1284	2L3 1/2x4x5/...	.069	0	14	.002	7.7...	y	19	33.009	145.476	16.043	8.582	1	H1-1b*
12	M1285	2L3 1/2x4x5/...	.068	15.569	6	.002	7.7...	y	19	33.009	145.476	16.043	8.582	1	H1-1b*
13	M1286	2L3 1/2x4x5/...	.073	0	2	.002	7.7...	y	21	33.009	145.476	16.043	8.582	1	H1-1b*
14	M1287	2L3 1/2x4x5/...	.073	15.569	10	.002	7.7...	y	21	33.009	145.476	16.043	8.582	1	H1-1b*
15	M1288	2L3 1/2x4x5/...	.069	0	6	.002	7.7...	y	23	33.009	145.476	16.043	8.582	1	H1-1b*
16	M1289	2L3 1/2x4x5/...	.069	15.569	14	.002	7.7...	y	23	33.009	145.476	16.043	8.582	1	H1-1b*
17	M15	2L3x4x5/16x3...	.449	9.149	6	.004	9.1...	y	22	15.416	135.432	15.999	3.964	1	H1-1a
18	M18	2L3x4x5/16x3...	.511	9.149	12	.004	9.1...	y	24	15.416	135.432	15.999	3.964	1	H1-1a
19	M22	2L3x4x5/16x3...	.537	9.149	2	.004	9.1...	y	20	15.416	135.432	15.999	3.964	1	H1-1a
20	M25	2L3x4x5/16x3...	.542	9.149	10	.004	9.1...	y	22	15.416	135.432	15.999	3.964	1	H1-1a
21	M29	2L3x4x5/16x3...	.538	9.149	16	.004	9.1...	y	26	15.416	135.432	15.999	3.964	1	H1-1a
22	M32	2L3x4x5/16x3...	.500	9.149	6	.004	9.1...	y	20	15.416	135.432	15.999	3.964	1	H1-1a
23	M36	2L3x4x5/16x3...	.446	9.149	12	.004	9.1...	y	25	15.416	135.432	15.999	3.964	1	H1-1a
24	M39	2L3x4x5/16x3...	.425	9.149	2	.004	9.1...	y	25	15.416	135.432	15.999	3.964	1	H1-1a
25	M51	2L3x2 1/2x3/...	.312	15.046	14	.003	22....	y	25	61.942	124.416	8.283	4.374	1	H1-1a
26	M59	2L3x2 1/2x3/...	.311	15.046	6	.004	22....	y	21	61.942	124.416	8.283	4.374	1	H1-1a
27	M67	2L3x2 1/2x3/...	.349	15.046	10	.003	22....	y	23	61.942	124.416	8.283	4.374	1	H1-1a
28	M75	2L3x2 1/2x3/...	.350	15.046	2	.003	22....	y	19	61.942	124.416	8.283	4.374	1	H1-1a
29	M83	2L3x2 1/2x3/...	.324	15.046	6	.004	22....	y	21	61.942	124.416	8.283	4.374	1	H1-1a
30	M91	2L3x2 1/2x3/...	.324	15.046	14	.004	22....	y	25	61.942	124.416	8.283	4.374	1	H1-1a
31	M99	2L3x2 1/2x3/...	.308	15.046	2	.004	22....	y	19	61.942	124.416	8.283	4.374	1	H1-1a
32	M107	2L3x2 1/2x3/...	.309	15.046	10	.004	22....	y	23	61.942	124.416	8.283	4.374	1	H1-1a
33	M124	2L3x2 1/2x3/...	.432	0	14	.004	22....	y	26	61.942	124.416	8.283	4.374	1	H1-1a
34	M132	2L3x2 1/2x3/...	.435	0	6	.004	22....	y	22	61.942	124.416	8.283	4.374	1	H1-1a
35	M141	2L3x2 1/2x3/...	.471	0	10	.004	22....	y	22	61.942	124.416	8.283	4.374	1	H1-1a
36	M149	2L3x2 1/2x3/...	.469	0	2	.004	22....	y	26	61.942	124.416	8.283	4.374	1	H1-1a
37	M158	2L3x2 1/2x3/...	.425	0	6	.004	22....	y	22	61.942	124.416	8.283	4.374	1	H1-1a
38	M166	2L3x2 1/2x3/...	.422	0	14	.004	22....	y	26	61.942	124.416	8.283	4.374	1	H1-1a
39	M175	2L3x2 1/2x3/...	.428	0	2	.004	22....	y	26	61.942	124.416	8.283	4.374	1	H1-1a
40	M183	2L3x2 1/2x3/...	.431	0	10	.004	22....	y	22	61.942	124.416	8.283	4.374	1	H1-1a
41	M205	2L3x2-1/2x1/...	.432	0	14	.003	0	y	24	82.809	162	11.25	5.625	1	H1-1a
42	M213	2L3x2-1/2x1/...	.436	0	6	.003	0	y	23	82.809	162	11.25	5.625	1	H1-1a
43	M222	2L3x2-1/2x1/...	.472	0	10	.003	22....	y	22	82.809	162	11.25	5.625	1	H1-1a
44	M230	2L3x2-1/2x1/...	.468	0	2	.003	0	y	20	82.809	162	11.25	5.625	1	H1-1a
45	M239	2L3x2-1/2x1/...	.418	0	6	.003	22....	y	22	82.809	162	11.25	5.625	1	H1-1a
46	M247	2L3x2-1/2x1/...	.414	0	14	.003	22....	y	26	82.809	162	11.25	5.625	1	H1-1a
47	M256	2L3x2-1/2x1/...	.435	0	2	.003	22....	y	26	82.809	162	11.25	5.625	1	H1-1a
48	M264	2L3x2-1/2x1/...	.439	0	10	.003	0	y	24	82.809	162	11.25	5.625	1	H1-1a

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
49	M286	2L3x2-1/2x1/...	.512	0	14	.003	22....	y	25	82.809	162	11.25	5.625	1	H1-1a
50	M294	2L3x2-1/2x1/...	.516	0	6	.003	22....	y	22	82.809	162	11.25	5.625	1	H1-1a
51	M303	2L3x2-1/2x1/...	.564	0	10	.003	22....	y	23	82.809	162	11.25	5.625	1	H1-1a
52	M311	2L3x2-1/2x1/...	.560	0	2	.003	22....	y	19	82.809	162	11.25	5.625	1	H1-1a
53	M320	2L3x2-1/2x1/...	.488	0	6	.003	22....	y	22	82.809	162	11.25	5.625	1	H1-1a
54	M328	2L3x2-1/2x1/...	.485	0	14	.003	22....	y	26	82.809	162	11.25	5.625	1	H1-1a
55	M337	2L3x2-1/2x1/...	.529	0	2	.003	22....	y	26	82.809	162	11.25	5.625	1	H1-1a
56	M345	2L3x2-1/2x1/...	.533	0	10	.003	22....	y	23	82.809	162	11.25	5.625	1	H1-1a
57	M367	2L4x3x3/8x3/8	.547	0	14	.004	0	y	23	90.688	161.028	11.531	7.876	1	H1-1a
58	M375	2L4x3x3/8x3/8	.551	0	6	.004	0	y	23	90.688	161.028	11.531	7.876	1	H1-1a
59	M384	2L4x3x3/8x3/8	.606	0	10	.004	0	y	21	90.688	161.028	11.531	7.876	1	H1-1a
60	M392	2L4x3x3/8x3/8	.602	0	2	.004	0	y	21	90.688	161.028	11.531	7.876	1	H1-1a
61	M401	2L4x3x3/8x3/8	.519	0	6	.004	0	y	19	90.688	161.028	11.531	7.876	1	H1-1a
62	M409	2L4x3x3/8x3/8	.516	0	14	.004	0	y	19	90.688	161.028	11.531	7.876	1	H1-1a
63	M418	2L4x3x3/8x3/8	.575	0	2	.004	0	y	25	90.688	161.028	11.531	7.876	1	H1-1a
64	M426	2L4x3x3/8x3/8	.579	0	10	.004	0	y	25	90.688	161.028	11.531	7.876	1	H1-1a
65	M448	2L4x3x3/8x3/8	.605	0	14	.003	0	y	23	90.688	161.028	11.531	7.876	1	H1-1a
66	M456	2L4x3x3/8x3/8	.609	0	6	.004	0	y	23	90.688	161.028	11.531	7.876	1	H1-1a
67	M465	2L4x3x3/8x3/8	.670	0	10	.004	0	y	21	90.688	161.028	11.531	7.876	1	H1-1a
68	M473	2L4x3x3/8x3/8	.665	0	2	.003	0	y	21	90.688	161.028	11.531	7.876	1	H1-1a
69	M482	2L4x3x3/8x3/8	.570	0	6	.003	0	y	19	90.688	161.028	11.531	7.876	1	H1-1a
70	M490	2L4x3x3/8x3/8	.567	0	14	.004	22....	y	26	90.688	161.028	11.531	7.876	1	H1-1a
71	M499	2L4x3x3/8x3/8	.640	0	2	.004	22....	y	19	90.688	161.028	11.531	7.876	1	H1-1a
72	M507	2L4x3x3/8x3/8	.644	0	10	.003	0	y	25	90.688	161.028	11.531	7.876	1	H1-1a
73	M529	2L4x3x1/2x3/8	.534	0	14	.003	0	y	24	123.934	210.6	15.634	10.202	1	H1-1a
74	M537	2L4x3x1/2x3/8	.538	0	6	.004	0	y	23	123.934	210.6	15.634	10.202	1	H1-1a
75	M546	2L4x3x1/2x3/8	.589	0	10	.004	0	y	21	123.934	210.6	15.634	10.202	1	H1-1a
76	M554	2L4x3x1/2x3/8	.584	0	2	.003	0	y	20	123.934	210.6	15.634	10.202	1	H1-1a
77	M563	2L4x3x1/2x3/8	.501	0	6	.003	0	y	20	123.934	210.6	15.634	10.202	1	H1-1a
78	M571	2L4x3x1/2x3/8	.499	0	14	.003	0	y	19	123.934	210.6	15.634	10.202	1	H1-1a
79	M580	2L4x3x1/2x3/8	.566	0	2	.003	0	y	26	123.934	210.6	15.634	10.202	1	H1-1a
80	M588	2L4x3x1/2x3/8	.570	0	10	.003	0	y	24	123.934	210.6	15.634	10.202	1	H1-1a
81	M610	2L4x3x1/2x3/8	.580	0	14	.004	0	y	10	123.934	210.6	15.634	10.202	1	H1-1a
82	M618	2L4x3x1/2x3/8	.579	0	6	.004	0	y	10	123.934	210.6	15.634	10.202	1	H1-1a
83	M627	2L4x3x1/2x3/8	.640	0	10	.004	0	y	21	123.934	210.6	15.634	10.202	1	H1-1a
84	M635	2L4x3x1/2x3/8	.637	0	2	.004	0	y	6	123.934	210.6	15.634	10.202	1	H1-1a
85	M644	2L4x3x1/2x3/8	.543	0	6	.004	0	y	2	123.934	210.6	15.634	10.202	1	H1-1a
86	M652	2L4x3x1/2x3/8	.541	0	14	.004	0	y	2	123.934	210.6	15.634	10.202	1	H1-1a
87	M661	2L4x3x1/2x3/8	.620	0	2	.004	0	y	26	123.934	210.6	15.634	10.202	1	H1-1a
88	M669	2L4x3x1/2x3/8	.623	0	10	.004	22....	y	8	123.934	210.6	15.634	10.202	1	H1-1a
89	M691	2L4x4x1/2x3/8	.543	0	12	.007	0	y	24	150.524	243	26.015	10.64	1	H1-1a
90	M701	2L4x4x1/2x3/8	.536	0	6	.006	0	y	22	150.524	243	26.015	10.64	1	H1-1a
91	M712	2L4x4x1/2x3/8	.653	0	10	.006	0	y	22	151.596	243	26.015	10.64	1	H1-1a
92	M722	2L4x4x1/2x3/8	.655	0	2	.006	0	y	4	151.596	243	26.015	10.64	1	H1-1a
93	M733	2L4x4x1/2x3/8	.483	0	6	.008	0	y	4	150.524	243	26.015	10.64	1	H1-1a
94	M743	2L4x4x1/2x3/8	.483	0	14	.007	0	y	16	150.524	243	26.015	10.64	1	H1-1a
95	M754	2L4x4x1/2x3/8	.635	0	2	.006	0	y	16	151.596	243	26.015	10.64	1	H1-1a
96	M764	2L4x4x1/2x3/8	.636	0	10	.007	0	y	12	151.596	243	26.015	10.64	1	H1-1a
97	M1270	W12X26	.301	20.75	22	.006	0	y	6	190.321	247.86	22.059	52.598	1	H1-1a
98	M1271	W12X26	.302	20.75	24	.006	0	y	10	190.321	247.86	22.059	52.598	1	H1-1a
99	M1272	W12X26	.301	20.75	24	.006	41.5	y	14	190.321	247.86	22.059	52.598	1	H1-1a
100	M1273	W12X26	.301	20.75	26	.006	41.5	y	2	190.321	247.86	22.059	52.598	1	H1-1a
101	M123	2L3x2 1/2x1/...	.247	25.125	14	.008	25....	y	22	46.996	85.212	5.423	3.034	1	H1-1a
102	M140	2L3x2 1/2x1/...	.271	8.375	2	.008	8.3...	y	22	46.996	85.212	5.423	3.034	1	H1-1a
103	M157	2L3x2 1/2x1/...	.241	16.401	15	.006	8.3...	y	20	46.996	85.212	5.423	3.034	1	H1-1a
104	M174	2L3x2 1/2x1/...	.243	16.401	11	.006	25....	y	24	46.996	85.212	5.423	3.034	1	H1-1a
105	M204	2L3x2 1/2x1/...	.358	25.125	14	.008	25....	y	23	46.996	85.212	5.423	3.034	1	H1-1a

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
106	M221	2L3x2 1/2x1/...	.393	8.375	2	.008	8.3...	y	21	46.996	85.212	5.423	3.034	1	H1-1a
107	M238	2L3x2 1/2x1/...	.354	16.75	14	.006	8.3...	y	19	46.996	85.212	5.423	3.034	1	H1-1a
108	M255	2L3x2 1/2x1/...	.373	16.75	10	.006	25....	y	25	46.996	85.212	5.423	3.034	1	H1-1a
109	M285	2L3x2 1/2x1/...	.429	16.75	6	.008	25....	y	23	46.996	85.212	5.423	3.034	1	H1-1a
110	M302	2L3x2 1/2x1/...	.472	16.75	10	.008	8.3...	y	21	46.996	85.212	5.423	3.034	1	H1-1a
111	M319	2L3x2 1/2x1/...	.416	16.75	14	.006	8.3...	y	19	46.996	85.212	5.423	3.034	1	H1-1a
112	M336	2L3x2 1/2x1/...	.453	16.75	10	.006	25....	y	25	46.996	85.212	5.423	3.034	1	H1-1a
113	M366	2L3x2 1/2x5/...	.416	16.75	6	.007	25....	y	23	57.309	105.047	6.839	3.717	1	H1-1a
114	M383	2L3x2 1/2x5/...	.469	5.932	2	.007	8.3...	y	21	57.309	105.047	6.839	5.947	1	H1-1a
115	M400	2L3x2 1/2x5/...	.397	16.75	14	.005	8.3...	y	19	57.309	105.047	6.839	3.717	1	H1-1a
116	M417	2L3x2 1/2x5/...	.451	16.75	10	.005	25....	y	25	57.309	105.047	6.839	3.717	1	H1-1a
117	M447	2L3x2 1/2x3/...	.410	16.75	6	.006	25....	y	23	67.139	124.416	8.283	4.374	1	H1-1a
118	M464	2L3x2 1/2x3/...	.458	5.932	2	.006	8.3...	y	21	67.139	124.416	8.283	6.998	1	H1-1a
119	M481	2L3x2 1/2x3/...	.387	16.75	14	.005	8.3...	z	25	67.139	124.416	8.283	4.374	1	H1-1a
120	M498	2L3x2 1/2x3/...	.442	16.75	10	.005	25....	z	19	67.139	124.416	8.283	4.374	1	H1-1a
121	M528	2L3x2 1/2x3/...	.466	27.568	14	.006	25....	y	23	67.139	124.416	8.283	6.998	1	H1-1a
122	M545	2L3x2 1/2x3/...	.517	5.932	2	.006	8.3...	y	21	67.139	124.416	8.283	6.998	1	H1-1a
123	M562	2L3x2 1/2x3/...	.439	16.75	14	.005	8.3...	z	25	67.139	124.416	8.283	4.374	1	H1-1a
124	M579	2L3x2 1/2x3/...	.506	16.75	10	.005	25....	z	19	67.139	124.416	8.283	4.374	1	H1-1a
125	M609	2L3x2 1/2x3/...	.506	27.568	14	.006	25....	y	23	67.139	124.416	8.283	6.998	1	H1-1a
126	M626	2L3x2 1/2x3/...	.558	5.932	2	.006	8.3...	y	21	67.139	124.416	8.283	6.998	1	H1-1a
127	M643	2L3x2 1/2x3/...	.474	16.75	6	.005	8.3...	z	24	67.139	124.416	8.283	4.374	1	H1-1a
128	M660	2L3x2 1/2x3/...	.551	16.75	10	.005	25....	z	19	67.139	124.416	8.283	4.374	1	H1-1a
129	M690	2L4x3x1/2x3/8	.307	16.75	12	.010	27....	z	19	139.924	210.6	15.634	10.202	1	H1-1a
130	M711	2L4x3x1/2x3/8	.292	16.75	4	.010	5.9...	z	26	139.924	210.6	15.634	10.202	1	H1-1a
131	M732	2L4x3x1/2x3/8	.279	16.75	16	.005	8.3...	z	23	139.924	210.6	15.634	10.202	1	H1-1a
132	M753	2L4x3x1/2x3/8	.288	16.75	16	.005	25....	z	24	139.924	210.6	15.634	10.202	1	H1-1a
133	M1221	2L2 1/2x2 1/2...	.029	4.188	19	.002	8.3...	y	24	24.183	58.32	4.017	2.611	1	H1-1b
134	M1222	2L2 1/2x2 1/2...	.029	4.188	20	.002	0	y	24	24.183	58.32	4.017	2.611	1	H1-1b
135	M1223	2L2 1/2x2 1/2...	.027	4.188	22	.002	8.3...	y	26	24.183	58.32	4.017	2.611	1	H1-1b
136	M1224	2L2 1/2x2 1/2...	.027	4.188	22	.002	0	y	26	24.183	58.32	4.017	2.611	1	H1-1b
137	M1225	2L2 1/2x2 1/2...	.029	4.188	24	.002	0	y	20	24.183	58.32	4.017	2.611	1	H1-1b
138	M1226	2L2 1/2x2 1/2...	.029	4.188	25	.002	0	y	20	24.183	58.32	4.017	2.611	1	H1-1b
139	M1169	2L2 1/2x2 1/2...	.029	4.188	19	.002	8.3...	y	23	24.183	58.32	4.017	2.611	1	H1-1b
140	M1170	2L2 1/2x2 1/2...	.029	4.188	20	.002	0	y	25	24.183	58.32	4.017	2.611	1	H1-1b
141	M1171	2L2 1/2x2 1/2...	.027	4.188	22	.002	0	y	25	24.183	58.32	4.017	2.611	1	H1-1b
142	M1172	2L2 1/2x2 1/2...	.027	4.188	22	.002	0	y	19	24.183	58.32	4.017	2.611	1	H1-1b
143	M1173	2L2 1/2x2 1/2...	.029	4.188	25	.002	8.3...	y	21	24.183	58.32	4.017	2.611	1	H1-1b
144	M1174	2L2 1/2x2 1/2...	.029	4.188	24	.002	0	y	19	24.183	58.32	4.017	2.611	1	H1-1b
145	M1117	2L2 1/2x2 1/2...	.029	4.188	19	.002	8.3...	y	24	24.183	58.32	4.017	2.611	1	H1-1b
146	M1118	2L2 1/2x2 1/2...	.029	4.188	20	.002	0	y	24	24.183	58.32	4.017	2.611	1	H1-1b
147	M1119	2L2 1/2x2 1/2...	.027	4.188	22	.002	8.3...	y	16	24.183	58.32	4.017	2.611	1	H1-1b
148	M1120	2L2 1/2x2 1/2...	.027	4.188	22	.002	0	y	16	24.183	58.32	4.017	2.611	1	H1-1b
149	M1121	2L2 1/2x2 1/2...	.029	4.188	24	.002	8.3...	y	20	24.183	58.32	4.017	2.611	1	H1-1b
150	M1122	2L2 1/2x2 1/2...	.029	4.188	25	.002	0	y	20	24.183	58.32	4.017	2.611	1	H1-1b
151	M1065	2L2 1/2x2 1/2...	.030	4.188	19	.002	8.3...	y	24	24.183	58.32	4.017	2.611	1	H1-1b
152	M1066	2L2 1/2x2 1/2...	.030	4.188	20	.002	0	y	12	24.183	58.32	4.017	2.611	1	H1-1b
153	M1067	2L2 1/2x2 1/2...	.027	4.188	22	.002	8.3...	y	16	24.183	58.32	4.017	2.611	1	H1-1b
154	M1068	2L2 1/2x2 1/2...	.027	4.188	22	.002	0	y	16	24.183	58.32	4.017	2.611	1	H1-1b
155	M1069	2L2 1/2x2 1/2...	.030	4.188	24	.002	8.3...	y	4	24.183	58.32	4.017	2.611	1	H1-1b
156	M1070	2L2 1/2x2 1/2...	.030	4.188	25	.002	0	y	4	24.183	58.32	4.017	2.611	1	H1-1b
157	M1013	2L2 1/2x2 1/2...	.032	4.188	19	.002	8.3...	y	12	24.183	58.32	4.017	2.611	1	H1-1b
158	M1014	2L2 1/2x2 1/2...	.031	4.188	20	.002	0	y	12	24.183	58.32	4.017	2.611	1	H1-1b
159	M1015	2L2 1/2x2 1/2...	.028	4.188	22	.002	8.3...	y	16	24.183	58.32	4.017	2.611	1	H1-1b
160	M1016	2L2 1/2x2 1/2...	.028	4.188	22	.002	0	y	16	24.183	58.32	4.017	2.611	1	H1-1b
161	M1017	2L2 1/2x2 1/2...	.031	4.188	24	.002	8.3...	y	4	24.183	58.32	4.017	2.611	1	H1-1b
162	M1018	2L2 1/2x2 1/2...	.031	4.188	26	.002	0	y	4	24.183	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
163	M961	2L2 1/2x2 1/2...	.032	4.188	19	.002	8.3...	y	12	24.183	58.32	4.017	2.611	1	H1-1b
164	M962	2L2 1/2x2 1/2...	.032	4.188	20	.002	0	y	12	24.183	58.32	4.017	2.611	1	H1-1b
165	M963	2L2 1/2x2 1/2...	.028	4.188	22	.002	8.3...	y	16	24.183	58.32	4.017	2.611	1	H1-1b
166	M964	2L2 1/2x2 1/2...	.028	4.188	22	.002	0	y	16	24.183	58.32	4.017	2.611	1	H1-1b
167	M965	2L2 1/2x2 1/2...	.032	4.188	24	.002	8.3...	y	4	24.183	58.32	4.017	2.611	1	H1-1b
168	M966	2L2 1/2x2 1/2...	.032	4.188	26	.002	0	y	4	24.183	58.32	4.017	2.611	1	H1-1b
169	M909	2L2 1/2x2 1/2...	.032	4.188	19	.003	8.3...	y	19	24.183	58.32	4.017	2.611	1	H1-1b
170	M910	2L2 1/2x2 1/2...	.032	4.188	20	.003	0	y	20	24.183	58.32	4.017	2.611	1	H1-1b
171	M911	2L2 1/2x2 1/2...	.028	4.188	22	.002	0	y	8	24.183	58.32	4.017	2.611	1	H1-1b
172	M912	2L2 1/2x2 1/2...	.028	4.188	23	.003	0	y	8	24.183	58.32	4.017	2.611	1	H1-1b
173	M913	2L2 1/2x2 1/2...	.032	4.188	24	.003	0	y	24	24.183	58.32	4.017	2.611	1	H1-1b
174	M914	2L2 1/2x2 1/2...	.032	4.188	26	.003	0	y	25	24.183	58.32	4.017	2.611	1	H1-1b
175	M1258	W8X13	.005	0	12	.002	0	y	16	30.531	124.416	5.805	20.868	1....	H1-1b*
176	M1259	W8X13	.005	0	16	.002	0	y	12	30.531	124.416	5.805	20.868	1....	H1-1b*
177	M1260	W8X13	.005	0	4	.002	0	y	8	30.531	124.416	5.805	20.868	1....	H1-1b*
178	M1261	W8X13	.006	0	8	.002	0	y	4	30.531	124.416	5.805	20.868	1....	H1-1b*
179	M1206	2L2 1/2x2 1/2...	.072	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
180	M1207	2L2 1/2x2 1/2...	.074	0	16	.003	0	y	12	12.19	58.32	4.017	2.611	1	H1-1b*
181	M1208	2L2 1/2x2 1/2...	.072	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
182	M1154	2L2 1/2x2 1/2...	.068	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
183	M1155	2L2 1/2x2 1/2...	.072	0	16	.003	0	y	12	12.19	58.32	4.017	2.611	1	H1-1b*
184	M1156	2L2 1/2x2 1/2...	.068	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
185	M1102	2L2 1/2x2 1/2...	.082	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
186	M1103	2L2 1/2x2 1/2...	.087	0	16	.003	0	y	12	12.19	58.32	4.017	2.611	1	H1-1b*
187	M1104	2L2 1/2x2 1/2...	.082	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
188	M1050	2L2 1/2x2 1/2...	.083	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
189	M1051	2L2 1/2x2 1/2...	.088	0	16	.003	0	y	12	12.19	58.32	4.017	2.611	1	H1-1b*
190	M1052	2L2 1/2x2 1/2...	.083	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
191	M998	2L2 1/2x2 1/2...	.083	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
192	M999	2L2 1/2x2 1/2...	.087	0	16	.003	0	y	12	12.19	58.32	4.017	2.611	1	H1-1b*
193	M1000	2L2 1/2x2 1/2...	.083	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
194	M946	2L2 1/2x2 1/2...	.094	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
195	M947	2L2 1/2x2 1/2...	.099	0	16	.003	0	y	12	12.19	58.32	4.017	2.611	1	H1-1b*
196	M948	2L2 1/2x2 1/2...	.094	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
197	M894	2L2 1/2x2 1/2...	.102	0	4	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
198	M895	2L2 1/2x2 1/2...	.107	0	16	.003	0	y	4	12.19	58.32	4.017	2.611	1	H1-1b*
199	M896	2L2 1/2x2 1/2...	.102	0	12	.003	0	y	8	12.19	58.32	4.017	2.611	1	H1-1b*
200	M845	C4x7.2	.004	2.094	23	.003	0	y	12	35.442	69.012	1.456	7.09	1	H1-1b
201	M847	C4x7.2	.004	2.094	20	.003	0	y	8	35.442	69.012	1.456	7.09	1	H1-1b
202	M849	C4x7.2	.004	2.094	19	.003	0	y	4	35.442	69.012	1.456	7.09	1	H1-1b
203	M851	C4x7.2	.044	0	26	.003	0	y	16	23.079	69.012	1.456	6.795	1	H1-1b*
204	M852	C4x7.2	.044	0	26	.003	5.3...	y	16	23.079	69.012	1.456	6.795	1	H1-1b*
205	M860	C4x7.2	.004	2.094	23	.003	4.1...	y	8	35.442	69.012	1.456	7.09	1	H1-1b
206	M862	C4x7.2	.004	2.094	22	.003	4.1...	y	4	35.442	69.012	1.456	7.09	1	H1-1b
207	M863	C4x7.2	.004	2.094	26	.003	4.1...	y	12	35.442	69.012	1.456	7.09	1	H1-1b
208	M865	C4x7.2	.030	0	26	.002	4.2...	y	4	34.823	69.012	1.456	7.076	1	H1-1b*
209	M1227	2L3x2 1/2x1/...	.057	0	8	.002	8.4...	y	4	46.263	85.212	5.423	4.855	1	H1-1b*
210	M1228	2L3x2 1/2x1/...	.032	4.353	8	.003	0	y	23	44.802	85.212	5.423	4.855	1	H1-1b
211	M1229	2L3x2 1/2x1/...	.032	4.353	8	.003	0	y	21	44.802	85.212	5.423	4.855	1	H1-1b
212	M1175	2L3x2 1/2x1/...	.041	4.353	16	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b
213	M1176	2L3x2 1/2x1/...	.041	4.353	16	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b
214	M1177	2L3x2 1/2x1/...	.056	0	10	.002	8.4...	y	4	46.263	85.212	5.423	4.855	1	H1-1b*
215	M1123	2L3x2 1/2x1/...	.067	0	10	.002	0	y	4	46.263	85.212	5.423	4.855	1	H1-1b*
216	M1124	2L3x2 1/2x1/...	.049	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
217	M1125	2L3x2 1/2x1/...	.049	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
218	M1071	2L3x2 1/2x1/...	.050	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
219	M1072	2L3x2 1/2x1/...	.050	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
220	M1073	2L3x2 1/2x1/...	.068	0	10	.003	0	y	4	46.263	85.212	5.423	4.855	1	H1-1b*
221	M1019	2L3x2 1/2x1/...	.068	0	10	.003	0	y	12	46.263	85.212	5.423	4.855	1	H1-1b*
222	M1020	2L3x2 1/2x1/...	.050	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
223	M1021	2L3x2 1/2x1/...	.050	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
224	M967	2L3x2 1/2x1/...	.077	0	10	.003	0	y	12	46.263	85.212	5.423	4.855	1	H1-1b*
225	M968	2L3x2 1/2x1/...	.057	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
226	M969	2L3x2 1/2x1/...	.057	0	17	.003	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
227	M915	2L3x2 1/2x1/...	.083	0	10	.003	0	y	12	46.263	85.212	5.423	4.855	1	H1-1b*
228	M916	2L3x2 1/2x1/...	.062	0	17	.002	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
229	M917	2L3x2 1/2x1/...	.062	0	17	.002	0	y	22	44.802	85.212	5.423	4.855	1	H1-1b*
230	M1254	W8X13	.054	8.375	23	.003	16....	y	6	58.893	124.416	5.805	11.712	1	H1-1b
231	M1255	W8X13	.054	8.375	25	.003	0	y	19	58.893	124.416	5.805	11.712	1	H1-1b
232	M1256	W8X13	.054	8.375	19	.003	0	y	6	58.893	124.416	5.805	11.712	1	H1-1b
233	M1257	W8X13	.054	8.375	21	.003	0	y	10	58.893	124.416	5.805	11.712	1	H1-1b
234	M1202	2L2 1/2x2 1/2...	.416	8.375	2	.005	0	y	22	6.095	58.32	4.017	2.611	1	H1-1a
235	M1203	2L2 1/2x2 1/2...	.405	8.375	14	.005	16....	y	22	6.095	58.32	4.017	2.611	1	H1-1a
236	M1204	2L2 1/2x2 1/2...	.379	8.375	10	.005	0	y	26	6.095	58.32	4.017	2.611	1	H1-1a
237	M1205	2L2 1/2x2 1/2...	.372	8.375	6	.005	16....	y	26	6.095	58.32	4.017	2.611	1	H1-1a
238	M1150	2L2 1/2x2 1/2...	.366	8.375	6	.005	0	y	26	6.095	58.32	4.017	2.611	1	H1-1a
239	M1151	2L2 1/2x2 1/2...	.380	8.375	10	.005	16....	y	26	6.095	58.32	4.017	2.611	1	H1-1a
240	M1152	2L2 1/2x2 1/2...	.534	8.375	16	.005	0	y	23	6.095	58.32	4.017	2.611	1	H1-1a
241	M1153	2L2 1/2x2 1/2...	.545	8.375	16	.005	16....	y	22	6.095	58.32	4.017	2.611	1	H1-1a
242	M1098	2L2 1/2x2 1/2...	.629	8.375	16	.005	16....	y	21	6.095	58.32	4.017	2.611	1	H1-1a
243	M1099	2L2 1/2x2 1/2...	.400	8.375	6	.005	16....	y	23	6.095	58.32	4.017	2.611	1	H1-1a
244	M1100	2L2 1/2x2 1/2...	.421	8.375	10	.005	16....	y	25	6.095	58.32	4.017	2.611	1	H1-1a
245	M1101	2L2 1/2x2 1/2...	.616	8.375	16	.005	0	y	23	6.095	58.32	4.017	2.611	1	H1-1a
246	M1046	2L2 1/2x2 1/2...	.398	8.375	6	.005	16....	y	23	6.095	58.32	4.017	2.611	1	H1-1a
247	M1047	2L2 1/2x2 1/2...	.427	8.375	10	.005	16....	y	25	6.095	58.32	4.017	2.611	1	H1-1a
248	M1048	2L2 1/2x2 1/2...	.615	8.375	16	.005	0	y	23	6.095	58.32	4.017	2.611	1	H1-1a
249	M1049	2L2 1/2x2 1/2...	.641	8.375	16	.005	16....	y	21	6.095	58.32	4.017	2.611	1	H1-1a
250	M994	2L2 1/2x2 1/2...	.637	8.375	16	.005	16....	y	22	6.095	58.32	4.017	2.611	1	H1-1a
251	M995	2L2 1/2x2 1/2...	.398	8.375	6	.005	0	y	19	6.095	58.32	4.017	2.611	1	H1-1a
252	M996	2L2 1/2x2 1/2...	.426	8.375	10	.005	16....	y	26	6.095	58.32	4.017	2.611	1	H1-1a
253	M997	2L2 1/2x2 1/2...	.615	8.375	16	.005	0	y	23	6.095	58.32	4.017	2.611	1	H1-1a
254	M942	2L2 1/2x2 1/2...	.425	8.375	6	.005	0	y	19	6.095	58.32	4.017	2.611	1	H1-1a
255	M943	2L2 1/2x2 1/2...	.457	8.375	10	.005	16....	y	25	6.095	58.32	4.017	2.611	1	H1-1a
256	M944	2L2 1/2x2 1/2...	.682	8.375	16	.005	0	y	23	6.095	58.32	4.017	2.611	1	H1-1a
257	M945	2L2 1/2x2 1/2...	.704	8.375	16	.005	16....	y	21	6.095	58.32	4.017	2.611	1	H1-1a
258	M890	2L2 1/2x2 1/2...	.727	8.375	16	.005	0	y	26	6.095	58.32	4.017	2.611	1	H1-1a
259	M891	2L2 1/2x2 1/2...	.481	8.375	10	.005	16....	y	20	6.095	58.32	4.017	2.611	1	H1-1a
260	M892	2L2 1/2x2 1/2...	.445	8.375	6	.005	0	y	24	6.095	58.32	4.017	2.611	1	H1-1a
261	M893	2L2 1/2x2 1/2...	.750	8.375	16	.005	16....	y	26	6.095	58.32	4.017	2.611	1	H1-1a
262	M42	W10X30	.067	11.844	22	.015	11....	y	22	248.816	286.416	23.868	83.699	1	H1-1b
263	M43	W10X30	.067	11.844	20	.015	11....	y	20	248.816	286.416	23.868	83.699	1	H1-1b
264	M44	W10X30	.066	11.844	26	.015	11....	y	26	248.816	286.416	23.868	83.699	1	H1-1b
265	M45	W10X30	.066	11.844	24	.015	11....	y	24	248.816	286.416	23.868	83.699	1	H1-1b
266	M191	2L3x2 1/2x1/...	.248	11.844	26	.011	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
267	M192	2L3x2 1/2x1/...	.306	11.844	26	.011	11....	y	21	26.281	85.212	5.423	3.034	1	H1-1b
268	M193	2L3x2 1/2x1/...	.251	11.844	26	.011	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
269	M194	2L3x2 1/2x1/...	.306	11.844	26	.011	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
270	M272	2L3x2 1/2x1/...	.246	11.844	26	.011	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
271	M273	2L3x2 1/2x1/...	.306	11.844	26	.010	11....	y	21	26.281	85.212	5.423	3.034	1	H1-1b
272	M274	2L3x2 1/2x1/...	.248	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
273	M275	2L3x2 1/2x1/...	.306	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
274	M353	2L3x2 1/2x1/...	.247	11.844	26	.011	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
275	M354	2L3x2 1/2x1/...	.307	11.844	26	.010	11....	y	21	26.281	85.212	5.423	3.034	1	H1-1b
276	M355	2L3x2 1/2x1/...	.249	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
277	M356	2L3x2 1/2x1/...	.307	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
278	M434	2L3x2 1/2x1/...	.241	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
279	M435	2L3x2 1/2x1/...	.301	11.844	19	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
280	M436	2L3x2 1/2x1/...	.244	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
281	M437	2L3x2 1/2x1/...	.301	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
282	M515	2L3x2 1/2x1/...	.241	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
283	M516	2L3x2 1/2x1/...	.301	11.844	19	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
284	M517	2L3x2 1/2x1/...	.245	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
285	M518	2L3x2 1/2x1/...	.301	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
286	M596	2L3x2 1/2x1/...	.236	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
287	M597	2L3x2 1/2x1/...	.296	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
288	M598	2L3x2 1/2x1/...	.239	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
289	M599	2L3x2 1/2x1/...	.296	11.844	26	.010	11....	y	23	26.281	85.212	5.423	3.034	1	H1-1b
290	M677	2L3x2 1/2x1/...	.230	11.844	25	.010	11....	y	22	26.281	85.212	5.423	3.034	1	H1-1b
291	M678	2L3x2 1/2x1/...	.292	11.844	26	.011	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
292	M679	2L3x2 1/2x1/...	.234	11.844	26	.010	11....	y	19	26.281	85.212	5.423	3.034	1	H1-1b
293	M680	2L3x2 1/2x1/...	.292	11.844	26	.011	11....	y	25	26.281	85.212	5.423	3.034	1	H1-1b
294	M1209	2L2 1/2x2 1/2...	.025	4.188	22	.002	8.3...	y	6	24.183	58.32	4.017	2.611	1	H1-1b
295	M1210	2L2 1/2x2 1/2...	.025	4.188	25	.002	0	y	24	24.183	58.32	4.017	2.611	1	H1-1b
296	M1211	2L2 1/2x2 1/2...	.025	4.188	19	.002	0	y	20	24.183	58.32	4.017	2.611	1	H1-1b
297	M1212	2L2 1/2x2 1/2...	.025	4.188	22	.002	0	y	10	24.183	58.32	4.017	2.611	1	H1-1b
298	M1213	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
299	M1214	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	20	37.234	58.32	4.017	2.611	1	H1-1b
300	M1215	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	23	37.234	58.32	4.017	2.611	1	H1-1b
301	M1216	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	24	37.234	58.32	4.017	2.611	1	H1-1b
302	M1217	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	25	37.234	58.32	4.017	2.611	1	H1-1b
303	M1218	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	25	37.234	58.32	4.017	2.611	1	H1-1b
304	M1219	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	19	37.234	58.32	4.017	2.611	1	H1-1b
305	M1220	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
306	M1157	2L2 1/2x2 1/2...	.025	4.188	22	.002	8.3...	y	6	24.183	58.32	4.017	2.611	1	H1-1b
307	M1158	2L2 1/2x2 1/2...	.025	4.188	26	.002	0	y	24	24.183	58.32	4.017	2.611	1	H1-1b
308	M1159	2L2 1/2x2 1/2...	.025	4.188	19	.002	0	y	20	24.183	58.32	4.017	2.611	1	H1-1b
309	M1160	2L2 1/2x2 1/2...	.025	4.188	22	.002	0	y	10	24.183	58.32	4.017	2.611	1	H1-1b
310	M1161	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
311	M1162	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	20	37.234	58.32	4.017	2.611	1	H1-1b
312	M1163	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
313	M1164	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	24	37.234	58.32	4.017	2.611	1	H1-1b
314	M1165	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	25	37.234	58.32	4.017	2.611	1	H1-1b
315	M1166	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	26	37.234	58.32	4.017	2.611	1	H1-1b
316	M1167	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	19	37.234	58.32	4.017	2.611	1	H1-1b
317	M1168	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
318	M1105	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	6	24.183	58.32	4.017	2.611	1	H1-1b
319	M1106	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	2	24.183	58.32	4.017	2.611	1	H1-1b
320	M1107	2L2 1/2x2 1/2...	.025	4.188	19	.002	8.3...	y	6	24.183	58.32	4.017	2.611	1	H1-1b
321	M1108	2L2 1/2x2 1/2...	.025	4.188	26	.002	0	y	10	24.183	58.32	4.017	2.611	1	H1-1b
322	M1109	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	25	37.234	58.32	4.017	2.611	1	H1-1b
323	M1110	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	26	37.234	58.32	4.017	2.611	1	H1-1b
324	M1111	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	19	37.234	58.32	4.017	2.611	1	H1-1b
325	M1112	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
326	M1113	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	20	37.234	58.32	4.017	2.611	1	H1-1b
327	M1114	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	22	37.234	58.32	4.017	2.611	1	H1-1b
328	M1115	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
329	M1116	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	24	37.234	58.32	4.017	2.611	1	H1-1b
330	M1053	2L2 1/2x2 1/2...	.025	4.188	16	.002	8.3...	y	6	24.183	58.32	4.017	2.611	1	H1-1b
331	M1054	2L2 1/2x2 1/2...	.025	4.188	26	.002	8.3...	y	10	24.183	58.32	4.017	2.611	1	H1-1b
332	M1055	2L2 1/2x2 1/2...	.025	4.188	19	.002	0	y	6	24.183	58.32	4.017	2.611	1	H1-1b
333	M1056	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	10	24.183	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
334	M1057	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
335	M1058	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	20	37.234	58.32	4.017	2.611	1	H1-1b
336	M1059	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
337	M1060	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	24	37.234	58.32	4.017	2.611	1	H1-1b
338	M1061	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	24	37.234	58.32	4.017	2.611	1	H1-1b
339	M1062	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	26	37.234	58.32	4.017	2.611	1	H1-1b
340	M1063	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	19	37.234	58.32	4.017	2.611	1	H1-1b
341	M1064	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
342	M1001	2L2 1/2x2 1/2...	.025	4.188	16	.002	8.3...	y	6	24.183	58.32	4.017	2.611	1	H1-1b
343	M1002	2L2 1/2x2 1/2...	.025	4.188	26	.002	8.3...	y	10	24.183	58.32	4.017	2.611	1	H1-1b
344	M1003	2L2 1/2x2 1/2...	.025	4.188	19	.002	0	y	6	24.183	58.32	4.017	2.611	1	H1-1b
345	M1004	2L2 1/2x2 1/2...	.025	4.188	16	.002	8.3...	y	2	24.183	58.32	4.017	2.611	1	H1-1b
346	M1005	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
347	M1006	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	20	37.234	58.32	4.017	2.611	1	H1-1b
348	M1007	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
349	M1008	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	24	37.234	58.32	4.017	2.611	1	H1-1b
350	M1009	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	24	37.234	58.32	4.017	2.611	1	H1-1b
351	M1010	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	26	37.234	58.32	4.017	2.611	1	H1-1b
352	M1011	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	19	37.234	58.32	4.017	2.611	1	H1-1b
353	M1012	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
354	M949	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	6	24.183	58.32	4.017	2.611	1	H1-1b
355	M950	2L2 1/2x2 1/2...	.025	4.188	26	.002	0	y	10	24.183	58.32	4.017	2.611	1	H1-1b
356	M951	2L2 1/2x2 1/2...	.025	4.188	19	.002	0	y	6	24.183	58.32	4.017	2.611	1	H1-1b
357	M952	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	2	24.183	58.32	4.017	2.611	1	H1-1b
358	M953	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
359	M954	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
360	M955	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	22	37.234	58.32	4.017	2.611	1	H1-1b
361	M956	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	25	37.234	58.32	4.017	2.611	1	H1-1b
362	M957	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	24	37.234	58.32	4.017	2.611	1	H1-1b
363	M958	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	26	37.234	58.32	4.017	2.611	1	H1-1b
364	M959	2L2 1/2x2 1/2...	.013	2.961	26	.002	0	y	26	37.234	58.32	4.017	2.611	1	H1-1b
365	M960	2L2 1/2x2 1/2...	.013	2.961	26	.002	5.9...	y	19	37.234	58.32	4.017	2.611	1	H1-1b
366	M897	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	26	24.183	58.32	4.017	2.611	1	H1-1b
367	M898	2L2 1/2x2 1/2...	.025	4.188	20	.002	0	y	10	24.183	58.32	4.017	2.611	1	H1-1b
368	M899	2L2 1/2x2 1/2...	.025	4.188	24	.002	0	y	6	24.183	58.32	4.017	2.611	1	H1-1b
369	M900	2L2 1/2x2 1/2...	.025	4.188	16	.002	0	y	2	24.183	58.32	4.017	2.611	1	H1-1b
370	M901	2L2 1/2x2 1/2...	.013	2.961	26	.001	0	y	4	37.234	58.32	4.017	2.611	1	H1-1b
371	M902	2L2 1/2x2 1/2...	.013	2.961	26	.001	5.9...	y	26	37.234	58.32	4.017	2.611	1	H1-1b
372	M903	2L2 1/2x2 1/2...	.013	2.961	26	.001	0	y	23	37.234	58.32	4.017	2.611	1	H1-1b
373	M904	2L2 1/2x2 1/2...	.013	2.961	26	.001	5.9...	y	2	37.234	58.32	4.017	2.611	1	H1-1b
374	M905	2L2 1/2x2 1/2...	.013	2.961	26	.001	0	y	12	37.234	58.32	4.017	2.611	1	H1-1b
375	M906	2L2 1/2x2 1/2...	.013	2.961	26	.001	5.9...	y	21	37.234	58.32	4.017	2.611	1	H1-1b
376	M907	2L2 1/2x2 1/2...	.013	2.961	26	.001	0	y	26	37.234	58.32	4.017	2.611	1	H1-1b
377	M908	2L2 1/2x2 1/2...	.013	2.961	26	.001	5.9...	y	12	37.234	58.32	4.017	2.611	1	H1-1b
378	M1266	2L2 1/2x2 1/2...	.238	6.86	12	.001	0	y	26	11.751	77.112	5.381	2.133	1	H1-1a
379	M1267	2L2 1/2x2 1/2...	.239	6.86	8	.001	0	y	20	11.751	77.112	5.381	2.133	1	H1-1a
380	M1268	2L2 1/2x2 1/2...	.236	6.86	4	.001	0	y	22	11.751	77.112	5.381	2.133	1	H1-1a
381	M1269	2L2 1/2x2 1/2...	.238	6.86	16	.001	0	y	24	11.751	77.112	5.381	2.133	1	H1-1a
382	M1	L6x6x1/2	.287	1.143	23	.065	13....	y	4	67.265	186.3	5.356	24.423	1	H2-1
383	M2	L6x6x1/2	.316	1.143	23	.075	13....	z	26	67.265	186.3	5.356	24.423	1	H2-1
384	M3	L6x6x1/2	.316	1.143	19	.089	13....	y	24	67.265	186.3	5.356	24.423	1	H2-1
385	M4	L6x6x1/2	.290	1.143	20	.067	13....	z	8	67.265	186.3	5.356	24.423	1	H2-1
386	M47	W6X20	.167	0	24	.025	12.5	y	4	166.887	190.188	18.144	40.23	1	H1-1b*
387	M48	W6X20	.191	0	22	.025	12.5	y	16	166.887	190.188	18.144	40.23	1	H1-1b*
388	M49	W6X20	.176	6.25	20	.025	12.5	y	12	166.887	190.188	18.144	40.23	1	H1-1b*
389	M50	W6X20	.153	12.5	26	.025	12.5	y	8	166.887	190.188	18.144	40.23	1	H1-1b*
390	M119	W6X20	.417	0	24	.030	6.25	y	24	166.887	190.188	18.144	40.23	1	H1-1a

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
391	M120	W6X20	.467	0	22	.034	6.25	y	22	166.887	190.188	18.144	40.23	1	H1-1a
392	M121	W6X20	.413	0	20	.030	6.25	y	20	166.887	190.188	18.144	40.23	1	H1-1a
393	M122	W6X20	.359	0	26	.026	6.25	y	26	166.887	190.188	18.144	40.23	1	H1-1a
394	M200	W6X25	.471	0	24	.036	6.25	y	24	209.43	237.816	23.112	51.03	1	H1-1a
395	M201	W6X25	.515	0	22	.039	6.25	y	22	209.43	237.816	23.112	51.03	1	H1-1a
396	M202	W6X25	.445	0	20	.034	6.25	y	20	209.43	237.816	23.112	51.03	1	H1-1a
397	M203	W6X25	.407	0	16	.030	6.25	y	26	209.43	237.816	23.112	51.03	1	H1-1a
398	M281	W8X31	.480	6.25	12	.050	6.25	y	24	275.022	295.812	38.07	82.08	1	H1-1a
399	M282	W8X31	.496	0	22	.054	6.25	y	22	275.022	295.812	38.07	82.08	1	H1-1a
400	M283	W8X31	.491	0	4	.046	6.25	y	20	275.022	295.812	38.07	82.08	1	H1-1a
401	M284	W8X31	.476	0	16	.042	6.25	y	26	275.022	295.812	38.07	82.08	1	H1-1a
402	M362	W8X40	.535	0	12	.046	6.25	y	24	353.253	379.08	49.95	107.46	1	H1-1a
403	M363	W8X40	.538	0	8	.049	6.25	y	22	353.253	379.08	49.95	107.46	1	H1-1a
404	M364	W8X40	.537	0	4	.042	6.25	y	20	353.253	379.08	49.95	107.46	1	H1-1a
405	M365	W8X40	.524	0	16	.039	6.25	y	26	353.253	379.08	49.95	107.46	1	H1-1a
406	M443	W10X54	.510	25	12	.045	6.25	y	24	489.186	511.92	84.51	179.82	1	H1-1a
407	M444	W10X54	.514	25	8	.048	6.25	y	22	489.186	511.92	84.51	179.82	1	H1-1a
408	M445	W10X54	.512	25	4	.040	6.25	y	20	489.186	511.92	84.51	179.82	1	H1-1a
409	M446	W10X54	.502	25	16	.037	6.25	y	26	489.186	511.92	84.51	179.82	1	H1-1a
410	M524	W10X60	.597	0	12	.054	6.25	y	12	548.144	573.48	94.5	201.42	1	H1-1a
411	M525	W10X60	.600	0	8	.055	6.25	y	8	548.144	573.48	94.5	201.42	1	H1-1a
412	M526	W10X60	.597	0	4	.053	6.25	y	4	548.144	573.48	94.5	201.42	1	H1-1a
413	M527	W10X60	.588	0	16	.052	6.25	y	16	548.144	573.48	94.5	201.42	1	H1-1a
414	M605	W10X68	.671	25	12	.057	6.25	y	12	617.02	644.76	108.27	230.31	1	H1-1a
415	M606	W10X68	.675	25	8	.058	6.25	y	8	617.02	644.76	108.27	230.31	1	H1-1a
416	M607	W10X68	.672	0	4	.058	6.25	y	4	617.02	644.76	108.27	230.31	1	H1-1a
417	M608	W10X68	.663	0	16	.057	6.25	y	16	617.02	644.76	108.27	230.31	1	H1-1a
418	M686	W12X79	.768	6.258	12	.058	6.2...	y	12	728.091	751.68	146.61	321.3	1....	H1-1a
419	M687	W12X79	.768	6.258	8	.058	6.2...	y	8	728.091	751.68	146.61	321.3	1....	H1-1a
420	M688	W12X79	.754	6.258	4	.058	6.2...	y	4	728.091	751.68	146.61	321.3	1....	H1-1a
421	M689	W12X79	.748	6.258	16	.057	6.2...	y	16	728.091	751.68	146.61	321.3	1....	H1-1a
422	M882	2L2 1/2x2 1/2...	.073	12.14	16	.003	12....	y	19	11.603	58.32	4.017	1.632	1	H1-1b
423	M883	2L2 1/2x2 1/2...	.072	12.14	25	.002	0	y	20	11.603	58.32	4.017	1.632	1	H1-1b
424	M884	2L2 1/2x2 1/2...	.074	12.14	24	.002	12....	y	8	11.603	58.32	4.017	1.632	1	H1-1b
425	M885	2L2 1/2x2 1/2...	.074	0	20	.002	0	y	8	11.603	58.32	4.017	1.632	1	H1-1b
426	M886	2L2 1/2x2 1/2...	.072	12.14	16	.003	12....	y	26	11.603	58.32	4.017	1.632	1	H1-1b
427	M887	2L2 1/2x2 1/2...	.072	12.14	19	.002	0	y	24	11.603	58.32	4.017	1.632	1	H1-1b
428	M888	2L2 1/2x2 1/2...	.074	12.14	20	.002	12....	y	4	11.603	58.32	4.017	1.632	1	H1-1b
429	M889	2L2 1/2x2 1/2...	.074	0	24	.002	0	y	12	11.603	58.32	4.017	1.632	1	H1-1b
430	M791	L2.5x2.5x8	.590	0	8	.002	0	y	20	17.766	73.224	1.865	4.283	1	H2-1
431	M792	L2.5x2.5x8	.742	6.738	8	.002	6.7...	y	6	18.068	73.224	1.865	4.289	1	H2-1
432	M793	L2.5x2.5x8	.579	0	4	.004	0	y	4	17.766	73.224	1.865	4.283	1	H2-1
433	M794	L2.5x2.5x8	.759	6.738	4	.005	6.7...	y	4	18.068	73.224	1.865	4.289	1	H2-1
434	M795	L2.5x2.5x8	.746	0	16	.005	0	y	16	18.068	73.224	1.865	4.289	1	H2-1
435	M796	L2.5x2.5x8	.577	6.795	16	.004	6.7...	y	16	17.766	73.224	1.865	4.283	1	H2-1
436	M797	L2.5x2.5x8	.602	0	12	.004	0	y	12	17.766	73.224	1.865	4.283	1	H2-1
437	M798	L2.5x2.5x8	.740	6.738	12	.004	6.7...	y	12	18.068	73.224	1.865	4.289	1	H2-1
438	M56	2L2 1/2x2 1/2...	.124	5.225	21	.007	0	y	24	16.664	58.32	4.017	2.611	1	H1-1b
439	M64	2L2 1/2x2 1/2...	.124	5.225	25	.007	0	y	22	16.664	58.32	4.017	2.611	1	H1-1b
440	M72	2L2 1/2x2 1/2...	.124	5.225	19	.007	0	y	22	16.664	58.32	4.017	2.611	1	H1-1b
441	M80	2L2 1/2x2 1/2...	.124	5.225	23	.007	0	y	20	16.664	58.32	4.017	2.611	1	H1-1b
442	M88	2L2 1/2x2 1/2...	.124	5.225	25	.007	0	y	20	16.664	58.32	4.017	2.611	1	H1-1b
443	M96	2L2 1/2x2 1/2...	.124	5.225	21	.007	0	y	26	16.664	58.32	4.017	2.611	1	H1-1b
444	M104	2L2 1/2x2 1/2...	.124	5.225	23	.007	10....	y	26	16.664	58.32	4.017	2.611	1	H1-1b
445	M112	2L2 1/2x2 1/2...	.124	5.225	19	.007	0	y	24	16.664	58.32	4.017	2.611	1	H1-1b
446	M129	2L2 1/2x2 1/2...	.123	5.225	21	.007	10....	y	20	16.664	58.32	4.017	2.611	1	H1-1b
447	M137	2L2 1/2x2 1/2...	.123	5.225	25	.007	0	y	23	16.664	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
448	M146	2L2 1/2x2 1/2...	.123	5.225	20	.007	0	y	20	16.664	58.32	4.017	2.611	1	H1-1b
449	M154	2L2 1/2x2 1/2...	.123	5.225	24	.007	10....	y	23	16.664	58.32	4.017	2.611	1	H1-1b
450	M163	2L2 1/2x2 1/2...	.122	5.225	26	.007	0	y	20	16.664	58.32	4.017	2.611	1	H1-1b
451	M171	2L2 1/2x2 1/2...	.123	5.225	22	.007	0	y	24	16.664	58.32	4.017	2.611	1	H1-1b
452	M180	2L2 1/2x2 1/2...	.123	5.225	22	.007	0	y	19	16.664	58.32	4.017	2.611	1	H1-1b
453	M188	2L2 1/2x2 1/2...	.123	5.225	26	.007	10....	y	24	16.664	58.32	4.017	2.611	1	H1-1b
454	M210	2L2 1/2x2 1/2...	.122	5.225	20	.007	10....	y	22	16.697	58.32	4.017	2.611	1	H1-1b
455	M218	2L2 1/2x2 1/2...	.122	5.225	25	.007	0	y	24	16.697	58.32	4.017	2.611	1	H1-1b
456	M227	2L2 1/2x2 1/2...	.122	5.225	19	.007	10....	y	20	16.697	58.32	4.017	2.611	1	H1-1b
457	M235	2L2 1/2x2 1/2...	.122	5.225	24	.007	10....	y	22	16.697	58.32	4.017	2.611	1	H1-1b
458	M244	2L2 1/2x2 1/2...	.122	5.225	25	.007	0	y	19	16.697	58.32	4.017	2.611	1	H1-1b
459	M252	2L2 1/2x2 1/2...	.122	5.225	22	.007	0	y	20	16.697	58.32	4.017	2.611	1	H1-1b
460	M261	2L2 1/2x2 1/2...	.122	5.225	22	.007	0	y	24	16.697	58.32	4.017	2.611	1	H1-1b
461	M269	2L2 1/2x2 1/2...	.122	5.225	19	.007	10....	y	26	16.697	58.32	4.017	2.611	1	H1-1b
462	M291	2L2 1/2x2 1/2...	.116	5.225	20	.006	10....	y	22	16.998	58.32	4.017	2.611	1	H1-1b
463	M299	2L2 1/2x2 1/2...	.116	5.225	26	.006	10....	y	24	16.998	58.32	4.017	2.611	1	H1-1b
464	M308	2L2 1/2x2 1/2...	.116	5.225	19	.006	0	y	20	16.998	58.32	4.017	2.611	1	H1-1b
465	M316	2L2 1/2x2 1/2...	.116	5.225	24	.006	10....	y	22	16.998	58.32	4.017	2.611	1	H1-1b
466	M325	2L2 1/2x2 1/2...	.116	5.225	23	.006	0	y	26	16.998	58.32	4.017	2.611	1	H1-1b
467	M333	2L2 1/2x2 1/2...	.116	5.225	23	.006	10....	y	20	16.998	58.32	4.017	2.611	1	H1-1b
468	M342	2L2 1/2x2 1/2...	.117	5.225	22	.006	0	y	24	16.998	58.32	4.017	2.611	1	H1-1b
469	M350	2L2 1/2x2 1/2...	.116	5.225	19	.006	10....	y	26	16.998	58.32	4.017	2.611	1	H1-1b
470	M372	2L2 1/2x2 1/2...	.118	5.116	24	.006	0	y	22	17.032	58.32	4.017	2.611	1	H1-1b
471	M380	2L2 1/2x2 1/2...	.119	5.116	22	.006	10....	y	24	17.032	58.32	4.017	2.611	1	H1-1b
472	M389	2L2 1/2x2 1/2...	.118	5.116	22	.006	0	y	20	17.032	58.32	4.017	2.611	1	H1-1b
473	M397	2L2 1/2x2 1/2...	.117	5.116	20	.006	0	y	22	17.032	58.32	4.017	2.611	1	H1-1b
474	M406	2L2 1/2x2 1/2...	.115	5.225	23	.006	0	y	19	17.032	58.32	4.017	2.611	1	H1-1b
475	M414	2L2 1/2x2 1/2...	.116	5.225	23	.006	10....	y	19	17.032	58.32	4.017	2.611	1	H1-1b
476	M423	2L2 1/2x2 1/2...	.116	5.225	22	.006	0	y	24	17.032	58.32	4.017	2.611	1	H1-1b
477	M431	2L2 1/2x2 1/2...	.117	5.116	24	.006	10....	y	26	17.032	58.32	4.017	2.611	1	H1-1b
478	M453	2L2 1/2x2 1/2...	.125	5.116	23	.006	10....	y	22	17.342	58.32	4.017	2.611	1	H1-1b
479	M461	2L2 1/2x2 1/2...	.127	5.116	23	.006	0	y	24	17.342	58.32	4.017	2.611	1	H1-1b
480	M470	2L2 1/2x2 1/2...	.126	5.116	21	.006	10....	y	20	17.342	58.32	4.017	2.611	1	H1-1b
481	M478	2L2 1/2x2 1/2...	.122	5.116	21	.006	0	y	22	17.342	58.32	4.017	2.611	1	H1-1b
482	M487	2L2 1/2x2 1/2...	.122	5.116	19	.006	0	y	19	17.342	58.32	4.017	2.611	1	H1-1b
483	M495	2L2 1/2x2 1/2...	.120	5.116	19	.006	10....	y	19	17.342	58.32	4.017	2.611	1	H1-1b
484	M504	2L2 1/2x2 1/2...	.120	5.116	25	.006	0	y	24	17.342	58.32	4.017	2.611	1	H1-1b
485	M512	2L2 1/2x2 1/2...	.125	5.116	25	.006	10....	y	26	17.342	58.32	4.017	2.611	1	H1-1b
486	M534	2L2 1/2x2 1/2...	.129	5.116	24	.006	0	y	22	17.377	58.32	4.017	2.611	1	H1-1b
487	M542	2L2 1/2x2 1/2...	.131	5.116	22	.006	0	y	24	17.377	58.32	4.017	2.611	1	H1-1b
488	M551	2L2 1/2x2 1/2...	.130	5.116	22	.006	0	y	20	17.377	58.32	4.017	2.611	1	H1-1b
489	M559	2L2 1/2x2 1/2...	.125	5.116	20	.006	10....	y	22	17.377	58.32	4.017	2.611	1	H1-1b
490	M568	2L2 1/2x2 1/2...	.124	5.116	20	.006	10....	y	26	17.377	58.32	4.017	2.611	1	H1-1b
491	M576	2L2 1/2x2 1/2...	.122	5.116	26	.006	0	y	20	17.377	58.32	4.017	2.611	1	H1-1b
492	M585	2L2 1/2x2 1/2...	.122	5.116	26	.006	10....	y	24	17.377	58.32	4.017	2.611	1	H1-1b
493	M593	2L2 1/2x2 1/2...	.128	5.116	24	.006	10....	y	26	17.377	58.32	4.017	2.611	1	H1-1b
494	M615	2L2 1/2x2 1/2...	.137	5.116	23	.006	0	y	22	17.412	58.32	4.017	2.611	1	H1-1b
495	M623	2L2 1/2x2 1/2...	.139	5.116	23	.006	10....	y	24	17.412	58.32	4.017	2.611	1	H1-1b
496	M632	2L2 1/2x2 1/2...	.135	5.116	21	.006	10....	y	20	17.412	58.32	4.017	2.611	1	H1-1b
497	M640	2L2 1/2x2 1/2...	.128	5.116	21	.006	10....	y	23	17.412	58.32	4.017	2.611	1	H1-1b
498	M649	2L2 1/2x2 1/2...	.131	5.116	19	.006	0	y	26	17.412	58.32	4.017	2.611	1	H1-1b
499	M657	2L2 1/2x2 1/2...	.128	5.116	19	.006	0	y	20	17.412	58.32	4.017	2.611	1	H1-1b
500	M666	2L2 1/2x2 1/2...	.126	5.116	25	.006	0	y	23	17.412	58.32	4.017	2.611	1	H1-1b
501	M674	2L2 1/2x2 1/2...	.133	5.116	24	.006	0	y	26	17.412	58.32	4.017	2.611	1	H1-1b
502	M696	2L2 1/2x2 1/2...	.082	5.115	20	.004	0	y	22	24.823	77.112	5.381	3.414	1	H1-1b
503	M706	2L2 1/2x2 1/2...	.081	5.115	26	.004	0	y	24	24.823	77.112	5.381	3.414	1	H1-1b
504	M717	2L2 1/2x2 1/2...	.083	5.171	26	.005	10....	y	20	24.239	77.112	5.381	3.414	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
505	M727	2L2 1/2x2 1/2...	.084	5.171	24	.004	10....	y	23	24.239	77.112	5.381	3.414	1	H1-1b
506	M738	2L2 1/2x2 1/2...	.082	5.115	24	.004	10....	y	26	24.823	77.112	5.381	3.414	1	H1-1b
507	M748	2L2 1/2x2 1/2...	.082	5.115	22	.004	10....	y	20	24.823	77.112	5.381	3.414	1	H1-1b
508	M759	2L2 1/2x2 1/2...	.084	5.171	22	.004	10....	y	23	24.239	77.112	5.381	3.414	1	H1-1b
509	M769	2L2 1/2x2 1/2...	.083	5.171	20	.004	0	y	26	24.239	77.112	5.381	3.414	1	H1-1b
510	M57	2L2 1/2x2 1/2...	.201	5.116	22	.007	10....	y	26	16.664	58.32	4.017	2.611	1	H1-1b
511	M58	2L2 1/2x2 1/2...	.067	3.683	24	.003	7.5...	y	23	30.275	58.32	4.017	2.611	1	H1-1b
512	M65	2L2 1/2x2 1/2...	.203	5.116	24	.007	0	y	20	16.664	58.32	4.017	2.611	1	H1-1b
513	M66	2L2 1/2x2 1/2...	.067	3.683	21	.003	7.5...	y	23	30.275	58.32	4.017	2.611	1	H1-1b
514	M73	2L2 1/2x2 1/2...	.207	5.116	20	.007	10....	y	24	16.664	58.32	4.017	2.611	1	H1-1b
515	M74	2L2 1/2x2 1/2...	.069	3.683	23	.003	7.5...	y	21	30.275	58.32	4.017	2.611	1	H1-1b
516	M81	2L2 1/2x2 1/2...	.206	5.116	22	.007	0	y	26	16.664	58.32	4.017	2.611	1	H1-1b
517	M82	2L2 1/2x2 1/2...	.069	3.683	19	.003	0	y	21	30.275	58.32	4.017	2.611	1	H1-1b
518	M89	2L2 1/2x2 1/2...	.201	5.116	19	.007	0	y	22	16.664	58.32	4.017	2.611	1	H1-1b
519	M90	2L2 1/2x2 1/2...	.066	3.683	21	.003	0	y	19	30.275	58.32	4.017	2.611	1	H1-1b
520	M97	2L2 1/2x2 1/2...	.200	5.116	20	.007	10....	y	24	16.664	58.32	4.017	2.611	1	H1-1b
521	M98	2L2 1/2x2 1/2...	.066	3.683	26	.003	7.5...	y	19	30.275	58.32	4.017	2.611	1	H1-1b
522	M105	2L2 1/2x2 1/2...	.203	5.116	24	.007	0	y	21	16.664	58.32	4.017	2.611	1	H1-1b
523	M106	2L2 1/2x2 1/2...	.068	3.683	26	.003	7.5...	y	25	30.275	58.32	4.017	2.611	1	H1-1b
524	M113	2L2 1/2x2 1/2...	.204	5.116	26	.007	10....	y	22	16.664	58.32	4.017	2.611	1	H1-1b
525	M114	2L2 1/2x2 1/2...	.068	3.683	23	.003	7.5...	y	25	30.275	58.32	4.017	2.611	1	H1-1b
526	M130	2L2 1/2x2 1/2...	.144	5.116	21	.007	10....	y	22	16.664	58.32	4.017	2.611	1	H1-1b
527	M131	2L2 1/2x2 1/2...	.048	3.683	25	.003	0	y	22	30.275	58.32	4.017	2.611	1	H1-1b
528	M138	2L2 1/2x2 1/2...	.145	5.116	25	.007	10....	y	24	16.664	58.32	4.017	2.611	1	H1-1b
529	M139	2L2 1/2x2 1/2...	.049	3.683	21	.004	7.5...	y	24	30.275	58.32	4.017	2.611	1	H1-1b
530	M147	2L2 1/2x2 1/2...	.144	5.116	20	.007	10....	y	20	16.664	58.32	4.017	2.611	1	H1-1b
531	M148	2L2 1/2x2 1/2...	.048	3.683	23	.004	0	y	20	30.275	58.32	4.017	2.611	1	H1-1b
532	M155	2L2 1/2x2 1/2...	.143	5.116	24	.007	0	y	22	16.664	58.32	4.017	2.611	1	H1-1b
533	M156	2L2 1/2x2 1/2...	.048	3.683	20	.003	0	y	21	30.275	58.32	4.017	2.611	1	H1-1b
534	M164	2L2 1/2x2 1/2...	.142	5.116	25	.007	10....	y	26	16.664	58.32	4.017	2.611	1	H1-1b
535	M165	2L2 1/2x2 1/2...	.047	3.683	21	.003	0	y	20	30.275	58.32	4.017	2.611	1	H1-1b
536	M172	2L2 1/2x2 1/2...	.143	5.116	21	.007	0	y	20	16.664	58.32	4.017	2.611	1	H1-1b
537	M173	2L2 1/2x2 1/2...	.046	3.683	25	.004	7.5...	y	19	30.275	58.32	4.017	2.611	1	H1-1b
538	M181	2L2 1/2x2 1/2...	.145	5.116	22	.007	10....	y	24	16.664	58.32	4.017	2.611	1	H1-1b
539	M182	2L2 1/2x2 1/2...	.047	3.683	26	.004	7.5...	y	25	30.275	58.32	4.017	2.611	1	H1-1b
540	M189	2L2 1/2x2 1/2...	.143	5.116	26	.007	10....	y	26	16.664	58.32	4.017	2.611	1	H1-1b
541	M190	2L2 1/2x2 1/2...	.047	3.683	22	.003	0	y	24	30.275	58.32	4.017	2.611	1	H1-1b
542	M211	2L2 1/2x2 1/2...	.137	5.116	20	.007	0	y	26	16.697	58.32	4.017	2.611	1	H1-1b
543	M212	2L2 1/2x2 1/2...	.049	3.683	24	.003	0	y	23	30.329	58.32	4.017	2.611	1	H1-1b
544	M219	2L2 1/2x2 1/2...	.137	5.116	25	.007	0	y	26	16.697	58.32	4.017	2.611	1	H1-1b
545	M220	2L2 1/2x2 1/2...	.050	3.683	21	.004	7.5...	y	24	30.329	58.32	4.017	2.611	1	H1-1b
546	M228	2L2 1/2x2 1/2...	.137	5.116	19	.007	0	y	22	16.697	58.32	4.017	2.611	1	H1-1b
547	M229	2L2 1/2x2 1/2...	.050	3.683	23	.004	7.5...	y	21	30.329	58.32	4.017	2.611	1	H1-1b
548	M236	2L2 1/2x2 1/2...	.138	5.116	24	.007	0	y	26	16.697	58.32	4.017	2.611	1	H1-1b
549	M237	2L2 1/2x2 1/2...	.049	3.683	20	.003	7.5...	y	21	30.329	58.32	4.017	2.611	1	H1-1b
550	M245	2L2 1/2x2 1/2...	.136	5.116	25	.007	0	y	23	16.697	58.32	4.017	2.611	1	H1-1b
551	M246	2L2 1/2x2 1/2...	.048	3.683	20	.003	7.5...	y	20	30.329	58.32	4.017	2.611	1	H1-1b
552	M253	2L2 1/2x2 1/2...	.139	5.116	22	.007	0	y	23	16.697	58.32	4.017	2.611	1	H1-1b
553	M254	2L2 1/2x2 1/2...	.048	3.683	19	.004	7.5...	y	26	30.329	58.32	4.017	2.611	1	H1-1b
554	M262	2L2 1/2x2 1/2...	.139	5.116	22	.007	0	y	21	16.697	58.32	4.017	2.611	1	H1-1b
555	M263	2L2 1/2x2 1/2...	.048	3.683	26	.004	7.5...	y	26	30.329	58.32	4.017	2.611	1	H1-1b
556	M270	2L2 1/2x2 1/2...	.136	5.116	19	.007	0	y	21	16.697	58.32	4.017	2.611	1	H1-1b
557	M271	2L2 1/2x2 1/2...	.049	3.683	23	.003	7.5...	y	24	30.329	58.32	4.017	2.611	1	H1-1b
558	M292	2L2 1/2x2 1/2...	.128	5.116	20	.007	10....	y	26	16.998	58.32	4.017	2.611	1	H1-1b
559	M293	2L2 1/2x2 1/2...	.051	3.683	24	.003	7.5...	y	23	30.813	58.32	4.017	2.611	1	H1-1b
560	M300	2L2 1/2x2 1/2...	.127	5.116	26	.006	0	y	23	16.998	58.32	4.017	2.611	1	H1-1b
561	M301	2L2 1/2x2 1/2...	.052	3.683	22	.004	7.5...	y	23	30.813	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
562	M309	2L2 1/2x2 1/2...	.126	5.116	26	.006	10....	y	21	16.998	58.32	4.017	2.611	1	H1-1b
563	M310	2L2 1/2x2 1/2...	.051	3.683	22	.004	7.5...	y	21	30.813	58.32	4.017	2.611	1	H1-1b
564	M317	2L2 1/2x2 1/2...	.129	5.116	24	.007	0	y	26	16.998	58.32	4.017	2.611	1	H1-1b
565	M318	2L2 1/2x2 1/2...	.051	3.683	20	.003	0	y	21	30.813	58.32	4.017	2.611	1	H1-1b
566	M326	2L2 1/2x2 1/2...	.128	5.116	24	.007	0	y	22	16.998	58.32	4.017	2.611	1	H1-1b
567	M327	2L2 1/2x2 1/2...	.050	3.683	20	.003	0	y	20	30.813	58.32	4.017	2.611	1	H1-1b
568	M334	2L2 1/2x2 1/2...	.130	5.116	22	.007	10....	y	24	16.998	58.32	4.017	2.611	1	H1-1b
569	M335	2L2 1/2x2 1/2...	.049	3.683	26	.003	7.5...	y	26	30.813	58.32	4.017	2.611	1	H1-1b
570	M343	2L2 1/2x2 1/2...	.131	5.116	22	.007	10....	y	20	16.998	58.32	4.017	2.611	1	H1-1b
571	M344	2L2 1/2x2 1/2...	.049	3.683	26	.003	0	y	26	30.813	58.32	4.017	2.611	1	H1-1b
572	M351	2L2 1/2x2 1/2...	.127	5.116	20	.007	0	y	22	16.998	58.32	4.017	2.611	1	H1-1b
573	M352	2L2 1/2x2 1/2...	.050	3.683	24	.003	0	y	24	30.813	58.32	4.017	2.611	1	H1-1b
574	M373	2L2 1/2x2 1/2...	.122	5.116	20	.007	10....	y	26	17.032	58.32	4.017	2.611	1	H1-1b
575	M374	2L2 1/2x2 1/2...	.054	3.683	24	.003	0	y	24	30.866	58.32	4.017	2.611	1	H1-1b
576	M381	2L2 1/2x2 1/2...	.122	5.116	26	.006	0	y	22	17.032	58.32	4.017	2.611	1	H1-1b
577	M382	2L2 1/2x2 1/2...	.055	3.683	22	.004	7.5...	y	22	30.866	58.32	4.017	2.611	1	H1-1b
578	M390	2L2 1/2x2 1/2...	.121	5.116	26	.007	0	y	22	17.032	58.32	4.017	2.611	1	H1-1b
579	M391	2L2 1/2x2 1/2...	.054	3.683	22	.004	7.5...	y	22	30.866	58.32	4.017	2.611	1	H1-1b
580	M398	2L2 1/2x2 1/2...	.124	5.116	24	.007	0	y	26	17.032	58.32	4.017	2.611	1	H1-1b
581	M399	2L2 1/2x2 1/2...	.053	3.683	20	.003	7.5...	y	20	30.866	58.32	4.017	2.611	1	H1-1b
582	M407	2L2 1/2x2 1/2...	.124	5.116	23	.007	10....	y	22	17.032	58.32	4.017	2.611	1	H1-1b
583	M408	2L2 1/2x2 1/2...	.052	3.683	19	.003	0	y	20	30.866	58.32	4.017	2.611	1	H1-1b
584	M415	2L2 1/2x2 1/2...	.127	5.116	23	.007	0	y	24	17.032	58.32	4.017	2.611	1	H1-1b
585	M416	2L2 1/2x2 1/2...	.051	3.683	19	.003	0	y	26	30.866	58.32	4.017	2.611	1	H1-1b
586	M424	2L2 1/2x2 1/2...	.127	5.116	22	.007	10....	y	20	17.032	58.32	4.017	2.611	1	H1-1b
587	M425	2L2 1/2x2 1/2...	.052	3.683	26	.003	7.5...	y	26	30.866	58.32	4.017	2.611	1	H1-1b
588	M432	2L2 1/2x2 1/2...	.121	5.116	20	.007	10....	y	23	17.032	58.32	4.017	2.611	1	H1-1b
589	M433	2L2 1/2x2 1/2...	.053	3.683	24	.003	7.5...	y	24	30.866	58.32	4.017	2.611	1	H1-1b
590	M454	2L2 1/2x2 1/2...	.113	5.225	23	.006	0	y	26	17.342	58.32	4.017	2.611	1	H1-1b
591	M455	2L2 1/2x2 1/2...	.055	3.683	24	.003	0	y	20	31.352	58.32	4.017	2.611	1	H1-1b
592	M462	2L2 1/2x2 1/2...	.113	5.225	23	.006	0	y	21	17.342	58.32	4.017	2.611	1	H1-1b
593	M463	2L2 1/2x2 1/2...	.056	3.683	23	.003	0	y	22	31.352	58.32	4.017	2.611	1	H1-1b
594	M471	2L2 1/2x2 1/2...	.113	5.225	21	.006	10....	y	23	17.342	58.32	4.017	2.611	1	H1-1b
595	M472	2L2 1/2x2 1/2...	.056	3.683	21	.003	0	y	22	31.352	58.32	4.017	2.611	1	H1-1b
596	M479	2L2 1/2x2 1/2...	.116	5.116	25	.006	10....	y	26	17.342	58.32	4.017	2.611	1	H1-1b
597	M480	2L2 1/2x2 1/2...	.054	3.683	21	.003	7.5...	y	24	31.352	58.32	4.017	2.611	1	H1-1b
598	M488	2L2 1/2x2 1/2...	.117	5.116	23	.006	0	y	22	17.342	58.32	4.017	2.611	1	H1-1b
599	M489	2L2 1/2x2 1/2...	.053	3.683	19	.003	0	y	20	31.352	58.32	4.017	2.611	1	H1-1b
600	M496	2L2 1/2x2 1/2...	.119	5.116	23	.006	10....	y	24	17.342	58.32	4.017	2.611	1	H1-1b
601	M497	2L2 1/2x2 1/2...	.052	3.683	19	.003	0	y	26	31.352	58.32	4.017	2.611	1	H1-1b
602	M505	2L2 1/2x2 1/2...	.119	5.116	21	.006	10....	y	20	17.342	58.32	4.017	2.611	1	H1-1b
603	M506	2L2 1/2x2 1/2...	.052	3.683	25	.003	0	y	26	31.352	58.32	4.017	2.611	1	H1-1b
604	M513	2L2 1/2x2 1/2...	.113	5.116	21	.006	0	y	22	17.342	58.32	4.017	2.611	1	H1-1b
605	M514	2L2 1/2x2 1/2...	.054	3.683	25	.003	7.5...	y	24	31.352	58.32	4.017	2.611	1	H1-1b
606	M535	2L2 1/2x2 1/2...	.111	5.225	23	.006	10....	y	26	17.377	58.32	4.017	2.611	1	H1-1b
607	M536	2L2 1/2x2 1/2...	.056	3.683	23	.003	7.5...	y	24	31.406	58.32	4.017	2.611	1	H1-1b
608	M543	2L2 1/2x2 1/2...	.111	5.225	23	.006	10....	y	21	17.377	58.32	4.017	2.611	1	H1-1b
609	M544	2L2 1/2x2 1/2...	.057	3.683	23	.003	0	y	22	31.406	58.32	4.017	2.611	1	H1-1b
610	M552	2L2 1/2x2 1/2...	.111	5.225	21	.006	10....	y	23	17.377	58.32	4.017	2.611	1	H1-1b
611	M553	2L2 1/2x2 1/2...	.057	3.683	21	.003	0	y	22	31.406	58.32	4.017	2.611	1	H1-1b
612	M560	2L2 1/2x2 1/2...	.110	5.225	21	.006	0	y	26	17.377	58.32	4.017	2.611	1	H1-1b
613	M561	2L2 1/2x2 1/2...	.055	3.683	21	.003	7.5...	y	24	31.406	58.32	4.017	2.611	1	H1-1b
614	M569	2L2 1/2x2 1/2...	.112	5.116	23	.006	10....	y	22	17.377	58.32	4.017	2.611	1	H1-1b
615	M570	2L2 1/2x2 1/2...	.054	3.683	19	.003	0	y	20	31.406	58.32	4.017	2.611	1	H1-1b
616	M577	2L2 1/2x2 1/2...	.114	5.116	23	.006	10....	y	24	17.377	58.32	4.017	2.611	1	H1-1b
617	M578	2L2 1/2x2 1/2...	.053	3.683	19	.003	7.5...	y	26	31.406	58.32	4.017	2.611	1	H1-1b
618	M586	2L2 1/2x2 1/2...	.113	5.116	21	.006	0	y	20	17.377	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
619	M587	2L2 1/2x2 1/2...	.053	3.683	25	.003	7.5...	y	26	31.406	58.32	4.017	2.611	1	H1-1b
620	M594	2L2 1/2x2 1/2...	.111	5.225	25	.006	10....	y	22	17.377	58.32	4.017	2.611	1	H1-1b
621	M595	2L2 1/2x2 1/2...	.056	3.683	25	.003	7.5...	y	24	31.406	58.32	4.017	2.611	1	H1-1b
622	M616	2L2 1/2x2 1/2...	.114	5.225	23	.006	10....	y	26	17.412	58.32	4.017	2.611	1	H1-1b
623	M617	2L2 1/2x2 1/2...	.061	3.683	23	.003	7.5...	y	20	31.46	58.32	4.017	2.611	1	H1-1b
624	M624	2L2 1/2x2 1/2...	.115	5.225	23	.006	0	y	21	17.412	58.32	4.017	2.611	1	H1-1b
625	M625	2L2 1/2x2 1/2...	.062	3.683	23	.003	7.5...	y	22	31.46	58.32	4.017	2.611	1	H1-1b
626	M633	2L2 1/2x2 1/2...	.113	5.225	22	.006	10....	y	23	17.412	58.32	4.017	2.611	1	H1-1b
627	M634	2L2 1/2x2 1/2...	.060	3.683	22	.003	7.5...	y	22	31.46	58.32	4.017	2.611	1	H1-1b
628	M641	2L2 1/2x2 1/2...	.112	5.225	20	.006	10....	y	26	17.412	58.32	4.017	2.611	1	H1-1b
629	M642	2L2 1/2x2 1/2...	.057	3.683	20	.003	7.5...	y	24	31.46	58.32	4.017	2.611	1	H1-1b
630	M650	2L2 1/2x2 1/2...	.112	5.225	19	.006	10....	y	22	17.412	58.32	4.017	2.611	1	H1-1b
631	M651	2L2 1/2x2 1/2...	.058	3.683	19	.003	7.5...	y	24	31.46	58.32	4.017	2.611	1	H1-1b
632	M658	2L2 1/2x2 1/2...	.113	5.116	23	.006	0	y	24	17.412	58.32	4.017	2.611	1	H1-1b
633	M659	2L2 1/2x2 1/2...	.056	3.683	19	.003	7.5...	y	26	31.46	58.32	4.017	2.611	1	H1-1b
634	M667	2L2 1/2x2 1/2...	.112	5.116	22	.006	10....	y	20	17.412	58.32	4.017	2.611	1	H1-1b
635	M668	2L2 1/2x2 1/2...	.056	3.683	26	.003	7.5...	y	26	31.46	58.32	4.017	2.611	1	H1-1b
636	M675	2L2 1/2x2 1/2...	.113	5.225	24	.006	10....	y	23	17.412	58.32	4.017	2.611	1	H1-1b
637	M676	2L2 1/2x2 1/2...	.059	3.683	24	.003	0	y	24	31.46	58.32	4.017	2.611	1	H1-1b
638	M698	2L2 1/2x2 1/2...	.132	6.278	20	.006	0	y	26	15.631	77.112	5.381	3.414	1	H1-1b
639	M708	2L2 1/2x2 1/2...	.131	6.278	26	.006	12....	y	20	15.631	77.112	5.381	3.414	1	H1-1b
640	M719	2L2 1/2x2 1/2...	.136	6.339	19	.006	0	y	20	15.313	77.112	5.381	3.414	1	H1-1b
641	M729	2L2 1/2x2 1/2...	.136	6.339	24	.006	0	y	26	15.313	77.112	5.381	3.414	1	H1-1b
642	M740	2L2 1/2x2 1/2...	.132	6.278	24	.006	0	y	22	15.631	77.112	5.381	3.414	1	H1-1b
643	M750	2L2 1/2x2 1/2...	.132	6.278	22	.006	0	y	24	15.631	77.112	5.381	3.414	1	H1-1b
644	M761	2L2 1/2x2 1/2...	.136	6.339	22	.006	0	y	20	14.702	77.112	5.381	3.414	1	H1-1b
645	M771	2L2 1/2x2 1/2...	.136	6.339	19	.006	12....	y	22	15.313	77.112	5.381	3.414	1	H1-1b
646	M699	2L2 1/2x2 1/2...	.104	5.337	19	.005	0	y	25	22.143	77.112	5.381	3.414	1	H1-1b
647	M700	2L2 1/2x2 1/2...	.055	4.014	23	.003	8.1...	y	21	37.406	77.112	5.381	3.414	1	H1-1b
648	M709	2L2 1/2x2 1/2...	.102	5.337	19	.004	10....	y	21	22.143	77.112	5.381	3.414	1	H1-1b
649	M710	2L2 1/2x2 1/2...	.056	4.014	23	.003	0	y	21	37.406	77.112	5.381	3.414	1	H1-1b
650	M720	2L2 1/2x2 1/2...	.097	5.283	25	.004	0	y	23	22.638	77.112	5.381	3.414	1	H1-1b
651	M721	2L2 1/2x2 1/2...	.059	4.06	21	.003	8.2...	y	23	36.731	77.112	5.381	3.414	1	H1-1b
652	M730	2L2 1/2x2 1/2...	.101	5.283	25	.005	10....	y	19	22.638	77.112	5.381	3.414	1	H1-1b
653	M731	2L2 1/2x2 1/2...	.057	4.06	21	.003	8.2...	y	23	36.731	77.112	5.381	3.414	1	H1-1b
654	M741	2L2 1/2x2 1/2...	.108	5.337	23	.005	0	y	21	22.143	77.112	5.381	3.414	1	H1-1b
655	M742	2L2 1/2x2 1/2...	.054	4.014	19	.003	8.1...	y	25	37.406	77.112	5.381	3.414	1	H1-1b
656	M751	2L2 1/2x2 1/2...	.108	5.337	23	.005	0	y	25	22.143	77.112	5.381	3.414	1	H1-1b
657	M752	2L2 1/2x2 1/2...	.053	4.014	19	.003	0	y	21	37.406	77.112	5.381	3.414	1	H1-1b
658	M762	2L2 1/2x2 1/2...	.102	5.283	21	.005	0	y	19	22.638	77.112	5.381	3.414	1	H1-1b
659	M763	2L2 1/2x2 1/2...	.056	4.06	25	.003	0	y	23	36.731	77.112	5.381	3.414	1	H1-1b
660	M772	2L2 1/2x2 1/2...	.099	5.283	21	.005	0	y	23	22.638	77.112	5.381	3.414	1	H1-1b
661	M773	2L2 1/2x2 1/2...	.058	4.06	25	.003	0	y	19	36.731	77.112	5.381	3.414	1	H1-1b
662	M17	L2 1/2x2 1/2x...	.252	9.149	6	.008	9.1...	z	23	4.438	29.225	.351	1.309	1	H2-1
663	M20	L2 1/2x2 1/2x...	.252	9.149	14	.008	0	z	23	4.438	29.225	.351	1.309	1	H2-1
664	M24	L2 1/2x2 1/2x...	.223	9.149	2	.008	0	z	21	4.438	29.225	.351	1.309	1	H2-1
665	M27	L2 1/2x2 1/2x...	.221	9.149	10	.008	9.1...	z	21	4.438	29.225	.351	1.309	1	H2-1
666	M31	L2 1/2x2 1/2x...	.275	9.149	14	.008	0	z	19	4.438	29.225	.351	1.309	1	H2-1
667	M34	L2 1/2x2 1/2x...	.273	9.149	6	.008	0	z	19	4.438	29.225	.351	1.309	1	H2-1
668	M38	L2 1/2x2 1/2x...	.191	9.149	10	.008	0	z	25	4.438	29.225	.351	1.309	1	H2-1
669	M41	L2 1/2x2 1/2x...	.195	9.149	19	.008	0	z	25	4.438	29.225	.351	1.309	1	H2-1
670	M54	L3x3x3/16_H...	.023	0	26	.005	7.5...	y	24	12.187	35.316	.509	2.096	1	H2-1
671	M62	L3x3x3/16_H...	.028	0	22	.005	7.5...	y	22	12.187	35.316	.509	2.096	1	H2-1
672	M70	L3x3x3/16_H...	.030	0	26	.005	0	y	26	12.187	35.316	.509	2.096	1	H2-1
673	M78	L3x3x3/16_H...	.027	0	22	.005	7.5...	y	24	12.187	35.316	.509	2.096	1	H2-1
674	M86	L3x3x3/16_H...	.028	0	25	.005	0	y	20	12.187	35.316	.509	2.096	1	H2-1
675	M94	L3x3x3/16_H...	.023	0	21	.005	0	y	26	12.187	35.316	.509	2.096	1	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
676	M102	L3x3x3/16_H...	.022	0	24	.005	7.5...	y	22	12.187	35.316	.509	2.096	1	H2-1
677	M110	L3x3x3/16_H...	.025	0	20	.005	0	y	20	12.187	35.316	.509	2.096	1	H2-1
678	M127	L3x3x3/16_H...	.074	0	24	.006	0	y	26	12.187	35.316	.509	2.096	1	H2-1
679	M135	L3x3x3/16_H...	.085	0	22	.006	0	y	20	12.187	35.316	.509	2.096	1	H2-1
680	M144	L3x3x3/16_H...	.084	0	23	.006	0	y	24	12.187	35.316	.509	2.096	1	H2-1
681	M152	L3x3x3/16_H...	.075	0	20	.006	7.5...	y	26	12.187	35.316	.509	2.096	1	H2-1
682	M161	L3x3x3/16_H...	.070	0	20	.006	7.5...	y	22	12.187	35.316	.509	2.096	1	H2-1
683	M169	L3x3x3/16_H...	.061	0	26	.006	7.5...	y	24	12.187	35.316	.509	2.096	1	H2-1
684	M178	L3x3x3/16_H...	.064	0	26	.006	0	y	20	12.187	35.316	.509	2.096	1	H2-1
685	M186	L3x3x3/16_H...	.072	0	23	.006	7.5...	y	22	12.187	35.316	.509	2.096	1	H2-1
686	M208	L3x3x3/16_H...	.114	0	24	.006	0	y	25	12.221	35.316	.509	2.098	1	H2-1
687	M216	L3x3x3/16_H...	.126	0	22	.006	0	y	21	12.221	35.316	.509	2.098	1	H2-1
688	M225	L3x3x3/16_H...	.123	0	22	.006	7.5...	y	24	12.221	35.316	.509	2.098	1	H2-1
689	M233	L3x3x3/16_H...	.108	0	20	.006	7.5...	y	19	12.221	35.316	.509	2.098	1	H2-1
690	M242	L3x3x3/16_H...	.104	0	20	.006	7.5...	y	21	12.221	35.316	.509	2.098	1	H2-1
691	M250	L3x3x3/16_H...	.092	0	26	.005	7.5...	y	24	12.221	35.316	.509	2.098	1	H2-1
692	M259	L3x3x3/16_H...	.095	0	26	.005	0	y	19	12.221	35.316	.509	2.098	1	H2-1
693	M267	L3x3x3/16_H...	.110	0	24	.006	7.5...	y	23	12.221	35.316	.509	2.098	1	H2-1
694	M289	L3x3x3/16_H...	.166	0	24	.006	0	y	25	12.682	35.316	.509	2.113	1	H2-1
695	M297	L3x3x3/16_H...	.180	0	22	.005	7.5...	y	21	12.682	35.316	.509	2.113	1	H2-1
696	M306	L3x3x3/16_H...	.180	0	22	.005	7.5...	y	23	12.682	35.316	.509	2.113	1	H2-1
697	M314	L3x3x3/16_H...	.160	0	4	.005	0	y	19	12.682	35.316	.509	2.113	1	H2-1
698	M323	L3x3x3/16_H...	.149	0	4	.005	7.5...	y	21	12.682	35.316	.509	2.113	1	H2-1
699	M331	L3x3x3/16_H...	.142	0	16	.005	0	y	25	12.682	35.316	.509	2.113	1	H2-1
700	M340	L3x3x3/16_H...	.158	0	16	.005	7.5...	y	19	12.682	35.316	.509	2.113	1	H2-1
701	M348	L3x3x3/16_H...	.165	0	24	.006	0	y	23	12.682	35.316	.509	2.113	1	H2-1
702	M370	L3x3x3/16_H...	.202	0	24	.005	7.5...	y	25	12.716	35.316	.509	2.114	1	H2-1
703	M378	L3x3x3/16_H...	.217	0	23	.005	7.5...	y	20	12.716	35.316	.509	2.114	1	H2-1
704	M387	L3x3x3/16_H...	.214	0	22	.005	0	y	23	12.716	35.316	.509	2.114	1	H2-1
705	M395	L3x3x3/16_H...	.194	0	4	.005	7.5...	y	19	12.716	35.316	.509	2.114	1	H2-1
706	M404	L3x3x3/16_H...	.200	0	2	.005	7.5...	y	22	12.716	35.316	.509	2.114	1	H2-1
707	M412	L3x3x3/16_H...	.190	0	16	.005	0	y	24	12.716	35.316	.509	2.114	1	H2-1
708	M421	L3x3x3/16_H...	.192	0	16	.005	7.5...	y	19	12.716	35.316	.509	2.114	1	H2-1
709	M429	L3x3x3/16_H...	.199	0	24	.005	7.5...	y	23	12.716	35.316	.509	2.114	1	H2-1
710	M451	L3x3x3/16_H...	.247	0	10	.005	0	y	26	13.199	35.316	.509	2.131	1	H2-1
711	M459	L3x3x3/16_H...	.259	0	10	.005	7.5...	y	20	13.199	35.316	.509	2.131	1	H2-1
712	M468	L3x3x3/16_H...	.243	0	6	.005	7.5...	y	24	13.199	35.316	.509	2.131	1	H2-1
713	M476	L3x3x3/16_H...	.233	0	6	.005	7.5...	y	19	13.199	35.316	.509	2.131	1	H2-1
714	M485	L3x3x3/16_H...	.253	0	2	.005	0	y	22	13.199	35.316	.509	2.131	1	H2-1
715	M493	L3x3x3/16_H...	.241	0	2	.005	7.5...	y	24	13.199	35.316	.509	2.131	1	H2-1
716	M502	L3x3x3/16_H...	.228	0	14	.005	7.5...	y	19	13.199	35.316	.509	2.131	1	H2-1
717	M510	L3x3x3/16_H...	.238	0	14	.005	7.5...	y	22	13.199	35.316	.509	2.131	1	H2-1
718	M532	L3x3x3/16_H...	.336	0	12	.005	0	y	25	13.233	35.316	.509	2.132	1	H2-1
719	M540	L3x3x3/16_H...	.346	0	8	.005	7.5...	y	21	13.233	35.316	.509	2.132	1	H2-1
720	M549	L3x3x3/16_H...	.343	0	8	.005	0	y	23	13.233	35.316	.509	2.132	1	H2-1
721	M557	L3x3x3/16_H...	.329	0	4	.005	7.5...	y	19	13.233	35.316	.509	2.132	1	H2-1
722	M566	L3x3x3/16_H...	.342	0	4	.005	0	y	21	13.233	35.316	.509	2.132	1	H2-1
723	M574	L3x3x3/16_H...	.334	0	16	.005	7.5...	y	25	13.233	35.316	.509	2.132	1	H2-1
724	M583	L3x3x3/16_H...	.327	0	16	.005	7.5...	y	19	13.233	35.316	.509	2.132	1	H2-1
725	M591	L3x3x3/16_H...	.340	0	12	.005	7.5...	y	23	13.233	35.316	.509	2.132	1	H2-1
726	M613	L3x3x3/16_H...	.442	0	10	.005	0	y	25	13.303	35.316	.509	2.134	1	H2-1
727	M621	L3x3x3/16_H...	.450	0	10	.005	7.5...	y	21	13.303	35.316	.509	2.134	1	H2-1
728	M630	L3x3x3/16_H...	.401	0	8	.005	7.5...	y	23	13.303	35.316	.509	2.134	1	H2-1
729	M638	L3x3x3/16_H...	.385	0	4	.005	0	y	19	13.303	35.316	.509	2.134	1	H2-1
730	M647	L3x3x3/16_H...	.443	0	2	.005	7.5...	y	21	13.303	35.316	.509	2.134	1	H2-1
731	M655	L3x3x3/16_H...	.433	0	2	.005	0	y	21	13.303	35.316	.509	2.134	1	H2-1
732	M664	L3x3x3/16_H...	.384	0	16	.005	7.5...	y	23	13.303	35.316	.509	2.134	1	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
733	M672	L3x3x3/16_H...	.405	0	12	.005	0	y	23	13.303	35.316	.509	2.134	1	H2-1
734	M694	L3x3x3/16_H...	.138	0	12	.005	8.1...	y	24	13.063	35.316	.509	2.126	1	H2-1
735	M704	L3x3x3/16_H...	.140	0	8	.005	0	y	24	13.063	35.316	.509	2.126	1	H2-1
736	M715	L3x3x3/16_H...	.076	0	9	.006	0	y	20	12.74	35.316	.509	2.115	1	H2-1
737	M725	L3x3x3/16_H...	.080	0	5	.005	0	y	23	12.74	35.316	.509	2.115	1	H2-1
738	M736	L3x3x3/16_H...	.141	0	4	.005	8.1...	y	20	13.063	35.316	.509	2.126	1	H2-1
739	M746	L3x3x3/16_H...	.137	0	16	.005	0	y	25	13.063	35.316	.509	2.126	1	H2-1
740	M757	L3x3x3/16_H...	.080	0	17	.005	0	y	23	12.74	35.316	.509	2.115	1	H2-1
741	M767	L3x3x3/16_H...	.078	0	13	.005	8.2...	y	24	12.74	35.316	.509	2.115	1	H2-1
742	M807	LL3x3x3x3	.033	6.674	12	.002	13....	y	23	15.364	70.632	5.543	3.751	1	H1-1b
743	M808	LL3x3x3x3	.031	7.196	4	.002	13....	y	21	15.614	70.632	5.543	3.751	1	H1-1b
744	M809	LL3x3x3x3	.031	6.621	16	.002	0	y	10	15.614	70.632	5.543	3.751	1	H1-1b
745	M810	LL3x3x3x3	.033	7.255	8	.002	0	y	14	15.364	70.632	5.543	3.751	1	H1-1b
746	M811	LL3x3x3x3	.031	6.674	4	.002	13....	y	14	15.364	70.632	5.543	3.751	1	H1-1b
747	M812	LL3x3x3x3	.030	7.196	14	.002	0	y	2	15.614	70.632	5.543	3.751	1	H1-1b
748	M813	LL3x3x3x3	.030	6.621	8	.002	0	y	2	15.614	70.632	5.543	3.751	1	H1-1b
749	M814	LL3x3x3x3	.032	7.255	16	.002	0	y	6	15.364	70.632	5.543	3.751	1	H1-1b
750	M1246	2L2 1/2x2 1/2...	.160	0	24	.002	0	y	25	11.603	58.32	4.017	2.611	1	H1-1b*
751	M1247	2L2 1/2x2 1/2...	.160	12.14	24	.002	12....	y	23	11.603	58.32	4.017	2.611	1	H1-1b*
752	M1248	2L2 1/2x2 1/2...	.161	0	22	.002	0	y	21	11.603	58.32	4.017	2.611	1	H1-1b*
753	M1249	2L2 1/2x2 1/2...	.160	12.14	22	.002	12....	y	23	11.603	58.32	4.017	2.611	1	H1-1b*
754	M1250	2L2 1/2x2 1/2...	.161	0	20	.002	12....	y	19	11.603	58.32	4.017	2.611	1	H1-1b*
755	M1251	2L2 1/2x2 1/2...	.161	12.14	20	.002	12....	y	21	11.603	58.32	4.017	2.611	1	H1-1b*
756	M1252	2L2 1/2x2 1/2...	.160	0	26	.002	12....	y	25	11.603	58.32	4.017	2.611	1	H1-1b*
757	M1253	2L2 1/2x2 1/2...	.160	12.14	26	.002	0	y	19	11.603	58.32	4.017	2.611	1	H1-1b*
758	M1194	2L2 1/2x2 1/2...	.068	5.944	24	.002	12....	y	24	11.603	58.32	4.017	2.611	1	H1-1b
759	M1195	2L2 1/2x2 1/2...	.068	6.196	25	.002	12....	y	24	11.603	58.32	4.017	2.611	1	H1-1b
760	M1196	2L2 1/2x2 1/2...	.067	5.944	22	.002	12....	y	21	11.603	58.32	4.017	2.611	1	H1-1b
761	M1197	2L2 1/2x2 1/2...	.067	6.196	22	.002	12....	y	23	11.603	58.32	4.017	2.611	1	H1-1b
762	M1198	2L2 1/2x2 1/2...	.068	5.944	20	.002	12....	y	20	11.603	58.32	4.017	2.611	1	H1-1b
763	M1199	2L2 1/2x2 1/2...	.068	6.196	19	.002	12....	y	20	11.603	58.32	4.017	2.611	1	H1-1b
764	M1200	2L2 1/2x2 1/2...	.068	5.944	19	.002	12....	y	26	11.603	58.32	4.017	2.611	1	H1-1b
765	M1201	2L2 1/2x2 1/2...	.068	6.196	25	.002	0	y	19	11.603	58.32	4.017	2.611	1	H1-1b
766	M1142	2L2 1/2x2 1/2...	.067	5.944	24	.002	0	y	24	11.603	58.32	4.017	2.611	1	H1-1b
767	M1143	2L2 1/2x2 1/2...	.067	6.196	26	.002	0	y	24	11.603	58.32	4.017	2.611	1	H1-1b
768	M1144	2L2 1/2x2 1/2...	.067	5.944	24	.002	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
769	M1145	2L2 1/2x2 1/2...	.067	6.196	20	.002	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
770	M1146	2L2 1/2x2 1/2...	.067	5.944	20	.002	0	y	4	11.603	58.32	4.017	2.611	1	H1-1b
771	M1147	2L2 1/2x2 1/2...	.067	6.196	26	.002	0	y	20	11.603	58.32	4.017	2.611	1	H1-1b
772	M1148	2L2 1/2x2 1/2...	.067	5.944	22	.002	0	y	22	11.603	58.32	4.017	2.611	1	H1-1b
773	M1149	2L2 1/2x2 1/2...	.067	6.196	22	.002	0	y	22	11.603	58.32	4.017	2.611	1	H1-1b
774	M1090	2L2 1/2x2 1/2...	.067	5.944	24	.002	12....	y	12	11.603	58.32	4.017	2.611	1	H1-1b
775	M1091	2L2 1/2x2 1/2...	.067	6.196	25	.002	12....	y	12	11.603	58.32	4.017	2.611	1	H1-1b
776	M1092	2L2 1/2x2 1/2...	.067	5.944	22	.002	12....	y	16	11.603	58.32	4.017	2.611	1	H1-1b
777	M1093	2L2 1/2x2 1/2...	.067	6.196	22	.002	12....	y	16	11.603	58.32	4.017	2.611	1	H1-1b
778	M1094	2L2 1/2x2 1/2...	.067	5.944	25	.002	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
779	M1095	2L2 1/2x2 1/2...	.067	6.196	20	.002	12....	y	26	11.603	58.32	4.017	2.611	1	H1-1b
780	M1096	2L2 1/2x2 1/2...	.067	5.944	20	.002	0	y	4	11.603	58.32	4.017	2.611	1	H1-1b
781	M1097	2L2 1/2x2 1/2...	.067	6.196	26	.002	0	y	4	11.603	58.32	4.017	2.611	1	H1-1b
782	M1038	2L2 1/2x2 1/2...	.066	5.944	23	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
783	M1039	2L2 1/2x2 1/2...	.066	6.196	21	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
784	M1040	2L2 1/2x2 1/2...	.067	5.944	21	.002	0	y	4	11.603	58.32	4.017	2.611	1	H1-1b
785	M1041	2L2 1/2x2 1/2...	.067	6.196	26	.002	12....	y	4	11.603	58.32	4.017	2.611	1	H1-1b
786	M1042	2L2 1/2x2 1/2...	.067	5.944	20	.002	12....	y	16	11.603	58.32	4.017	2.611	1	H1-1b
787	M1043	2L2 1/2x2 1/2...	.067	6.196	24	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
788	M1044	2L2 1/2x2 1/2...	.067	5.944	23	.002	12....	y	12	11.603	58.32	4.017	2.611	1	H1-1b
789	M1045	2L2 1/2x2 1/2...	.067	6.196	26	.002	12....	y	12	11.603	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
790	M986	2L2 1/2x2 1/2...	.067	5.944	23	.002	12....	y	12	11.603	58.32	4.017	2.611	1	H1-1b
791	M987	2L2 1/2x2 1/2...	.067	6.196	26	.002	0	y	4	11.603	58.32	4.017	2.611	1	H1-1b
792	M988	2L2 1/2x2 1/2...	.066	5.944	23	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
793	M989	2L2 1/2x2 1/2...	.066	6.196	21	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
794	M990	2L2 1/2x2 1/2...	.067	5.944	21	.002	12....	y	4	11.603	58.32	4.017	2.611	1	H1-1b
795	M991	2L2 1/2x2 1/2...	.067	6.196	26	.002	12....	y	12	11.603	58.32	4.017	2.611	1	H1-1b
796	M992	2L2 1/2x2 1/2...	.067	5.944	20	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
797	M993	2L2 1/2x2 1/2...	.067	6.196	24	.002	12....	y	16	11.603	58.32	4.017	2.611	1	H1-1b
798	M934	2L2 1/2x2 1/2...	.066	5.944	23	.002	0	y	12	11.603	58.32	4.017	2.611	1	H1-1b
799	M935	2L2 1/2x2 1/2...	.067	6.196	26	.002	12....	y	4	11.603	58.32	4.017	2.611	1	H1-1b
800	M936	2L2 1/2x2 1/2...	.066	5.944	23	.002	12....	y	16	11.603	58.32	4.017	2.611	1	H1-1b
801	M937	2L2 1/2x2 1/2...	.066	6.196	21	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
802	M938	2L2 1/2x2 1/2...	.066	5.944	21	.002	0	y	12	11.603	58.32	4.017	2.611	1	H1-1b
803	M939	2L2 1/2x2 1/2...	.067	6.196	26	.002	0	y	12	11.603	58.32	4.017	2.611	1	H1-1b
804	M940	2L2 1/2x2 1/2...	.066	5.944	20	.002	12....	y	16	11.603	58.32	4.017	2.611	1	H1-1b
805	M941	2L2 1/2x2 1/2...	.066	6.196	24	.002	0	y	16	11.603	58.32	4.017	2.611	1	H1-1b
806	M815	LL3x3x3x3	.087	0	20	.002	0	y	10	12.3	70.632	5.543	3.751	1	H1-1b*
807	M816	LL3x3x3x3	.077	15.366	23	.002	0	y	8	12.624	70.632	5.543	3.751	1	H1-1b*
808	M817	LL3x3x3x3	.077	7.523	23	.002	15....	y	6	12.624	70.632	5.543	3.751	1	H1-1b
809	M818	LL3x3x3x3	.085	15.567	26	.002	15....	y	2	12.3	70.632	5.543	3.751	1	H1-1b*
810	M819	LL3x3x3x3	.086	0	24	.002	0	y	10	12.3	70.632	5.543	3.751	1	H1-1b*
811	M820	LL3x3x3x3	.076	7.843	20	.002	15....	y	6	12.624	70.632	5.543	3.751	1	H1-1b
812	M821	LL3x3x3x3	.076	7.523	26	.002	15....	y	14	12.624	70.632	5.543	3.751	1	H1-1b
813	M822	LL3x3x3x3	.086	15.567	22	.002	15....	y	10	12.3	70.632	5.543	3.751	1	H1-1b*
814	M1238	2L2 1/2x2 1/2...	.023	4.911	8	.001	0	y	4	16.995	58.32	4.017	2.611	1	H1-1b
815	M1239	2L2 1/2x2 1/2...	.023	5.12	16	.001	10....	y	4	16.995	58.32	4.017	2.611	1	H1-1b
816	M1240	2L2 1/2x2 1/2...	.023	4.911	12	.001	10....	y	14	16.995	58.32	4.017	2.611	1	H1-1b
817	M1241	2L2 1/2x2 1/2...	.023	5.12	4	.001	0	y	2	16.995	58.32	4.017	2.611	1	H1-1b
818	M1242	2L2 1/2x2 1/2...	.023	4.911	8	.001	0	y	10	16.995	58.32	4.017	2.611	1	H1-1b
819	M1243	2L2 1/2x2 1/2...	.023	5.12	16	.001	0	y	14	16.995	58.32	4.017	2.611	1	H1-1b
820	M1244	2L2 1/2x2 1/2...	.023	4.911	4	.001	10....	y	8	16.995	58.32	4.017	2.611	1	H1-1b
821	M1245	2L2 1/2x2 1/2...	.023	5.12	12	.001	10....	y	10	16.995	58.32	4.017	2.611	1	H1-1b
822	M1186	2L2 1/2x2 1/2...	.023	4.911	12	.001	0	y	14	16.995	58.32	4.017	2.611	1	H1-1b
823	M1187	2L2 1/2x2 1/2...	.023	5.12	4	.001	10....	y	2	16.995	58.32	4.017	2.611	1	H1-1b
824	M1188	2L2 1/2x2 1/2...	.023	4.911	8	.001	10....	y	10	16.995	58.32	4.017	2.611	1	H1-1b
825	M1189	2L2 1/2x2 1/2...	.023	5.12	16	.001	10....	y	12	16.995	58.32	4.017	2.611	1	H1-1b
826	M1190	2L2 1/2x2 1/2...	.023	4.911	8	.001	10....	y	6	16.995	58.32	4.017	2.611	1	H1-1b
827	M1191	2L2 1/2x2 1/2...	.023	5.12	16	.001	0	y	4	16.995	58.32	4.017	2.611	1	H1-1b
828	M1192	2L2 1/2x2 1/2...	.023	4.911	12	.001	10....	y	10	16.995	58.32	4.017	2.611	1	H1-1b
829	M1193	2L2 1/2x2 1/2...	.023	5.12	4	.001	0	y	6	16.995	58.32	4.017	2.611	1	H1-1b
830	M1134	2L2 1/2x2 1/2...	.024	4.911	12	.001	0	y	8	16.995	58.32	4.017	2.611	1	H1-1b
831	M1135	2L2 1/2x2 1/2...	.024	5.12	4	.001	0	y	8	16.995	58.32	4.017	2.611	1	H1-1b
832	M1136	2L2 1/2x2 1/2...	.024	4.911	8	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b
833	M1137	2L2 1/2x2 1/2...	.023	5.12	16	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
834	M1138	2L2 1/2x2 1/2...	.024	4.911	12	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
835	M1139	2L2 1/2x2 1/2...	.024	5.12	4	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
836	M1140	2L2 1/2x2 1/2...	.024	4.911	8	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
837	M1141	2L2 1/2x2 1/2...	.024	5.12	16	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
838	M1082	2L2 1/2x2 1/2...	.024	4.911	8	.001	10....	y	25	16.995	58.32	4.017	2.611	1	H1-1b
839	M1083	2L2 1/2x2 1/2...	.024	5.12	16	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b
840	M1084	2L2 1/2x2 1/2...	.024	4.911	12	.001	10....	y	8	16.995	58.32	4.017	2.611	1	H1-1b
841	M1085	2L2 1/2x2 1/2...	.024	5.12	4	.001	0	y	8	16.995	58.32	4.017	2.611	1	H1-1b
842	M1086	2L2 1/2x2 1/2...	.024	4.911	8	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b
843	M1087	2L2 1/2x2 1/2...	.024	5.12	16	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b
844	M1088	2L2 1/2x2 1/2...	.024	4.911	4	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
845	M1089	2L2 1/2x2 1/2...	.024	5.12	12	.001	0	y	16	16.995	58.32	4.017	2.611	1	H1-1b
846	M1030	2L2 1/2x2 1/2...	.025	4.911	8	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
847	M1031	2L2 1/2x2 1/2...	.025	5.12	16	.001	10....	y	19	16.995	58.32	4.017	2.611	1	H1-1b
848	M1032	2L2 1/2x2 1/2...	.025	4.911	12	.001	0	y	8	16.995	58.32	4.017	2.611	1	H1-1b
849	M1033	2L2 1/2x2 1/2...	.025	5.12	4	.001	10....	y	8	16.995	58.32	4.017	2.611	1	H1-1b
850	M1034	2L2 1/2x2 1/2...	.025	4.911	8	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
851	M1035	2L2 1/2x2 1/2...	.025	5.12	16	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b
852	M1036	2L2 1/2x2 1/2...	.025	4.911	4	.001	10....	y	14	16.995	58.32	4.017	2.611	1	H1-1b
853	M1037	2L2 1/2x2 1/2...	.025	5.12	12	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
854	M978	2L2 1/2x2 1/2...	.025	4.911	8	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
855	M979	2L2 1/2x2 1/2...	.025	5.12	16	.001	0	y	19	16.995	58.32	4.017	2.611	1	H1-1b
856	M980	2L2 1/2x2 1/2...	.026	4.911	12	.001	10....	y	19	16.995	58.32	4.017	2.611	1	H1-1b
857	M981	2L2 1/2x2 1/2...	.026	5.12	4	.001	10....	y	25	16.995	58.32	4.017	2.611	1	H1-1b
858	M982	2L2 1/2x2 1/2...	.025	4.911	12	.001	10....	y	19	16.995	58.32	4.017	2.611	1	H1-1b
859	M983	2L2 1/2x2 1/2...	.025	5.12	4	.001	10....	y	26	16.995	58.32	4.017	2.611	1	H1-1b
860	M984	2L2 1/2x2 1/2...	.025	4.911	8	.001	0	y	4	16.995	58.32	4.017	2.611	1	H1-1b
861	M985	2L2 1/2x2 1/2...	.025	5.12	16	.001	0	y	12	16.995	58.32	4.017	2.611	1	H1-1b
862	M926	2L2 1/2x2 1/2...	.026	4.911	8	.001	10....	y	12	16.995	58.32	4.017	2.611	1	H1-1b
863	M927	2L2 1/2x2 1/2...	.026	5.12	16	.001	10....	y	12	16.995	58.32	4.017	2.611	1	H1-1b
864	M928	2L2 1/2x2 1/2...	.026	4.911	12	.001	10....	y	8	16.995	58.32	4.017	2.611	1	H1-1b
865	M929	2L2 1/2x2 1/2...	.026	5.12	4	.001	10....	y	8	16.995	58.32	4.017	2.611	1	H1-1b
866	M930	2L2 1/2x2 1/2...	.026	4.911	8	.001	0	y	4	16.995	58.32	4.017	2.611	1	H1-1b
867	M931	2L2 1/2x2 1/2...	.026	5.12	16	.001	10....	y	4	16.995	58.32	4.017	2.611	1	H1-1b
868	M932	2L2 1/2x2 1/2...	.026	4.911	4	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
869	M933	2L2 1/2x2 1/2...	.026	5.12	12	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
870	M874	2L2 1/2x2 1/2...	.029	4.911	8	.001	10....	y	6	16.995	58.32	4.017	2.611	1	H1-1b
871	M875	2L2 1/2x2 1/2...	.029	5.12	16	.001	0	y	25	16.995	58.32	4.017	2.611	1	H1-1b
872	M876	2L2 1/2x2 1/2...	.029	4.911	12	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
873	M877	2L2 1/2x2 1/2...	.029	5.12	4	.001	10....	y	16	16.995	58.32	4.017	2.611	1	H1-1b
874	M878	2L2 1/2x2 1/2...	.029	4.911	8	.001	0	y	10	16.995	58.32	4.017	2.611	1	H1-1b
875	M879	2L2 1/2x2 1/2...	.029	5.12	16	.001	0	y	10	16.995	58.32	4.017	2.611	1	H1-1b
876	M880	2L2 1/2x2 1/2...	.029	4.911	12	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
877	M881	2L2 1/2x2 1/2...	.029	5.12	4	.001	0	y	26	16.995	58.32	4.017	2.611	1	H1-1b
878	M799	LL4x4x8x3	.014	3.948	4	.002	0	y	8	176.057	243	25.894	16.851	1	H1-1b
879	M800	LL4x4x8x3	.014	3.948	8	.002	0	y	4	176.057	243	25.894	16.851	1	H1-1b
880	M801	LL4x4x8x3	.014	3.948	16	.002	7.8...	y	12	176.057	243	25.894	16.851	1	H1-1b
881	M806	LL4x4x8x3	.014	3.948	12	.002	0	y	16	176.057	243	25.894	16.851	1	H1-1b
882	M1234	2L2 1/2x2 1/2...	.116	7.896	24	.002	7.8...	y	25	6.857	58.32	4.017	1.632	1	H1-1b
883	M1235	2L2 1/2x2 1/2...	.116	7.896	22	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
884	M1236	2L2 1/2x2 1/2...	.116	7.896	20	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
885	M1237	2L2 1/2x2 1/2...	.116	7.896	26	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
886	M1182	2L2 1/2x2 1/2...	.103	7.896	24	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
887	M1183	2L2 1/2x2 1/2...	.103	7.896	22	.002	7.8...	y	21	6.857	58.32	4.017	1.632	1	H1-1b
888	M1184	2L2 1/2x2 1/2...	.103	7.896	26	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
889	M1185	2L2 1/2x2 1/2...	.103	7.896	20	.002	7.8...	y	21	6.857	58.32	4.017	1.632	1	H1-1b
890	M1130	2L2 1/2x2 1/2...	.103	7.896	24	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
891	M1131	2L2 1/2x2 1/2...	.102	7.896	26	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
892	M1132	2L2 1/2x2 1/2...	.102	7.896	22	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
893	M1133	2L2 1/2x2 1/2...	.103	7.896	20	.002	7.8...	y	21	6.857	58.32	4.017	1.632	1	H1-1b
894	M1078	2L2 1/2x2 1/2...	.104	7.896	24	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
895	M1079	2L2 1/2x2 1/2...	.103	7.896	22	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
896	M1080	2L2 1/2x2 1/2...	.104	7.896	20	.002	7.8...	y	21	6.857	58.32	4.017	1.632	1	H1-1b
897	M1081	2L2 1/2x2 1/2...	.103	7.896	26	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
898	M1026	2L2 1/2x2 1/2...	.104	7.896	22	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
899	M1027	2L2 1/2x2 1/2...	.105	7.896	24	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
900	M1028	2L2 1/2x2 1/2...	.105	7.896	20	.002	7.8...	y	20	6.857	58.32	4.017	1.632	1	H1-1b
901	M1029	2L2 1/2x2 1/2...	.104	7.896	26	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
902	M974	2L2 1/2x2 1/2...	.106	7.896	24	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
903	M975	2L2 1/2x2 1/2...	.105	7.896	22	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
904	M976	2L2 1/2x2 1/2...	.105	7.896	20	.002	7.8...	y	20	6.857	58.32	4.017	1.632	1	H1-1b
905	M977	2L2 1/2x2 1/2...	.105	7.896	26	.002	7.8...	y	26	6.857	58.32	4.017	1.632	1	H1-1b
906	M922	2L2 1/2x2 1/2...	.104	7.896	24	.002	7.8...	y	24	6.857	58.32	4.017	1.632	1	H1-1b
907	M923	2L2 1/2x2 1/2...	.103	7.896	26	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
908	M924	2L2 1/2x2 1/2...	.104	7.896	20	.002	7.8...	y	20	6.857	58.32	4.017	1.632	1	H1-1b
909	M925	2L2 1/2x2 1/2...	.103	7.896	22	.002	7.8...	y	23	6.857	58.32	4.017	1.632	1	H1-1b
910	M870	2L2 1/2x2 1/2...	.104	7.896	22	.002	7.8...	y	21	6.857	58.32	4.017	1.632	1	H1-1b
911	M871	2L2 1/2x2 1/2...	.105	7.896	24	.002	7.8...	y	24	6.857	58.32	4.017	1.632	1	H1-1b
912	M872	2L2 1/2x2 1/2...	.105	7.896	20	.002	7.8...	y	19	6.857	58.32	4.017	1.632	1	H1-1b
913	M873	2L2 1/2x2 1/2...	.104	7.896	26	.002	7.8...	y	26	6.857	58.32	4.017	1.632	1	H1-1b
914	M802	LL3x3x3x3	.117	7.896	20	.002	7.8...	y	20	11.952	70.632	5.543	2.345	1	H1-1b
915	M803	LL3x3x3x3	.116	7.896	22	.002	7.8...	y	22	11.952	70.632	5.543	2.345	1	H1-1b
916	M804	LL3x3x3x3	.117	7.896	26	.002	7.8...	y	26	11.952	70.632	5.543	2.345	1	H1-1b
917	M805	LL3x3x3x3	.116	7.896	24	.002	7.8...	y	24	11.952	70.632	5.543	2.345	1	H1-1b
918	M1230	2L2 1/2x2 1/2...	.023	3.948	20	.002	7.8...	y	8	26.617	58.32	4.017	2.611	1	H1-1b
919	M1231	2L2 1/2x2 1/2...	.023	3.948	26	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
920	M1232	2L2 1/2x2 1/2...	.023	3.948	24	.002	7.8...	y	8	26.617	58.32	4.017	2.611	1	H1-1b
921	M1233	2L2 1/2x2 1/2...	.023	3.948	22	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
922	M1178	2L2 1/2x2 1/2...	.023	3.948	24	.002	7.8...	y	8	26.617	58.32	4.017	2.611	1	H1-1b
923	M1179	2L2 1/2x2 1/2...	.023	3.948	22	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
924	M1180	2L2 1/2x2 1/2...	.023	3.948	20	.002	7.8...	y	8	26.617	58.32	4.017	2.611	1	H1-1b
925	M1181	2L2 1/2x2 1/2...	.023	3.948	26	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
926	M1126	2L2 1/2x2 1/2...	.023	3.948	24	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
927	M1127	2L2 1/2x2 1/2...	.024	3.948	22	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
928	M1128	2L2 1/2x2 1/2...	.023	3.948	20	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
929	M1129	2L2 1/2x2 1/2...	.023	3.948	26	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
930	M1074	2L2 1/2x2 1/2...	.023	3.948	24	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
931	M1075	2L2 1/2x2 1/2...	.024	3.948	22	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
932	M1076	2L2 1/2x2 1/2...	.023	3.948	20	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
933	M1077	2L2 1/2x2 1/2...	.023	3.948	26	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
934	M1022	2L2 1/2x2 1/2...	.024	3.948	24	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
935	M1023	2L2 1/2x2 1/2...	.024	3.948	22	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
936	M1024	2L2 1/2x2 1/2...	.023	3.948	20	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
937	M1025	2L2 1/2x2 1/2...	.024	3.948	26	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
938	M970	2L2 1/2x2 1/2...	.023	3.948	24	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
939	M971	2L2 1/2x2 1/2...	.023	3.948	22	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
940	M972	2L2 1/2x2 1/2...	.023	3.948	4	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
941	M973	2L2 1/2x2 1/2...	.023	3.948	26	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
942	M918	2L2 1/2x2 1/2...	.024	3.948	12	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
943	M919	2L2 1/2x2 1/2...	.024	3.948	8	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
944	M920	2L2 1/2x2 1/2...	.024	3.948	4	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
945	M921	2L2 1/2x2 1/2...	.024	3.948	16	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
946	M866	2L2 1/2x2 1/2...	.024	3.948	12	.002	7.8...	y	16	26.617	58.32	4.017	2.611	1	H1-1b
947	M867	2L2 1/2x2 1/2...	.024	3.948	16	.002	7.8...	y	12	26.617	58.32	4.017	2.611	1	H1-1b
948	M868	2L2 1/2x2 1/2...	.024	3.948	4	.002	7.8...	y	8	26.617	58.32	4.017	2.611	1	H1-1b
949	M869	2L2 1/2x2 1/2...	.024	3.948	8	.002	7.8...	y	4	26.617	58.32	4.017	2.611	1	H1-1b
950	M783	L2.5x2.5x3	.348	1.396	4	.002	0	y	4	22.363	29.192	.873	1.837	1	H2-1
951	M784	L2.5x2.5x3	.252	1.396	4	.002	0	y	4	22.363	29.192	.873	1.837	1	H2-1
952	M785	L2.5x2.5x3	.342	1.396	16	.002	2.7...	y	16	22.363	29.192	.873	1.837	1	H2-1
953	M786	L2.5x2.5x3	.251	1.396	16	.002	0	y	16	22.363	29.192	.873	1.837	1	H2-1
954	M787	L2.5x2.5x3	.262	1.396	12	.002	2.7...	y	12	22.363	29.192	.873	1.837	1	H2-1
955	M788	L2.5x2.5x3	.339	1.396	12	.002	2.7...	y	12	22.363	29.192	.873	1.837	1	H2-1
956	M789	L2.5x2.5x3	.260	1.396	8	.001	2.7...	y	6	22.363	29.192	.873	1.837	1	H2-1
957	M790	L2.5x2.5x3	.342	1.396	8	.001	0	y	10	22.363	29.192	.873	1.837	1	H2-1
958	M1262	2L2 1/2x2 1/2...	.077	6.375	2	.003	0	y	6	10.519	58.32	4.017	2.611	1	H1-1b
959	M1263	2L2 1/2x2 1/2...	.063	6.375	25	.003	12....	y	2	10.519	58.32	4.017	2.611	1	H1-1b
960	M1264	2L2 1/2x2 1/2...	.077	6.375	10	.003	0	y	6	10.519	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
961	M1265	2L2 1/2x2 1/2...	.064	6.375	21	.003	0	y	2	10.519	58.32	4.017	2.611	1	H1-1b
962	M53	2L2 1/2x2 1/2...	.101	4.188	21	.007	0	y	20	25.468	58.32	4.017	2.611	1	H1-1b
963	M61	2L2 1/2x2 1/2...	.100	4.188	25	.007	0	y	26	25.468	58.32	4.017	2.611	1	H1-1b
964	M69	2L2 1/2x2 1/2...	.101	4.188	19	.007	0	y	19	25.468	58.32	4.017	2.611	1	H1-1b
965	M77	2L2 1/2x2 1/2...	.101	4.188	23	.007	0	y	24	25.468	58.32	4.017	2.611	1	H1-1b
966	M85	2L2 1/2x2 1/2...	.100	4.188	25	.007	0	y	24	25.468	58.32	4.017	2.611	1	H1-1b
967	M93	2L2 1/2x2 1/2...	.100	4.188	21	.007	0	y	22	25.468	58.32	4.017	2.611	1	H1-1b
968	M101	2L2 1/2x2 1/2...	.100	4.188	23	.007	0	y	22	25.468	58.32	4.017	2.611	1	H1-1b
969	M109	2L2 1/2x2 1/2...	.100	4.188	19	.007	0	y	19	25.468	58.32	4.017	2.611	1	H1-1b
970	M126	2L2 1/2x2 1/2...	.098	4.188	21	.007	0	y	22	25.468	58.32	4.017	2.611	1	H1-1b
971	M134	2L2 1/2x2 1/2...	.097	4.188	25	.007	0	y	20	25.468	58.32	4.017	2.611	1	H1-1b
972	M143	2L2 1/2x2 1/2...	.096	4.188	20	.007	0	y	25	25.468	58.32	4.017	2.611	1	H1-1b
973	M151	2L2 1/2x2 1/2...	.097	4.188	24	.007	0	y	22	25.468	58.32	4.017	2.611	1	H1-1b
974	M160	2L2 1/2x2 1/2...	.096	4.188	26	.007	0	y	26	25.468	58.32	4.017	2.611	1	H1-1b
975	M168	2L2 1/2x2 1/2...	.097	4.188	22	.007	0	y	24	25.468	58.32	4.017	2.611	1	H1-1b
976	M177	2L2 1/2x2 1/2...	.098	4.188	22	.007	0	y	20	25.468	58.32	4.017	2.611	1	H1-1b
977	M185	2L2 1/2x2 1/2...	.097	4.188	26	.007	0	y	26	25.468	58.32	4.017	2.611	1	H1-1b
978	M207	2L2 1/2x2 1/2...	.097	4.188	24	.007	0	y	20	25.519	58.32	4.017	2.611	1	H1-1b
979	M215	2L2 1/2x2 1/2...	.097	4.188	21	.007	0	y	22	25.519	58.32	4.017	2.611	1	H1-1b
980	M224	2L2 1/2x2 1/2...	.097	4.188	23	.007	0	y	26	25.519	58.32	4.017	2.611	1	H1-1b
981	M232	2L2 1/2x2 1/2...	.097	4.188	20	.007	0	y	26	25.519	58.32	4.017	2.611	1	H1-1b
982	M241	2L2 1/2x2 1/2...	.096	4.188	21	.007	0	y	24	25.519	58.32	4.017	2.611	1	H1-1b
983	M249	2L2 1/2x2 1/2...	.096	4.188	26	.007	0	y	26	25.519	58.32	4.017	2.611	1	H1-1b
984	M258	2L2 1/2x2 1/2...	.097	4.188	26	.007	0	y	26	25.519	58.32	4.017	2.611	1	H1-1b
985	M266	2L2 1/2x2 1/2...	.097	4.188	23	.007	0	y	26	25.519	58.32	4.017	2.611	1	H1-1b
986	M288	2L2 1/2x2 1/2...	.096	4.188	24	.006	8.3...	y	19	25.876	58.32	4.017	2.611	1	H1-1b
987	M296	2L2 1/2x2 1/2...	.096	4.188	22	.006	8.3...	y	19	25.876	58.32	4.017	2.611	1	H1-1b
988	M305	2L2 1/2x2 1/2...	.096	4.188	23	.006	8.3...	y	24	25.876	58.32	4.017	2.611	1	H1-1b
989	M313	2L2 1/2x2 1/2...	.096	4.188	20	.006	8.3...	y	25	25.876	58.32	4.017	2.611	1	H1-1b
990	M322	2L2 1/2x2 1/2...	.095	4.188	19	.006	8.3...	y	26	25.876	58.32	4.017	2.611	1	H1-1b
991	M330	2L2 1/2x2 1/2...	.095	4.188	19	.006	8.3...	y	26	25.876	58.32	4.017	2.611	1	H1-1b
992	M339	2L2 1/2x2 1/2...	.095	4.188	26	.006	8.3...	y	26	25.876	58.32	4.017	2.611	1	H1-1b
993	M347	2L2 1/2x2 1/2...	.095	4.188	23	.006	8.3...	y	19	25.876	58.32	4.017	2.611	1	H1-1b
994	M369	2L2 1/2x2 1/2...	.098	4.188	24	.006	8.3...	y	26	25.927	58.32	4.017	2.611	1	H1-1b
995	M377	2L2 1/2x2 1/2...	.098	4.188	22	.006	8.3...	y	24	25.927	58.32	4.017	2.611	1	H1-1b
996	M386	2L2 1/2x2 1/2...	.098	4.188	22	.006	8.3...	y	20	25.927	58.32	4.017	2.611	1	H1-1b
997	M394	2L2 1/2x2 1/2...	.097	4.188	20	.006	8.3...	y	26	25.927	58.32	4.017	2.611	1	H1-1b
998	M403	2L2 1/2x2 1/2...	.097	4.188	19	.006	8.3...	y	24	25.927	58.32	4.017	2.611	1	H1-1b
999	M411	2L2 1/2x2 1/2...	.096	4.188	19	.006	8.3...	y	22	25.927	58.32	4.017	2.611	1	H1-1b
1000	M420	2L2 1/2x2 1/2...	.097	4.188	26	.006	8.3...	y	22	25.927	58.32	4.017	2.611	1	H1-1b
1001	M428	2L2 1/2x2 1/2...	.097	4.188	24	.006	8.3...	y	20	25.927	58.32	4.017	2.611	1	H1-1b
1002	M450	2L2 1/2x2 1/2...	.098	4.188	23	.006	0	y	26	26.338	58.32	4.017	2.611	1	H1-1b
1003	M458	2L2 1/2x2 1/2...	.099	4.188	23	.006	0	y	24	26.338	58.32	4.017	2.611	1	H1-1b
1004	M467	2L2 1/2x2 1/2...	.099	4.188	21	.006	0	y	20	26.338	58.32	4.017	2.611	1	H1-1b
1005	M475	2L2 1/2x2 1/2...	.097	4.188	21	.006	0	y	26	26.338	58.32	4.017	2.611	1	H1-1b
1006	M484	2L2 1/2x2 1/2...	.097	4.188	19	.006	0	y	24	26.338	58.32	4.017	2.611	1	H1-1b
1007	M492	2L2 1/2x2 1/2...	.096	4.188	19	.006	0	y	22	26.338	58.32	4.017	2.611	1	H1-1b
1008	M501	2L2 1/2x2 1/2...	.096	4.188	25	.006	0	y	22	26.338	58.32	4.017	2.611	1	H1-1b
1009	M509	2L2 1/2x2 1/2...	.098	4.188	25	.006	0	y	20	26.338	58.32	4.017	2.611	1	H1-1b
1010	M531	2L2 1/2x2 1/2...	.098	4.188	24	.006	0	y	26	26.338	58.32	4.017	2.611	1	H1-1b
1011	M539	2L2 1/2x2 1/2...	.099	4.188	22	.006	0	y	24	26.338	58.32	4.017	2.611	1	H1-1b
1012	M548	2L2 1/2x2 1/2...	.098	4.188	22	.006	0	y	20	26.338	58.32	4.017	2.611	1	H1-1b
1013	M556	2L2 1/2x2 1/2...	.096	4.188	20	.006	0	y	26	26.338	58.32	4.017	2.611	1	H1-1b
1014	M565	2L2 1/2x2 1/2...	.096	4.188	20	.006	0	y	24	26.338	58.32	4.017	2.611	1	H1-1b
1015	M573	2L2 1/2x2 1/2...	.095	4.188	26	.006	0	y	22	26.338	58.32	4.017	2.611	1	H1-1b
1016	M582	2L2 1/2x2 1/2...	.096	4.188	26	.006	0	y	21	26.338	58.32	4.017	2.611	1	H1-1b
1017	M590	2L2 1/2x2 1/2...	.098	4.188	24	.006	0	y	20	26.338	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
1018	M612	2L2 1/2x2 1/2...	.101	4.188	23	.006	0	y	26	26.39	58.32	4.017	2.611	1	H1-1b
1019	M620	2L2 1/2x2 1/2...	.102	4.188	23	.006	0	y	25	26.39	58.32	4.017	2.611	1	H1-1b
1020	M629	2L2 1/2x2 1/2...	.100	4.188	21	.006	0	y	19	26.39	58.32	4.017	2.611	1	H1-1b
1021	M637	2L2 1/2x2 1/2...	.098	4.188	21	.006	0	y	26	26.39	58.32	4.017	2.611	1	H1-1b
1022	M646	2L2 1/2x2 1/2...	.099	4.188	19	.006	0	y	25	26.39	58.32	4.017	2.611	1	H1-1b
1023	M654	2L2 1/2x2 1/2...	.098	4.188	19	.006	0	y	26	26.39	58.32	4.017	2.611	1	H1-1b
1024	M663	2L2 1/2x2 1/2...	.097	4.188	25	.006	0	y	26	26.39	58.32	4.017	2.611	1	H1-1b
1025	M671	2L2 1/2x2 1/2...	.099	4.188	25	.006	0	y	19	26.39	58.32	4.017	2.611	1	H1-1b
1026	M693	2L2 1/2x2 1/2...	.084	4.187	20	.005	8.3...	y	22	26.83	58.32	4.017	2.611	1	H1-1b
1027	M703	2L2 1/2x2 1/2...	.083	4.187	26	.005	8.3...	y	21	26.83	58.32	4.017	2.611	1	H1-1b
1028	M714	2L2 1/2x2 1/2...	.082	4.188	26	.005	0	y	23	26.83	58.32	4.017	2.611	1	H1-1b
1029	M724	2L2 1/2x2 1/2...	.084	4.187	24	.005	8.3...	y	22	26.83	58.32	4.017	2.611	1	H1-1b
1030	M735	2L2 1/2x2 1/2...	.084	4.187	24	.005	8.3...	y	26	26.83	58.32	4.017	2.611	1	H1-1b
1031	M745	2L2 1/2x2 1/2...	.085	4.187	22	.005	8.3...	y	20	26.83	58.32	4.017	2.611	1	H1-1b
1032	M756	2L2 1/2x2 1/2...	.084	4.187	22	.005	8.3...	y	25	26.83	58.32	4.017	2.611	1	H1-1b
1033	M766	2L2 1/2x2 1/2...	.082	4.187	20	.005	8.3...	y	25	26.83	58.32	4.017	2.611	1	H1-1b
1034	M1290	2L2 1/2x2 1/2...	.040	5.188	6	.003	10....	y	22	15.886	58.32	4.017	2.611	1	H1-1b
1035	M1291	2L2 1/2x2 1/2...	.040	5.188	6	.003	0	y	20	15.886	58.32	4.017	2.611	1	H1-1b
1036	M1292	2L2 1/2x2 1/2...	.040	5.188	10	.003	0	y	22	15.886	58.32	4.017	2.611	1	H1-1b
1037	M1293	2L2 1/2x2 1/2...	.040	5.188	10	.003	0	y	24	15.886	58.32	4.017	2.611	1	H1-1b
1038	M1294	2L2 1/2x2 1/2...	.040	5.188	14	.003	10....	y	24	15.886	58.32	4.017	2.611	1	H1-1b
1039	M1295	2L2 1/2x2 1/2...	.040	5.188	14	.003	0	y	26	15.886	58.32	4.017	2.611	1	H1-1b
1040	M1296	2L2 1/2x2 1/2...	.040	5.188	2	.003	0	y	26	15.886	58.32	4.017	2.611	1	H1-1b
1041	M1297	2L2 1/2x2 1/2...	.040	5.188	2	.003	0	y	20	15.886	58.32	4.017	2.611	1	H1-1b
1042	M55	2L2 1/2x2 1/2...	.232	6.281	24	.010	0	y	26	11.303	58.32	4.017	2.611	1	H1-1b
1043	M63	2L2 1/2x2 1/2...	.232	6.281	21	.010	0	y	20	11.303	58.32	4.017	2.611	1	H1-1b
1044	M71	2L2 1/2x2 1/2...	.234	6.281	23	.010	0	y	24	11.303	58.32	4.017	2.611	1	H1-1b
1045	M79	2L2 1/2x2 1/2...	.233	6.281	19	.010	0	y	26	11.303	58.32	4.017	2.611	1	H1-1b
1046	M87	2L2 1/2x2 1/2...	.232	6.281	21	.010	0	y	22	11.303	58.32	4.017	2.611	1	H1-1b
1047	M95	2L2 1/2x2 1/2...	.232	6.281	26	.010	0	y	24	11.303	58.32	4.017	2.611	1	H1-1b
1048	M103	2L2 1/2x2 1/2...	.233	6.281	26	.010	0	y	20	11.303	58.32	4.017	2.611	1	H1-1b
1049	M111	2L2 1/2x2 1/2...	.233	6.281	23	.010	0	y	22	11.303	58.32	4.017	2.611	1	H1-1b
1050	M128	2L2 1/2x2 1/2...	.221	6.281	25	.010	0	y	23	11.303	58.32	4.017	2.611	1	H1-1b
1051	M136	2L2 1/2x2 1/2...	.222	6.281	21	.010	0	y	23	11.303	58.32	4.017	2.611	1	H1-1b
1052	M145	2L2 1/2x2 1/2...	.222	6.281	23	.010	0	y	21	11.303	58.32	4.017	2.611	1	H1-1b
1053	M153	2L2 1/2x2 1/2...	.221	6.281	20	.010	0	y	21	11.303	58.32	4.017	2.611	1	H1-1b
1054	M162	2L2 1/2x2 1/2...	.221	6.281	21	.010	0	y	20	11.303	58.32	4.017	2.611	1	H1-1b
1055	M170	2L2 1/2x2 1/2...	.221	6.281	25	.010	0	y	26	11.303	58.32	4.017	2.611	1	H1-1b
1056	M179	2L2 1/2x2 1/2...	.221	6.281	26	.010	0	y	26	11.303	58.32	4.017	2.611	1	H1-1b
1057	M187	2L2 1/2x2 1/2...	.221	6.281	22	.010	0	y	24	11.303	58.32	4.017	2.611	1	H1-1b
1058	M209	2L2 1/2x2 1/2...	.222	6.281	24	.010	0	y	24	11.303	58.32	4.017	2.611	1	H1-1b
1059	M217	2L2 1/2x2 1/2...	.223	6.281	21	.010	0	y	21	11.303	58.32	4.017	2.611	1	H1-1b
1060	M226	2L2 1/2x2 1/2...	.223	6.281	23	.010	0	y	23	11.303	58.32	4.017	2.611	1	H1-1b
1061	M234	2L2 1/2x2 1/2...	.222	6.281	20	.010	0	y	20	11.303	58.32	4.017	2.611	1	H1-1b
1062	M243	2L2 1/2x2 1/2...	.222	6.281	21	.010	0	y	21	11.303	58.32	4.017	2.611	1	H1-1b
1063	M251	2L2 1/2x2 1/2...	.222	6.281	26	.010	0	y	26	11.303	58.32	4.017	2.611	1	H1-1b
1064	M260	2L2 1/2x2 1/2...	.222	6.281	26	.010	0	y	26	11.303	58.32	4.017	2.611	1	H1-1b
1065	M268	2L2 1/2x2 1/2...	.222	6.281	23	.010	0	y	23	11.303	58.32	4.017	2.611	1	H1-1b
1066	M290	2L2 1/2x2 1/2...	.216	6.281	24	.010	0	y	24	11.433	58.32	4.017	2.611	1	H1-1b
1067	M298	2L2 1/2x2 1/2...	.217	6.281	22	.010	0	y	22	11.433	58.32	4.017	2.611	1	H1-1b
1068	M307	2L2 1/2x2 1/2...	.217	6.281	22	.010	0	y	22	11.433	58.32	4.017	2.611	1	H1-1b
1069	M315	2L2 1/2x2 1/2...	.216	6.281	20	.010	0	y	20	11.433	58.32	4.017	2.611	1	H1-1b
1070	M324	2L2 1/2x2 1/2...	.216	6.281	20	.010	0	y	20	11.433	58.32	4.017	2.611	1	H1-1b
1071	M332	2L2 1/2x2 1/2...	.215	6.281	26	.010	0	y	26	11.433	58.32	4.017	2.611	1	H1-1b
1072	M341	2L2 1/2x2 1/2...	.216	6.281	26	.010	0	y	26	11.433	58.32	4.017	2.611	1	H1-1b
1073	M349	2L2 1/2x2 1/2...	.216	6.281	24	.010	0	y	23	11.433	58.32	4.017	2.611	1	H1-1b
1074	M371	2L2 1/2x2 1/2...	.218	6.281	24	.010	0	y	24	11.451	58.32	4.017	2.611	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
1075	M379	2L2 1/2x2 1/2...	.219	6.281	22	.010	0	y	22	11.451	58.32	4.017	2.611	1	H1-1b
1076	M388	2L2 1/2x2 1/2...	.219	6.281	22	.010	0	y	22	11.451	58.32	4.017	2.611	1	H1-1b
1077	M396	2L2 1/2x2 1/2...	.218	6.281	20	.010	0	y	20	11.451	58.32	4.017	2.611	1	H1-1b
1078	M405	2L2 1/2x2 1/2...	.217	6.281	20	.010	0	y	20	11.451	58.32	4.017	2.611	1	H1-1b
1079	M413	2L2 1/2x2 1/2...	.217	6.281	26	.010	0	y	26	11.451	58.32	4.017	2.611	1	H1-1b
1080	M422	2L2 1/2x2 1/2...	.217	6.281	26	.010	0	y	26	11.451	58.32	4.017	2.611	1	H1-1b
1081	M430	2L2 1/2x2 1/2...	.218	6.281	24	.010	0	y	23	11.451	58.32	4.017	2.611	1	H1-1b
1082	M452	2L2 1/2x2 1/2...	.212	6.281	24	.009	0	y	24	11.603	58.32	4.017	2.611	1	H1-1b
1083	M460	2L2 1/2x2 1/2...	.213	6.281	22	.009	0	y	22	11.603	58.32	4.017	2.611	1	H1-1b
1084	M469	2L2 1/2x2 1/2...	.213	6.281	22	.010	0	y	22	11.603	58.32	4.017	2.611	1	H1-1b
1085	M477	2L2 1/2x2 1/2...	.212	6.281	20	.009	0	y	20	11.603	58.32	4.017	2.611	1	H1-1b
1086	M486	2L2 1/2x2 1/2...	.211	6.281	19	.009	0	y	20	11.603	58.32	4.017	2.611	1	H1-1b
1087	M494	2L2 1/2x2 1/2...	.211	6.281	19	.009	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
1088	M503	2L2 1/2x2 1/2...	.211	6.281	26	.009	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
1089	M511	2L2 1/2x2 1/2...	.212	6.281	24	.009	0	y	23	11.603	58.32	4.017	2.611	1	H1-1b
1090	M533	2L2 1/2x2 1/2...	.207	6.281	24	.009	0	y	24	11.603	58.32	4.017	2.611	1	H1-1b
1091	M541	2L2 1/2x2 1/2...	.207	6.281	22	.009	0	y	22	11.603	58.32	4.017	2.611	1	H1-1b
1092	M550	2L2 1/2x2 1/2...	.207	6.281	22	.009	0	y	22	11.603	58.32	4.017	2.611	1	H1-1b
1093	M558	2L2 1/2x2 1/2...	.205	6.281	20	.009	0	y	20	11.603	58.32	4.017	2.611	1	H1-1b
1094	M567	2L2 1/2x2 1/2...	.205	6.281	19	.009	0	y	20	11.603	58.32	4.017	2.611	1	H1-1b
1095	M575	2L2 1/2x2 1/2...	.205	6.281	19	.009	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
1096	M584	2L2 1/2x2 1/2...	.205	6.281	26	.009	0	y	26	11.603	58.32	4.017	2.611	1	H1-1b
1097	M592	2L2 1/2x2 1/2...	.206	6.281	24	.009	0	y	23	11.603	58.32	4.017	2.611	1	H1-1b
1098	M614	2L2 1/2x2 1/2...	.209	6.281	24	.009	0	y	24	11.622	58.32	4.017	2.611	1	H1-1b
1099	M622	2L2 1/2x2 1/2...	.210	6.281	22	.009	0	y	22	11.622	58.32	4.017	2.611	1	H1-1b
1100	M631	2L2 1/2x2 1/2...	.209	6.281	22	.009	0	y	22	11.622	58.32	4.017	2.611	1	H1-1b
1101	M639	2L2 1/2x2 1/2...	.207	6.281	20	.009	0	y	20	11.622	58.32	4.017	2.611	1	H1-1b
1102	M648	2L2 1/2x2 1/2...	.207	6.281	20	.009	0	y	20	11.622	58.32	4.017	2.611	1	H1-1b
1103	M656	2L2 1/2x2 1/2...	.207	6.281	26	.009	0	y	26	11.622	58.32	4.017	2.611	1	H1-1b
1104	M665	2L2 1/2x2 1/2...	.207	6.281	26	.009	0	y	26	11.622	58.32	4.017	2.611	1	H1-1b
1105	M673	2L2 1/2x2 1/2...	.208	6.281	24	.009	0	y	23	11.622	58.32	4.017	2.611	1	H1-1b
1106	M695	2L2 1/2x2 1/2...	.120	5.583	24	.006	11....	y	26	19.514	77.112	5.381	3.414	1	H1-1b
1107	M705	2L2 1/2x2 1/2...	.120	5.583	22	.006	11....	y	21	19.514	77.112	5.381	3.414	1	H1-1b
1108	M716	2L2 1/2x2 1/2...	.121	5.583	26	.006	11....	y	23	19.514	77.112	5.381	3.414	1	H1-1b
1109	M726	2L2 1/2x2 1/2...	.124	5.583	24	.006	11....	y	26	19.514	77.112	5.381	3.414	1	H1-1b
1110	M737	2L2 1/2x2 1/2...	.119	5.583	20	.006	11....	y	22	19.514	77.112	5.381	3.414	1	H1-1b
1111	M747	2L2 1/2x2 1/2...	.119	5.583	26	.006	11....	y	24	19.514	77.112	5.381	3.414	1	H1-1b
1112	M758	2L2 1/2x2 1/2...	.124	5.583	22	.006	11....	y	20	19.514	77.112	5.381	3.414	1	H1-1b
1113	M768	2L2 1/2x2 1/2...	.121	5.583	19	.006	11....	y	22	19.514	77.112	5.381	3.414	1	H1-1b
1114	M1298	L2 1/2x2 1/2x...	.001	0	6	.001	4.1...	y	10	16.851	29.225	.351	1.699	1	H2-1
1115	M1299	L2 1/2x2 1/2x...	.001	0	2	.001	0	y	14	16.851	29.225	.351	1.699	1	H2-1
1116	M1300	L2 1/2x2 1/2x...	.001	0	2	.001	4.1...	y	6	16.851	29.225	.351	1.699	1	H2-1
1117	M1301	L2 1/2x2 1/2x...	.001	0	14	.001	0	y	10	16.851	29.225	.351	1.699	1	H2-1
1118	M1302	L2 1/2x2 1/2x...	.001	0	6	.001	4.1...	y	2	16.851	29.225	.351	1.699	1	H2-1
1119	M1303	L2 1/2x2 1/2x...	.001	0	10	.001	0	y	14	16.851	29.225	.351	1.699	1	H2-1
1120	M1304	L2 1/2x2 1/2x...	.001	0	10	.001	4.1...	y	6	16.851	29.225	.351	1.699	1	H2-1
1121	M1305	L2 1/2x2 1/2x...	.001	0	14	.001	0	y	2	16.851	29.225	.351	1.699	1	H2-1
1122	M1306	L2 1/2x2 1/2x...	.004	0	10	.002	8.3...	y	6	4.943	29.225	.351	1.342	1	H2-1
1123	M1307	L2 1/2x2 1/2x...	.004	0	6	.002	8.3...	y	10	4.943	29.225	.351	1.342	1	H2-1
1124	M1308	L2 1/2x2 1/2x...	.004	0	2	.002	8.3...	y	6	4.943	29.225	.351	1.342	1	H2-1
1125	M1309	L2 1/2x2 1/2x...	.004	0	14	.002	0	y	10	4.943	29.225	.351	1.342	1	H2-1
1126	M697	2L3x3x1/4x3/8	.157	6.979	23	.007	0	y	25	21.633	93.312	7.501	4.982	1	H1-1b
1127	M707	2L3x3x1/4x3/8	.157	6.979	23	.007	0	y	21	21.633	93.312	7.501	4.982	1	H1-1b
1128	M718	2L3x3x1/4x3/8	.157	6.979	21	.007	0	y	23	21.633	93.312	7.501	4.982	1	H1-1b
1129	M728	2L3x3x1/4x3/8	.157	6.979	21	.007	0	y	19	21.633	93.312	7.501	4.982	1	H1-1b
1130	M739	2L3x3x1/4x3/8	.156	6.979	19	.007	0	y	21	21.633	93.312	7.501	4.982	1	H1-1b
1131	M749	2L3x3x1/4x3/8	.156	6.979	19	.007	0	y	25	21.633	93.312	7.501	4.982	1	H1-1b

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
1132	M760	2L3x3x1/4x3/8	.156	6.979	25	.007	0	y	19	21.633	93.312	7.501	4.982	1	H1-1b
1133	M770	2L3x3x1/4x3/8	.157	6.979	25	.007	0	y	23	21.633	93.312	7.501	4.982	1	H1-1b
1134	M16	L2 1/2x2 1/2x...	.300	0	6	.012	0	y	22	5.246	29.225	.351	1.36	1	H2-1
1135	M19	L2 1/2x2 1/2x...	.365	0	12	.012	0	y	24	5.246	29.225	.351	1.36	1	H2-1
1136	M23	L2 1/2x2 1/2x...	.265	0	2	.012	0	y	20	5.246	29.225	.351	1.36	1	H2-1
1137	M26	L2 1/2x2 1/2x...	.262	0	10	.012	0	y	22	5.246	29.225	.351	1.36	1	H2-1
1138	M30	L2 1/2x2 1/2x...	.360	0	16	.012	0	y	26	5.246	29.225	.351	1.36	1	H2-1
1139	M33	L2 1/2x2 1/2x...	.327	0	6	.012	0	y	20	5.246	29.225	.351	1.36	1	H2-1
1140	M37	L2 1/2x2 1/2x...	.225	0	10	.012	0	y	24	5.246	29.225	.351	1.36	1	H2-1
1141	M40	L2 1/2x2 1/2x...	.224	0	2	.012	0	y	26	5.246	29.225	.351	1.36	1	H2-1
1142	M52	L3x3x3/16_H...	.014	0	26	.006	0	y	19	23.838	35.316	.509	2.515	1	H2-1
1143	M60	L3x3x3/16_H...	.015	0	22	.006	4.1...	y	19	23.838	35.316	.509	2.515	1	H2-1
1144	M68	L3x3x3/16_H...	.016	0	26	.006	0	y	25	23.838	35.316	.509	2.515	1	H2-1
1145	M76	L3x3x3/16_H...	.015	0	22	.006	4.1...	y	25	23.838	35.316	.509	2.515	1	H2-1
1146	M84	L3x3x3/16_H...	.015	0	25	.006	0	y	24	23.838	35.316	.509	2.515	1	H2-1
1147	M92	L3x3x3/16_H...	.014	0	21	.006	4.1...	y	23	23.838	35.316	.509	2.515	1	H2-1
1148	M100	L3x3x3/16_H...	.013	0	24	.006	0	y	21	23.838	35.316	.509	2.515	1	H2-1
1149	M108	L3x3x3/16_H...	.014	0	20	.006	4.1...	y	21	23.838	35.316	.509	2.515	1	H2-1
1150	M125	L3x3x3/16_H...	.031	0	24	.006	0	y	25	23.838	35.316	.509	2.515	1	H2-1
1151	M133	L3x3x3/16_H...	.035	0	22	.005	4.1...	y	21	23.838	35.316	.509	2.515	1	H2-1
1152	M142	L3x3x3/16_H...	.035	0	23	.005	0	y	25	23.838	35.316	.509	2.515	1	H2-1
1153	M150	L3x3x3/16_H...	.032	0	20	.006	4.1...	y	26	23.838	35.316	.509	2.515	1	H2-1
1154	M159	L3x3x3/16_H...	.030	0	20	.006	0	y	24	23.838	35.316	.509	2.515	1	H2-1
1155	M167	L3x3x3/16_H...	.027	0	26	.005	4.1...	y	20	23.838	35.316	.509	2.515	1	H2-1
1156	M176	L3x3x3/16_H...	.028	0	26	.005	0	y	23	23.838	35.316	.509	2.515	1	H2-1
1157	M184	L3x3x3/16_H...	.031	0	23	.006	4.1...	y	21	23.838	35.316	.509	2.515	1	H2-1
1158	M206	L3x3x3/16_H...	.045	0	24	.005	0	y	26	23.874	35.316	.509	2.517	1	H2-1
1159	M214	L3x3x3/16_H...	.050	0	22	.005	4.1...	y	20	23.874	35.316	.509	2.517	1	H2-1
1160	M223	L3x3x3/16_H...	.048	0	22	.005	0	y	24	23.874	35.316	.509	2.517	1	H2-1
1161	M231	L3x3x3/16_H...	.043	0	20	.005	0	y	26	23.874	35.316	.509	2.517	1	H2-1
1162	M240	L3x3x3/16_H...	.042	0	20	.005	0	y	23	23.874	35.316	.509	2.517	1	H2-1
1163	M248	L3x3x3/16_H...	.037	0	26	.005	0	y	23	23.874	35.316	.509	2.517	1	H2-1
1164	M257	L3x3x3/16_H...	.039	0	26	.005	0	y	21	23.874	35.316	.509	2.517	1	H2-1
1165	M265	L3x3x3/16_H...	.044	0	24	.005	4.1...	y	21	23.874	35.316	.509	2.517	1	H2-1
1166	M287	L3x3x3/16_H...	.069	0	24	.005	0	y	26	24.128	35.316	.509	2.528	1	H2-1
1167	M295	L3x3x3/16_H...	.074	0	22	.005	4.1...	y	20	24.128	35.316	.509	2.528	1	H2-1
1168	M304	L3x3x3/16_H...	.074	0	22	.005	0	y	24	24.128	35.316	.509	2.528	1	H2-1
1169	M312	L3x3x3/16_H...	.064	0	20	.005	0	y	26	24.128	35.316	.509	2.528	1	H2-1
1170	M321	L3x3x3/16_H...	.062	0	20	.005	0	y	24	24.128	35.316	.509	2.528	1	H2-1
1171	M329	L3x3x3/16_H...	.056	0	26	.005	4.1...	y	22	24.128	35.316	.509	2.528	1	H2-1
1172	M338	L3x3x3/16_H...	.063	0	16	.005	0	y	21	24.128	35.316	.509	2.528	1	H2-1
1173	M346	L3x3x3/16_H...	.068	0	24	.005	0	y	21	24.128	35.316	.509	2.528	1	H2-1
1174	M368	L3x3x3/16_H...	.081	0	24	.005	0	y	26	24.164	35.316	.509	2.529	1	H2-1
1175	M376	L3x3x3/16_H...	.086	0	23	.005	4.1...	y	20	24.164	35.316	.509	2.529	1	H2-1
1176	M385	L3x3x3/16_H...	.085	0	22	.005	0	y	24	24.164	35.316	.509	2.529	1	H2-1
1177	M393	L3x3x3/16_H...	.074	0	4	.005	4.1...	y	26	24.164	35.316	.509	2.529	1	H2-1
1178	M402	L3x3x3/16_H...	.076	0	2	.005	0	y	23	24.164	35.316	.509	2.529	1	H2-1
1179	M410	L3x3x3/16_H...	.073	0	16	.005	4.1...	y	23	24.164	35.316	.509	2.529	1	H2-1
1180	M419	L3x3x3/16_H...	.074	0	16	.005	0	y	21	24.164	35.316	.509	2.529	1	H2-1
1181	M427	L3x3x3/16_H...	.080	0	24	.005	4.1...	y	21	24.164	35.316	.509	2.529	1	H2-1
1182	M449	L3x3x3/16_H...	.101	0	10	.005	0	y	26	24.416	35.316	.509	2.541	1	H2-1
1183	M457	L3x3x3/16_H...	.105	0	10	.005	4.1...	y	20	24.416	35.316	.509	2.541	1	H2-1
1184	M466	L3x3x3/16_H...	.101	0	21	.005	0	y	25	24.416	35.316	.509	2.541	1	H2-1
1185	M474	L3x3x3/16_H...	.095	0	6	.005	0	y	26	24.416	35.316	.509	2.541	1	H2-1
1186	M483	L3x3x3/16_H...	.103	0	2	.005	0	y	24	24.416	35.316	.509	2.541	1	H2-1
1187	M491	L3x3x3/16_H...	.098	0	2	.005	4.1...	y	22	24.416	35.316	.509	2.541	1	H2-1
1188	M500	L3x3x3/16_H...	.093	0	14	.005	0	y	21	24.416	35.316	.509	2.541	1	H2-1

Envelope AISC 14th(360-10): LRFD Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[ft]	LC	Shea...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn z...	Cb	Eqn
1189	M508	L3x3x3/16_H...	.097	0	14	.005	4.1...	y	21	24.416	35.316	.509	2.541	1	H2-1
1190	M530	L3x3x3/16_H...	.135	0	12	.005	0	y	26	24.452	35.316	.509	2.542	1	H2-1
1191	M538	L3x3x3/16_H...	.139	0	8	.005	4.1...	y	20	24.452	35.316	.509	2.542	1	H2-1
1192	M547	L3x3x3/16_H...	.137	0	8	.005	0	y	25	24.452	35.316	.509	2.542	1	H2-1
1193	M555	L3x3x3/16_H...	.132	0	4	.005	4.1...	y	26	24.452	35.316	.509	2.542	1	H2-1
1194	M564	L3x3x3/16_H...	.137	0	4	.005	0	y	24	24.452	35.316	.509	2.542	1	H2-1
1195	M572	L3x3x3/16_H...	.134	0	16	.005	4.1...	y	22	24.452	35.316	.509	2.542	1	H2-1
1196	M581	L3x3x3/16_H...	.131	0	16	.005	0	y	21	24.452	35.316	.509	2.542	1	H2-1
1197	M589	L3x3x3/16_H...	.136	0	12	.005	4.1...	y	21	24.452	35.316	.509	2.542	1	H2-1
1198	M611	L3x3x3/16_H...	.179	0	10	.005	0	y	19	24.488	35.316	.509	2.544	1	H2-1
1199	M619	L3x3x3/16_H...	.182	0	10	.005	0	y	24	24.488	35.316	.509	2.544	1	H2-1
1200	M628	L3x3x3/16_H...	.162	0	8	.005	0	y	25	24.488	35.316	.509	2.544	1	H2-1
1201	M636	L3x3x3/16_H...	.155	0	4	.005	0	y	25	24.488	35.316	.509	2.544	1	H2-1
1202	M645	L3x3x3/16_H...	.180	0	2	.005	0	y	24	24.488	35.316	.509	2.544	1	H2-1
1203	M653	L3x3x3/16_H...	.176	0	2	.005	0	y	22	24.488	35.316	.509	2.544	1	H2-1
1204	M662	L3x3x3/16_H...	.155	0	16	.005	0	y	22	24.488	35.316	.509	2.544	1	H2-1
1205	M670	L3x3x3/16_H...	.163	0	12	.005	4.1...	y	20	24.488	35.316	.509	2.544	1	H2-1
1206	M692	L3x3x3/16_H...	.082	0	5	.006	5.5...	y	22	19.552	35.316	.509	2.349	1	H2-1
1207	M702	L3x3x3/16_H...	.082	0	17	.006	5.5...	y	22	19.552	35.316	.509	2.349	1	H2-1
1208	M713	L3x3x3/16_H...	.048	0	17	.006	0	y	22	19.552	35.316	.509	2.349	1	H2-1
1209	M723	L3x3x3/16_H...	.052	0	13	.006	5.5...	y	22	19.552	35.316	.509	2.349	1	H2-1
1210	M734	L3x3x3/16_H...	.084	0	13	.006	5.5...	y	26	19.552	35.316	.509	2.349	1	H2-1
1211	M744	L3x3x3/16_H...	.083	0	9	.006	5.5...	y	20	19.552	35.316	.509	2.349	1	H2-1
1212	M755	L3x3x3/16_H...	.053	0	9	.006	5.5...	y	24	19.552	35.316	.509	2.349	1	H2-1
1213	M765	L3x3x3/16_H...	.049	0	5	.006	5.5...	y	26	19.552	35.316	.509	2.349	1	H2-1
1214	M5	2L3x4x5/16x3...	.326	12.75	25	.009	12....	y	21	33.033	135.432	15.999	3.964	1	H1-1b
1215	M6	2L3x4x5/16x3...	.325	12.75	26	.009	12....	y	23	33.033	135.432	15.999	3.964	1	H1-1b
1216	M7	2L3x4x5/16x3...	.324	12.75	25	.009	12....	y	21	33.033	135.432	15.999	3.964	1	H1-1b
1217	M8	2L3x4x5/16x3...	.324	12.75	20	.009	12....	y	23	33.033	135.432	15.999	3.964	1	H1-1b

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N441	max	48.343	12	559.127	12	39.751	3	0	34	.506	16	0	34
2		min	-41.031	5	-431.235	5	-44.203	10	0	1	-.456	9	0	1
3	N442	max	40.086	17	559.294	8	40.703	3	0	34	.493	13	0	34
4		min	-47.388	8	-427.426	17	-45.24	10	0	1	-.544	4	0	1
5	N443	max	36.18	13	554.792	4	45.268	2	0	34	.35	8	0	34
6		min	-43.052	4	-432.309	13	-40.746	11	0	1	-.304	17	0	1
7	N444	max	43.803	16	550.967	16	44.137	2	0	34	.27	5	0	34
8		min	-36.89	9	-432.646	9	-39.743	11	0	1	-.317	12	0	1
9	Totals:	max	148.783	15	684.996	26	168.581	3						
10		min	-148.767	6	214.373	3	-168.655	10						

RISA 3D Results Summary Table	
Tower Section Set	**Rating**
TWR_DIAG_OUTER_T1	76.80%
TWR_DIAG_T1	54.20%
TWR_DIAG_T2	35.00%
TWR_DIAG_T3	47.10%
TWR_DIAG_T4	47.20%
TWR_DIAG_T5	56.40%
TWR_DIAG_T6	60.60%
TWR_DIAG_T7	67.00%
TWR_DIAG_T8	58.90%
TWR_DIAG_T9	64.00%
TWR_DIAG_T10	65.50%
TWR_HORZ_OUTER_T1	30.20%
TWR_HORZ_T3	27.10%
TWR_HORZ_T4	39.30%
TWR_HORZ_T5	47.20%
TWR_HORZ_T6	46.90%
TWR_HORZ_T7	45.80%
TWR_HORZ_T8	51.70%
TWR_HORZ_T9	55.80%
TWR_HORZ_T10	30.70%
TWR_INNER_BRACE_T3	2.90%
TWR_INNER_BRACE_T4	2.90%
TWR_INNER_BRACE_T5	2.90%
TWR_INNER_BRACE_T6	3.00%
TWR_INNER_BRACE_T7	3.20%
TWR_INNER_BRACE_T8	3.20%
TWR_INNER_BRACE_T9	3.20%
TWR_INNER_CORNER_T2	0.60%
TWR_INNER_CORNER_T3	7.40%
TWR_INNER_CORNER_T4	7.20%
TWR_INNER_CORNER_T5	8.70%
TWR_INNER_CORNER_T6	8.80%
TWR_INNER_CORNER_T7	8.70%
TWR_INNER_CORNER_T8	9.90%
TWR_INNER_CORNER_T9	10.70%
TWR_INNER_GIRT_T10	4.40%
TWR_INNER_LADDER_T3	5.70%
TWR_INNER_LADDER_T4	5.60%
TWR_INNER_LADDER_T5	6.70%
TWR_INNER_LADDER_T6	6.80%
TWR_INNER_LADDER_T7	6.80%
TWR_INNER_LADDER_T8	7.70%
TWR_INNER_LADDER_T9	8.30%
TWR_INNER_SQ_T2	5.40%
TWR_INNER_SQ_T3	41.60%
TWR_INNER_SQ_T4	54.50%
TWR_INNER_SQ_T5	62.90%
TWR_INNER_SQ_T6	64.10%
TWR_INNER_SQ_T7	63.70%
TWR_INNER_SQ_T8	70.40%
TWR_INNER_SQ_T9	75.00%
TWR_INNER_SUPP_T2	6.70%
TWR_INNER_SUPP_T3	30.60%
TWR_INNER_SUPP_T4	30.60%
TWR_INNER_SUPP_T5	30.70%
TWR_INNER_SUPP_T6	30.10%
TWR_INNER_SUPP_T7	30.10%
TWR_INNER_SUPP_T8	29.60%
TWR_INNER_SUPP_T9	29.20%
TWR_INNER_TRI_T3	2.50%
TWR_INNER_TRI_T4	2.50%
TWR_INNER_TRI_T5	2.50%
TWR_INNER_TRI_T6	2.50%
TWR_INNER_TRI_T7	2.50%
TWR_INNER_TRI_T8	2.50%
TWR_INNER_TRI_T9	2.50%
TWR_LEG_OUTER_T1	23.90%
TWR_LEG_T1	31.60%
TWR_LEG_T2	19.10%
TWR_LEG_T3	46.70%
TWR_LEG_T4	51.50%
TWR_LEG_T5	49.60%
TWR_LEG_T6	53.80%
TWR_LEG_T7	51.40%
TWR_LEG_T8	60.00%
TWR_LEG_T9	67.50%
TWR_LEG_T10	76.80%
TWR_REDHIPDIA_2_T9	7.40%
TWR_RED_DIAG_0_T10	75.90%
TWR_RED_DIAG_2_T2	12.40%
TWR_RED_DIAG_2_T3	12.30%
TWR_RED_DIAG_2_T4	12.20%
TWR_RED_DIAG_2_T5	11.70%
TWR_RED_DIAG_2_T6	11.90%
TWR_RED_DIAG_2_T7	12.70%
TWR_RED_DIAG_2_T8	13.10%
TWR_RED_DIAG_2_T9	13.90%
TWR_RED_DIAG_2_T10	8.40%

TWR_RED_DIAG_3_T2	20.70%
TWR_RED_DIAG_3_T3	14.50%
TWR_RED_DIAG_3_T4	13.90%
TWR_RED_DIAG_3_T5	13.10%
TWR_RED_DIAG_3_T6	12.70%
TWR_RED_DIAG_3_T7	11.90%
TWR_RED_DIAG_3_T8	11.40%
TWR_RED_DIAG_3_T9	11.50%
TWR_RED_DIAG_3_T10	13.60%
TWR_RED_DIAG_4_T10	10.80%
TWR_RED_DIAG_T1	27.50%
TWR_RED_DIAG_T2	3.00%
TWR_RED_DIAG_T3	8.50%
TWR_RED_DIAG_T4	12.60%
TWR_RED_DIAG_T5	18.00%
TWR_RED_DIAG_T6	21.70%
TWR_RED_DIAG_T7	25.90%
TWR_RED_DIAG_T8	34.60%
TWR_RED_DIAG_T9	45.00%
TWR_RED_DIAG_T10	14.10%
TWR_RED_HIPDIA_1_T10	3.30%
TWR_RED_HIPDIA_2_T2	16.10%
TWR_RED_HIPDIA_2_T3	6.80%
TWR_RED_HIPDIA_2_T4	6.70%
TWR_RED_HIPDIA_2_T5	6.70%
TWR_RED_HIPDIA_2_T6	6.70%
TWR_RED_HIPDIA_2_T7	6.70%
TWR_RED_HIPDIA_2_T8	6.70%
TWR_RED_HIPDIA_3_T10	8.70%
TWR_RED_HIPDIA_T2	2.30%
TWR_RED_HIPDIA_T3	2.30%
TWR_RED_HIPDIA_T4	2.40%
TWR_RED_HIPDIA_T5	2.40%
TWR_RED_HIPDIA_T6	2.50%
TWR_RED_HIPDIA_T7	2.60%
TWR_RED_HIPDIA_T8	2.60%
TWR_RED_HIPDIA_T9	2.90%
TWR_RED_HIP_1_T10	1.40%
TWR_RED_HIP_2_T2	11.60%
TWR_RED_HIP_2_T3	10.30%
TWR_RED_HIP_2_T4	10.30%
TWR_RED_HIP_2_T5	10.40%
TWR_RED_HIP_2_T6	10.50%
TWR_RED_HIP_2_T7	10.60%
TWR_RED_HIP_2_T8	10.40%
TWR_RED_HIP_2_T9	10.50%
TWR_RED_HIP_3_T10	11.70%
TWR_RED_HIP_T2	2.30%
TWR_RED_HIP_T3	2.30%
TWR_RED_HIP_T4	2.40%
TWR_RED_HIP_T5	2.40%
TWR_RED_HIP_T6	2.40%
TWR_RED_HIP_T7	2.30%
TWR_RED_HIP_T8	2.40%
TWR_RED_HIP_T9	2.40%
TWR_RED_HORZ_0_T10	34.80%
TWR_RED_HORZ_2_T1	7.70%
TWR_RED_HORZ_2_T2	10.10%
TWR_RED_HORZ_2_T3	9.80%
TWR_RED_HORZ_2_T4	9.70%
TWR_RED_HORZ_2_T5	9.60%
TWR_RED_HORZ_2_T6	9.80%
TWR_RED_HORZ_2_T7	9.90%
TWR_RED_HORZ_2_T8	9.90%
TWR_RED_HORZ_2_T9	10.20%
TWR_RED_HORZ_2_T10	8.50%
TWR_RED_HORZ_3_T1	4.00%
TWR_RED_HORZ_3_T2	23.40%
TWR_RED_HORZ_3_T3	22.20%
TWR_RED_HORZ_3_T4	22.30%
TWR_RED_HORZ_3_T5	21.70%
TWR_RED_HORZ_3_T6	21.90%
TWR_RED_HORZ_3_T7	21.30%
TWR_RED_HORZ_3_T8	20.70%
TWR_RED_HORZ_3_T9	21.00%
TWR_RED_HORZ_3_T10	12.40%
TWR_RED_HORZ_4_T1	0.40%
TWR_RED_HORZ_4_T10	15.70%
TWR_RED_HORZ_T1	36.50%
TWR_RED_HORZ_T2	1.60%
TWR_RED_HORZ_T3	3.50%
TWR_RED_HORZ_T4	5.00%
TWR_RED_HORZ_T5	7.40%
TWR_RED_HORZ_T6	8.60%
TWR_RED_HORZ_T7	10.50%
TWR_RED_HORZ_T8	13.90%
TWR_RED_HORZ_T9	18.20%
TWR_RED_HORZ_T10	8.40%
TWR_TOP_GIRT_T1	32.60%

Built-Up Double Channels

E6.1 (AISC 13th Edition pg 16.1-37)
2020701.98

Code	TIA-222-G
Number of Sections	9
Max Capacity	105%

Existing Member								Modification						Built-Up Member													Member Analysis				
Section	Member	Member Type	Area (in^2)	I_x (in^4)	r_x (in)	r_z (in)	Ka/r_x	Mod Type	Area (in^2)	I_x (in^4)	r_x (in)	r_z (in)	Ka/r_x	Connection Type	$I_{x\text{-}x}$ (in^4)	L_u (in)	a (in)	h (in)	Area (in^2)	$r_{x\text{-}x}$ (in)	$(KL/r)_o$	r_i (in)	r_{ib} (in)	α	$(KL/r)_m$	$0.75(KL/r)_o$	a_i/r_i	Design met?	$(KL/r_{ib})_{max}$	(KL/r)
T1	Inner Supp	C12x20.7	6.08	3.860	0.797	0.797	30.12	C12x20.7	6.08	3.860	0.797	0.797	30.12	bolted	17.25	216.37	24	1.771	12.160	1.191	181.64	0.797	0.797	1.11	184.12	136.23	30.12	Yes	271.56	184.12
T2	Horz	C10x20	5.87	2.800	0.691	0.691	34.75	C10x20	5.87	2.800	0.691	0.691	34.75	bolted	12.99	201	24	1.587	11.740	1.052	191.07	0.691	0.691	1.15	194.20	143.30	34.75	Yes	291.03	194.20
T2	Inner Supp	C12x20.7	6.08	3.860	0.797	0.797	30.12	C12x20.7	6.08	3.860	0.797	0.797	30.12	bolted	17.25	142.13	24	1.771	12.160	1.191	119.31	0.797	0.797	1.11	123.06	89.49	30.12	Yes	178.38	123.06
T10	Inner Sq	C4x7.2	2.13	0.425	0.447	0.447	53.73	C4x7.2	2.13	0.425	0.447	0.447	53.73	bolted	2.63	100.5	24	1.293	4.260	0.786	127.89	0.447	0.447	1.45	138.72	95.92	53.73	Yes	224.99	138.72
T10	Inner Ladder	C4x7.2	2.13	0.425	0.447	0.447	53.73	C4x7.2	2.13	0.425	0.447	0.447	53.73	bolted	2.63	52.23	24	1.293	4.260	0.786	66.47	0.447	0.447	1.45	85.47	49.85	53.73	No	116.93	116.93
T10	Inner Tri	C4x7.2	2.13	0.425	0.447	0.447	53.73	C4x7.2	2.13	0.425	0.447	0.447	53.73	bolted	2.63	100.5	24	1.293	4.260	0.786	127.89	0.447	0.447	1.45	138.72	95.92	53.73	Yes	224.99	138.72
T10	Inner Brace	C4x7.2	2.13	0.425	0.447	0.447	53.73	C4x7.2	2.13	0.425	0.447	0.447	53.73	bolted	2.63	50.25	24	1.293	4.260	0.786	63.95	0.447	0.447	1.45	83.52	47.96	53.73	No	112.49	112.49

Existing Member								Modification						Built-Up Member													Member Analysis				
Section	Member	Member Type	Area (in^2)	I_y (in^4)	r_y (in)	r_z (in)	Ka/r_y	Mod Type	Area (in^2)	I_y (in^4)	r_y (in)	r_z (in)	Ka/r_y	Connection Type	$I_{y\text{-}y}$ (in^4)	L_u (in)	a (in)	h (in)	Area (in^2)	$r_{y\text{-}y}$ (in)	$(KL/r)_o$	r_i (in)	r_{ib} (in)	α	$(KL/r)_m$	$0.75(KL/r)_o$	a_i/r_i	Design met?	$(KL/r_{ib})_{max}$	(KL/r)
T1	Inner Supp	C12x20.7	6.080	129.000	4.606	0.797	5.21	C12x20.7	6.08	129.000	4.606	0.797	5.21	bolted	258.00	216.37	24	0.000	12.1600	4.606	46.97	0.797	4.606	0.00	55.80	35.23	30.12	Yes	46.97	55.80
T2	Horz	C10x20	5.870	78.900	3.666	0.691	6.55	C10x20	5.87	78.900	3.666	0.691	6.55	bolted	157.80	100.5	24	0.000	11.7400	3.666	27.41	0.691	3.666	0.00	44.26	20.56	34.75	No	27.41	27.41
T2	Inner Supp	C12x20.7	6.080	129.000	4.606	0.797	5.21	C12x20.7	6.08	129.000	4.606	0.797	5.21	bolted	258.00	142.13	24	0.000	12.1600	4.606	30.86	0.797	4.606	0.00	43.12	23.14	30.12	No	30.86	30.86
T10	Inner Sq	C4x7.2	2.130	4.580	1.466	0.447	16.37	C4x7.2	2.13	4.580	1.466	0.447	16.37	bolted	9.16	201	24	0.000	4.2600	1.466	137.07	0.447	1.466	0.00	147.23	102.81	53.73	Yes	137.07	147.23
T10	Inner Ladder	C4x7.2	2.130	4.580	1.466	0.447	16.37	C4x7.2	2.13	4.580	1.466	0.447	16.37	bolted	9.16	104.46	24	0.000	4.2600	1.466	71.24	0.447	1.466	0.00	89.23	53.43	53.73	No	71.24	71.24
T10	Inner Tri	C4x7.2	2.130	4.580	1.466	0.447	16.37	C4x7.2	2.13	4.580	1.466	0.447	16.37	bolted	9.16	100.5	24	0.000	4.2600	1.466	68.54	0.447	1.466	0.00	87.09	51.40	53.73	No	68.54	68.54
T10	Inner Brace	C4x7.2	2.130	4.580	1.466	0.447	16.37	C4x7.2	2.13	4.580	1.466	0.447	16.37	bolted	9.16	100.5	24	0.000	4.2600	1.466	68.54	0.447	1.466	0.00	87.09	51.40	53.73	No	68.54	68.54

Member Summary				Compression Analysis				Tension Analysis					
Section	Member	Original Member	Modification	k	P_u (k)	ϕPn (k)	Rating	P_u (k)	A_n (in^2)	U	A_e (in^2)	ϕPn (k)	Rating
T1	Inner Supp	C12x20.7	C12x20.7	1.19	3.08	81.03	3.8%	62.47	22.69	1.00	22.69	787.97	7.9%
T2	Horz	C10x20	C10x20	1.02	3.90	17.58	22.2%	4.62	11.03	1.00	11.03	380.38	1.2%
T2	Inner Supp	C12x20.7	C12x20.7	1.03	0.40	44.38	0.9%	1.44	11.35	1.00	11.35	393.98	0.4%
T10	Inner Sq	C4x7.2	C4x7.2	1.08	1.08	44.40	2.4%	0.20	7.56	1.00	7.56	138.02	0.1%
T10	Inner Ladder	C4x7.2	C4x7.2	1.76	0.91	16.80	5.4%	0.09	3.78	1.00	3.78	138.02	0.1%
T10	Inner Tri	C4x7.2	C4x7.2	1.08	0.49	12.50	3.9%	0.03	3.78	1.00	3.78	138.02	0.0%
T10	Inner Brace	C4x7.2	C4x7.2	1.76	0.61	17.72	3.4%	0.04	3.78	1.00	3.78	138.02	0.0%

Project #: 2020701.98

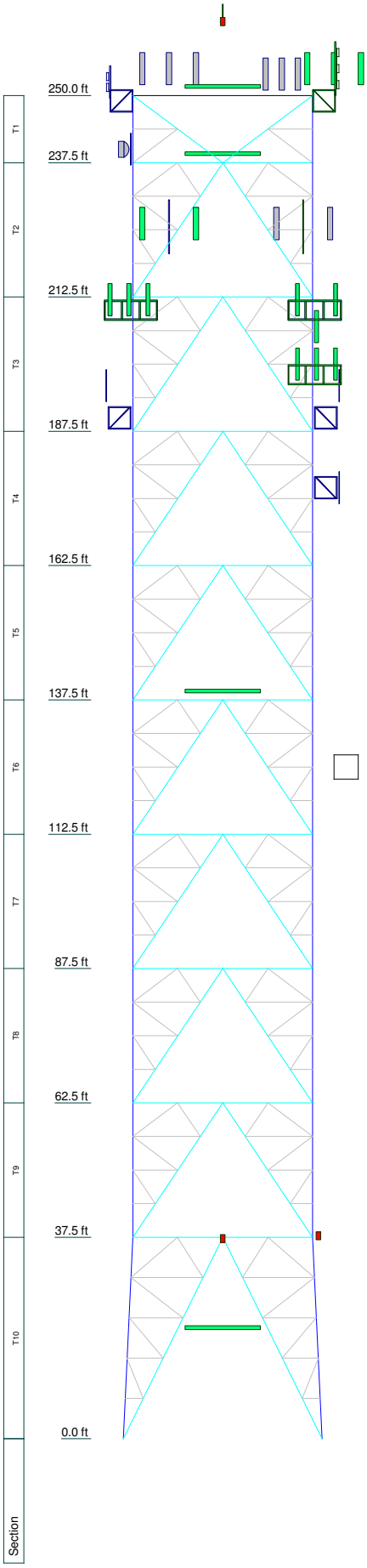
Bolt Checks

Date: 3/13/2020

Section #	Elevation	Component Type	Bolt Grade	Bolt Size (in)	# of Bolts	Maximum Load (k)	Maximum Load per Bolt (k)	Allowable Load per Bolt (k)	Ratio	Allowable Ratio	% Capacity	Criteria
T1	250	Leg	A307	0.75	12	23.22	1.935	14.91	0.130	1.000	13.0%	Bolt Tension
		Leg Outer	A307	0.75	3	2.755	0.918	8.836	0.104	1.000	10.4%	Bolt Shear
		Top Girt	A307	0.75	2	13.525	6.762	17.892	0.378	1.000	37.8%	Bolt Shear
		Diagonal	A307	0.75	2	7.747	3.874	17.892	0.216	1.000	21.6%	Bolt Shear
		Diagonal Outer	A307	0.75	2	2.421	1.21	17.892	0.068	1.000	6.8%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	1.915	0.958	8.057	0.119	1.000	11.9%	Member Block Shear
		Horizontal Outer	A307	0.75	6	42.991	7.165	17.892	0.400	1.000	40.0%	Bolt DS
		Inner Supp	A307	0.75	6	62.472	10.412	17.892	0.582	1.000	58.2%	Bolt DS
T2	237.5	Leg	A307	0.75	16	31.874	3.984	17.892	0.223	1.000	22.3%	Bolt DS
		Diagonal	A307	0.75	4	20.646	5.162	17.892	0.288	1.000	28.8%	Bolt Shear
		Horizontal	A307	0.75	4	5.609	1.402	17.892	0.078	1.000	7.8%	Bolt DS
T3	212.5	Leg	A307	0.75	16	63.701	7.963	17.892	0.445	1.000	44.5%	Bolt DS
		Horizontal	A307	0.75	3	15.2	5.067	17.892	0.283	1.000	28.3%	Bolt Shear
		Diagonal	A307	0.75	4	26.962	6.74	17.892	0.377	1.000	37.7%	Bolt Shear
		Inner Square	A307	0.75	2	3.677	1.838	16.114	0.114	1.000	11.4%	Member Block Shear
		Inner Corner	A307	0.75	2	4.309	2.154	16.114	0.134	1.000	13.4%	Member Block Shear
T4	187.5	Leg	A307	0.75	22	85.216	7.747	17.892	0.433	1.000	43.3%	Bolt DS
		Horizontal	A307	0.75	3	17.687	5.896	17.892	0.330	1.000	33.0%	Bolt Shear
		Diagonal	A307	0.75	5	34.832	6.966	17.892	0.389	1.000	38.9%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	1.749	0.874	8.567	0.102	1.000	10.2%	Member Block Shear
		Inner Square	A307	0.75	2	3.683	1.842	16.114	0.114	1.000	11.4%	Member Block Shear
		Inner Corner	A307	0.75	2	4.212	2.106	16.114	0.131	1.000	13.1%	Member Block Shear
T5	162.5	Leg	A307	1	22	118.761	10.796	30.963	0.349	1.000	34.9%	Bolt DS
		Horizontal	A307	0.75	3	21.294	7.098	17.892	0.397	1.000	39.7%	Bolt Shear
		Diagonal	A307	0.75	5	42.419	8.484	17.892	0.474	1.000	47.4%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	2.598	1.299	8.567	0.152	1.000	15.2%	Member Block Shear
		Redundant Diagonal	A307	0.75	2	2.282	1.141	8.567	0.133	1.000	13.3%	Member Block Shear
		Inner Square	A307	0.75	2	4.474	2.237	16.114	0.139	1.000	13.9%	Member Block Shear
		Inner Corner	A307	0.75	2	5.073	2.536	16.114	0.157	1.000	15.7%	Member Block Shear
T6	137.5	Leg	A307	1	24	169.028	14.086	31.809	0.443	1.000	44.3%	Bolt DS
		Horizontal	A307	0.75	3	25.575	8.525	17.892	0.476	1.000	47.6%	Bolt Shear
		Diagonal	A307	0.75	4	50.001	12.5	17.892	0.699	1.000	69.9%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	3.043	1.522	8.567	0.178	1.000	17.8%	Member Block Shear
		Redundant Diagonal	A307	0.75	2	2.761	1.38	8.567	0.161	1.000	16.1%	Member Block Shear
		Inner Square	A307	0.75	2	4.593	2.296	16.114	0.143	1.000	14.3%	Member Block Shear
		Inner Corner	A307	0.75	2	5.109	2.554	16.114	0.159	1.000	15.9%	Member Block Shear
T7	112.5	Leg	A307	1	24	228.39	19.032	31.809	0.598	1.000	59.8%	Bolt DS
		Horizontal	A307	0.75	4	29.14	7.285	17.892	0.407	1.000	40.7%	Bolt Shear
		Diagonal	A307	0.75	4	56.487	14.122	17.892	0.789	1.000	78.9%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	3.721	1.86	8.567	0.217	1.000	21.7%	Member Block Shear
		Redundant Diagonal	A307	0.75	2	3.418	1.709	8.567	0.199	1.000	19.9%	Member Block Shear
		Inner Square	A307	0.75	2	4.581	2.29	16.114	0.142	1.000	14.2%	Member Block Shear
		Inner Corner	A307	0.75	2	5.09	2.545	16.114	0.158	1.000	15.8%	Member Block Shear
T8	87.5	Leg	A307	1	24	296.21	24.684	31.809	0.776	1.000	77.6%	Bolt DS
		Horizontal	A307	0.75	4	32.986	8.246	17.892	0.461	1.000	46.1%	Bolt Shear
		Diagonal	A307	0.75	5	65.086	13.017	17.892	0.728	1.000	72.8%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	4.894	2.447	8.567	0.286	1.000	28.6%	Member Block Shear
		Redundant Diagonal	A307	0.75	2	4.576	2.288	8.567	0.267	1.000	26.7%	Member Block Shear
		Inner Square	A307	0.75	2	5.193	2.596	16.114	0.161	1.000	16.1%	Member Block Shear
		Inner Corner	A307	0.75	2	5.759	2.88	16.114	0.179	1.000	17.9%	Member Block Shear
T9	62.5	Leg	A307	1	32	373.2	23.325	31.809	0.733	1.000	73.3%	Bolt DS
		Horizontal	A307	0.75	4	35.907	8.977	17.892	0.502	1.000	50.2%	Bolt Shear
		Diagonal	A307	0.75	6	70.736	11.789	17.892	0.659	1.000	65.9%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	6.444	3.222	8.567	0.376	1.000	37.6%	Member Block Shear
		Redundant Diagonal	A307	0.75	2	5.984	2.992	8.567	0.349	1.000	34.9%	Member Block Shear
		Inner Square	A307	0.75	2	5.633	2.816	16.114	0.175	1.000	17.5%	Member Block Shear
		Inner Corner	A307	0.75	2	6.251	3.126	16.114	0.194	1.000	19.4%	Member Block Shear
		Inner Ladder	A307	0.75	2	3.85	1.925	17.892	0.108	1.000	10.8%	Bolt Shear
T10	37.5	Leg	A307	1	40	457.173	22.859	31.809	0.719	1.000	71.9%	Bolt DS
		Horizontal	A307	0.75	4	35.335	8.834	17.892	0.494	1.000	49.4%	Bolt Shear
		Diagonal	A307	0.75	8	90.05	11.256	17.892	0.629	1.000	62.9%	Bolt Shear
		Redundant Horizontal	A307	0.75	2	2.213	1.106	8.567	0.129	1.000	12.9%	Member Block Shear
		Redundant Diagonal	A307	0.75	2	1.844	0.922	8.567	0.108	1.000	10.8%	Member Block Shear
		Redundant Diagonal 0	A307	0.75	2	12.471	6.236	8.946	0.697	1.000	69.7%	Bolt Shear
		Redundant Horizontal 0	A307	0.75	2	10.035	5.018	8.057	0.623	1.000	62.3%	Member Block Shear
										Maximum Capacity	78.9%	

APPENDIX C

Tower Elevation Drawing



MATERIAL STRENGTH

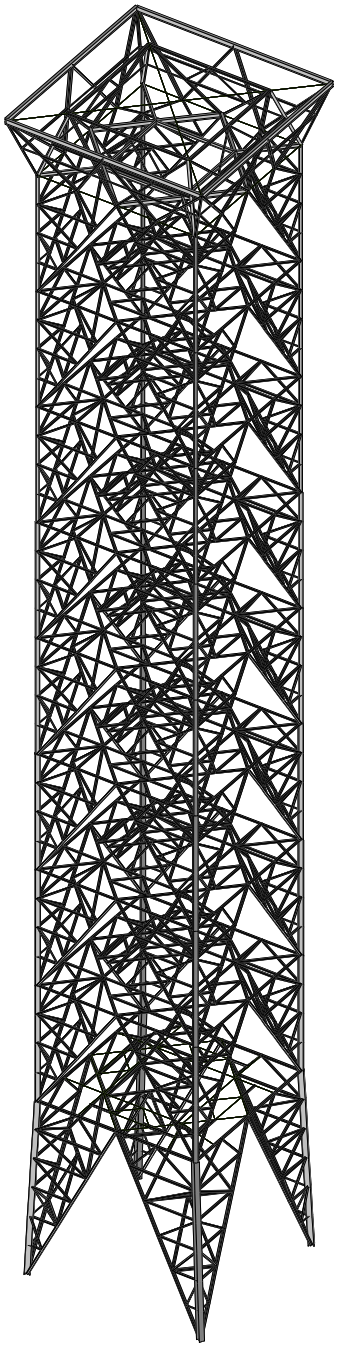
GRADE	Fy	Fu	GRADE	Fy	Fu
A36	36 ksi	58 ksi			

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 105 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Structure Class III.
7. Topographic Category 1 with Crest Height of 0.00 ft

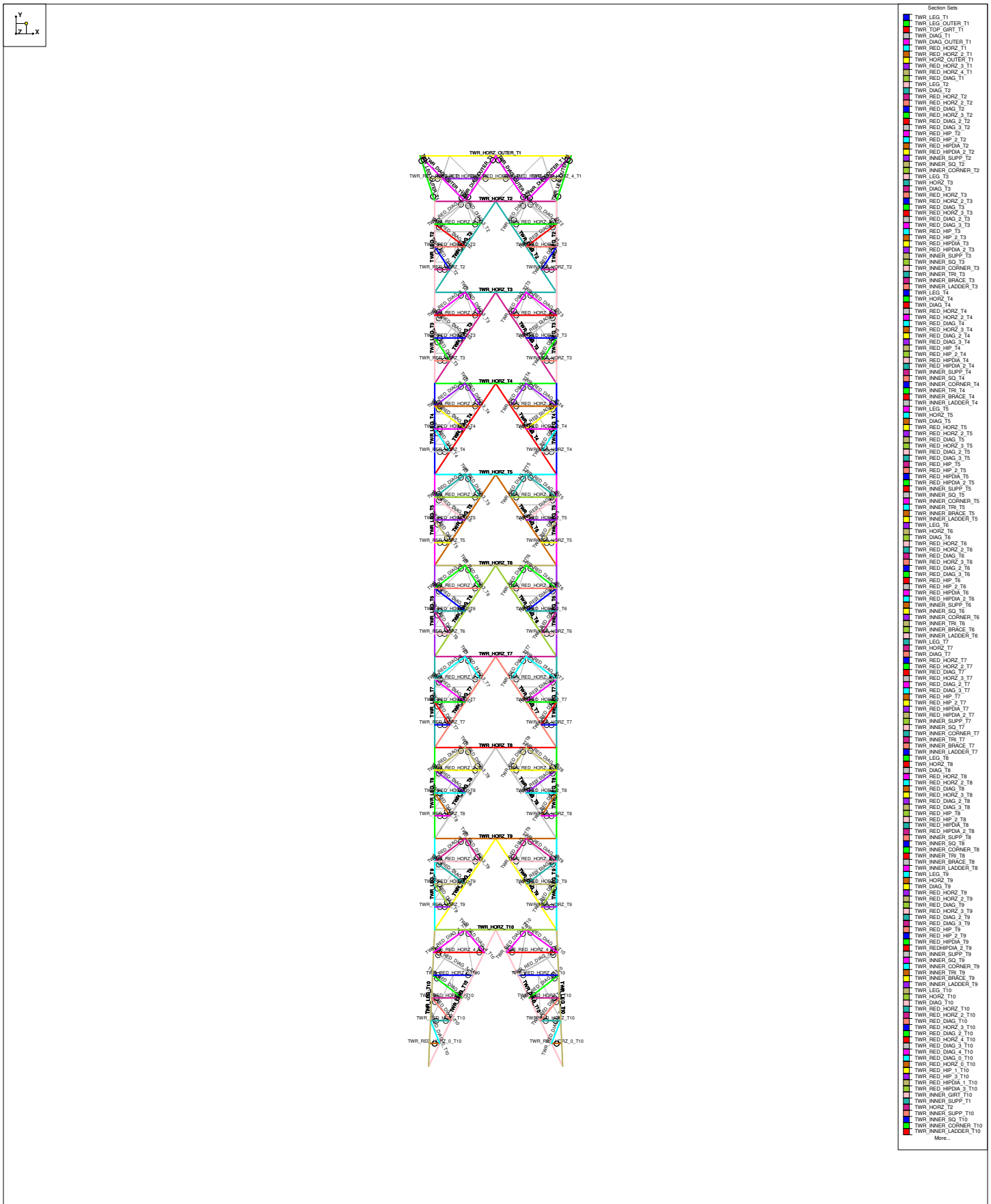
GPD
520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2100
FAX: (330) 572-2101

Job: CHESHIRE		
Project: 2020701.98		
Client: AT&T Mobility	Drawn by: bdarkow	App'd:
Code: TIA-222-G	Date: 03/13/20	Scale: NTS
Path:		Dwg No. E-1

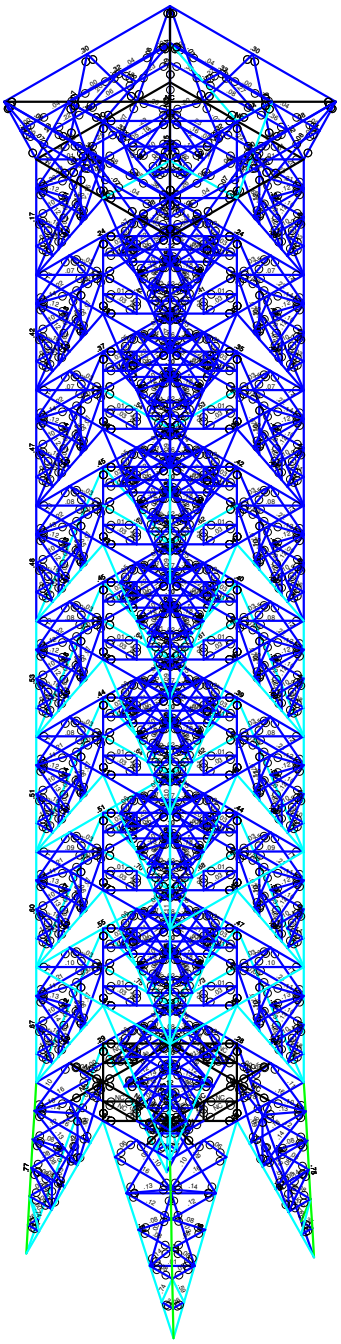


Envelope Only Solution

GPD Group	CHESHIRE	SK - 1
B Darkow		Mar 13, 2020 at 3:11 PM
2020701.98		TAG0053.r3d



GPD Group	CHESHIRE	SK - 2
B Darkow		Mar 13, 2020 at 3:11 PM
2020701.98		TAG0053.r3d

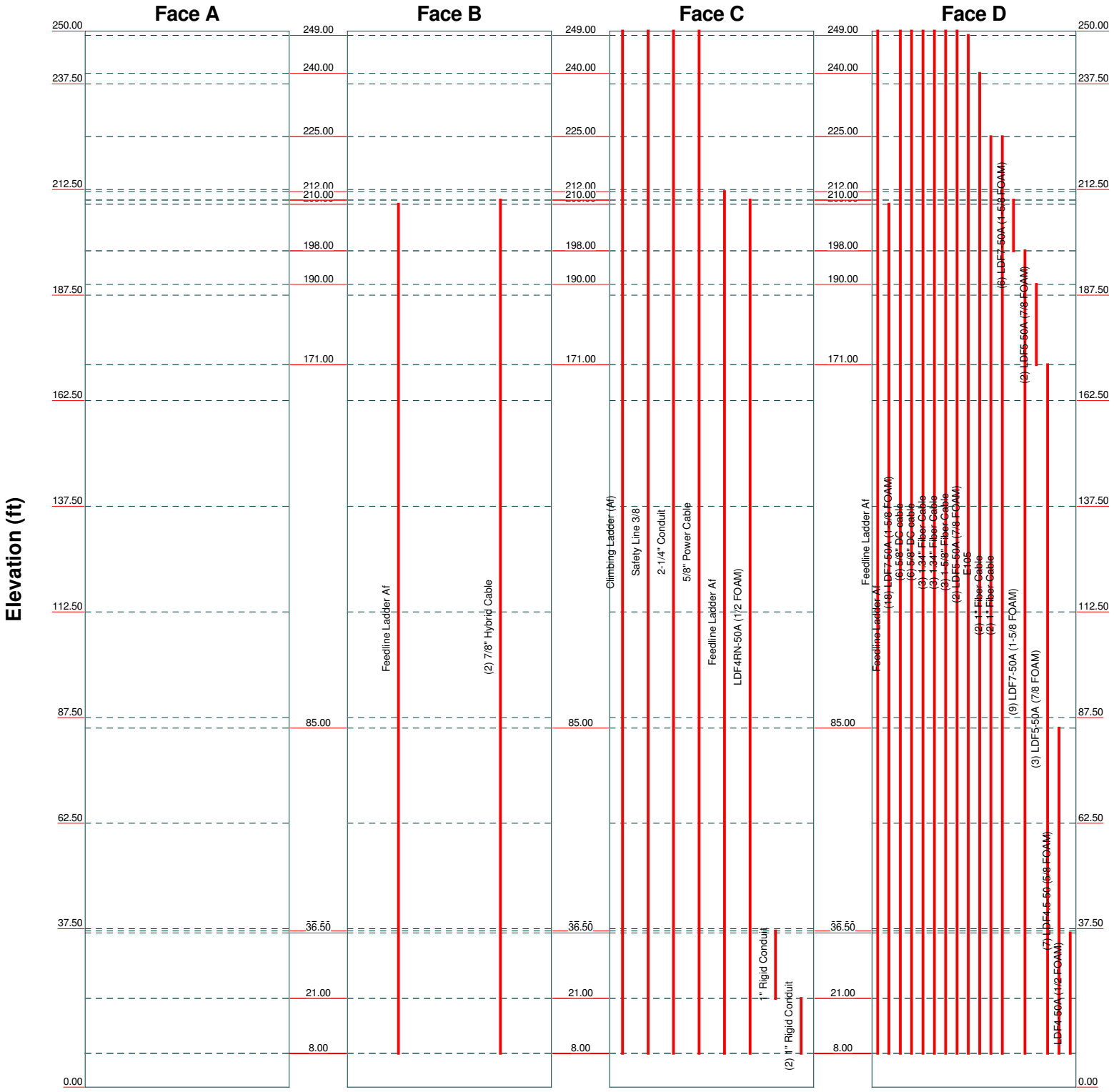


Member Code Checks Displayed (Enveloped)
Envelope Only Solution

GPD Group	CHESHIRE	SK - 3
B Darkow		Mar 13, 2020 at 3:12 PM
2020701.98		TAG0053.r3d

Feed Line Distribution Chart
0' - 250'

Round | Flat | App In Face | App Out Face | Truss Leg



GPD
520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2100
FAX: (330) 572-2101

Job: **CHESHIRE**			
Project: ***2020701.98***			
Client: AT&T Mobility	Drawn by: bdarkow	App'd:	
Code: TIA-222-G	Date: 03/13/20	Scale: NTS	
Path:		Dwg No. E-7	

APPENDIX D

Anchor Rod Analysis

Self-Support Anchor Rod Analysis
CHESHIRE SW
2020701.98

General Info	
Code	TIA-222-G
Modified Anchor Rods	No
Clear Distance > d_b	No
Leg Eccentricity	No
Max Capacity	1.05

Tower Reactions		
Detail Type =	d	
Eta Factor, η =	0.50	
Down Load, P_u =	559.29	kips
Down Load Shear, V_u =	60.27	kips
Uplift, P_u =	432.65	kips
Uplift Shear, V_u =	51.54	kips

Anchor Rods		
Number of Anchor Rods, N =	12	
Anchor Rod Grade =	C-1015	
Anchor Rod Diameter, d_b =	2.25	in
Bolt Circle, BC =	34	in
Yield, F_y =	47	ksi
Tensile, F_{ub} =	56	ksi

Anchor Rod Results		
$(P_u + V_u/\eta)$ =	56.7	kips
$\phi*R_{nt} = \phi*F_{ub}*A_n$ =	145.6	kips
Anchor Rod Stress Ratio =	38.9%	OK

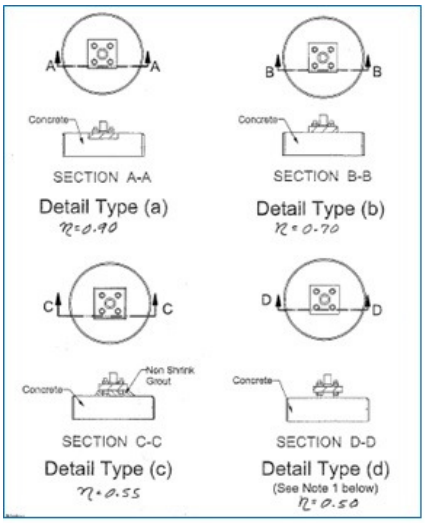


Figure 4-4 of TIA-222-G

APPENDIX E

Foundation Pedestal Analysis

GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

Printed: 13 MAR 2020, 2:48PM

Concrete Column

Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis

Code References

Calculations per ACI 318-11, IBC 2012, CBC 2013, ASCE 7-10
Load Combinations Used : IBC 2012

General Information

f'c : Concrete 28 day strength	=	3.0	ksi
E =	=	3,122.0	ksi
Density	=	150.0	pcf
β	=	0.850	
fy - Main Rebar	=	40.0	ksi
E - Main Rebar	=	29,000.0	ksi
Allow. Reinforcing Limits		*ASTM A615 Bars Used*	
Min. Reinf.	=	1.0	%
Max. Reinf.	=	8.0	%

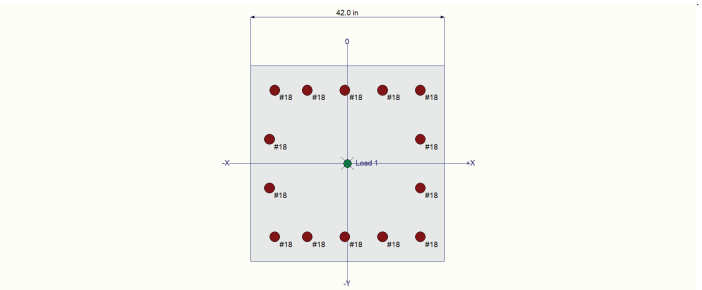
Overall Column Height = 6.20 ft
End Fixity Top Free, Bottom Fixed

Brace condition for deflection (buckling) along columns :
X-X (width) axis :
Unbraced Length for buckling ABOUT Y-Y Axis = 6.20 ft, K = 2.10
Y-Y (depth) axis :
Unbraced Length for buckling ABOUT X-X Axis = 6.20 ft, K = 2.10

Column Cross Section

Column Dimensions : 42.0in Square Column, Column Edge to Rebar Edge Cover = 4.125in

Column Reinforcing : 4 - #18 bars @ corners,, 3.0 - #18 bars top & bottom between corner bars, 2.0 - #18 bars left & right between corner bars



Applied Loads

Entered loads are factored per load combinations specified by user.

Column self weight included : 11,392.5 lbs * Dead Load Factor
AXIAL LOADS . . .
LC8 - Node 442: Axial Load at 6.20 ft above base, D = 62.80, W = 483.934 k
BENDING LOADS . . .
LC8 - Node 442: Lat. Point Load at 6.20 ft creating Mx-x, W = 60.267 k
Lat. Point Load at 6.20 ft creating My-y, W = 47.388 k

DESIGN SUMMARY

Load Combination +1.20D+0.50Lr+0.50L+W+1.60H
Location of max.above base 6.158 ft

Maximum Stress Ratio **0.238 : 1**
Ratio = (Pu^2+Mu^2)^.5 / (PhiPn^2+PhiMn^2)^.5

Pu =	572.97	k	φ * Pn =	2,407.52	k
Mu-x =	-373.655	k-ft	φ * Mn-x =	-1,639.95	k-ft
Mu-y =	-293.806	k-ft	φ * Mn-y =	1,134.25	k-ft
Mu Angle =	38.0	deg			
Mu at Angle =	475.332	k-ft	φMn at Angle =	2,000.17	k-ft

Pn & Mn values located at Pu-Mu vector intersection with capacity curve

Column Capacities . . .

Pnmax : Nominal Max. Compressive Axial Capacity	6,595.40	k
Pnmin : Nominal Min. Tension Axial Capacity		k
φ Pn, max : Usable Compressive Axial Capacity	3,429.61	k
φ Pn, min : Usable Tension Axial Capacity		k

Maximum SERVICE Load Reactions . .

Top along Y-Y	0.0 k	Bottom along Y-Y	47.388 k
Top along X-X	0.0 k	Bottom along X-X	60.267 k

Maximum SERVICE Load Deflections . . .

Along Y-Y 0.01017 in at 6.20 ft above base
for load combination : W Only

Along X-X 0.007998 in at 6.20 ft above base
for load combination : W Only

General Section Information . φ = 0.650 β = 0.850 θ = 0.80

ρ : % Reinforcing	3.175	% Rebar % Ok
Reinforcing Area	56.0	in^2
Concrete Area	1,764.0	in^2

GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis

Governing Load Combination Results

Governing Factored Load Combination	Moment X-X	Moment Y-Y	Dist. from base ft	Axial Load k Pu	φ * Pn	Bending Analysis k-ft δx	δx * Mux	δy	δy * Muy	Alpha (deg)	δ Mu	φ Mn	Utilization Ratio
+1.40D+1.60H			6.16	103.87	3,429.61					0.000			**0.030**
+1.20D+0.50Lr+1.60L+1.60H			6.16	89.03	3,429.61					0.000			**0.026**
+1.20D+1.60L+0.50S+1.60H			6.16	89.03	3,429.61					0.000			**0.026**
+1.20D+1.60Lr+0.50L+1.60H			6.16	89.03	3,429.61					0.000			**0.026**
+1.20D+1.60Lr+0.50W+1.60H	Actual	Actual	6.16	331.00	2,615.07	1.000	-186.83	1.000	-146.90	38.000	237.67	1,880.76	**0.126**
+1.20D+0.50L+1.60S+1.60H			6.16	89.03	3,429.61					0.000			**0.026**
+1.20D+1.60S+0.50W+1.60H	Actual	Actual	6.16	331.00	2,615.07	1.000	-186.83	1.000	-146.90	38.000	237.67	1,880.76	**0.126**
+1.20D+0.50Lr+0.50L+W+1.60H	Actual	Actual	6.16	572.97	2,407.52	1.000	-373.66	1.000	-293.81	38.000	475.33	2,000.17	**0.238**
+1.20D+0.50L+0.50S+W+1.60H	Actual	Actual	6.16	572.97	2,407.52	1.000	-373.66	1.000	-293.81	38.000	475.33	2,000.17	**0.238**
+1.20D+0.50L+0.70S+E+1.60H			6.16	89.03	3,429.61					0.000			**0.026**
+0.90D+W+0.90H	Actual	Actual	6.16	550.71	2,361.45	1.000	-373.66	1.000	-293.81	38.000	475.33	2,024.78	**0.235**
+0.90D+E+0.90H			6.16	66.77	3,429.61					0.000			**0.019**

Maximum Reactions

Note: Only non-zero reactions are listed.

Load Combination	X-X Axis Reaction k @ Base	@ Top	Y-Y Axis Reaction k @ Base	@ Top	Axial Reaction @ Base	My - End Moments k-ft @ Base	@ Top	Mx - End Moments @ Base	@ Top
+D+H					74.193				
+D+L+H					74.193				
+D+Lr+H					74.193				
+D+S+H					74.193				
+D+0.750Lr+0.750L+H					74.193				
+D+0.750L+0.750S+H					74.193				
+D+0.60W+H	28.433		36.160		364.553	224.193		176.283	
+D+0.70E+H					74.193				
+D+0.750Lr+0.750L+0.450W+H	21.325		27.120		291.963	168.145		132.213	
+D+0.750L+0.750S+0.450W+H	21.325		27.120		291.963	168.145		132.213	
+D+0.750L+0.750S+0.5250E+H					74.193				
+0.60D+0.60W+0.60H	28.433		36.160		334.876	224.193		176.283	
+0.60D+0.70E+0.60H					44.516				
D Only					74.193				
Lr Only									
L Only									
S Only									
W Only	47.388		60.267		483.934	373.655		293.806	
E Only									
H Only									

Maximum Moment Reactions

Note: Only non-zero reactions are listed.

Load Combination	Moment About X-X Axis @ Base	@ Top		Moment About Y-Y Axis @ Base	@ Top	
+D+H			k-ft			k-ft
+D+L+H			k-ft			k-ft
+D+Lr+H			k-ft			k-ft
+D+S+H			k-ft			k-ft
+D+0.750Lr+0.750L+H			k-ft			k-ft
+D+0.750L+0.750S+H			k-ft			k-ft
+D+0.60W+H	224.193		k-ft	176.283		k-ft
+D+0.70E+H			k-ft			k-ft
+D+0.750Lr+0.750L+0.450W+H	168.145		k-ft	132.213		k-ft
+D+0.750L+0.750S+0.450W+H	168.145		k-ft	132.213		k-ft
+D+0.750L+0.750S+0.5250E+H			k-ft			k-ft
+0.60D+0.60W+0.60H	224.193		k-ft	176.283		k-ft
+0.60D+0.70E+0.60H			k-ft			k-ft
D Only			k-ft			k-ft
Lr Only			k-ft			k-ft
L Only			k-ft			k-ft
S Only			k-ft			k-ft
W Only	373.655		k-ft	293.806		k-ft

GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis

Maximum Moment Reactions

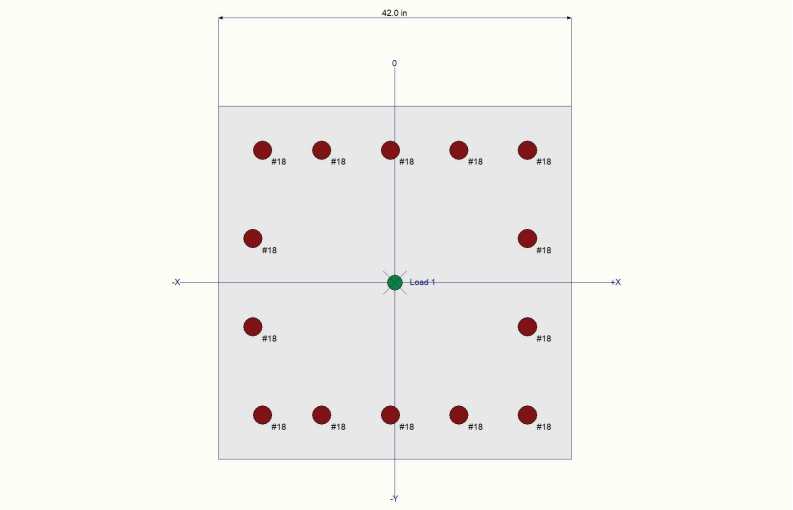
Note: Only non-zero reactions are listed.

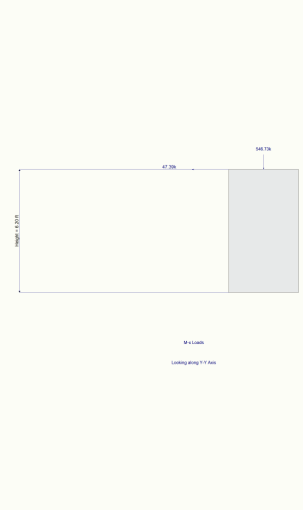
Load Combination	Moment About X-X Axis @ Base	Moment About X-X Axis @ Top	Moment About Y-Y Axis @ Base	Moment About Y-Y Axis @ Top
E Only	k-ft		k-ft	
H Only	k-ft		k-ft	

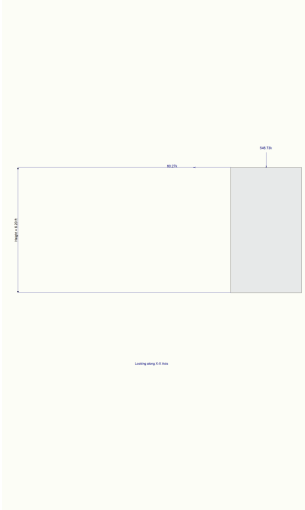
Maximum Deflections for Load Combinations

Load Combination	Max. X-X Deflection		Distance		Max. Y-Y Deflection		Distance	
+D+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+L+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+Lr+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+S+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750Lr+0.750L+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750L+0.750S+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.60W+H	0.0048	in	6.200	ft	0.006	in	6.200	ft
+D+0.70E+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+D+0.750Lr+0.750L+0.450W+H	0.0036	in	6.200	ft	0.005	in	6.200	ft
+D+0.750L+0.750S+0.450W+H	0.0036	in	6.200	ft	0.005	in	6.200	ft
+D+0.750L+0.750S+0.5250E+H	0.0000	in	0.000	ft	0.000	in	0.000	ft
+0.60D+0.60W+0.60H	0.0048	in	6.200	ft	0.006	in	6.200	ft
+0.60D+0.70E+0.60H	0.0000	in	0.000	ft	0.000	in	0.000	ft
D Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
Lr Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
L Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
S Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
W Only	0.0080	in	6.200	ft	0.010	in	6.200	ft
E Only	0.0000	in	0.000	ft	0.000	in	0.000	ft
H Only	0.0000	in	0.000	ft	0.000	in	0.000	ft

Sketches







Interaction Diagrams

GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

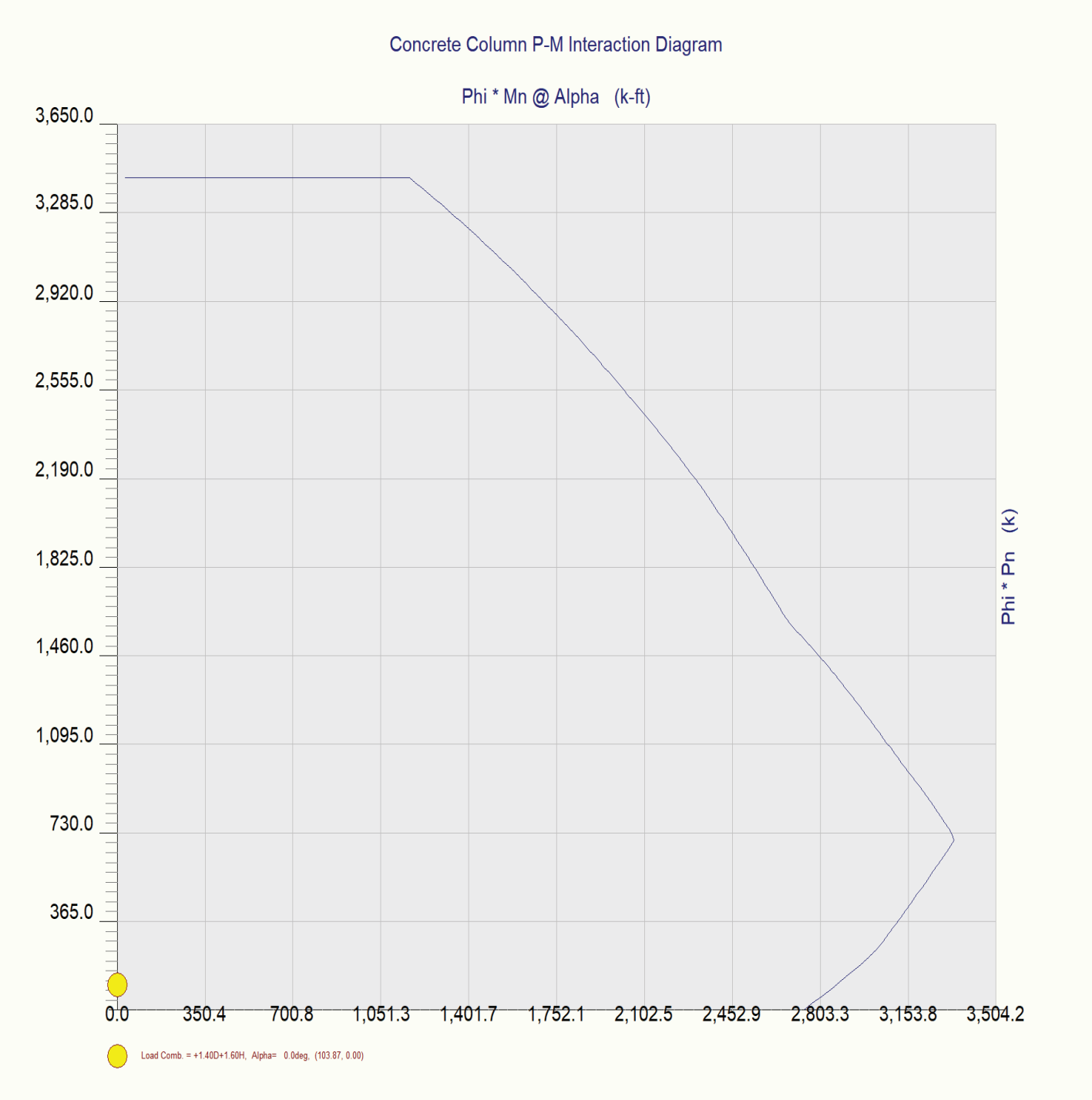
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

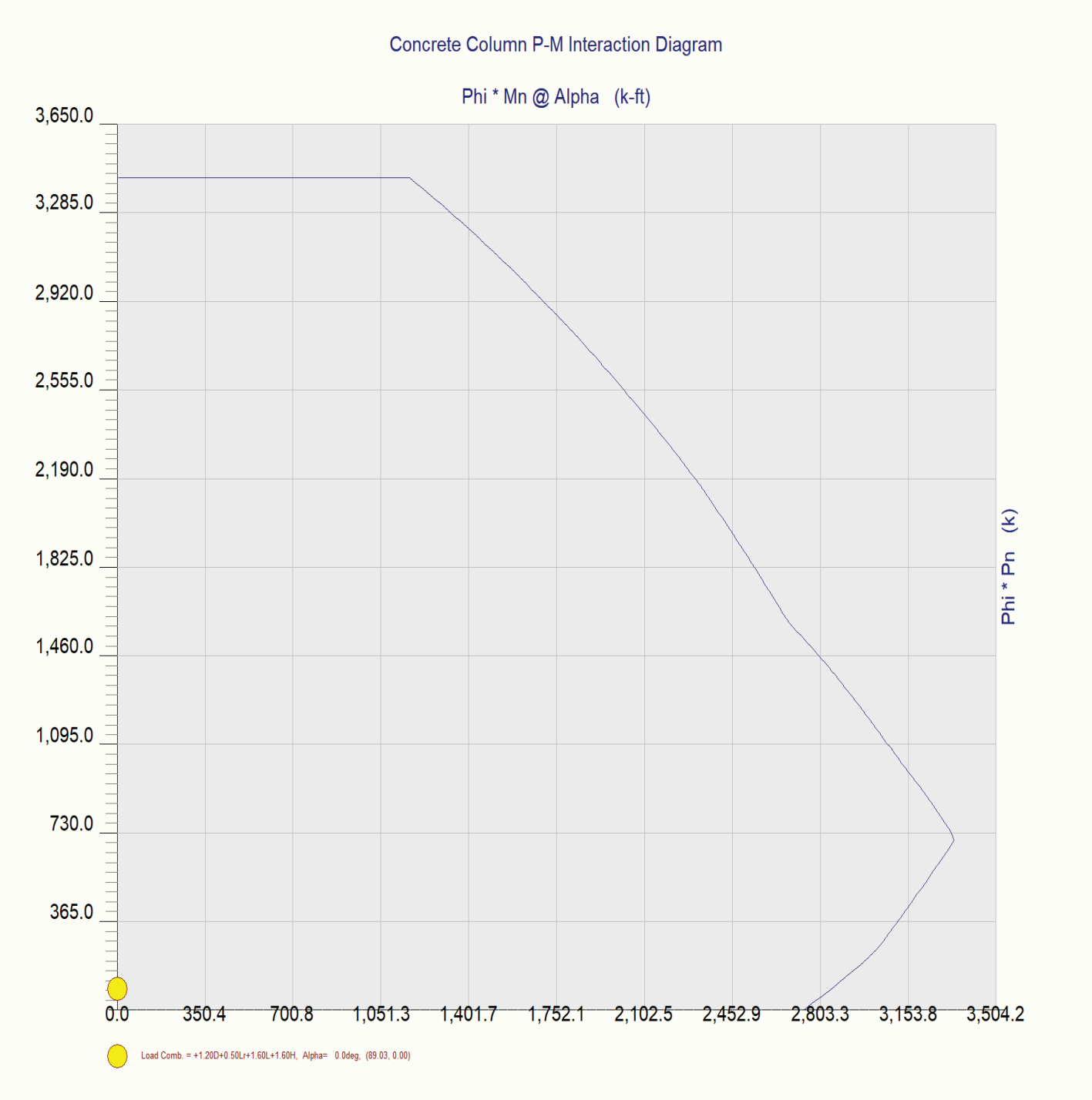
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

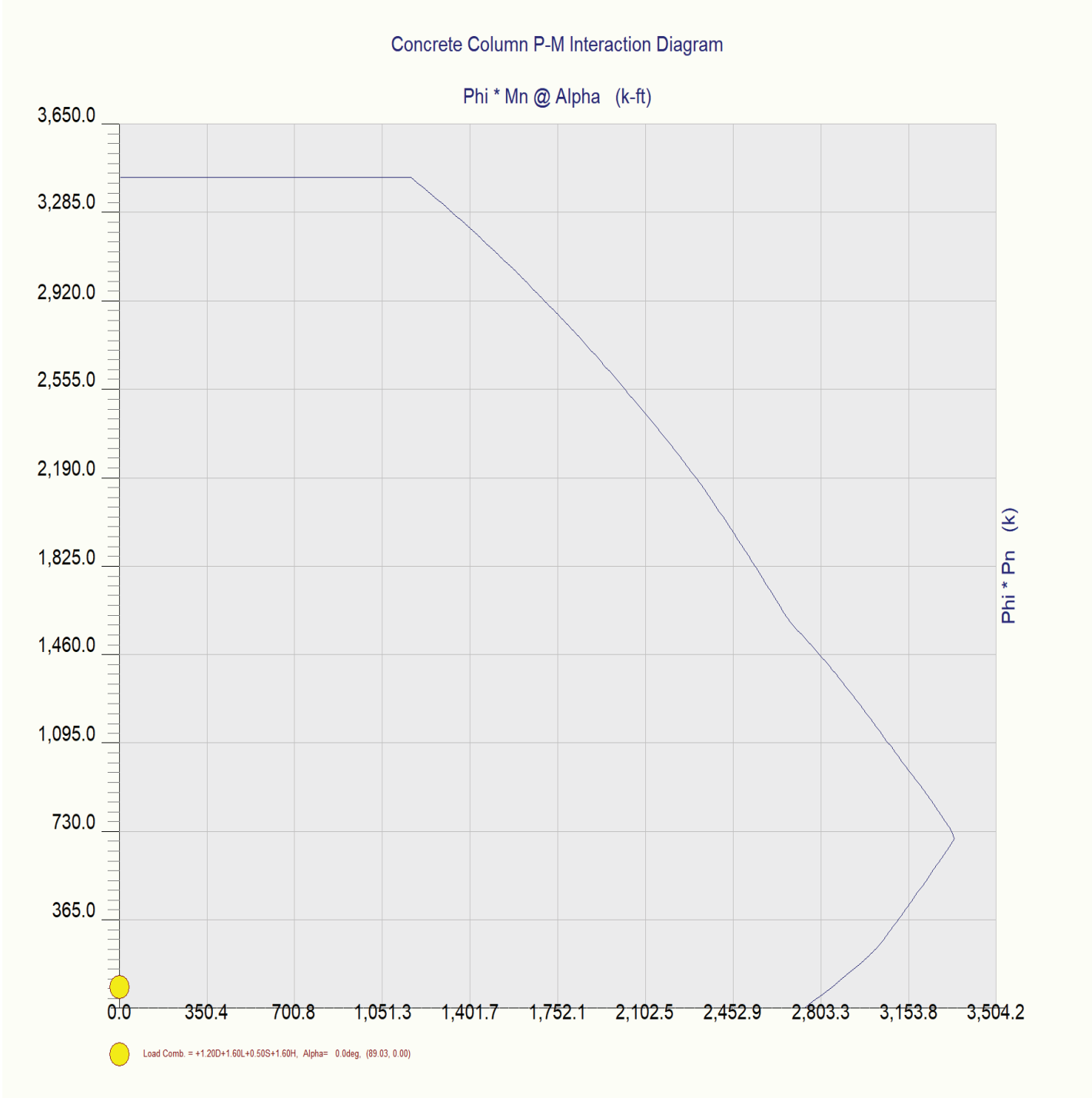
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

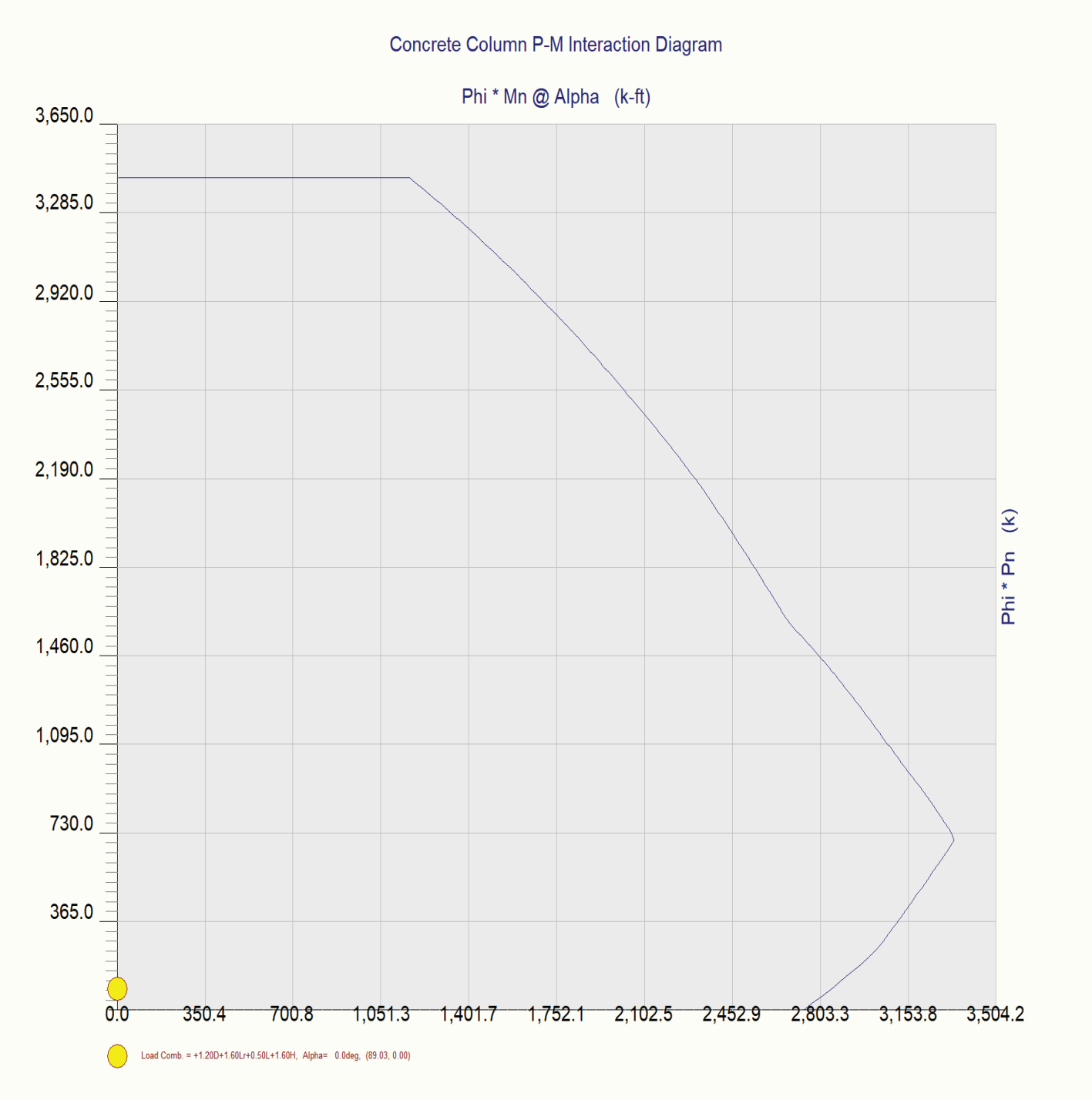
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

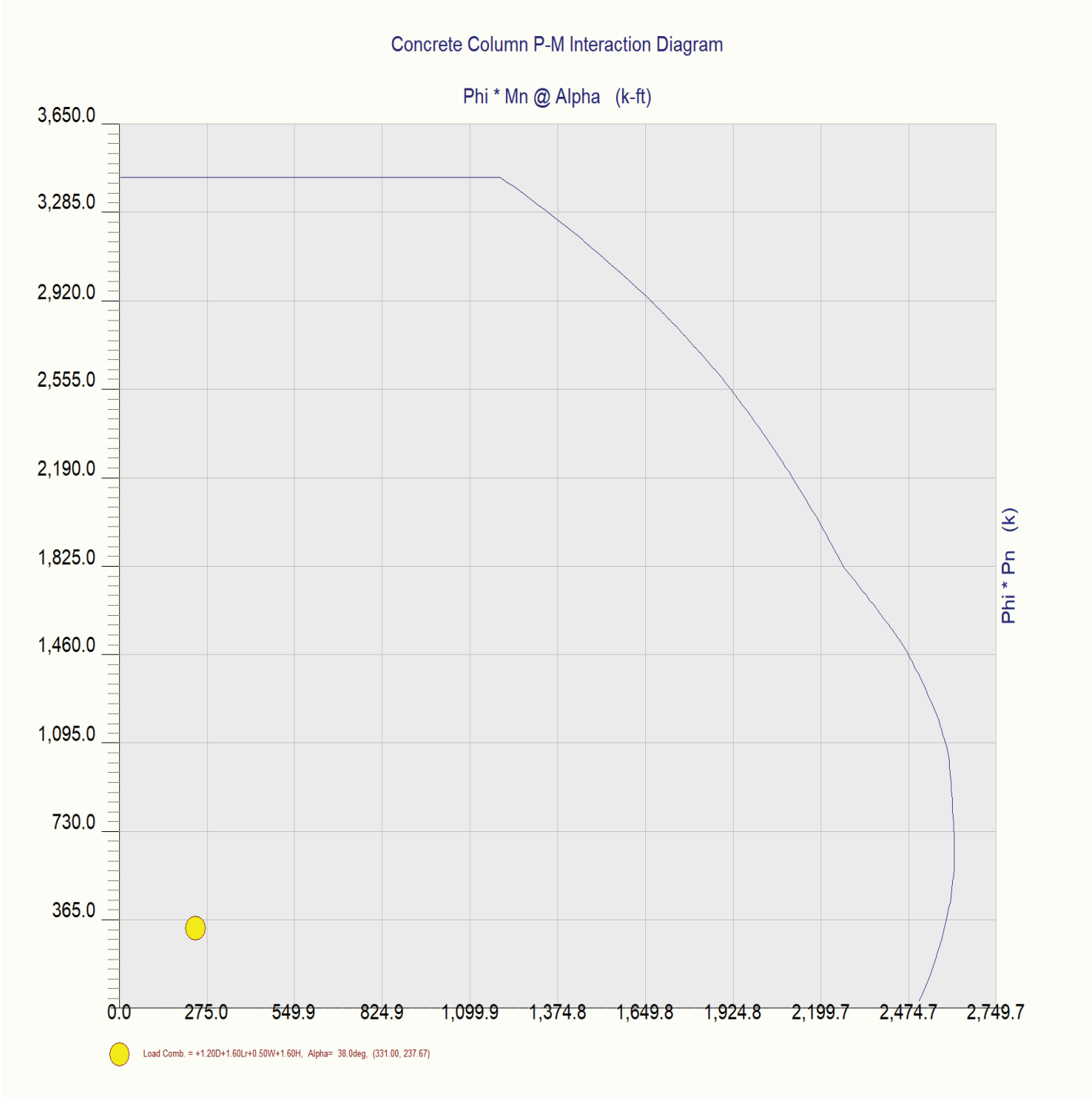
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

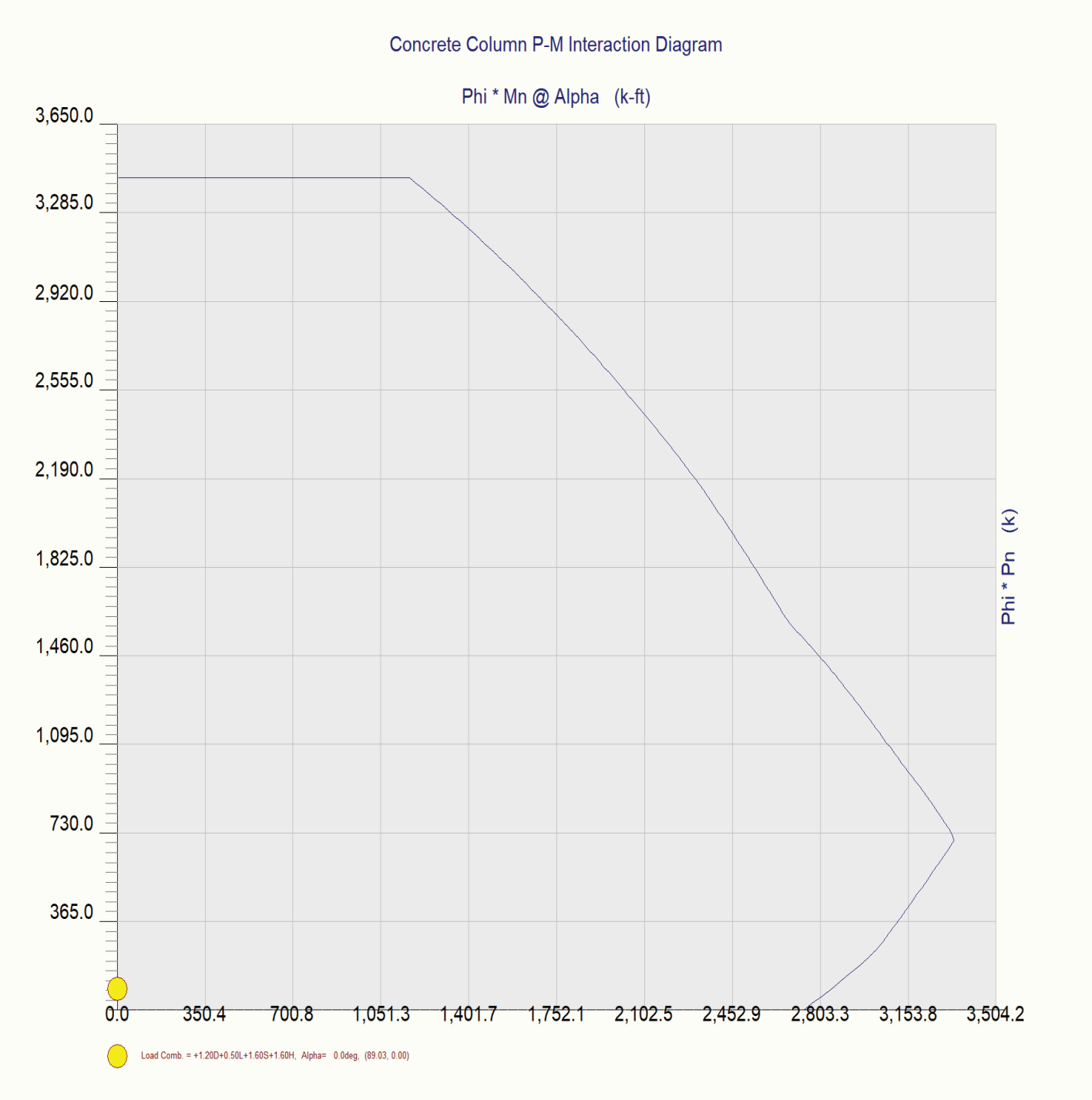
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

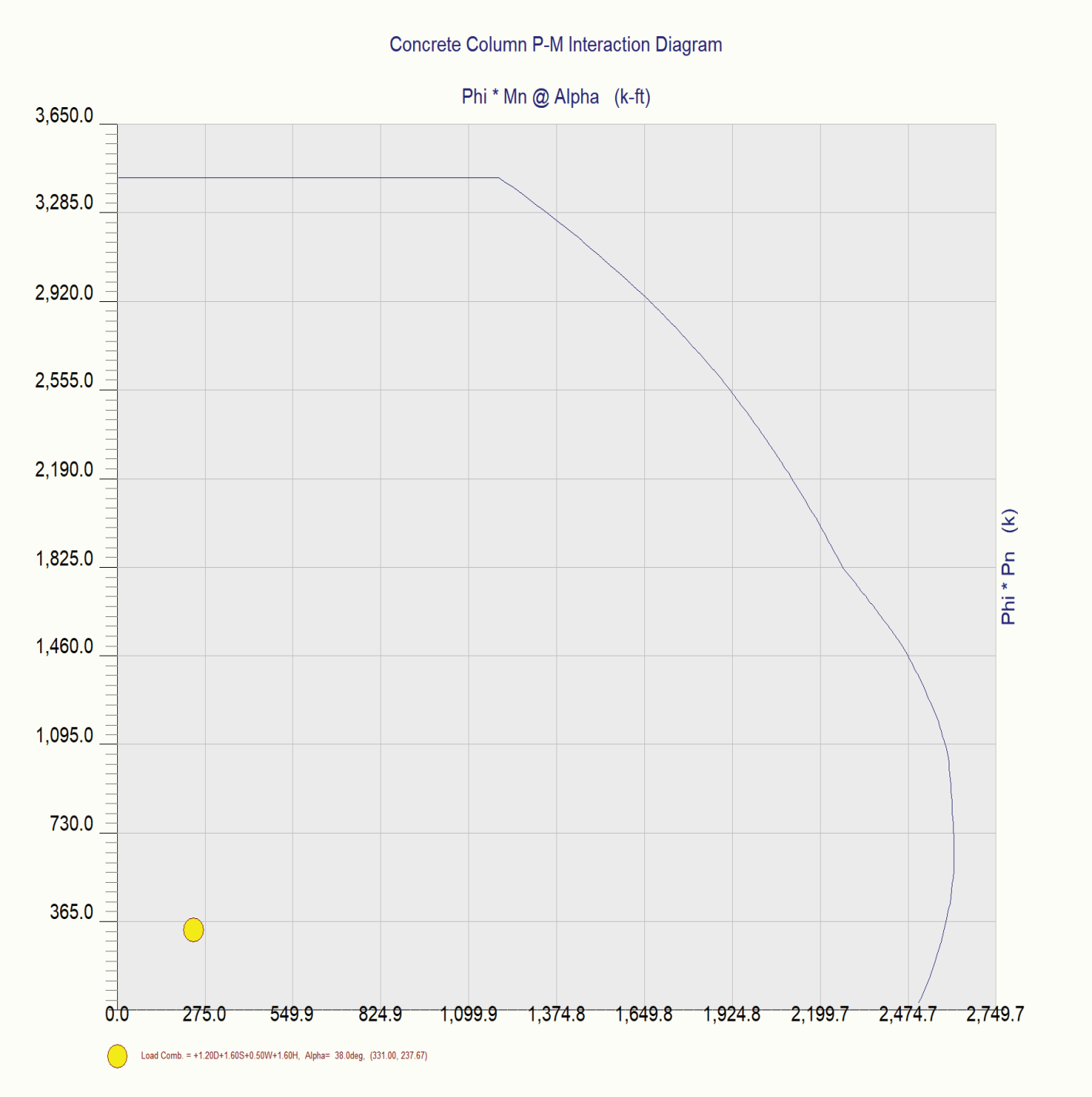
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

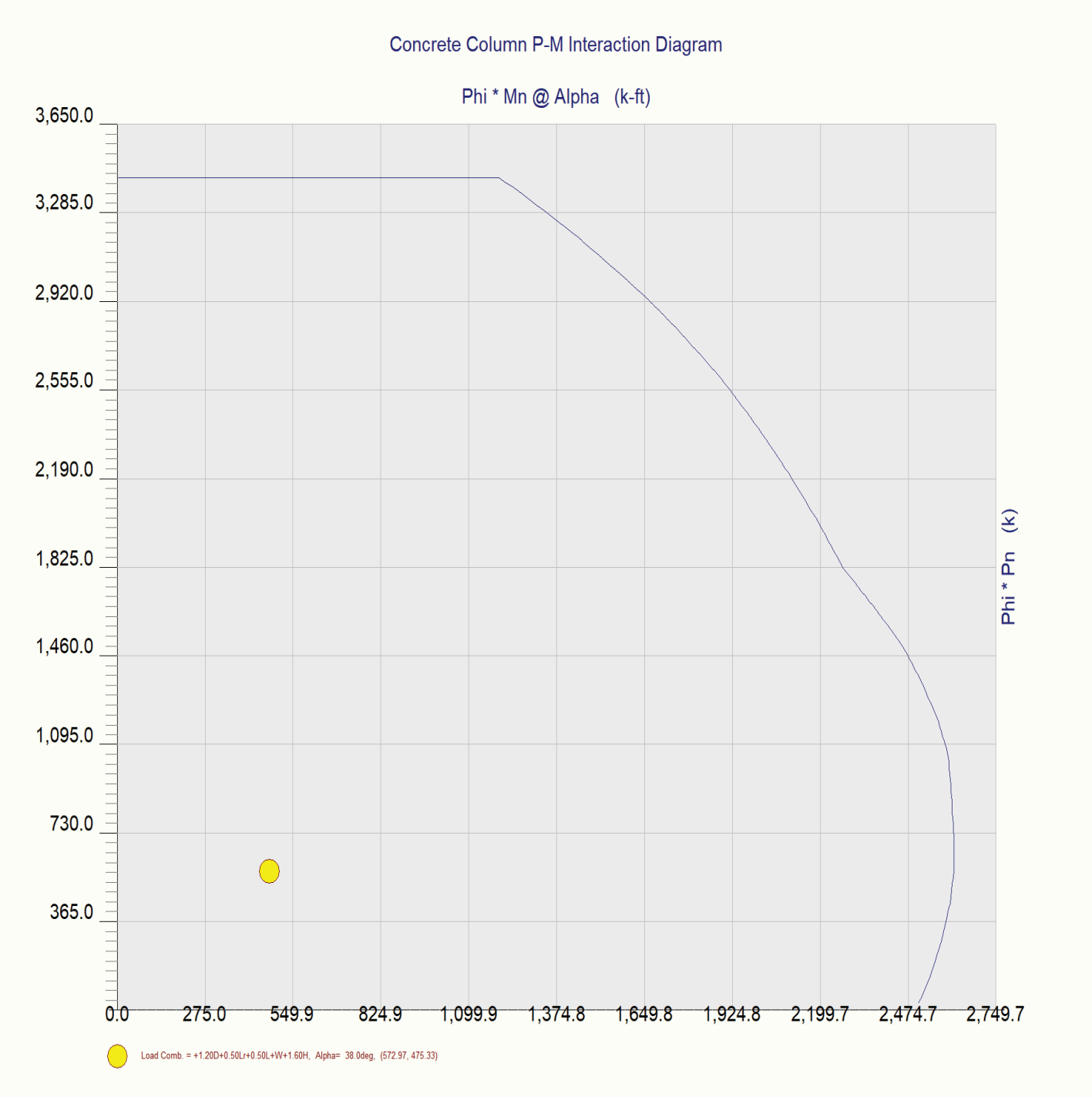
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

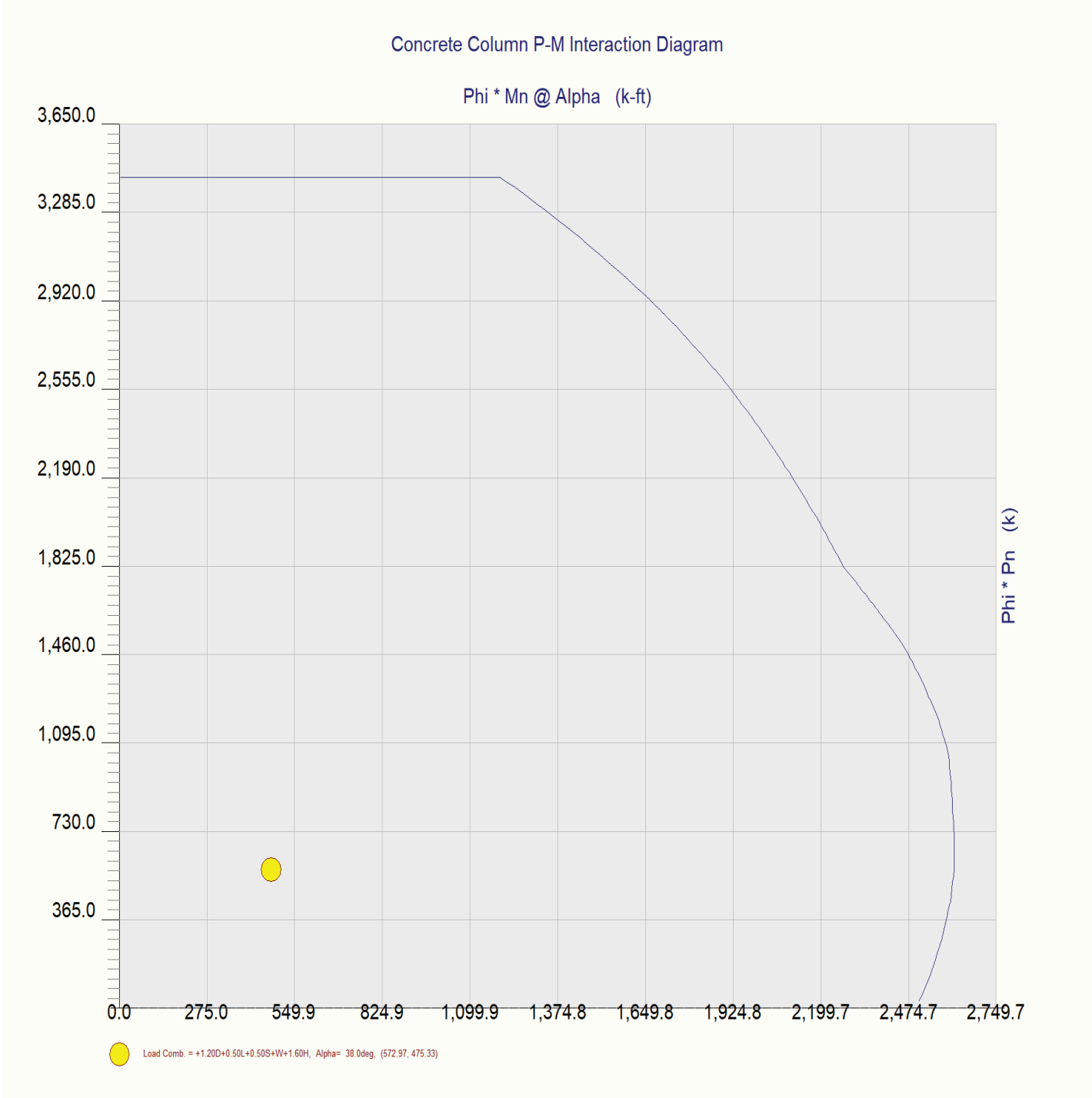
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

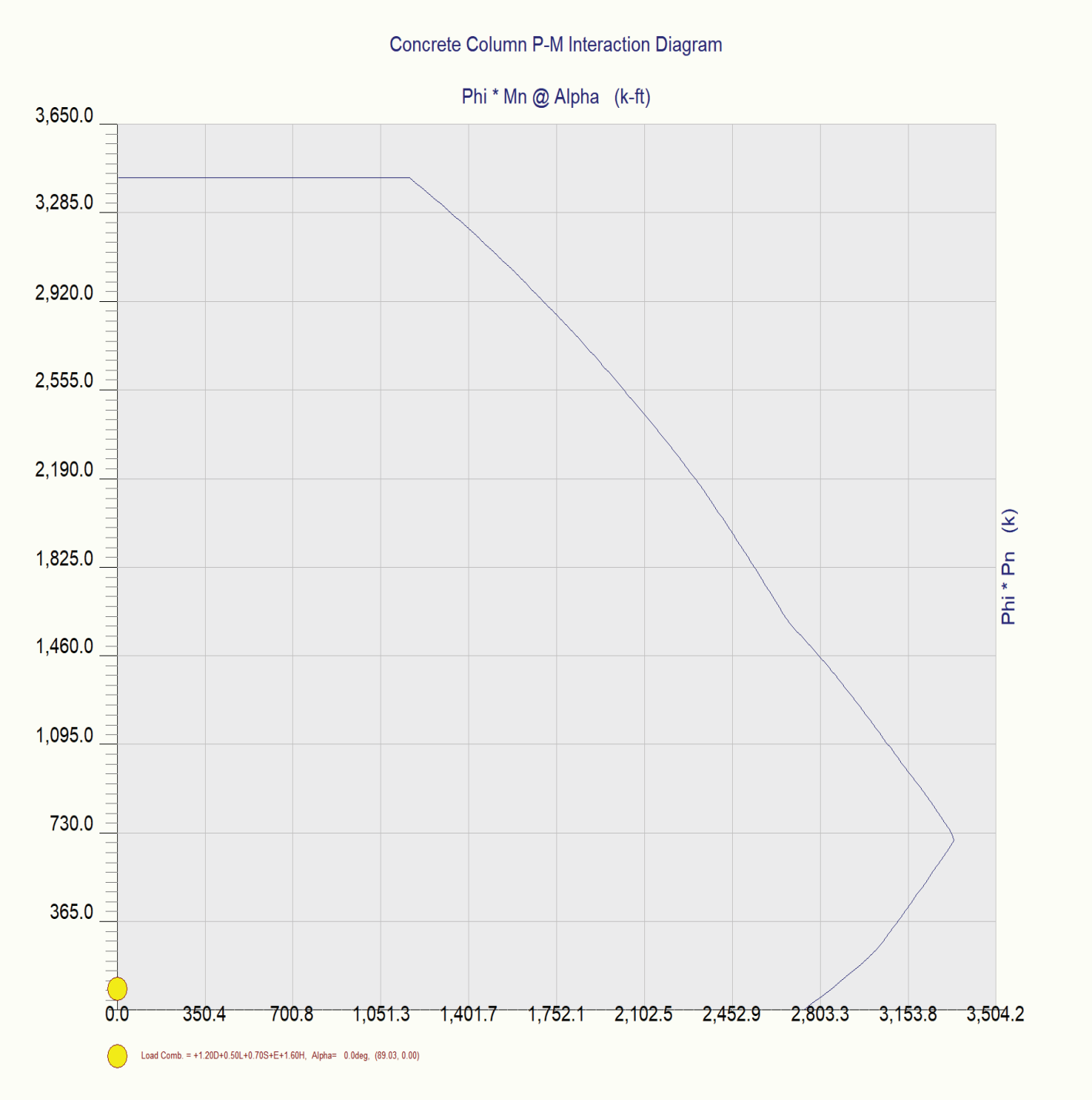
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

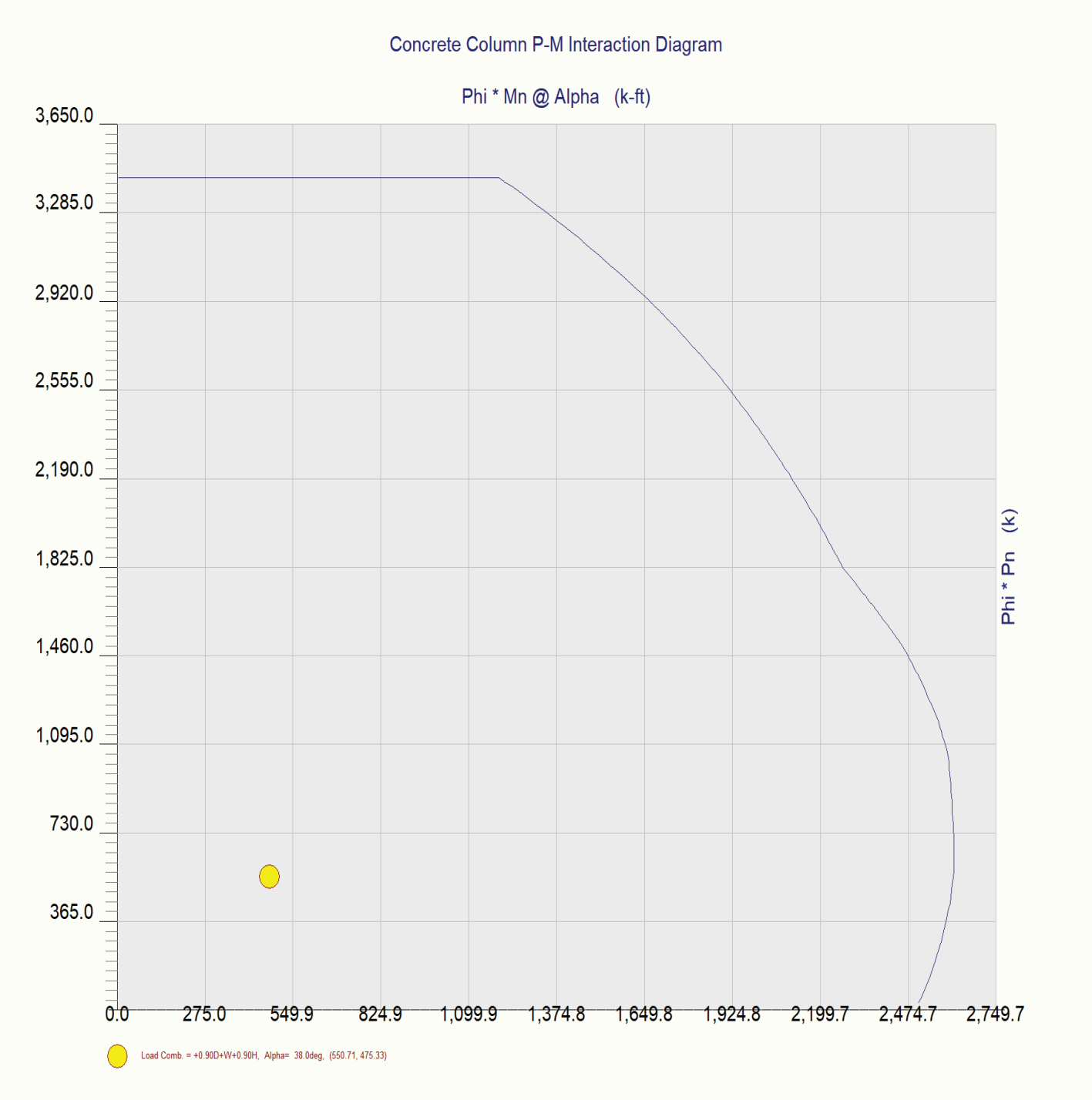
Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis



GPD
520 South Main Street, Suite 2531
Akron, Ohio 44311

Project Title: CHESHIRE
Engineer: B Darkow
Project ID: 2020701.98
Project Descr: Pedestal Analysis

Printed: 13 MAR 2020, 2:48PM

Concrete Column

3 and 26014\20 2020701 98 Centerline SA\5_Structural\00_Structure\00_Rev 0\01_Calcs\4 Pedestal Checks.ec6
Software copyright ENERCALC, INC. 1983-2019, Build:12.19.8.30 .

Lic. # : KW-06004426 GPD ASSOCIATES

DESCRIPTION: Pedestal Analysis

TOWN OF CHESHIRE

Planning & Zoning Commission
84 South Main Street
Cheshire, Connecticut 06410
203-271-6670 • Fax 203-271-6688

HAND DELIVERED
RECEIVED BY: [signature]
DATE: 6-3-03

June 3, 2003

AT&T
Anthony J. Fazzone, Esq.
One Town Center
Cheshire, CT 06410

RE: Special Permit Application
AT & T
751 Higgins Road
Building addition for cooling facilities

P.H. 04/14/03
P.H. 05/12/03
MAD 07/16/03

Dear Attorney Fazzone:

At the regular meeting of the Planning and Zoning Commission held on May 27, 2003, the following motion was approved as amended:

MOTION: That the Zoning Committee recommends that the Planning and Zoning Commission approve the special permit application of AT&T, for a building addition for cooling facilities for property located at 751 Higgins Road, in an R-40 zone, as shown on the current Assessor's Map No. 69, Lot No. 53, and shown on the following plans entitled:

AT&T Cheshire-Chiller Replacement, Higgins Road, Cheshire, CT prepared by Milone & MacBroom sheets 1 & 2 March 2003 and Chiller Replacement Sections; and EYP Mission Critical Facilities sheets CO1, CO2, AO1, AO2, AO3, and POO1 March 12, 2003

With the following stipulations:

1. The applicant shall comply with comments in a memo from the Police Department dated April 11, 2003 and attached hereto.
2. Approval for the sanitary sewer is required from the Water Pollution Control Authority.
3. The proposed building must be incorporated into the facilities alarm system.

4. An approved emergency key box must be installed at the new building
5. The applicant shall be responsible for maintenance and replacement of new plantings shown on the plans.
6. Water treatment chemicals must be shipped in compliance with Department of Transportation regulations.
7. The delivery area must be secured such that any storm drains in the vicinity of the unloading operations are protected with a drain dike.
8. A trained representative of AT&T must be present to receive all water treatment chemicals, and must take the following actions:
   - Review the label information to ensure that it is the correct material
   - Move the drum using a hand truck to the drum storage area
   - Place chemicals on a secondary containment pallet in the drum storage area
9. Empty drums used for water treatment chemicals must be removed from the site.

Acoustic

10. The sound emitted from this addition and existing sources shall be kept to an absolute minimum. The sound barrier wall enclosure and band of exterior rated sound absorption panels shall be installed as described in the report conducted by Adelaide Associates LLC entitled "Existing Sound Level Measurements, Evaluation of Existing Generator Sound, Sound Level Prediction of Proposed Cooling Tower" dated August 7, 2002 final revision November 4, 2002. Certification that the panels have been installed properly and to full effectiveness must be submitted to the Planning Department prior to operation of the cooling tower.

11. Periodic acoustic noise readings shall be taken by a certified sound Engineer. At no time shall the sound recorded of the operation of the cooling tower under conditions of minimal background noise be greater than 37 db at any of the property boundaries. These readings shall be taken every six months or upon receipt of a complaint by the Planning Office. In the event of a complaint the applicant shall provide the Planning and Zoning Office with a certified acoustics reading within 48 hours. Failure to meet these noise requirements will result in zoning enforcement action up to and including a Cease and Desist Order for operation of the chillers.

Moved by Mr. Adinolfi; seconded by Ms. Hilzinger. Vote on the amended motion: In favor: Levy, Kramer, Marinaro, Cobern, Hilzinger, Todisco, Adinolfi. Opposed: Ranando and Dawson.

Very truly yours,

Beverly G. Hilzinger

Beverly G. Hilzinger, Secretary
Cheshire Planning and Zoning Commission

BGH:jp

ENCLOSURES