Date: December 16, 2022

MTS Engineering, P.L.L.C.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
towersupport@btgrp.com

| | | |
|---|---|---|
| **Subject:** | **Mount Analysis Rerun Report** | |
| ***Carrier Designation:*** | **AT&T Mobility Equipment Change-Out** | |
| | **Carrier Site Number:** | CTL01060 |
| | **Carrier Site Name:** | Wolcott-East ST |
| | **Carrier Site FA:** | 10035040 |
| ***Crown Castle Designation:*** | **BU Number:** | 806362 |
| | **Site Name:** | NHV 108 943133 |
| | **JDE Job Number:** | 730983 |
| | **Order Number:** | 632627, Rev.0 |
| ***Engineering Firm Designation:*** | **Report Designation:** | 104053.013.01.0002 |
| ***Site Data:*** | **Intersection of RTE 322/ Meridian Rd Wolcott Site, Wolcott, CT, New Haven County, 06716**<br>**Latitude 41° 33' 34.41" Longitude -72° 56' 49.10"** | |
| ***Structure Information:*** | **Tower Height & Type:** | **185 ft. Self-Supported Tower** |
| | **Mount Elevation:** | **158 ft.** |
| | **Mount Type:** | **13 ft. Sector Mount** |

*We are* pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of AT&T Mobility's antenna mounting system with the proposed appurtenance and equipment addition on the above mentioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

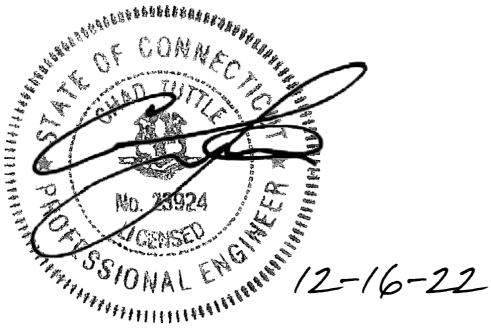
The purpose of the analysis is to determine acceptability of the mount's stress level. Based on our analysis we have determined the stress level to be:

**Sector Mount (typical)** **Sufficient**

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph per 2022 IBC as required by the 2022 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Isaac Fulton

Respectfully submitted by: MTS Engineering, P.L.L.C.
COA: BER: 2386985 Expires: 03/31/2023




Chad E. Tuttle, P.E.

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## 1) INTRODUCTION

This is an existing 3 - sector 13 ft. Sector Mount, designed by Sabre (Part# C10857001C).

## 2) ANALYSIS CRITERIA

| | |
|---|---|
| **Building Code:** | 2022 IBC |
| **TIA-222 Revision:** | TIA-222-H |
| **Risk Category:** | II |
| **Ultimate Wind Speed:** | 118 mph |
| **Exposure Category:** | C |
| **Topographic Factor at Base:** | 1 |
| **Topographic Factor at Mount:** | 1 |
| **Ice Thickness:** | 1 in |
| **Wind Speed with Ice:** | 50 mph |
| **Seismic $S_s$:** | 0.195 |
| **Seismic $S_1$:** | 0.054 |
| **Live Loading Wind Speed:** | 30 mph |
| **Man Live Load at Mid/End-Points:** | 250 lb. |
| **Man Live Load at Mount Pipes:** | 500 lb. |

**Table 1 - Proposed Equipment Configuration**

| Mount Centerline (ft.) | Antenna Centerline (ft.) | Number of Antennas | Manufacturer | Model / Type | Mount / Modification Details |
|---|---|---|---|---|---|
| 158 | 162 | 3 | Ericsson | AIR 6419 B77G_CCIV3 | 13 ft. Sector Mount |
| | 160 | 1 | CCI Antennas | DMP65R-BU8D | |
| | | 1 | Quintel Technology | QD6616-7 | |
| | | 1 | Quintel Technology | QD8616-7 | |
| | | 2 | CCI Antennas | OPA65R-BU6D | |
| | | 1 | Quintel Technology | QD6616-7 | |
| | | 3 | Ericsson | RRUS 32 B2 | |
| | | 3 | Ericsson | RRUS 32 B30 | |
| | | 3 | Ericsson | RRUS 32 B66A | |
| | | 3 | Ericsson | RRUS 4449 B5/B12 | |
| | | 3 | Ericsson | RRUS 4478 B14_CCIV2 | |
| | | 1 | Raycap | DC6-48-60-18-8F | |
| | | 1 | Raycap | DC9-48-60-24-8C-EV | |
| | | 1 | Raycap | DC6-48-60-18-8F_CCIV2 | |
| | 158 | 3 | Ericsson | AIR 6449 B77D_CCIV3 | |
| | | 1 | Raycap | DC6-48-60-18-8F | |

**Table 2 - Documents Provided**

| Document | Remarks | Reference | Source |
|---|---|---|---|
| CCI Order | Existing Loading<br>Proposed Loading | Date: 09/16/2022 | Crown Castle |
| RFDS | | Date: 08/11/2022 | |
| Previous MA | MTS Engineering, P.L.L.C. | Date: 12/09/2021 | On File |
| Mount Manufacturer Drawing | Sabre (Part# C10857001C) | Date: 12/22/2015 | Sabre |

## 3) ANALYSIS PROCEDURE

### 3.1) Analysis Method

RISA-3D (Version 20.0.3), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

A tool internally developed by MTS Engineering, P.L.L.C., was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Mount Analysis* (Revision E). In addition, this analysis is in accordance with *AT&T's Mount Technical Directive – R22.0*.

Manufacturers drawing were used to create the model.

### 3.2) Assumptions

1. The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications.
2. The configuration of antennas, mounts, and other appurtenances are as specified in Table-1.
3. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected members unless otherwise specified in this report.
4. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.
   The following assumptions have been included in the analysis of the mount

| Component | Section | Length | Note |
|---|---|---|---|
| Antenna Mount Pipes | 2" Std. Pipe | 10'-6" | All Positions, All Sectors |
| Raycap Pipe | 2" Std. Pipe | 5'-0" | Attached to V-Boom, Alpha Sector |
| RRU Pipe | 2" Std. Pipe | 7'-0" | Attached to V-Boom, All Sectors |
| | 2" Std. Pipe | 5'-0" | |

5. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
6. Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
7. The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
8. The following material grades were assumed (Unless Noted Otherwise):
   (a) Connection Bolts : ASTM A325
   (b) Steel Pipe : ASTM A53 (GR. 35)
   (c) HSS (Round) : ASTM 500 (GR. B-42)
   (d) HSS (Rectangular) : ASTM 500 (GR. B-46)
   (e) Channel : ASTM A36 (GR. 36)
   (f) Steel Solid Rod : ASTM A36 (GR. 36)
   (g) Steel Plate : ASTM A36 (GR. 36)
   (h) Steel Angle : ASTM A36 (GR. 36)
   (i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. MTS Engineering, P.L.L.C. should be notified to determine the effect on the structural integrity of the antenna mounting system.

## 4) ANALYSIS RESULTS

**Table 3 - Mount Component Stresses vs. Capacity (Sector Mount)**

| Notes | Component | Centerline (ft.) | Critical Member | % Capacity | Pass / Fail |
|---|---|---|---|---|---|
| 1,2 | Face Horizontals | 158 | 65 | 32.8 | Pass |
| | Support Arms | | 76 | 10.5 | Pass |
| | Verticals | | 83 | 37.4 | Pass |
| | Diagonals | | 63 | 12.6 | Pass |
| | Connection Plates | | 24 | 21.5 | Pass |
| | Mount Pipes | | 138 | 77.6 | Pass |
| | Tiebacks | | 80 | 26.9 | Pass |
| 3 | Tieback to Tower Connection | | - | 38.1 | Pass |
| | Mount to Tower Connection | | - | 17.2 | Pass |

| Structure Rating (max from all components) = | 77.6% |
|---|---|

Notes:
1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
2) All sectors are typical
3) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity reported.

**Table 4 - Tieback Connection Data Table**

| Tower Connection Node No. | Existing / Proposed | Resultant End Reaction (lb) | Connected Member Type | Connected Member Size | Member Compressive Capacity[3] (lb) | Notes |
|---|---|---|---|---|---|---|
| 43 | Existing | 1193.55 | Leg | ROHN 3 X-STR | 4717 | 1 |
| 129 | Existing | 1714.19 | Leg | ROHN 3 X-STR | 4717 | 1 |
| 87 | Existing | 1798.71 | Leg | ROHN 3 X-STR | 4717 | 1 |

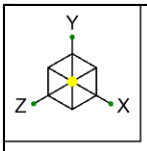
Notes:
1) Tieback connection point is within 25% of either end of the connected tower member
2) Tieback connection point is NOT within 25% of either end of the connected tower member
3) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*

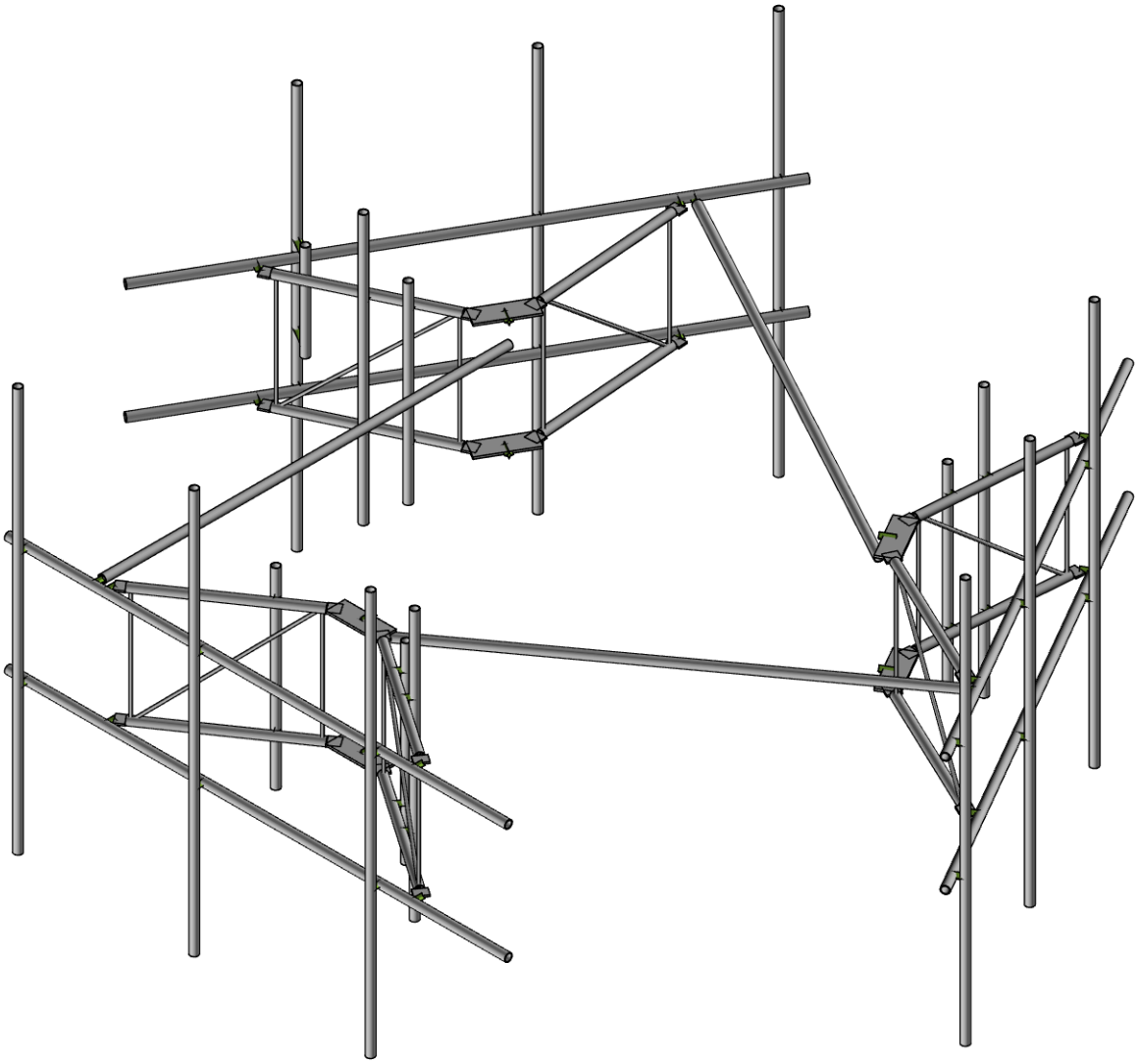
### 4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

**APPENDIX A**

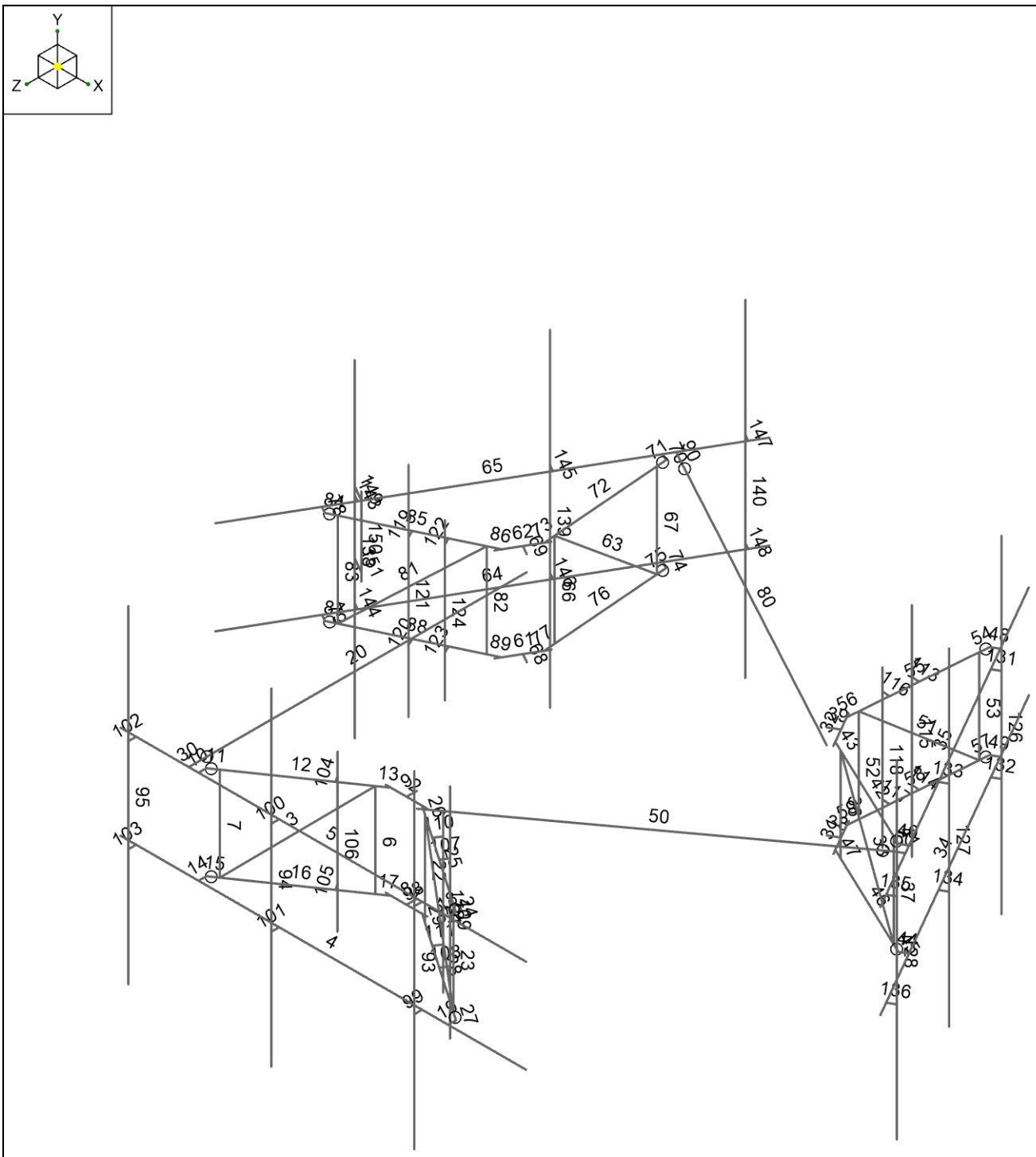
**WIRE FRAME AND RENDERED MODELS**



Envelope Only Solution

| | | |
|---|---|---|
| MTS Engineering, P.L.L.C. | 806362 - NHV 108 943133 | SK-1 |
| KP | | Sep 22, 2022 |
| 104053.013.01.0001 | | 104053_013_01_0001_NHV 108 … |




Envelope Only Solution

| | | |
|---|---|---|
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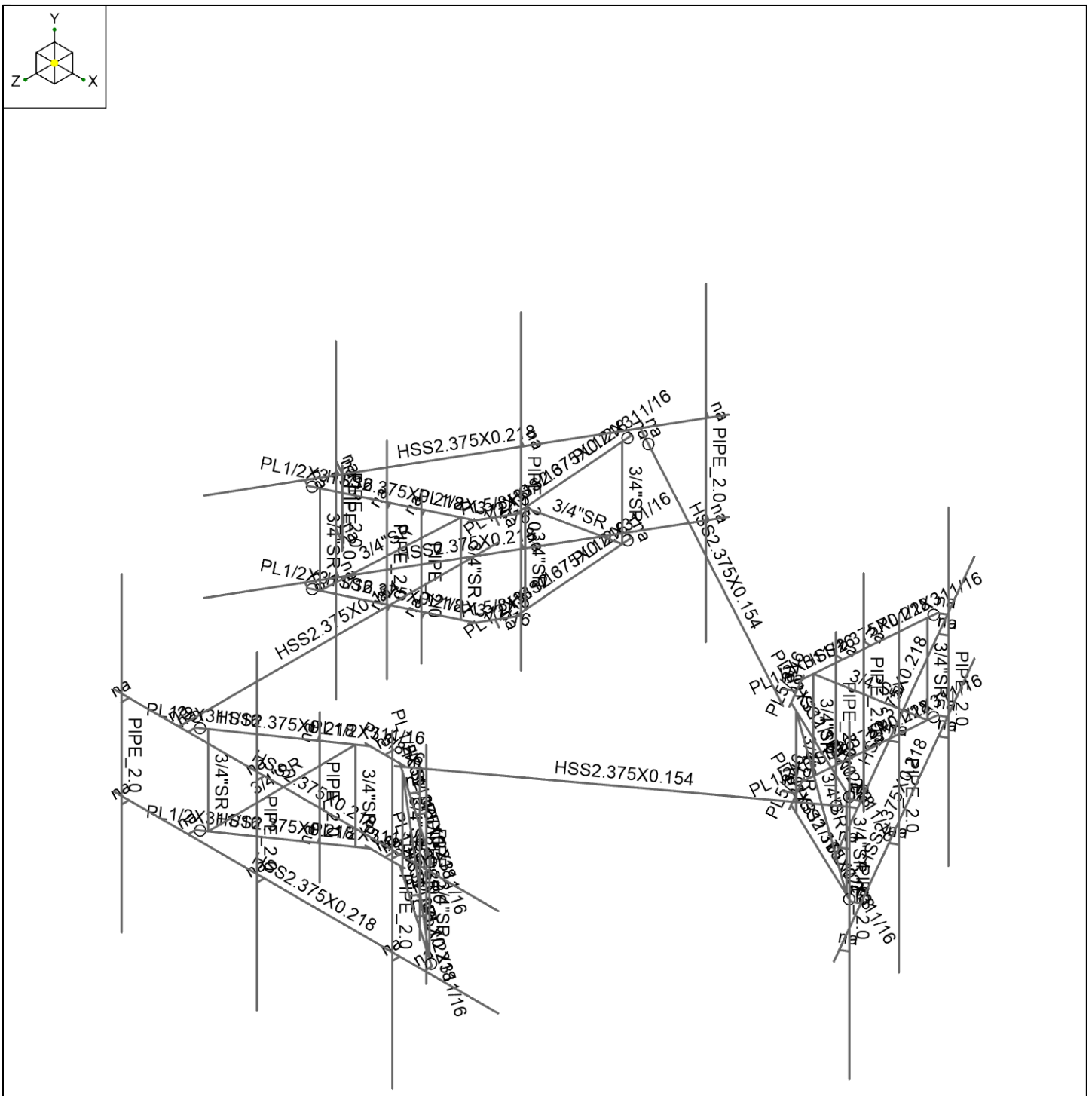


Envelope Only Solution

| | | |
|---|---|---|
| MTS Engineering, P.L.L.C. | 806362 - NHV 108 943133 | SK-3 |
| KP | | Sep 22, 2022 |
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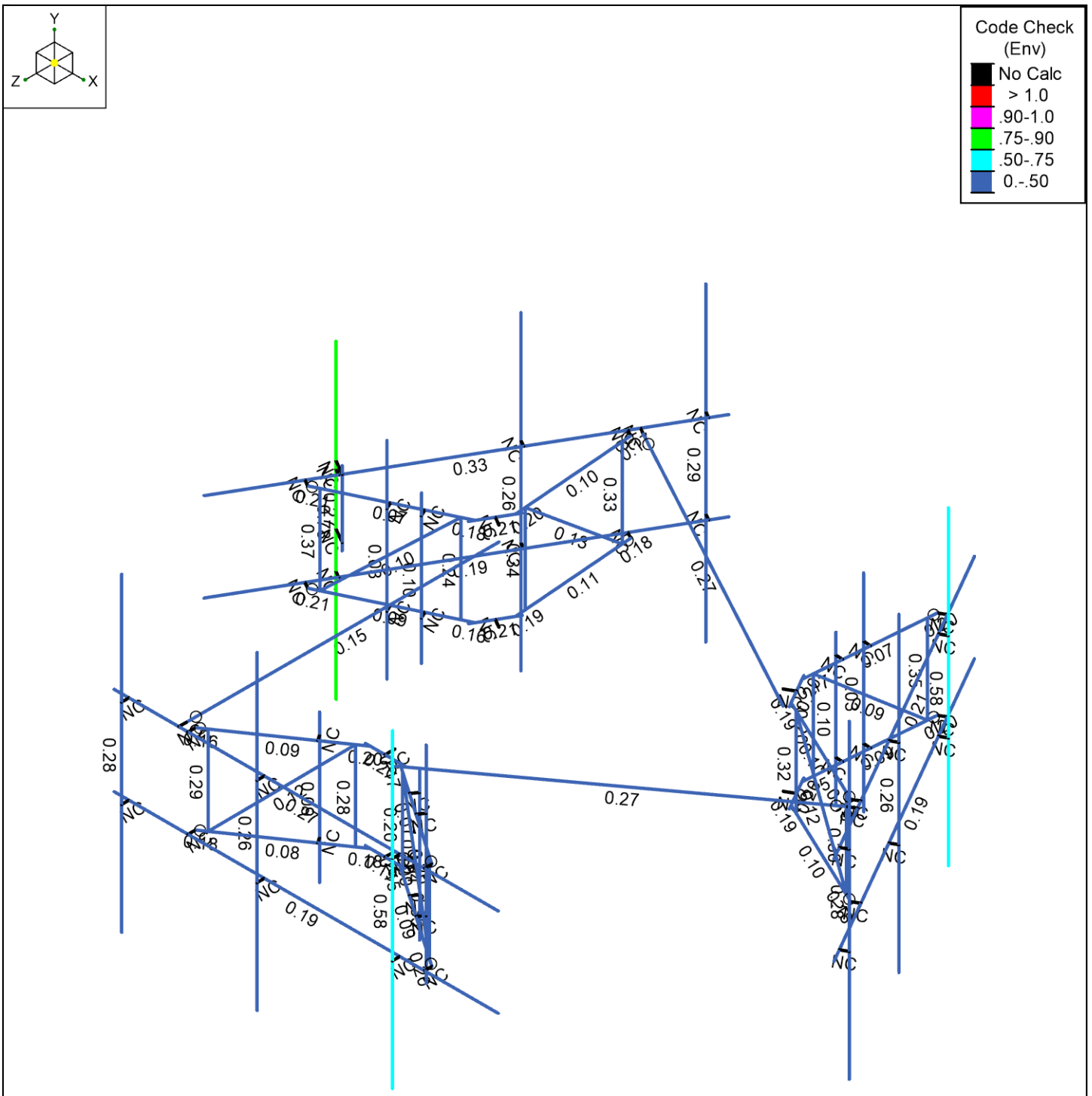
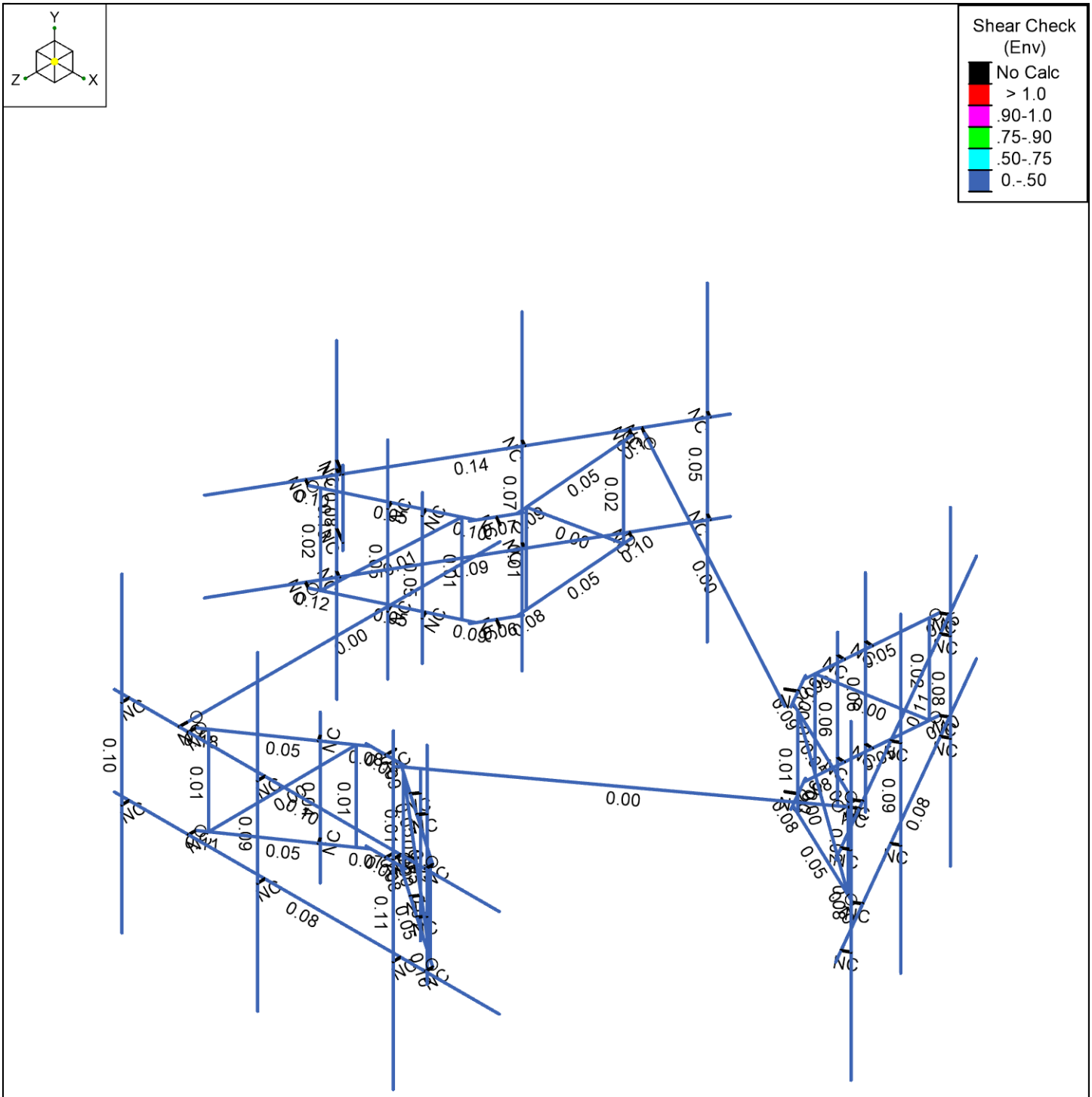



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

| | | |
|---|---|---|
| MTS Engineering, P.L.L.C. | 806362 - NHV 108 943133 | SK-4 |
| KP | | Sep 22, 2022 |
| 104053.013.01.0001 | | 104053_013_01_0001_NHV 108 … |




Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

| | | |
|---|---|---|
| MTS Engineering, P.L.L.C. | 806362 - NHV 108 943133 | SK-5 |
| KP | | Sep 22, 2022 |
| 104053.013.01.0001 | | 104053_013_01_0001_NHV 108 … |

## APPENDIX B

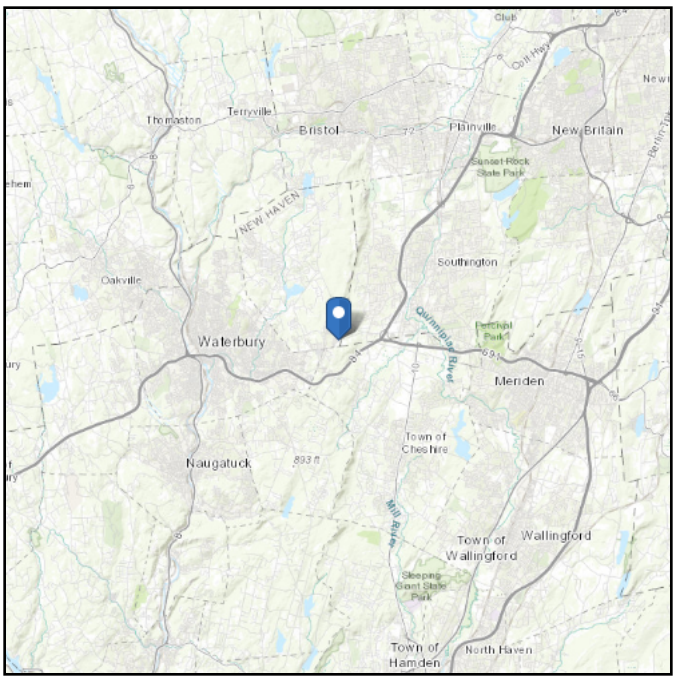
## SOFTWARE INPUT CALCULATIONS

# ASCE 7 Hazards Report

**Address:**
No Address at This Location

**Standard:** ASCE/SEI 7-16
**Risk Category:** II
**Soil Class:** D - Default (see Section 11.4.3)

**Elevation:** 745.17 ft (NAVD 88)
**Latitude:** 41.559558
**Longitude:** -72.946972


## Wind

**Results:**

| | |
|---|---|
| Wind Speed | 118 Vmph |
| 10-year MRI | 75 Vmph |
| 25-year MRI | 84 Vmph |
| 50-year MRI | 90 Vmph |
| 100-year MRI | 97 Vmph |

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed: Wed Dec 01 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

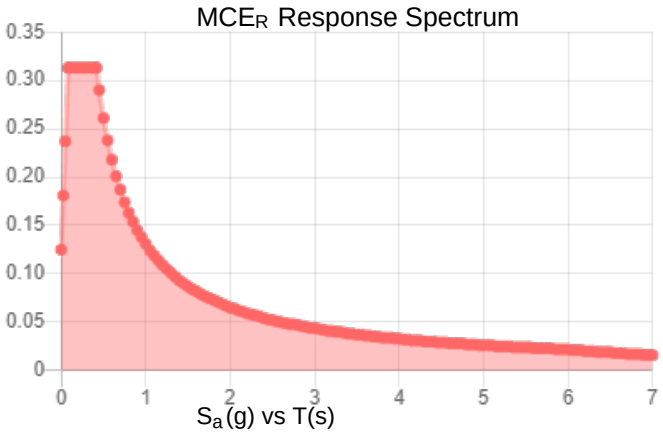
# Seismic

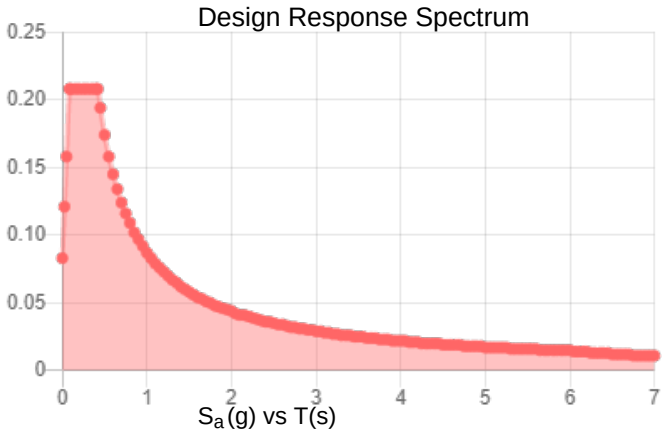
**Site Soil Class:** D - Default (see Section 11.4.3)

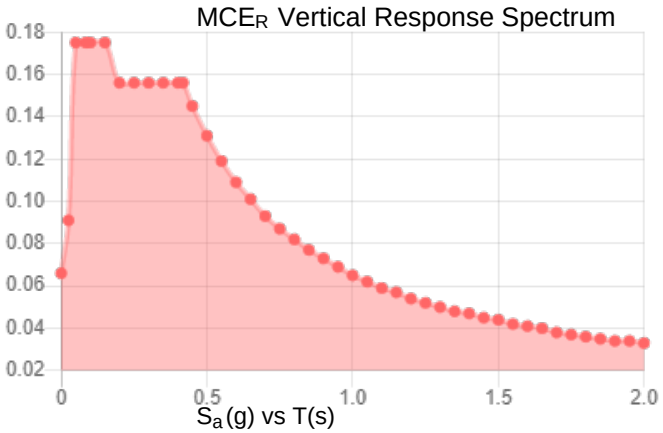
**Results:**

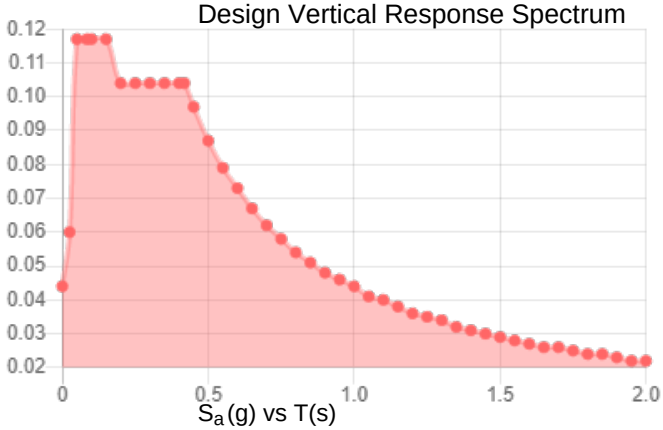
| | | | |
|---|---|---|---|
| $S_S$ : | 0.195 | $S_{D1}$ : | 0.087 |
| $S_1$ : | 0.054 | $T_L$ : | 6 |
| $F_a$ : | 1.6 | PGA : | 0.108 |
| $F_v$ : | 2.4 | $PGA_M$ : | 0.171 |
| $S_{MS}$ : | 0.313 | $F_{PGA}$ : | 1.585 |
| $S_{M1}$ : | 0.131 | $I_e$ : | 1 |
| $S_{DS}$ : | 0.208 | $C_v$ : | 0.7 |

**Seismic Design Category** B




**Data Accessed:** **Wed Dec 01 2021**

**Date Source:**

**USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.**

# Ice

**Results:**

| | |
|---|---|
| Ice Thickness: | 1.00 in. |
| Concurrent Temperature: | 15 F |
| Gust Speed | 50 mph |
| **Data Source:** | Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8 |
| **Date Accessed:** | Wed Dec 01 2021 |

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

| | |
|---|---|
| PROJECT | **104053.013.01.0001 - NHV 108 94313 KSC** |
| SUBJECT | **Sector Mount Analysis** |
| DATE | **09/22/22** |

**B+T Group**
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

| | | | | | |
|---|---|---|---|---|---|
| Tower Type | | : | SST | | |
| Ground Elevation | $z_s$ | : | 745 | ft | [ASCE7 Hazard Tool] |
| Tower Height | | : | 185.00 | ft | |
| Mount Elevation | | : | 158.00 | ft | |
| Antenna Elevation | | : | 162.00 | ft | |
| Crest Height | | : | 0 | ft | |
| Risk Category | | : | II | | [Table 2-1 ] |
| Exposure Category | | : | C | | [Sec. 2.6.5.1.2] |
| Topography Category | | : | 1.00 | | [Sec. 2.6.6.2] |
| Wind Velocity | V | : | 118 | mph | [ASCE7 Hazard Tool] |
| Ice wind Velocity | $V_i$ | : | 50 | mph | [ASCE7 Hazard Tool] |
| Service Velocity | $V_s$ | : | 30 | mph | [ASCE7 Hazard Tool] |
| Base Ice thickness | $t_i$ | : | 1.00 | in | [ASCE7 Hazard Tool] |
| Seismic Design Cat. | | : | B | | [ASCE7 Hazard Tool] |
| | $S_S$ | : | 0.20 | | |
| | $S_1$ | : | 0.05 | | |
| | $S_{DS}$ | : | 0.21 | | |
| | $S_{D1}$ | : | 0.09 | | |

| | | | | | |
|---|---|---|---|---|---|
| Gust Factor | $G_h$ | : | 1.00 | | [Sec. 16.6] |
| Pressure Coefficient | $K_z$ | : | 1.40 | | [Sec. 2.6.5.2] |
| Topography Facto | $K_{zt}$ | : | 1.00 | | [Sec. 2.6.6] |
| Elevation Factor | $K_e$ | : | 0.97 | | [Sec. 2.6.8] |
| Directionality Factor | $K_d$ | : | 0.95 | | [Sec. 16.6] |
| Shielding Factor | $K_a$ | : | 0.90 | | [Sec. 16.6] |
| Design Ice Thickness | $t_{iz}$ | : | 1.17 | in | [Sec. 2.6.10] |

| | | | | | |
|---|---|---|---|---|---|
| Importance Factor | $I_e$ | : | 1 | | [Table 2-3 ] |
| Response Coefficient | $C_s$ | : | 0.104 | | [Sec. 2.7.7.1] |
| Amplification | $A_s$ | : | 2.416216 | | [Sec. 16.7] |

| | | | | |
|---|---|---|---|---|
| | $q_z$ | : | 45.93 | psf |

| | |
|---|---|
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Tulsa, OK 74119
(918) 587-4630

| Manufacturer | Model | Qty | Height ($in^2$) | Width ($in^2$) | Depth ($in^2$) | Weight (lbs) | $C_aA_a$ (N) ($ft^2$) | $C_aA_a$ (T) ($ft^2$) | $C_aA_a$ (N) Ice ($ft^2$) | $C_aA_a$ (T) Ice ($ft^2$) | $F_{A\,(N)}$ (k) | $F_{A\,(T)}$ (k) | $F_{A\,(N)}$ Ice (k) | $F_{A\,(T)}$ Ice (k) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INTEL TECHNOLC | QD6616-7 | 0.5 | 72.0 | 22.0 | 9.6 | 130.0 | 6.80 | 2.96 | 7.62 | 3.68 | 0.31 | 0.14 | 0.06 | 0.03 |
| INTEL TECHNOLC | QD6616-7 | 0.5 | | | | | 6.80 | 2.96 | 7.62 | 3.68 | 0.31 | 0.14 | 0.06 | 0.03 |
| ERICSSON | AIR 6419 B77G_CCIV3 | 0.5 | 31.1 | 16.1 | 7.3 | 44.0 | 2.09 | 1.01 | 2.57 | 1.43 | 0.09 | 0.04 | 0.02 | 0.01 |
| ERICSSON | AIR 6419 B77G_CCIV3 | 0.5 | | | | | 2.09 | 1.01 | 2.57 | 1.43 | 0.09 | 0.04 | 0.02 | 0.01 |
| ERICSSON | AIR 6449 B77D_CCIV3 | 0.5 | 30.6 | 15.9 | 10.6 | 83.8 | 2.03 | 1.37 | 2.50 | 1.80 | 0.08 | 0.06 | 0.02 | 0.01 |
| ERICSSON | AIR 6449 B77D_CCIV3 | 0.5 | 30.6 | 15.9 | 10.6 | 83.8 | 2.03 | 1.37 | 2.50 | 1.80 | 0.08 | 0.06 | 0.02 | 0.01 |
| CCI ANTENNAS | OPA65R-BU6D | 0.5 | 71.2 | 21.0 | 7.8 | 63.5 | 6.11 | 2.27 | 6.88 | 2.93 | 0.28 | 0.10 | 0.06 | 0.02 |
| CCI ANTENNAS | OPA65R-BU6D | 0.5 | | | | | 6.11 | 2.27 | 6.88 | 2.93 | 0.28 | 0.10 | 0.06 | 0.02 |
| ERICSSON | RRUS 32 B2 | 1 | 27.2 | 12.1 | 7.0 | 52.9 | 2.73 | 1.67 | 3.54 | 2.42 | 0.11 | 0.07 | 0.02 | 0.01 |
| ERICSSON | RRUS 32 B66A | 1 | 27.6 | 12.5 | 7.4 | 55.1 | 2.86 | 1.78 | 3.69 | 2.54 | 0.12 | 0.07 | 0.02 | 0.01 |
| INTEL TECHNOLC | QD8616-7 | 0.5 | 96.0 | 22.0 | 9.6 | 150.0 | 9.18 | 4.00 | 10.22 | 4.93 | 0.42 | 0.18 | 0.08 | 0.04 |
| INTEL TECHNOLC | QD8616-7 | 0.5 | | | | | 9.18 | 4.00 | 10.22 | 4.93 | 0.42 | 0.18 | 0.08 | 0.04 |
| ERICSSON | AIR 6419 B77G_CCIV3 | 0.5 | 31.1 | 16.1 | 7.3 | 44.0 | 2.09 | 1.01 | 2.57 | 1.43 | 0.09 | 0.04 | 0.02 | 0.01 |
| ERICSSON | AIR 6419 B77G_CCIV3 | 0.5 | | | | | 2.09 | 1.01 | 2.57 | 1.43 | 0.09 | 0.04 | 0.02 | 0.01 |
| ERICSSON | AIR 6449 B77D_CCIV3 | 0.5 | 30.6 | 15.9 | 10.6 | 83.8 | 2.03 | 1.37 | 2.50 | 1.80 | 0.08 | 0.06 | 0.02 | 0.01 |
| ERICSSON | AIR 6449 B77D_CCIV3 | 0.5 | 30.6 | 15.9 | 10.6 | 83.8 | 2.03 | 1.37 | 2.50 | 1.80 | 0.08 | 0.06 | 0.02 | 0.01 |
| CCI ANTENNAS | DMP65R-BU8D | 0.5 | 96.0 | 20.7 | 7.7 | 105.6 | 7.93 | 2.98 | 8.88 | 3.82 | 0.37 | 0.14 | 0.07 | 0.03 |
| CCI ANTENNAS | DMP65R-BU8D | 0.5 | | | | | 7.93 | 2.98 | 8.88 | 3.82 | 0.37 | 0.14 | 0.07 | 0.03 |

| | |
|---|---|
| PROJECT | **104053.013.01.0001 - NHV 108 94313 KSC** |
| SUBJECT | **Sector Mount Analysis** |
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**B+T Group**
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

| Manufacturer | Model | Qty | Height ($in^2$) | Width ($in^2$) | Depth ($in^2$) | Weight (lbs) | $C_aA_a$ (N) ($ft^2$) | $C_aA_a$ (T) ($ft^2$) | $C_aA_a$ (N) Ice ($ft^2$) | $C_aA_a$ (T) Ice ($ft^2$) | $F_{A\,(N)}$ (k) | $F_{A\,(T)}$ (k) | $F_{A\,(N)}$ Ice (k) | $F_{A\,(T)}$ Ice (k) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERICSSON | RRUS 32 B2 | 1 | 27.2 | 12.1 | 7.0 | 52.9 | 2.73 | 1.67 | 3.54 | 2.42 | 0.11 | 0.07 | 0.02 | 0.01 |
| ERICSSON | RRUS 32 B66A | 1 | 27.6 | 12.5 | 7.4 | 55.1 | 2.86 | 1.78 | 3.69 | 2.54 | 0.12 | 0.07 | 0.02 | 0.01 |
| INTEL TECHNOLC | QD6616-7 | 0.5 | 72.0 | 22.0 | 9.6 | 130.0 | 6.80 | 2.96 | 7.62 | 3.68 | 0.31 | 0.14 | 0.06 | 0.03 |
| INTEL TECHNOLC | QD6616-7 | 0.5 | | | | | 6.80 | 2.96 | 7.62 | 3.68 | 0.31 | 0.14 | 0.06 | 0.03 |
| ERICSSON | AIR 6419 B77G_CCIV3 | 0.5 | 31.1 | 16.1 | 7.3 | 44.0 | 2.09 | 1.01 | 2.57 | 1.43 | 0.09 | 0.04 | 0.02 | 0.01 |
| ERICSSON | AIR 6419 B77G_CCIV3 | 0.5 | | | | | 2.09 | 1.01 | 2.57 | 1.43 | 0.09 | 0.04 | 0.02 | 0.01 |
| ERICSSON | AIR 6449 B77D_CCIV3 | 0.5 | 30.6 | 15.9 | 10.6 | 83.8 | 2.03 | 1.37 | 2.50 | 1.80 | 0.08 | 0.06 | 0.02 | 0.01 |
| ERICSSON | AIR 6449 B77D_CCIV3 | 0.5 | 30.6 | 15.9 | 10.6 | 83.8 | 2.03 | 1.37 | 2.50 | 1.80 | 0.08 | 0.06 | 0.02 | 0.01 |
| CCI ANTENNAS | OPA65R-BU6D | 0.5 | 71.2 | 21.0 | 7.8 | 63.5 | 6.11 | 2.27 | 6.88 | 2.93 | 0.28 | 0.10 | 0.06 | 0.02 |
| CCI ANTENNAS | OPA65R-BU6D | 0.5 | | | | | 6.11 | 2.27 | 6.88 | 2.93 | 0.28 | 0.10 | 0.06 | 0.02 |
| ERICSSON | RRUS 32 B2 | 1 | | 12.1 | 7.0 | 52.9 | 2.73 | 1.67 | 3.54 | 2.42 | 0.11 | 0.07 | 0.02 | 0.01 |
| ERICSSON | RRUS 32 B66A | 1 | 27.6 | 12.5 | 7.4 | 55.1 | 2.86 | 1.78 | 3.69 | 2.54 | 0.12 | 0.07 | 0.02 | 0.01 |
| RAYCAP | DC9-48-60-24-8C-EV | 1 | 31.4 | 10.2 | 10.2 | 26.2 | 1.14 | 1.14 | 1.51 | 1.51 | 0.05 | 0.05 | 0.01 | 0.01 |

| | |
|---|---|
| PROJECT | **104053.013.01.0001 - NHV 108 94313 KSC** |
| SUBJECT | **Sector Mount Analysis** |
| DATE | **09/22/22** |

**B+T Group**
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

| Manufacturer | Model | Qty | Height ($in^2$) | Width ($in^2$) | Depth ($in^2$) | Weight (lbs) | $C_aA_a$ (N) ($ft^2$) | $C_aA_a$ (T) ($ft^2$) | $C_aA_a$ (N) Ice ($ft^2$) | $C_aA_a$ (T) Ice ($ft^2$) | $F_{A\,(N)}$ (k) | $F_{A\,(T)}$ (k) | $F_{A\,(N)}$ Ice (k) | $F_{A\,(T)}$ Ice (k) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RAYCAP | DC6-48-60-18-8F_CCIV2 | 1 | 31.3 | 11.0 | 18.5 | 32.8 | 2.90 | 4.82 | 3.78 | 5.83 | 0.12 | 0.20 | 0.02 | 0.04 |
| RAYCAP | DC6-48-60-18-8F | 1 | 22.3 | 11.0 | 11.0 | 18.9 | 0.85 | 0.85 | 1.14 | 1.14 | 0.04 | 0.04 | 0.01 | 0.01 |

**APPENDIX C**

**SOFTWARE ANALYSIS OUTPUT**

### Node Coordinates

| | Label | X [ft] | Y [ft] | Z [ft] | Detach From Diaphragm |
|---|---|---|---|---|---|
| 1 | 1 | -6.5 | -3 | 8.551818 | |
| 2 | 2 | 6.5 | -3 | 8.551818 | |
| 3 | 3 | -6.5 | 0 | 8.551818 | |
| 4 | 4 | 6.5 | 0 | 8.551818 | |
| 5 | 5 | -0.666667 | 0 | 5.885148 | |
| 6 | 6 | -0.5 | 0 | 5.885148 | |
| 7 | 7 | 0.666667 | -3 | 5.885148 | |
| 8 | 8 | -0.666667 | -3 | 5.885148 | |
| 9 | 9 | -0.5 | -3 | 5.885148 | |
| 10 | 10 | 0.666667 | 0 | 5.885148 | |
| 11 | 11 | 0 | 0 | 5.885148 | |
| 12 | 12 | 0 | -3 | 5.885148 | |
| 13 | 13 | 0 | 0 | 5.551815 | |
| 14 | 14 | 0 | -3 | 5.551815 | |
| 15 | 15 | -4 | 0 | 8.301818 | |
| 16 | 16 | -4 | 0 | 8.551818 | |
| 17 | 17 | -4 | -3 | 8.301818 | |
| 18 | 18 | -4 | -3 | 8.551818 | |
| 19 | 19 | 4 | 0 | 8.301818 | |
| 20 | 20 | 4 | 0 | 8.551818 | |
| 21 | 21 | 4 | -3 | 8.301818 | |
| 22 | 22 | 4 | -3 | 8.551818 | |
| 23 | 23 | -3.812998 | 0 | 8.172696 | |
| 24 | 24 | -3.812998 | -3 | 8.172696 | |
| 25 | 25 | -3.744423 | 0 | 8.125346 | |
| 26 | 26 | -3.744423 | -3 | 8.125346 | |
| 27 | 27 | -0.79571 | 0 | 6.089329 | |
| 28 | 28 | -0.79571 | -3 | 6.089329 | |
| 29 | 29 | -0.727135 | 0 | 6.04198 | |
| 30 | 30 | -0.727135 | -3 | 6.04198 | |
| 31 | 31 | 0.5 | 0 | 5.885148 | |
| 32 | 32 | 0.5 | -3 | 5.885148 | |
| 33 | 33 | 3.812998 | 0 | 8.172696 | |
| 34 | 34 | 3.812998 | -3 | 8.172696 | |
| 35 | 35 | 3.744423 | 0 | 8.125346 | |
| 36 | 36 | 3.744423 | -3 | 8.125346 | |
| 37 | 37 | 0.79571 | 0 | 6.089329 | |
| 38 | 38 | 0.79571 | -3 | 6.089329 | |
| 39 | 39 | 0.727135 | 0 | 6.04198 | |
| 40 | 40 | 0.727135 | -3 | 6.04198 | |
| 41 | 41 | -4.3125 | 0 | 8.301818 | |
| 42 | 42 | -4.3125 | 0 | 8.551818 | |
| 43 | 43 | -4.808013 | -0.5 | -2.775907 | |
| 44 | 44 | 4.808012 | 0 | -2.775907 | |
| 45 | 45 | -4.808012 | 0 | -2.775907 | |
| 46 | 46 | 10.656092 | -3 | 1.353256 | |
| 47 | 47 | 4.156092 | -3 | -9.905074 | |
| 48 | 48 | 10.656092 | 0 | 1.353256 | |
| 49 | 49 | 4.156092 | 0 | -9.905074 | |
| 50 | 50 | 5.430021 | 0 | -2.365223 | |
| 51 | 51 | 5.346688 | 0 | -2.509561 | |
| 52 | 52 | 4.763354 | -3 | -3.519924 | |
| 53 | 53 | 5.430021 | -3 | -2.365223 | |
| 54 | 54 | 5.346688 | -3 | -2.509561 | |
| 55 | 55 | 4.763354 | 0 | -3.519924 | |

***Node Coordinates (Continued)***

| | Label | X [ft] | Y [ft] | Z [ft] | Detach From Diaphragm |
|---|---|---|---|---|---|
| 56 | 56 | 5.096688 | 0 | -2.942574 | |
| 57 | 57 | 5.096688 | -3 | -2.942574 | |
| 58 | 58 | 4.808012 | -3 | -2.775907 | |
| 59 | 59 | 9.189585 | 0 | -0.686807 | |
| 60 | 60 | 9.406092 | 0 | -0.811807 | |
| 61 | 61 | 9.189585 | -3 | -0.686807 | |
| 62 | 62 | 9.406092 | -3 | -0.811807 | |
| 63 | 63 | 5.189585 | 0 | -7.61501 | |
| 64 | 64 | 5.406092 | 0 | -7.74001 | |
| 65 | 65 | 5.189585 | -3 | -7.61501 | |
| 66 | 66 | 5.406092 | -3 | -7.74001 | |
| 67 | 67 | 8.984261 | 0 | -0.784195 | |
| 68 | 68 | 8.984261 | -3 | -0.784195 | |
| 69 | 69 | 8.908968 | 0 | -0.819907 | |
| 70 | 70 | 8.908968 | -3 | -0.819907 | |
| 71 | 71 | 5.671368 | 0 | -2.355559 | |
| 72 | 72 | 5.671368 | -3 | -2.355559 | |
| 73 | 73 | 5.596075 | 0 | -2.391272 | |
| 74 | 74 | 5.596075 | -3 | -2.391272 | |
| 75 | 75 | 4.846688 | 0 | -3.375586 | |
| 76 | 76 | 4.846688 | -3 | -3.375586 | |
| 77 | 77 | 5.171263 | 0 | -7.3885 | |
| 78 | 78 | 5.171263 | -3 | -7.3885 | |
| 79 | 79 | 5.164545 | 0 | -7.305438 | |
| 80 | 80 | 5.164545 | -3 | -7.305438 | |
| 81 | 81 | 4.875658 | 0 | -3.733769 | |
| 82 | 82 | 4.875658 | -3 | -3.733769 | |
| 83 | 83 | 4.86894 | 0 | -3.650707 | |
| 84 | 84 | 4.86894 | -3 | -3.650707 | |
| 85 | 85 | 9.345835 | 0 | -0.416174 | |
| 86 | 86 | 9.562342 | 0 | -0.541174 | |
| 87 | 87 | 0 | -0.5 | 5.551815 | |
| 88 | 88 | -4.156092 | -3 | -9.905074 | |
| 89 | 89 | -10.656092 | -3 | 1.353256 | |
| 90 | 90 | -4.156092 | 0 | -9.905074 | |
| 91 | 91 | -10.656092 | 0 | 1.353256 | |
| 92 | 92 | -4.763354 | 0 | -3.519924 | |
| 93 | 93 | -4.846688 | 0 | -3.375586 | |
| 94 | 94 | -5.430021 | -3 | -2.365223 | |
| 95 | 95 | -4.763354 | -3 | -3.519924 | |
| 96 | 96 | -4.846688 | -3 | -3.375586 | |
| 97 | 97 | -5.430021 | 0 | -2.365223 | |
| 98 | 98 | -5.096688 | 0 | -2.942574 | |
| 99 | 99 | -5.096688 | -3 | -2.942574 | |
| 100 | 100 | -4.808012 | -3 | -2.775907 | |
| 101 | 101 | -5.189585 | 0 | -7.61501 | |
| 102 | 102 | -5.406092 | 0 | -7.74001 | |
| 103 | 103 | -5.189585 | -3 | -7.61501 | |
| 104 | 104 | -5.406092 | -3 | -7.74001 | |
| 105 | 105 | -9.189585 | 0 | -0.686807 | |
| 106 | 106 | -9.406092 | 0 | -0.811807 | |
| 107 | 107 | -9.189585 | -3 | -0.686807 | |
| 108 | 108 | -9.406092 | -3 | -0.811807 | |
| 109 | 109 | -5.171263 | 0 | -7.3885 | |
| 110 | 110 | -5.171263 | -3 | -7.3885 | |

***Node Coordinates (Continued)***

| | Label | X [ft] | Y [ft] | Z [ft] | Detach From Diaphragm |
|---|---|---|---|---|---|
| 111 | 111 | -5.164545 | 0 | -7.305438 | |
| 112 | 112 | -5.164545 | -3 | -7.305438 | |
| 113 | 113 | -4.875658 | 0 | -3.733769 | |
| 114 | 114 | -4.875658 | -3 | -3.733769 | |
| 115 | 115 | -4.86894 | 0 | -3.650707 | |
| 116 | 116 | -4.86894 | -3 | -3.650707 | |
| 117 | 117 | -5.346688 | 0 | -2.509561 | |
| 118 | 118 | -5.346688 | -3 | -2.509561 | |
| 119 | 119 | -8.984261 | 0 | -0.784195 | |
| 120 | 120 | -8.984261 | -3 | -0.784195 | |
| 121 | 121 | -8.908968 | 0 | -0.819907 | |
| 122 | 122 | -8.908968 | -3 | -0.819907 | |
| 123 | 123 | -5.671368 | 0 | -2.355559 | |
| 124 | 124 | -5.671368 | -3 | -2.355559 | |
| 125 | 125 | -5.596075 | 0 | -2.391272 | |
| 126 | 126 | -5.596075 | -3 | -2.391272 | |
| 127 | 127 | -5.033335 | 0 | -7.885643 | |
| 128 | 128 | -5.249842 | 0 | -8.010643 | |
| 129 | 129 | 4.808013 | -0.5 | -2.775907 | |
| 130 | 130 | 0 | 0 | 5.051815 | |
| 131 | 131 | 4.375 | 0 | -2.525907 | |
| 132 | 132 | -4.375 | 0 | -2.525907 | |
| 133 | 133 | 0 | 0 | 0 | |
| 134 | 136 | 3.166 | 3.75 | 8.80182 | |
| 135 | 137 | 3.166 | -6.75 | 8.80182 | |
| 136 | 138 | -1.417 | 3.75 | 8.80182 | |
| 137 | 139 | -1.417 | -6.75 | 8.80182 | |
| 138 | 140 | -6 | 3.75 | 8.80182 | |
| 139 | 141 | -6 | -6.75 | 8.80182 | |
| 140 | 146 | 3.166 | 0 | 8.551818 | |
| 141 | 147 | 3.166 | 0 | 8.80182 | |
| 142 | 148 | 3.166 | -3 | 8.551818 | |
| 143 | 149 | 3.166 | -3 | 8.80182 | |
| 144 | 150 | -1.417 | 0 | 8.551818 | |
| 145 | 151 | -1.417 | 0 | 8.80182 | |
| 146 | 152 | -1.417 | -3 | 8.551818 | |
| 147 | 153 | -1.417 | -3 | 8.80182 | |
| 148 | 154 | -6 | 0 | 8.551818 | |
| 149 | 155 | -6 | 0 | 8.80182 | |
| 150 | 156 | -6 | -3 | 8.551818 | |
| 151 | 157 | -6 | -3 | 8.80182 | |
| 152 | 158 | -1.550032 | 0 | 6.610171 | |
| 153 | 159 | -1.692082 | 0 | 6.404443 | |
| 154 | 160 | -1.550032 | -3 | 6.610171 | |
| 155 | 161 | -1.692082 | -3 | 6.404443 | |
| 156 | 162 | -1.692082 | 0.666667 | 6.404443 | |
| 157 | 163 | -1.692082 | -4.333333 | 6.404443 | |
| 158 | 164 | 2.270068 | 0 | 7.107339 | |
| 159 | 165 | 2.412115 | 0 | 6.901616 | |
| 160 | 166 | 2.270068 | -3 | 7.107339 | |
| 161 | 167 | 2.412115 | -3 | 6.901616 | |
| 162 | 168 | 2.412115 | 2 | 6.901616 | |
| 163 | 169 | 2.412115 | -5 | 6.901616 | |
| 164 | 170 | 1.550032 | 0 | 6.610171 | |
| 165 | 171 | 1.692082 | 0 | 6.404443 | |

***Node Coordinates (Continued)***

| | Label | X [ft] | Y [ft] | Z [ft] | Detach From Diaphragm |
|---|---|---|---|---|---|
| 166 | 172 | 1.550032 | -3 | 6.610171 | |
| 167 | 173 | 1.692082 | -3 | 6.404443 | |
| 168 | 174 | 1.692082 | 0.666667 | 6.404443 | |
| 169 | 175 | 1.692082 | -4.333333 | 6.404443 | |
| 170 | 176 | 5.020102 | 0 | -5.519606 | |
| 171 | 177 | 4.770917 | 0 | -5.539761 | |
| 172 | 178 | 5.020102 | -3 | -5.519606 | |
| 173 | 179 | 4.770917 | -3 | -5.539761 | |
| 174 | 180 | 4.770917 | 2 | -5.539761 | |
| 175 | 181 | 4.770917 | -5 | -5.539761 | |
| 176 | 182 | 4.94956 | 0 | -4.647452 | |
| 177 | 183 | 4.70037 | 0 | -4.667608 | |
| 178 | 184 | 4.94956 | -3 | -4.647452 | |
| 179 | 185 | 4.70037 | -3 | -4.667608 | |
| 180 | 186 | 4.70037 | 0.666667 | -4.667608 | |
| 181 | 187 | 4.70037 | -4.333333 | -4.667608 | |
| 182 | 188 | -7.29017 | 0 | -1.587732 | |
| 183 | 189 | -7.183032 | 0 | -1.361855 | |
| 184 | 190 | -7.29017 | -3 | -1.587732 | |
| 185 | 191 | -7.183032 | -3 | -1.361855 | |
| 186 | 192 | -7.183032 | 2 | -1.361855 | |
| 187 | 193 | -7.183032 | -5 | -1.361855 | |
| 188 | 194 | -6.499592 | 0 | -1.962718 | |
| 189 | 195 | -6.392452 | 0 | -1.736836 | |
| 190 | 196 | -6.499592 | -3 | -1.962718 | |
| 191 | 197 | -6.392452 | -3 | -1.736836 | |
| 192 | 198 | -6.392452 | 0.666667 | -1.736836 | |
| 193 | 199 | -6.392452 | -4.333333 | -1.736836 | |
| 194 | 202 | 6.0396 | 3.75 | -7.142746 | |
| 195 | 203 | 6.0396 | -6.75 | -7.142746 | |
| 196 | 204 | 8.3311 | 3.75 | -3.173752 | |
| 197 | 205 | 8.3311 | -6.75 | -3.173752 | |
| 198 | 206 | 10.6226 | 3.75 | 0.795242 | |
| 199 | 207 | 10.6226 | -6.75 | 0.795242 | |
| 200 | 212 | 5.823091 | 0 | -7.017745 | |
| 201 | 213 | 6.0396 | 0 | -7.142746 | |
| 202 | 214 | 5.823091 | -3 | -7.017745 | |
| 203 | 215 | 6.0396 | -3 | -7.142746 | |
| 204 | 216 | 8.114591 | 0 | -3.048751 | |
| 205 | 217 | 8.3311 | 0 | -3.173752 | |
| 206 | 218 | 8.114591 | -3 | -3.048751 | |
| 207 | 219 | 8.3311 | -3 | -3.173752 | |
| 208 | 220 | 10.406091 | 0 | 0.920244 | |
| 209 | 221 | 10.6226 | 0 | 0.795242 | |
| 210 | 222 | 10.406091 | -3 | 0.920244 | |
| 211 | 223 | 10.6226 | -3 | 0.795242 | |
| 212 | 226 | -9.2056 | 3.75 | -1.659074 | |
| 213 | 227 | -9.2056 | -6.75 | -1.659074 | |
| 214 | 228 | -6.9141 | 3.75 | -5.628068 | |
| 215 | 229 | -6.9141 | -6.75 | -5.628068 | |
| 216 | 230 | -4.6226 | 3.75 | -9.597062 | |
| 217 | 231 | -4.6226 | -6.75 | -9.597062 | |
| 218 | 236 | -8.989091 | 0 | -1.534072 | |
| 219 | 237 | -9.2056 | 0 | -1.659074 | |
| 220 | 238 | -8.989091 | -3 | -1.534072 | |

### Node Coordinates (Continued)

| | Label | X [ft] | Y [ft] | Z [ft] | Detach From Diaphragm |
|---|---|---|---|---|---|
| 221 | 239 | -9.2056 | -3 | -1.659074 | |
| 222 | 240 | -6.697591 | 0 | -5.503067 | |
| 223 | 241 | -6.9141 | 0 | -5.628068 | |
| 224 | 242 | -6.697591 | -3 | -5.503067 | |
| 225 | 243 | -6.9141 | -3 | -5.628068 | |
| 226 | 244 | -4.406091 | 0 | -9.472061 | |
| 227 | 245 | -4.6226 | 0 | -9.597062 | |
| 228 | 246 | -4.406091 | -3 | -9.472061 | |
| 229 | 247 | -4.6226 | -3 | -9.597062 | |
| 230 | 248 | -9.2056 | 0.25 | -1.659074 | |
| 231 | 249 | -8.700418 | 0.25 | -1.367407 | |
| 232 | 250 | -8.700418 | 0.5 | -1.367407 | |
| 233 | 251 | -8.700418 | -2 | -1.367407 | |
| 234 | 252 | -9.2056 | -1.75 | -1.659074 | |
| 235 | 253 | -8.700418 | -1.75 | -1.367407 | |

### Node Boundary Conditions

| | Node Label | X [k/in] | Y [k/in] | Z [k/in] | X Rot [k-ft/rad] | Z Rot [k-ft/rad] |
|---|---|---|---|---|---|---|
| 1 | 11 | | | | | |
| 2 | 12 | | | | | |
| 3 | 13 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 4 | 14 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 5 | 43 | Reaction | Reaction | Reaction | | |
| 6 | 44 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 7 | 45 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 8 | 56 | | | | | |
| 9 | 57 | | | | | |
| 10 | 58 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 11 | 87 | Reaction | Reaction | Reaction | | |
| 12 | 98 | | | | | |
| 13 | 99 | | | | | |
| 14 | 100 | Reaction | Reaction | Reaction | Reaction | Reaction |
| 15 | 129 | Reaction | Reaction | Reaction | | |
| 16 | 130 | | | | | |

### Hot Rolled Steel Properties

| | Label | E [ksi] | G [ksi] | Nu | Therm. Coeff. [1e$^{5}$°F$^{-1}$] | Density [k/ft$^{3}$] | Yield [ksi] | Ry | Fu [ksi] | Rt |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | A992 | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 50 | 1.1 | 65 | 1.1 |
| 2 | A36 Gr.36 | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 36 | 1.5 | 58 | 1.2 |
| 3 | A572 Gr.50 | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 50 | 1.1 | 65 | 1.1 |
| 4 | A500 Gr.B RND | 29000 | 11154 | 0.3 | 0.65 | 0.527 | 42 | 1.4 | 58 | 1.3 |
| 5 | A500 Gr.B Rect | 29000 | 11154 | 0.3 | 0.65 | 0.527 | 46 | 1.4 | 58 | 1.3 |
| 6 | A53 Gr.B | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 35 | 1.6 | 60 | 1.2 |
| 7 | A1085 | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 50 | 1.4 | 65 | 1.3 |
| 8 | A53 Gr.B 50 | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 50 | 1.5 | 58 | 1.2 |
| 9 | A500 Gr.C RND | 29000 | 11154 | 0.3 | 0.65 | 0.527 | 46 | 1.4 | 62 | 1.3 |
| 10 | A500 Gr.C RECT | 29000 | 11154 | 0.3 | 0.65 | 0.527 | 50 | 1.4 | 62 | 1.3 |
| 11 | A913 Gr.65 | 29000 | 11154 | 0.3 | 0.65 | 0.49 | 65 | 1.1 | 80 | 1.1 |

### Hot Rolled Steel Section Sets

| | Label | Shape | Type | Design List | Material | Design Rule | Area [in²] | Iyy [in⁴] | Izz [in⁴] | J [in⁴] |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Main Horizontals | HSS2.375X0.218 | Beam | Pipe | A53 Gr.B 50 | Typical | 1.39 | 0.824 | 0.824 | 1.65 |
| 2 | Supporting Horizontals | HSS2.375X0.218 | Beam | Pipe | A53 Gr.B 50 | Typical | 1.39 | 0.824 | 0.824 | 1.65 |
| 3 | Verticals | 3/4"SR | Column | BAR | A572 Gr.50 | Typical | 0.442 | 0.016 | 0.016 | 0.031 |
| 4 | Diagonals | 3/4"SR | HBrace | BAR | A572 Gr.50 | Typical | 0.442 | 0.016 | 0.016 | 0.031 |
| 5 | Connection Plate | PL5/8X6 | Beam | RECT | A572 Gr.50 | Typical | 3.75 | 0.122 | 11.25 | 0.456 |
| 6 | Plates | PL1/2X311/16 | Beam | RECT | A572 Gr.50 | Typical | 1.844 | 0.038 | 2.089 | 0.141 |
| 7 | Mount-Pipe | PIPE_2.0 | Column | Pipe | A53 Gr.B | Typical | 1.02 | 0.627 | 0.627 | 1.25 |
| 8 | Tieback | HSS2.375X0.154 | Beam | Pipe | A53 Gr.B 50 | Typical | 1 | 0.627 | 0.627 | 1.25 |

### Member Primary Data

| | Label | I Node | J Node | Rotate(deg) | Section/Shape | Type | Design List | Material | Design Rule |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 8 | 7 | 90 | Connection Plate | Beam | RECT | A572 Gr.50 | Typical |
| 2 | 2 | 5 | 10 | 90 | Connection Plate | Beam | RECT | A572 Gr.50 | Typical |
| 3 | 3 | 26 | 27 | | Diagonals | HBrace | BAR | A572 Gr.50 | Typical |
| 4 | 4 | 1 | 2 | | Main Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 5 | 5 | 3 | 4 | | Main Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 6 | 6 | 27 | 28 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 7 | 7 | 25 | 26 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 8 | 8 | 14 | 12 | | RIGID | None | None | RIGID | Typical |
| 9 | 9 | 13 | 11 | | RIGID | None | None | RIGID | Typical |
| 10 | 10 | 15 | 16 | | RIGID | None | None | RIGID | Typical |
| 11 | 11 | 15 | 23 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 12 | 12 | 23 | 29 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 13 | 13 | 29 | 6 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 14 | 14 | 17 | 18 | | RIGID | None | None | RIGID | Typical |
| 15 | 15 | 17 | 24 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 16 | 16 | 24 | 30 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 17 | 17 | 30 | 9 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 18 | 18 | 19 | 20 | | RIGID | None | None | RIGID | Typical |
| 19 | 19 | 21 | 22 | | RIGID | None | None | RIGID | Typical |
| 20 | 20 | 41 | 43 | | Tieback | Beam | Pipe | A53 Gr.B 50 | Typical |
| 21 | 21 | 36 | 37 | | Diagonals | HBrace | BAR | A572 Gr.50 | Typical |
| 22 | 22 | 37 | 38 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 23 | 23 | 35 | 36 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 24 | 24 | 19 | 33 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 25 | 25 | 33 | 39 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 26 | 26 | 39 | 31 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 27 | 27 | 21 | 34 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 28 | 28 | 34 | 40 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 29 | 29 | 40 | 32 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 30 | 30 | 41 | 42 | | RIGID | None | None | RIGID | Typical |
| 31 | 31 | 53 | 52 | 90 | Connection Plate | Beam | RECT | A572 Gr.50 | Typical |
| 32 | 32 | 50 | 55 | 90 | Connection Plate | Beam | RECT | A572 Gr.50 | Typical |
| 33 | 33 | 70 | 71 | | Diagonals | HBrace | BAR | A572 Gr.50 | Typical |
| 34 | 34 | 46 | 47 | | Main Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 35 | 35 | 48 | 49 | | Main Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 36 | 36 | 71 | 72 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 37 | 37 | 69 | 70 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 38 | 38 | 58 | 57 | | RIGID | None | None | RIGID | Typical |
| 39 | 39 | 44 | 56 | | RIGID | None | None | RIGID | Typical |
| 40 | 40 | 59 | 60 | | RIGID | None | None | RIGID | Typical |
| 41 | 41 | 59 | 67 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 42 | 42 | 67 | 73 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 43 | 43 | 73 | 51 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |

***Member Primary Data (Continued)***

| | Label | I Node | J Node | Rotate(deg) | Section/Shape | Type | Design List | Material | Design Rule |
|---|---|---|---|---|---|---|---|---|---|
| 44 | 44 | 61 | 62 | | RIGID | None | None | RIGID | Typical |
| 45 | 45 | 61 | 68 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 46 | 46 | 68 | 74 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 47 | 47 | 74 | 54 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 48 | 48 | 63 | 64 | | RIGID | None | None | RIGID | Typical |
| 49 | 49 | 65 | 66 | | RIGID | None | None | RIGID | Typical |
| 50 | 50 | 85 | 87 | | Tieback | Beam | Pipe | A53 Gr.B 50 | Typical |
| 51 | 51 | 80 | 81 | | Diagonals | HBrace | BAR | A572 Gr.50 | Typical |
| 52 | 52 | 81 | 82 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 53 | 53 | 79 | 80 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 54 | 54 | 63 | 77 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 55 | 55 | 77 | 83 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 56 | 56 | 83 | 75 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 57 | 57 | 65 | 78 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 58 | 58 | 78 | 84 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 59 | 59 | 84 | 76 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 60 | 60 | 85 | 86 | | RIGID | None | None | RIGID | Typical |
| 61 | 61 | 95 | 94 | 90 | Connection Plate | Beam | RECT | A572 Gr.50 | Typical |
| 62 | 62 | 92 | 97 | 90 | Connection Plate | Beam | RECT | A572 Gr.50 | Typical |
| 63 | 63 | 112 | 113 | | Diagonals | HBrace | BAR | A572 Gr.50 | Typical |
| 64 | 64 | 88 | 89 | | Main Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 65 | 65 | 90 | 91 | | Main Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 66 | 66 | 113 | 114 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 67 | 67 | 111 | 112 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 68 | 68 | 100 | 99 | | RIGID | None | None | RIGID | Typical |
| 69 | 69 | 45 | 98 | | RIGID | None | None | RIGID | Typical |
| 70 | 70 | 101 | 102 | | RIGID | None | None | RIGID | Typical |
| 71 | 71 | 101 | 109 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 72 | 72 | 109 | 115 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 73 | 73 | 115 | 93 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 74 | 74 | 103 | 104 | | RIGID | None | None | RIGID | Typical |
| 75 | 75 | 103 | 110 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 76 | 76 | 110 | 116 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 77 | 77 | 116 | 96 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 78 | 78 | 105 | 106 | | RIGID | None | None | RIGID | Typical |
| 79 | 79 | 107 | 108 | | RIGID | None | None | RIGID | Typical |
| 80 | 80 | 127 | 129 | | Tieback | Beam | Pipe | A53 Gr.B 50 | Typical |
| 81 | 81 | 122 | 123 | | Diagonals | HBrace | BAR | A572 Gr.50 | Typical |
| 82 | 82 | 123 | 124 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 83 | 83 | 121 | 122 | | Verticals | Column | BAR | A572 Gr.50 | Typical |
| 84 | 84 | 105 | 119 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 85 | 85 | 119 | 125 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 86 | 86 | 125 | 117 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 87 | 87 | 107 | 120 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 88 | 88 | 120 | 126 | | Supporting Horizontals | Beam | Pipe | A53 Gr.B 50 | Typical |
| 89 | 89 | 126 | 118 | 90 | Plates | Beam | RECT | A572 Gr.50 | Typical |
| 90 | 90 | 127 | 128 | | RIGID | None | None | RIGID | Typical |
| 91 | 93 | 136 | 137 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 92 | 94 | 138 | 139 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 93 | 95 | 140 | 141 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 94 | 98 | 146 | 147 | | RIGID | None | None | RIGID | Typical |
| 95 | 99 | 148 | 149 | | RIGID | None | None | RIGID | Typical |
| 96 | 100 | 150 | 151 | | RIGID | None | None | RIGID | Typical |
| 97 | 101 | 152 | 153 | | RIGID | None | None | RIGID | Typical |
| 98 | 102 | 154 | 155 | | RIGID | None | None | RIGID | Typical |

### *Member Primary Data (Continued)*

| | Label | I Node | J Node | Rotate(deg) | Section/Shape | Type | Design List | Material | Design Rule |
|---|---|---|---|---|---|---|---|---|---|
| 99 | 103 | 156 | 157 | | RIGID | None | None | RIGID | Typical |
| 100 | 104 | 158 | 159 | | RIGID | None | None | RIGID | Typical |
| 101 | 105 | 160 | 161 | | RIGID | None | None | RIGID | Typical |
| 102 | 106 | 162 | 163 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 103 | 107 | 164 | 165 | | RIGID | None | None | RIGID | Typical |
| 104 | 108 | 166 | 167 | | RIGID | None | None | RIGID | Typical |
| 105 | 109 | 168 | 169 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 106 | 110 | 170 | 171 | | RIGID | None | None | RIGID | Typical |
| 107 | 111 | 172 | 173 | | RIGID | None | None | RIGID | Typical |
| 108 | 112 | 174 | 175 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 109 | 113 | 176 | 177 | | RIGID | None | None | RIGID | Typical |
| 110 | 114 | 178 | 179 | | RIGID | None | None | RIGID | Typical |
| 111 | 115 | 180 | 181 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 112 | 116 | 182 | 183 | | RIGID | None | None | RIGID | Typical |
| 113 | 117 | 184 | 185 | | RIGID | None | None | RIGID | Typical |
| 114 | 118 | 186 | 187 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 115 | 119 | 188 | 189 | | RIGID | None | None | RIGID | Typical |
| 116 | 120 | 190 | 191 | | RIGID | None | None | RIGID | Typical |
| 117 | 121 | 192 | 193 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 118 | 122 | 194 | 195 | | RIGID | None | None | RIGID | Typical |
| 119 | 123 | 196 | 197 | | RIGID | None | None | RIGID | Typical |
| 120 | 124 | 198 | 199 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 121 | 126 | 202 | 203 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 122 | 127 | 204 | 205 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 123 | 128 | 206 | 207 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 124 | 131 | 212 | 213 | | RIGID | None | None | RIGID | Typical |
| 125 | 132 | 214 | 215 | | RIGID | None | None | RIGID | Typical |
| 126 | 133 | 216 | 217 | | RIGID | None | None | RIGID | Typical |
| 127 | 134 | 218 | 219 | | RIGID | None | None | RIGID | Typical |
| 128 | 135 | 220 | 221 | | RIGID | None | None | RIGID | Typical |
| 129 | 136 | 222 | 223 | | RIGID | None | None | RIGID | Typical |
| 130 | 138 | 226 | 227 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 131 | 139 | 228 | 229 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 132 | 140 | 230 | 231 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 133 | 143 | 236 | 237 | | RIGID | None | None | RIGID | Typical |
| 134 | 144 | 238 | 239 | | RIGID | None | None | RIGID | Typical |
| 135 | 145 | 240 | 241 | | RIGID | None | None | RIGID | Typical |
| 136 | 146 | 242 | 243 | | RIGID | None | None | RIGID | Typical |
| 137 | 147 | 244 | 245 | | RIGID | None | None | RIGID | Typical |
| 138 | 148 | 246 | 247 | | RIGID | None | None | RIGID | Typical |
| 139 | 149 | 248 | 249 | | RIGID | None | None | RIGID | Typical |
| 140 | 150 | 250 | 251 | | Mount-Pipe | Column | Pipe | A53 Gr.B | Typical |
| 141 | 151 | 252 | 253 | | RIGID | None | None | RIGID | Typical |

### *Member Advanced Data*

| | Label | I Release | Physical | Deflection Ratio Options | Seismic DR |
|---|---|---|---|---|---|
| 1 | 1 | | Yes | N/A | None |
| 2 | 2 | | Yes | N/A | None |
| 3 | 3 | | Yes | ** NA ** | None |
| 4 | 4 | | Yes | N/A | None |
| 5 | 5 | | Yes | N/A | None |
| 6 | 6 | | Yes | ** NA ** | None |
| 7 | 7 | | Yes | ** NA ** | None |
| 8 | 8 | | Yes | ** NA ** | None |
| 9 | 9 | | Yes | ** NA ** | None |

***Member Advanced Data (Continued)***

| | Label | I Release | Physical | Deflection Ratio Options | Seismic DR |
|---|---|---|---|---|---|
| 10 | 10 | | Yes | ** NA ** | None |
| 11 | 11 | BenPIN | Yes | N/A | None |
| 12 | 12 | | Yes | N/A | None |
| 13 | 13 | | Yes | N/A | None |
| 14 | 14 | | Yes | ** NA ** | None |
| 15 | 15 | BenPIN | Yes | N/A | None |
| 16 | 16 | | Yes | N/A | None |
| 17 | 17 | | Yes | N/A | None |
| 18 | 18 | | Yes | ** NA ** | None |
| 19 | 19 | | Yes | ** NA ** | None |
| 20 | 20 | BenPIN | Yes | N/A | None |
| 21 | 21 | | Yes | ** NA ** | None |
| 22 | 22 | | Yes | ** NA ** | None |
| 23 | 23 | | Yes | ** NA ** | None |
| 24 | 24 | BenPIN | Yes | N/A | None |
| 25 | 25 | | Yes | N/A | None |
| 26 | 26 | | Yes | N/A | None |
| 27 | 27 | BenPIN | Yes | N/A | None |
| 28 | 28 | | Yes | N/A | None |
| 29 | 29 | | Yes | N/A | None |
| 30 | 30 | | Yes | ** NA ** | None |
| 31 | 31 | | Yes | N/A | None |
| 32 | 32 | | Yes | N/A | None |
| 33 | 33 | | Yes | ** NA ** | None |
| 34 | 34 | | Yes | N/A | None |
| 35 | 35 | | Yes | N/A | None |
| 36 | 36 | | Yes | ** NA ** | None |
| 37 | 37 | | Yes | ** NA ** | None |
| 38 | 38 | | Yes | ** NA ** | None |
| 39 | 39 | | Yes | ** NA ** | None |
| 40 | 40 | | Yes | ** NA ** | None |
| 41 | 41 | BenPIN | Yes | N/A | None |
| 42 | 42 | | Yes | N/A | None |
| 43 | 43 | | Yes | N/A | None |
| 44 | 44 | | Yes | ** NA ** | None |
| 45 | 45 | BenPIN | Yes | N/A | None |
| 46 | 46 | | Yes | N/A | None |
| 47 | 47 | | Yes | N/A | None |
| 48 | 48 | | Yes | ** NA ** | None |
| 49 | 49 | | Yes | ** NA ** | None |
| 50 | 50 | BenPIN | Yes | N/A | None |
| 51 | 51 | | Yes | ** NA ** | None |
| 52 | 52 | | Yes | ** NA ** | None |
| 53 | 53 | | Yes | ** NA ** | None |
| 54 | 54 | BenPIN | Yes | N/A | None |
| 55 | 55 | | Yes | N/A | None |
| 56 | 56 | | Yes | N/A | None |
| 57 | 57 | BenPIN | Yes | N/A | None |
| 58 | 58 | | Yes | N/A | None |
| 59 | 59 | | Yes | N/A | None |
| 60 | 60 | | Yes | ** NA ** | None |
| 61 | 61 | | Yes | N/A | None |
| 62 | 62 | | Yes | N/A | None |
| 63 | 63 | | Yes | ** NA ** | None |
| 64 | 64 | | Yes | N/A | None |

***Member Advanced Data (Continued)***

| | Label | I Release | Physical | Deflection Ratio Options | Seismic DR |
|---|---|---|---|---|---|
| 65 | 65 | | Yes | N/A | None |
| 66 | 66 | | Yes | ** NA ** | None |
| 67 | 67 | | Yes | ** NA ** | None |
| 68 | 68 | | Yes | ** NA ** | None |
| 69 | 69 | | Yes | ** NA ** | None |
| 70 | 70 | | Yes | ** NA ** | None |
| 71 | 71 | BenPIN | Yes | N/A | None |
| 72 | 72 | | Yes | N/A | None |
| 73 | 73 | | Yes | N/A | None |
| 74 | 74 | | Yes | ** NA ** | None |
| 75 | 75 | BenPIN | Yes | N/A | None |
| 76 | 76 | | Yes | N/A | None |
| 77 | 77 | | Yes | N/A | None |
| 78 | 78 | | Yes | ** NA ** | None |
| 79 | 79 | | Yes | ** NA ** | None |
| 80 | 80 | BenPIN | Yes | N/A | None |
| 81 | 81 | | Yes | ** NA ** | None |
| 82 | 82 | | Yes | ** NA ** | None |
| 83 | 83 | | Yes | ** NA ** | None |
| 84 | 84 | BenPIN | Yes | N/A | None |
| 85 | 85 | | Yes | N/A | None |
| 86 | 86 | | Yes | N/A | None |
| 87 | 87 | BenPIN | Yes | N/A | None |
| 88 | 88 | | Yes | N/A | None |
| 89 | 89 | | Yes | N/A | None |
| 90 | 90 | | Yes | ** NA ** | None |
| 91 | 93 | | Yes | ** NA ** | None |
| 92 | 94 | | Yes | ** NA ** | None |
| 93 | 95 | | Yes | ** NA ** | None |
| 94 | 98 | | Yes | ** NA ** | None |
| 95 | 99 | | Yes | ** NA ** | None |
| 96 | 100 | | Yes | ** NA ** | None |
| 97 | 101 | | Yes | ** NA ** | None |
| 98 | 102 | | Yes | ** NA ** | None |
| 99 | 103 | | Yes | ** NA ** | None |
| 100 | 104 | | Yes | ** NA ** | None |
| 101 | 105 | | Yes | ** NA ** | None |
| 102 | 106 | | Yes | ** NA ** | None |
| 103 | 107 | | Yes | ** NA ** | None |
| 104 | 108 | | Yes | ** NA ** | None |
| 105 | 109 | | Yes | ** NA ** | None |
| 106 | 110 | | Yes | ** NA ** | None |
| 107 | 111 | | Yes | ** NA ** | None |
| 108 | 112 | | Yes | ** NA ** | None |
| 109 | 113 | | Yes | ** NA ** | None |
| 110 | 114 | | Yes | ** NA ** | None |
| 111 | 115 | | Yes | ** NA ** | None |
| 112 | 116 | | Yes | ** NA ** | None |
| 113 | 117 | | Yes | ** NA ** | None |
| 114 | 118 | | Yes | ** NA ** | None |
| 115 | 119 | | Yes | ** NA ** | None |
| 116 | 120 | | Yes | ** NA ** | None |
| 117 | 121 | | Yes | ** NA ** | None |
| 118 | 122 | | Yes | ** NA ** | None |
| 119 | 123 | | Yes | ** NA ** | None |

### Member Advanced Data (Continued)

| | Label | I Release | Physical | Deflection Ratio Options | Seismic DR |
|---|---|---|---|---|---|
| 120 | 124 | | Yes | ** NA ** | None |
| 121 | 126 | | Yes | ** NA ** | None |
| 122 | 127 | | Yes | ** NA ** | None |
| 123 | 128 | | Yes | ** NA ** | None |
| 124 | 131 | | Yes | ** NA ** | None |
| 125 | 132 | | Yes | ** NA ** | None |
| 126 | 133 | | Yes | ** NA ** | None |
| 127 | 134 | | Yes | ** NA ** | None |
| 128 | 135 | | Yes | ** NA ** | None |
| 129 | 136 | | Yes | ** NA ** | None |
| 130 | 138 | | Yes | ** NA ** | None |
| 131 | 139 | | Yes | ** NA ** | None |
| 132 | 140 | | Yes | ** NA ** | None |
| 133 | 143 | | Yes | ** NA ** | None |
| 134 | 144 | | Yes | ** NA ** | None |
| 135 | 145 | | Yes | ** NA ** | None |
| 136 | 146 | | Yes | ** NA ** | None |
| 137 | 147 | | Yes | ** NA ** | None |
| 138 | 148 | | Yes | ** NA ** | None |
| 139 | 149 | | Yes | ** NA ** | None |
| 140 | 150 | | Yes | ** NA ** | None |
| 141 | 151 | | Yes | ** NA ** | None |

### Hot Rolled Steel Design Parameters

| | Label | Shape | Length [ft] | Lcomp top [ft] | Channel Conn. | a [ft] | Function |
|---|---|---|---|---|---|---|---|
| 1 | 1 | Connection Plate | 1.333 | Lbyy | N/A | N/A | Lateral |
| 2 | 2 | Connection Plate | 1.333 | Lbyy | N/A | N/A | Lateral |
| 3 | 3 | Diagonals | 4.673 | Lbyy | N/A | N/A | Lateral |
| 4 | 4 | Main Horizontals | 13 | Lbyy | N/A | N/A | Lateral |
| 5 | 5 | Main Horizontals | 13 | Lbyy | N/A | N/A | Lateral |
| 6 | 6 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 7 | 7 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 8 | 11 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 9 | 12 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 10 | 13 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 11 | 15 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 12 | 16 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 13 | 17 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 14 | 20 | Tieback | 11.1 | Lbyy | N/A | N/A | Lateral |
| 15 | 21 | Diagonals | 4.673 | Lbyy | N/A | N/A | Lateral |
| 16 | 22 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 17 | 23 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 18 | 24 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 19 | 25 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 20 | 26 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 21 | 27 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 22 | 28 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 23 | 29 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 24 | 31 | Connection Plate | 1.333 | Lbyy | N/A | N/A | Lateral |
| 25 | 32 | Connection Plate | 1.333 | Lbyy | N/A | N/A | Lateral |
| 26 | 33 | Diagonals | 4.673 | Lbyy | N/A | N/A | Lateral |
| 27 | 34 | Main Horizontals | 13 | Lbyy | N/A | N/A | Lateral |
| 28 | 35 | Main Horizontals | 13 | Lbyy | N/A | N/A | Lateral |
| 29 | 36 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 30 | 37 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |

***Hot Rolled Steel Design Parameters (Continued)***

| | Label | Shape | Length [ft] | Lcomp top [ft] | Channel Conn. | a [ft] | Function |
|---|---|---|---|---|---|---|---|
| 31 | 41 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 32 | 42 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 33 | 43 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 34 | 45 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 35 | 46 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 36 | 47 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 37 | 50 | Tieback | 11.1 | Lbyy | N/A | N/A | Lateral |
| 38 | 51 | Diagonals | 4.673 | Lbyy | N/A | N/A | Lateral |
| 39 | 52 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 40 | 53 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 41 | 54 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 42 | 55 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 43 | 56 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 44 | 57 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 45 | 58 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 46 | 59 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 47 | 61 | Connection Plate | 1.333 | Lbyy | N/A | N/A | Lateral |
| 48 | 62 | Connection Plate | 1.333 | Lbyy | N/A | N/A | Lateral |
| 49 | 63 | Diagonals | 4.673 | Lbyy | N/A | N/A | Lateral |
| 50 | 64 | Main Horizontals | 13 | Lbyy | N/A | N/A | Lateral |
| 51 | 65 | Main Horizontals | 13 | Lbyy | N/A | N/A | Lateral |
| 52 | 66 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 53 | 67 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 54 | 71 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 55 | 72 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 56 | 73 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 57 | 75 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 58 | 76 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 59 | 77 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 60 | 80 | Tieback | 11.1 | Lbyy | N/A | N/A | Lateral |
| 61 | 81 | Diagonals | 4.673 | Lbyy | N/A | N/A | Lateral |
| 62 | 82 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 63 | 83 | Verticals | 3 | Lbyy | N/A | N/A | Lateral |
| 64 | 84 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 65 | 85 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 66 | 86 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 67 | 87 | Plates | 0.227 | Lbyy | N/A | N/A | Lateral |
| 68 | 88 | Supporting Horizontals | 3.75 | Lbyy | N/A | N/A | Lateral |
| 69 | 89 | Plates | 0.276 | Lbyy | N/A | N/A | Lateral |
| 70 | 93 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 71 | 94 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 72 | 95 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 73 | 106 | Mount-Pipe | 5 | Lbyy | N/A | N/A | Lateral |
| 74 | 109 | Mount-Pipe | 7 | Lbyy | N/A | N/A | Lateral |
| 75 | 112 | Mount-Pipe | 5 | Lbyy | N/A | N/A | Lateral |
| 76 | 115 | Mount-Pipe | 7 | Lbyy | N/A | N/A | Lateral |
| 77 | 118 | Mount-Pipe | 5 | Lbyy | N/A | N/A | Lateral |
| 78 | 121 | Mount-Pipe | 7 | Lbyy | N/A | N/A | Lateral |
| 79 | 124 | Mount-Pipe | 5 | Lbyy | N/A | N/A | Lateral |
| 80 | 126 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 81 | 127 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 82 | 128 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 83 | 138 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 84 | 139 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |
| 85 | 140 | Mount-Pipe | 10.5 | Lbyy | N/A | N/A | Lateral |

### *Hot Rolled Steel Design Parameters (Continued)*

| | Label | Shape | Length [ft] | Lcomp top [ft] | Channel Conn. | a [ft] | Function |
|---|---|---|---|---|---|---|---|
| 86 | 150 | Mount-Pipe | 2.5 | Lbyy | N/A | N/A | Lateral |

### *Member Point Loads (BLC 1 : Dead)*

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | Y | -0.065 | %5 |
| 2 | 93 | Y | -0.065 | %60 |
| 3 | 93 | Y | 0 | 0 |
| 4 | 93 | Y | 0 | 0 |
| 5 | 93 | Y | 0 | 0 |
| 6 | 94 | Y | -0.022 | %5 |
| 7 | 94 | Y | -0.022 | %25 |
| 8 | 94 | Y | -0.042 | %75 |
| 9 | 94 | Y | -0.042 | %95 |
| 10 | 94 | Y | 0 | 0 |
| 11 | 95 | Y | -0.032 | %20 |
| 12 | 95 | Y | -0.032 | %55 |
| 13 | 95 | Y | 0 | 0 |
| 14 | 95 | Y | 0 | 0 |
| 15 | 95 | Y | 0 | 0 |
| 16 | 109 | Y | -0.053 | %35 |
| 17 | 109 | Y | 0 | 0 |
| 18 | 109 | Y | 0 | 0 |
| 19 | 109 | Y | 0 | 0 |
| 20 | 109 | Y | 0 | 0 |
| 21 | 112 | Y | -0.055 | %20 |
| 22 | 112 | Y | 0 | 0 |
| 23 | 112 | Y | 0 | 0 |
| 24 | 112 | Y | 0 | 0 |
| 25 | 112 | Y | 0 | 0 |
| 26 | 138 | Y | -0.075 | %5 |
| 27 | 138 | Y | -0.075 | %80 |
| 28 | 138 | Y | 0 | 0 |
| 29 | 138 | Y | 0 | 0 |
| 30 | 138 | Y | 0 | 0 |
| 31 | 139 | Y | -0.022 | %5 |
| 32 | 139 | Y | -0.022 | %25 |
| 33 | 139 | Y | -0.042 | %75 |
| 34 | 139 | Y | -0.042 | %95 |
| 35 | 139 | Y | 0 | 0 |
| 36 | 140 | Y | -0.053 | %25 |
| 37 | 140 | Y | -0.053 | %60 |
| 38 | 140 | Y | 0 | 0 |
| 39 | 140 | Y | 0 | 0 |
| 40 | 140 | Y | 0 | 0 |
| 41 | 121 | Y | -0.053 | %35 |
| 42 | 121 | Y | 0 | 0 |
| 43 | 121 | Y | 0 | 0 |
| 44 | 121 | Y | 0 | 0 |
| 45 | 121 | Y | 0 | 0 |
| 46 | 124 | Y | -0.055 | %20 |
| 47 | 124 | Y | 0 | 0 |
| 48 | 124 | Y | 0 | 0 |
| 49 | 124 | Y | 0 | 0 |
| 50 | 124 | Y | 0 | 0 |
| 51 | 126 | Y | -0.065 | %5 |

***Member Point Loads (BLC 1 : Dead) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 52 | 126 | Y | -0.065 | %60 |
| 53 | 126 | Y | 0 | 0 |
| 54 | 126 | Y | 0 | 0 |
| 55 | 126 | Y | 0 | 0 |
| 56 | 127 | Y | -0.022 | %5 |
| 57 | 127 | Y | -0.022 | %25 |
| 58 | 127 | Y | -0.042 | %75 |
| 59 | 127 | Y | -0.042 | %95 |
| 60 | 127 | Y | 0 | 0 |
| 61 | 128 | Y | -0.032 | %20 |
| 62 | 128 | Y | -0.032 | %55 |
| 63 | 128 | Y | 0 | 0 |
| 64 | 128 | Y | 0 | 0 |
| 65 | 128 | Y | 0 | 0 |
| 66 | 115 | Y | -0.053 | %35 |
| 67 | 115 | Y | 0 | 0 |
| 68 | 115 | Y | 0 | 0 |
| 69 | 115 | Y | 0 | 0 |
| 70 | 115 | Y | 0 | 0 |
| 71 | 118 | Y | -0.055 | %20 |
| 72 | 118 | Y | 0 | 0 |
| 73 | 118 | Y | 0 | 0 |
| 74 | 118 | Y | 0 | 0 |
| 75 | 118 | Y | 0 | 0 |
| 76 | 72 | Y | -0.026 | %50 |
| 77 | 72 | Y | 0 | 0 |
| 78 | 72 | Y | 0 | 0 |
| 79 | 72 | Y | 0 | 0 |
| 80 | 72 | Y | 0 | 0 |
| 81 | 42 | Y | -0.033 | %50 |
| 82 | 42 | Y | 0 | 0 |
| 83 | 42 | Y | 0 | 0 |
| 84 | 42 | Y | 0 | 0 |
| 85 | 42 | Y | 0 | 0 |
| 86 | 106 | Y | -0.019 | %50 |
| 87 | 106 | Y | 0 | 0 |
| 88 | 106 | Y | 0 | 0 |
| 89 | 106 | Y | 0 | 0 |
| 90 | 106 | Y | 0 | 0 |

***Member Point Loads (BLC 2 : 0 Wind - No Ice)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | Z | -0.314 | %5 |
| 2 | 93 | Z | -0.314 | %60 |
| 3 | 93 | Z | 0 | 0 |
| 4 | 93 | Z | 0 | 0 |
| 5 | 93 | Z | 0 | 0 |
| 6 | 94 | Z | -0.087 | %5 |
| 7 | 94 | Z | -0.087 | %25 |
| 8 | 94 | Z | -0.084 | %75 |
| 9 | 94 | Z | -0.084 | %95 |
| 10 | 94 | Z | 0 | 0 |
| 11 | 95 | Z | -0.282 | %20 |
| 12 | 95 | Z | -0.282 | %55 |
| 13 | 95 | Z | 0 | 0 |

***Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 14 | 95 | Z | 0 | 0 |
| 15 | 95 | Z | 0 | 0 |
| 16 | 109 | Z | -0.114 | %35 |
| 17 | 109 | Z | 0 | 0 |
| 18 | 109 | Z | 0 | 0 |
| 19 | 109 | Z | 0 | 0 |
| 20 | 109 | Z | 0 | 0 |
| 21 | 112 | Z | -0.119 | %20 |
| 22 | 112 | Z | 0 | 0 |
| 23 | 112 | Z | 0 | 0 |
| 24 | 112 | Z | 0 | 0 |
| 25 | 112 | Z | 0 | 0 |
| 26 | 138 | Z | -0.424 | %5 |
| 27 | 138 | Z | -0.424 | %80 |
| 28 | 138 | Z | 0 | 0 |
| 29 | 138 | Z | 0 | 0 |
| 30 | 138 | Z | 0 | 0 |
| 31 | 139 | Z | -0.087 | %5 |
| 32 | 139 | Z | -0.087 | %25 |
| 33 | 139 | Z | -0.084 | %75 |
| 34 | 139 | Z | -0.084 | %95 |
| 35 | 139 | Z | 0 | 0 |
| 36 | 140 | Z | -0.366 | %25 |
| 37 | 140 | Z | -0.366 | %60 |
| 38 | 140 | Z | 0 | 0 |
| 39 | 140 | Z | 0 | 0 |
| 40 | 140 | Z | 0 | 0 |
| 41 | 121 | Z | -0.114 | %35 |
| 42 | 121 | Z | 0 | 0 |
| 43 | 121 | Z | 0 | 0 |
| 44 | 121 | Z | 0 | 0 |
| 45 | 121 | Z | 0 | 0 |
| 46 | 124 | Z | -0.119 | %20 |
| 47 | 124 | Z | 0 | 0 |
| 48 | 124 | Z | 0 | 0 |
| 49 | 124 | Z | 0 | 0 |
| 50 | 124 | Z | 0 | 0 |
| 51 | 126 | Z | -0.314 | %5 |
| 52 | 126 | Z | -0.314 | %60 |
| 53 | 126 | Z | 0 | 0 |
| 54 | 126 | Z | 0 | 0 |
| 55 | 126 | Z | 0 | 0 |
| 56 | 127 | Z | -0.087 | %5 |
| 57 | 127 | Z | -0.087 | %25 |
| 58 | 127 | Z | -0.084 | %75 |
| 59 | 127 | Z | -0.084 | %95 |
| 60 | 127 | Z | 0 | 0 |
| 61 | 128 | Z | -0.282 | %20 |
| 62 | 128 | Z | -0.282 | %55 |
| 63 | 128 | Z | 0 | 0 |
| 64 | 128 | Z | 0 | 0 |
| 65 | 128 | Z | 0 | 0 |
| 66 | 115 | Z | -0.114 | %35 |
| 67 | 115 | Z | 0 | 0 |
| 68 | 115 | Z | 0 | 0 |

***Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 69 | 115 | Z | 0 | 0 |
| 70 | 115 | Z | 0 | 0 |
| 71 | 118 | Z | -0.119 | %20 |
| 72 | 118 | Z | 0 | 0 |
| 73 | 118 | Z | 0 | 0 |
| 74 | 118 | Z | 0 | 0 |
| 75 | 118 | Z | 0 | 0 |
| 76 | 72 | Z | -0.048 | %50 |
| 77 | 72 | Z | 0 | 0 |
| 78 | 72 | Z | 0 | 0 |
| 79 | 72 | Z | 0 | 0 |
| 80 | 72 | Z | 0 | 0 |
| 81 | 42 | Z | -0.121 | %50 |
| 82 | 42 | Z | 0 | 0 |
| 83 | 42 | Z | 0 | 0 |
| 84 | 42 | Z | 0 | 0 |
| 85 | 42 | Z | 0 | 0 |
| 86 | 106 | Z | -0.035 | %50 |
| 87 | 106 | Z | 0 | 0 |
| 88 | 106 | Z | 0 | 0 |
| 89 | 106 | Z | 0 | 0 |
| 90 | 106 | Z | 0 | 0 |

***Member Point Loads (BLC 3 : 90 Wind - No Ice)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | X | -0.137 | %5 |
| 2 | 93 | X | -0.137 | %60 |
| 3 | 93 | X | 0 | 0 |
| 4 | 93 | X | 0 | 0 |
| 5 | 93 | X | 0 | 0 |
| 6 | 94 | X | -0.039 | %5 |
| 7 | 94 | X | -0.039 | %25 |
| 8 | 94 | X | -0.056 | %75 |
| 9 | 94 | X | -0.056 | %95 |
| 10 | 94 | X | 0 | 0 |
| 11 | 95 | X | -0.105 | %20 |
| 12 | 95 | X | -0.105 | %55 |
| 13 | 95 | X | 0 | 0 |
| 14 | 95 | X | 0 | 0 |
| 15 | 95 | X | 0 | 0 |
| 16 | 109 | X | -0.066 | %35 |
| 17 | 109 | X | 0 | 0 |
| 18 | 109 | X | 0 | 0 |
| 19 | 109 | X | 0 | 0 |
| 20 | 109 | X | 0 | 0 |
| 21 | 112 | X | -0.071 | %20 |
| 22 | 112 | X | 0 | 0 |
| 23 | 112 | X | 0 | 0 |
| 24 | 112 | X | 0 | 0 |
| 25 | 112 | X | 0 | 0 |
| 26 | 138 | X | -0.184 | %5 |
| 27 | 138 | X | -0.184 | %80 |
| 28 | 138 | X | 0 | 0 |
| 29 | 138 | X | 0 | 0 |
| 30 | 138 | X | 0 | 0 |

***Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 31 | 139 | X | -0.039 | %5 |
| 32 | 139 | X | -0.039 | %25 |
| 33 | 139 | X | -0.056 | %75 |
| 34 | 139 | X | -0.056 | %95 |
| 35 | 139 | X | 0 | 0 |
| 36 | 140 | X | -0.137 | %25 |
| 37 | 140 | X | -0.137 | %60 |
| 38 | 140 | X | 0 | 0 |
| 39 | 140 | X | 0 | 0 |
| 40 | 140 | X | 0 | 0 |
| 41 | 121 | X | -0.066 | %35 |
| 42 | 121 | X | 0 | 0 |
| 43 | 121 | X | 0 | 0 |
| 44 | 121 | X | 0 | 0 |
| 45 | 121 | X | 0 | 0 |
| 46 | 124 | X | -0.071 | %20 |
| 47 | 124 | X | 0 | 0 |
| 48 | 124 | X | 0 | 0 |
| 49 | 124 | X | 0 | 0 |
| 50 | 124 | X | 0 | 0 |
| 51 | 126 | X | -0.137 | %5 |
| 52 | 126 | X | -0.137 | %60 |
| 53 | 126 | X | 0 | 0 |
| 54 | 126 | X | 0 | 0 |
| 55 | 126 | X | 0 | 0 |
| 56 | 127 | X | -0.039 | %5 |
| 57 | 127 | X | -0.039 | %25 |
| 58 | 127 | X | -0.056 | %75 |
| 59 | 127 | X | -0.056 | %95 |
| 60 | 127 | X | 0 | 0 |
| 61 | 128 | X | -0.105 | %20 |
| 62 | 128 | X | -0.105 | %55 |
| 63 | 128 | X | 0 | 0 |
| 64 | 128 | X | 0 | 0 |
| 65 | 128 | X | 0 | 0 |
| 66 | 115 | X | -0.066 | %35 |
| 67 | 115 | X | 0 | 0 |
| 68 | 115 | X | 0 | 0 |
| 69 | 115 | X | 0 | 0 |
| 70 | 115 | X | 0 | 0 |
| 71 | 118 | X | -0.071 | %20 |
| 72 | 118 | X | 0 | 0 |
| 73 | 118 | X | 0 | 0 |
| 74 | 118 | X | 0 | 0 |
| 75 | 118 | X | 0 | 0 |
| 76 | 72 | X | -0.048 | %50 |
| 77 | 72 | X | 0 | 0 |
| 78 | 72 | X | 0 | 0 |
| 79 | 72 | X | 0 | 0 |
| 80 | 72 | X | 0 | 0 |
| 81 | 42 | X | -0.203 | %50 |
| 82 | 42 | X | 0 | 0 |
| 83 | 42 | X | 0 | 0 |
| 84 | 42 | X | 0 | 0 |
| 85 | 42 | X | 0 | 0 |

### Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 86 | 106 | X | -0.035 | %50 |
| 87 | 106 | X | 0 | 0 |
| 88 | 106 | X | 0 | 0 |
| 89 | 106 | X | 0 | 0 |
| 90 | 106 | X | 0 | 0 |

### Member Point Loads (BLC 4 : 0 Wind - Ice)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | Z | -0.063 | %5 |
| 2 | 93 | Z | -0.063 | %60 |
| 3 | 93 | Z | 0 | 0 |
| 4 | 93 | Z | 0 | 0 |
| 5 | 93 | Z | 0 | 0 |
| 6 | 94 | Z | -0.016 | %5 |
| 7 | 94 | Z | -0.016 | %25 |
| 8 | 94 | Z | -0.015 | %75 |
| 9 | 94 | Z | -0.015 | %95 |
| 10 | 94 | Z | 0 | 0 |
| 11 | 95 | Z | -0.057 | %20 |
| 12 | 95 | Z | -0.057 | %55 |
| 13 | 95 | Z | 0 | 0 |
| 14 | 95 | Z | 0 | 0 |
| 15 | 95 | Z | 0 | 0 |
| 16 | 109 | Z | -0.02 | %35 |
| 17 | 109 | Z | 0 | 0 |
| 18 | 109 | Z | 0 | 0 |
| 19 | 109 | Z | 0 | 0 |
| 20 | 109 | Z | 0 | 0 |
| 21 | 112 | Z | -0.021 | %20 |
| 22 | 112 | Z | 0 | 0 |
| 23 | 112 | Z | 0 | 0 |
| 24 | 112 | Z | 0 | 0 |
| 25 | 112 | Z | 0 | 0 |
| 26 | 138 | Z | -0.085 | %5 |
| 27 | 138 | Z | -0.085 | %80 |
| 28 | 138 | Z | 0 | 0 |
| 29 | 138 | Z | 0 | 0 |
| 30 | 138 | Z | 0 | 0 |
| 31 | 139 | Z | -0.016 | %5 |
| 32 | 139 | Z | -0.016 | %25 |
| 33 | 139 | Z | -0.015 | %75 |
| 34 | 139 | Z | -0.015 | %95 |
| 35 | 139 | Z | 0 | 0 |
| 36 | 140 | Z | -0.074 | %25 |
| 37 | 140 | Z | -0.074 | %60 |
| 38 | 140 | Z | 0 | 0 |
| 39 | 140 | Z | 0 | 0 |
| 40 | 140 | Z | 0 | 0 |
| 41 | 121 | Z | -0.02 | %35 |
| 42 | 121 | Z | 0 | 0 |
| 43 | 121 | Z | 0 | 0 |
| 44 | 121 | Z | 0 | 0 |
| 45 | 121 | Z | 0 | 0 |
| 46 | 124 | Z | -0.021 | %20 |
| 47 | 124 | Z | 0 | 0 |

***Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 48 | 124 | Z | 0 | 0 |
| 49 | 124 | Z | 0 | 0 |
| 50 | 124 | Z | 0 | 0 |
| 51 | 126 | Z | -0.063 | %5 |
| 52 | 126 | Z | -0.063 | %60 |
| 53 | 126 | Z | 0 | 0 |
| 54 | 126 | Z | 0 | 0 |
| 55 | 126 | Z | 0 | 0 |
| 56 | 127 | Z | -0.016 | %5 |
| 57 | 127 | Z | -0.016 | %25 |
| 58 | 127 | Z | -0.015 | %75 |
| 59 | 127 | Z | -0.015 | %95 |
| 60 | 127 | Z | 0 | 0 |
| 61 | 128 | Z | -0.057 | %20 |
| 62 | 128 | Z | -0.057 | %55 |
| 63 | 128 | Z | 0 | 0 |
| 64 | 128 | Z | 0 | 0 |
| 65 | 128 | Z | 0 | 0 |
| 66 | 115 | Z | -0.02 | %35 |
| 67 | 115 | Z | 0 | 0 |
| 68 | 115 | Z | 0 | 0 |
| 69 | 115 | Z | 0 | 0 |
| 70 | 115 | Z | 0 | 0 |
| 71 | 118 | Z | -0.021 | %20 |
| 72 | 118 | Z | 0 | 0 |
| 73 | 118 | Z | 0 | 0 |
| 74 | 118 | Z | 0 | 0 |
| 75 | 118 | Z | 0 | 0 |
| 76 | 72 | Z | -0.009 | %50 |
| 77 | 72 | Z | 0 | 0 |
| 78 | 72 | Z | 0 | 0 |
| 79 | 72 | Z | 0 | 0 |
| 80 | 72 | Z | 0 | 0 |
| 81 | 42 | Z | -0.022 | %50 |
| 82 | 42 | Z | 0 | 0 |
| 83 | 42 | Z | 0 | 0 |
| 84 | 42 | Z | 0 | 0 |
| 85 | 42 | Z | 0 | 0 |
| 86 | 106 | Z | -0.006 | %50 |
| 87 | 106 | Z | 0 | 0 |
| 88 | 106 | Z | 0 | 0 |
| 89 | 106 | Z | 0 | 0 |
| 90 | 106 | Z | 0 | 0 |

***Member Point Loads (BLC 5 : 90 Wind - Ice)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | X | -0.03 | %5 |
| 2 | 93 | X | -0.03 | %60 |
| 3 | 93 | X | 0 | 0 |
| 4 | 93 | X | 0 | 0 |
| 5 | 93 | X | 0 | 0 |
| 6 | 94 | X | -0.007 | %5 |
| 7 | 94 | X | -0.007 | %25 |
| 8 | 94 | X | -0.01 | %75 |
| 9 | 94 | X | -0.01 | %95 |

***Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 10 | 94 | X | 0 | 0 |
| 11 | 95 | X | -0.024 | %20 |
| 12 | 95 | X | -0.024 | %55 |
| 13 | 95 | X | 0 | 0 |
| 14 | 95 | X | 0 | 0 |
| 15 | 95 | X | 0 | 0 |
| 16 | 109 | X | -0.012 | %35 |
| 17 | 109 | X | 0 | 0 |
| 18 | 109 | X | 0 | 0 |
| 19 | 109 | X | 0 | 0 |
| 20 | 109 | X | 0 | 0 |
| 21 | 112 | X | -0.013 | %20 |
| 22 | 112 | X | 0 | 0 |
| 23 | 112 | X | 0 | 0 |
| 24 | 112 | X | 0 | 0 |
| 25 | 112 | X | 0 | 0 |
| 26 | 138 | X | -0.041 | %5 |
| 27 | 138 | X | -0.041 | %80 |
| 28 | 138 | X | 0 | 0 |
| 29 | 138 | X | 0 | 0 |
| 30 | 138 | X | 0 | 0 |
| 31 | 139 | X | -0.007 | %5 |
| 32 | 139 | X | -0.007 | %25 |
| 33 | 139 | X | -0.01 | %75 |
| 34 | 139 | X | -0.01 | %95 |
| 35 | 139 | X | 0 | 0 |
| 36 | 140 | X | -0.032 | %25 |
| 37 | 140 | X | -0.032 | %60 |
| 38 | 140 | X | 0 | 0 |
| 39 | 140 | X | 0 | 0 |
| 40 | 140 | X | 0 | 0 |
| 41 | 121 | X | -0.012 | %35 |
| 42 | 121 | X | 0 | 0 |
| 43 | 121 | X | 0 | 0 |
| 44 | 121 | X | 0 | 0 |
| 45 | 121 | X | 0 | 0 |
| 46 | 124 | X | -0.013 | %20 |
| 47 | 124 | X | 0 | 0 |
| 48 | 124 | X | 0 | 0 |
| 49 | 124 | X | 0 | 0 |
| 50 | 124 | X | 0 | 0 |
| 51 | 126 | X | -0.03 | %5 |
| 52 | 126 | X | -0.03 | %60 |
| 53 | 126 | X | 0 | 0 |
| 54 | 126 | X | 0 | 0 |
| 55 | 126 | X | 0 | 0 |
| 56 | 127 | X | -0.007 | %5 |
| 57 | 127 | X | -0.007 | %25 |
| 58 | 127 | X | -0.01 | %75 |
| 59 | 127 | X | -0.01 | %95 |
| 60 | 127 | X | 0 | 0 |
| 61 | 128 | X | -0.024 | %20 |
| 62 | 128 | X | -0.024 | %55 |
| 63 | 128 | X | 0 | 0 |
| 64 | 128 | X | 0 | 0 |

***Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 65 | 128 | X | 0 | 0 |
| 66 | 115 | X | -0.012 | %35 |
| 67 | 115 | X | 0 | 0 |
| 68 | 115 | X | 0 | 0 |
| 69 | 115 | X | 0 | 0 |
| 70 | 115 | X | 0 | 0 |
| 71 | 118 | X | -0.013 | %20 |
| 72 | 118 | X | 0 | 0 |
| 73 | 118 | X | 0 | 0 |
| 74 | 118 | X | 0 | 0 |
| 75 | 118 | X | 0 | 0 |
| 76 | 72 | X | -0.009 | %50 |
| 77 | 72 | X | 0 | 0 |
| 78 | 72 | X | 0 | 0 |
| 79 | 72 | X | 0 | 0 |
| 80 | 72 | X | 0 | 0 |
| 81 | 42 | X | -0.036 | %50 |
| 82 | 42 | X | 0 | 0 |
| 83 | 42 | X | 0 | 0 |
| 84 | 42 | X | 0 | 0 |
| 85 | 42 | X | 0 | 0 |
| 86 | 106 | X | -0.006 | %50 |
| 87 | 106 | X | 0 | 0 |
| 88 | 106 | X | 0 | 0 |
| 89 | 106 | X | 0 | 0 |
| 90 | 106 | X | 0 | 0 |

***Member Point Loads (BLC 6 : 0 Wind - Service)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | Z | -0.02 | %5 |
| 2 | 93 | Z | -0.02 | %60 |
| 3 | 93 | Z | 0 | 0 |
| 4 | 93 | Z | 0 | 0 |
| 5 | 93 | Z | 0 | 0 |
| 6 | 94 | Z | -0.006 | %5 |
| 7 | 94 | Z | -0.006 | %25 |
| 8 | 94 | Z | -0.005 | %75 |
| 9 | 94 | Z | -0.005 | %95 |
| 10 | 94 | Z | 0 | 0 |
| 11 | 95 | Z | -0.018 | %20 |
| 12 | 95 | Z | -0.018 | %55 |
| 13 | 95 | Z | 0 | 0 |
| 14 | 95 | Z | 0 | 0 |
| 15 | 95 | Z | 0 | 0 |
| 16 | 109 | Z | -0.007 | %35 |
| 17 | 109 | Z | 0 | 0 |
| 18 | 109 | Z | 0 | 0 |
| 19 | 109 | Z | 0 | 0 |
| 20 | 109 | Z | 0 | 0 |
| 21 | 112 | Z | -0.008 | %20 |
| 22 | 112 | Z | 0 | 0 |
| 23 | 112 | Z | 0 | 0 |
| 24 | 112 | Z | 0 | 0 |
| 25 | 112 | Z | 0 | 0 |
| 26 | 138 | Z | -0.027 | %5 |

***Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 27 | 138 | Z | -0.027 | %80 |
| 28 | 138 | Z | 0 | 0 |
| 29 | 138 | Z | 0 | 0 |
| 30 | 138 | Z | 0 | 0 |
| 31 | 139 | Z | -0.006 | %5 |
| 32 | 139 | Z | -0.006 | %25 |
| 33 | 139 | Z | -0.005 | %75 |
| 34 | 139 | Z | -0.005 | %95 |
| 35 | 139 | Z | 0 | 0 |
| 36 | 140 | Z | -0.024 | %25 |
| 37 | 140 | Z | -0.024 | %60 |
| 38 | 140 | Z | 0 | 0 |
| 39 | 140 | Z | 0 | 0 |
| 40 | 140 | Z | 0 | 0 |
| 41 | 121 | Z | -0.007 | %35 |
| 42 | 121 | Z | 0 | 0 |
| 43 | 121 | Z | 0 | 0 |
| 44 | 121 | Z | 0 | 0 |
| 45 | 121 | Z | 0 | 0 |
| 46 | 124 | Z | -0.008 | %20 |
| 47 | 124 | Z | 0 | 0 |
| 48 | 124 | Z | 0 | 0 |
| 49 | 124 | Z | 0 | 0 |
| 50 | 124 | Z | 0 | 0 |
| 51 | 126 | Z | -0.02 | %5 |
| 52 | 126 | Z | -0.02 | %60 |
| 53 | 126 | Z | 0 | 0 |
| 54 | 126 | Z | 0 | 0 |
| 55 | 126 | Z | 0 | 0 |
| 56 | 127 | Z | -0.006 | %5 |
| 57 | 127 | Z | -0.006 | %25 |
| 58 | 127 | Z | -0.005 | %75 |
| 59 | 127 | Z | -0.005 | %95 |
| 60 | 127 | Z | 0 | 0 |
| 61 | 128 | Z | -0.018 | %20 |
| 62 | 128 | Z | -0.018 | %55 |
| 63 | 128 | Z | 0 | 0 |
| 64 | 128 | Z | 0 | 0 |
| 65 | 128 | Z | 0 | 0 |
| 66 | 115 | Z | -0.007 | %35 |
| 67 | 115 | Z | 0 | 0 |
| 68 | 115 | Z | 0 | 0 |
| 69 | 115 | Z | 0 | 0 |
| 70 | 115 | Z | 0 | 0 |
| 71 | 118 | Z | -0.008 | %20 |
| 72 | 118 | Z | 0 | 0 |
| 73 | 118 | Z | 0 | 0 |
| 74 | 118 | Z | 0 | 0 |
| 75 | 118 | Z | 0 | 0 |
| 76 | 72 | Z | -0.003 | %50 |
| 77 | 72 | Z | 0 | 0 |
| 78 | 72 | Z | 0 | 0 |
| 79 | 72 | Z | 0 | 0 |
| 80 | 72 | Z | 0 | 0 |
| 81 | 42 | Z | -0.008 | %50 |

### *Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)*

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 82 | 42 | Z | 0 | 0 |
| 83 | 42 | Z | 0 | 0 |
| 84 | 42 | Z | 0 | 0 |
| 85 | 42 | Z | 0 | 0 |
| 86 | 106 | Z | -0.002 | %50 |
| 87 | 106 | Z | 0 | 0 |
| 88 | 106 | Z | 0 | 0 |
| 89 | 106 | Z | 0 | 0 |
| 90 | 106 | Z | 0 | 0 |

### *Member Point Loads (BLC 7 : 90 Wind - Service)*

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | X | -0.009 | %5 |
| 2 | 93 | X | -0.009 | %60 |
| 3 | 93 | X | 0 | 0 |
| 4 | 93 | X | 0 | 0 |
| 5 | 93 | X | 0 | 0 |
| 6 | 94 | X | -0.003 | %5 |
| 7 | 94 | X | -0.003 | %25 |
| 8 | 94 | X | -0.004 | %75 |
| 9 | 94 | X | -0.004 | %95 |
| 10 | 94 | X | 0 | 0 |
| 11 | 95 | X | -0.007 | %20 |
| 12 | 95 | X | -0.007 | %55 |
| 13 | 95 | X | 0 | 0 |
| 14 | 95 | X | 0 | 0 |
| 15 | 95 | X | 0 | 0 |
| 16 | 109 | X | -0.004 | %35 |
| 17 | 109 | X | 0 | 0 |
| 18 | 109 | X | 0 | 0 |
| 19 | 109 | X | 0 | 0 |
| 20 | 109 | X | 0 | 0 |
| 21 | 112 | X | -0.005 | %20 |
| 22 | 112 | X | 0 | 0 |
| 23 | 112 | X | 0 | 0 |
| 24 | 112 | X | 0 | 0 |
| 25 | 112 | X | 0 | 0 |
| 26 | 138 | X | -0.012 | %5 |
| 27 | 138 | X | -0.012 | %80 |
| 28 | 138 | X | 0 | 0 |
| 29 | 138 | X | 0 | 0 |
| 30 | 138 | X | 0 | 0 |
| 31 | 139 | X | -0.003 | %5 |
| 32 | 139 | X | -0.003 | %25 |
| 33 | 139 | X | -0.004 | %75 |
| 34 | 139 | X | -0.004 | %95 |
| 35 | 139 | X | 0 | 0 |
| 36 | 140 | X | -0.009 | %25 |
| 37 | 140 | X | -0.009 | %60 |
| 38 | 140 | X | 0 | 0 |
| 39 | 140 | X | 0 | 0 |
| 40 | 140 | X | 0 | 0 |
| 41 | 121 | X | -0.004 | %35 |
| 42 | 121 | X | 0 | 0 |
| 43 | 121 | X | 0 | 0 |

### Member Point Loads (BLC 7 : 90 Wind - Service) (Continued)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 44 | 121 | X | 0 | 0 |
| 45 | 121 | X | 0 | 0 |
| 46 | 124 | X | -0.005 | %20 |
| 47 | 124 | X | 0 | 0 |
| 48 | 124 | X | 0 | 0 |
| 49 | 124 | X | 0 | 0 |
| 50 | 124 | X | 0 | 0 |
| 51 | 126 | X | -0.009 | %5 |
| 52 | 126 | X | -0.009 | %60 |
| 53 | 126 | X | 0 | 0 |
| 54 | 126 | X | 0 | 0 |
| 55 | 126 | X | 0 | 0 |
| 56 | 127 | X | -0.003 | %5 |
| 57 | 127 | X | -0.003 | %25 |
| 58 | 127 | X | -0.004 | %75 |
| 59 | 127 | X | -0.004 | %95 |
| 60 | 127 | X | 0 | 0 |
| 61 | 128 | X | -0.007 | %20 |
| 62 | 128 | X | -0.007 | %55 |
| 63 | 128 | X | 0 | 0 |
| 64 | 128 | X | 0 | 0 |
| 65 | 128 | X | 0 | 0 |
| 66 | 115 | X | -0.004 | %35 |
| 67 | 115 | X | 0 | 0 |
| 68 | 115 | X | 0 | 0 |
| 69 | 115 | X | 0 | 0 |
| 70 | 115 | X | 0 | 0 |
| 71 | 118 | X | -0.005 | %20 |
| 72 | 118 | X | 0 | 0 |
| 73 | 118 | X | 0 | 0 |
| 74 | 118 | X | 0 | 0 |
| 75 | 118 | X | 0 | 0 |
| 76 | 72 | X | -0.003 | %50 |
| 77 | 72 | X | 0 | 0 |
| 78 | 72 | X | 0 | 0 |
| 79 | 72 | X | 0 | 0 |
| 80 | 72 | X | 0 | 0 |
| 81 | 42 | X | -0.013 | %50 |
| 82 | 42 | X | 0 | 0 |
| 83 | 42 | X | 0 | 0 |
| 84 | 42 | X | 0 | 0 |
| 85 | 42 | X | 0 | 0 |
| 86 | 106 | X | -0.002 | %50 |
| 87 | 106 | X | 0 | 0 |
| 88 | 106 | X | 0 | 0 |
| 89 | 106 | X | 0 | 0 |
| 90 | 106 | X | 0 | 0 |

### Member Point Loads (BLC 8 : Ice)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | Y | -0.152 | %5 |
| 2 | 93 | Y | -0.152 | %60 |
| 3 | 93 | Y | 0 | 0 |
| 4 | 93 | Y | 0 | 0 |
| 5 | 93 | Y | 0 | 0 |

***Member Point Loads (BLC 8 : Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 6 | 94 | Y | -0.035 | %5 |
| 7 | 94 | Y | -0.035 | %25 |
| 8 | 94 | Y | -0.037 | %75 |
| 9 | 94 | Y | -0.037 | %95 |
| 10 | 94 | Y | 0 | 0 |
| 11 | 95 | Y | -0.11 | %20 |
| 12 | 95 | Y | -0.11 | %55 |
| 13 | 95 | Y | 0 | 0 |
| 14 | 95 | Y | 0 | 0 |
| 15 | 95 | Y | 0 | 0 |
| 16 | 109 | Y | -0.049 | %35 |
| 17 | 109 | Y | 0 | 0 |
| 18 | 109 | Y | 0 | 0 |
| 19 | 109 | Y | 0 | 0 |
| 20 | 109 | Y | 0 | 0 |
| 21 | 112 | Y | -0.052 | %20 |
| 22 | 112 | Y | 0 | 0 |
| 23 | 112 | Y | 0 | 0 |
| 24 | 112 | Y | 0 | 0 |
| 25 | 112 | Y | 0 | 0 |
| 26 | 138 | Y | -0.189 | %5 |
| 27 | 138 | Y | -0.189 | %80 |
| 28 | 138 | Y | 0 | 0 |
| 29 | 138 | Y | 0 | 0 |
| 30 | 138 | Y | 0 | 0 |
| 31 | 139 | Y | -0.035 | %5 |
| 32 | 139 | Y | -0.035 | %25 |
| 33 | 139 | Y | -0.037 | %75 |
| 34 | 139 | Y | -0.037 | %95 |
| 35 | 139 | Y | 0 | 0 |
| 36 | 140 | Y | -0.154 | %25 |
| 37 | 140 | Y | -0.154 | %60 |
| 38 | 140 | Y | 0 | 0 |
| 39 | 140 | Y | 0 | 0 |
| 40 | 140 | Y | 0 | 0 |
| 41 | 121 | Y | -0.049 | %35 |
| 42 | 121 | Y | 0 | 0 |
| 43 | 121 | Y | 0 | 0 |
| 44 | 121 | Y | 0 | 0 |
| 45 | 121 | Y | 0 | 0 |
| 46 | 124 | Y | -0.052 | %20 |
| 47 | 124 | Y | 0 | 0 |
| 48 | 124 | Y | 0 | 0 |
| 49 | 124 | Y | 0 | 0 |
| 50 | 124 | Y | 0 | 0 |
| 51 | 126 | Y | -0.152 | %5 |
| 52 | 126 | Y | -0.152 | %60 |
| 53 | 126 | Y | 0 | 0 |
| 54 | 126 | Y | 0 | 0 |
| 55 | 126 | Y | 0 | 0 |
| 56 | 127 | Y | -0.035 | %5 |
| 57 | 127 | Y | -0.035 | %25 |
| 58 | 127 | Y | -0.037 | %75 |
| 59 | 127 | Y | -0.037 | %95 |
| 60 | 127 | Y | 0 | 0 |

***Member Point Loads (BLC 8 : Ice) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 61 | 128 | Y | -0.11 | %20 |
| 62 | 128 | Y | -0.11 | %55 |
| 63 | 128 | Y | 0 | 0 |
| 64 | 128 | Y | 0 | 0 |
| 65 | 128 | Y | 0 | 0 |
| 66 | 115 | Y | -0.049 | %35 |
| 67 | 115 | Y | 0 | 0 |
| 68 | 115 | Y | 0 | 0 |
| 69 | 115 | Y | 0 | 0 |
| 70 | 115 | Y | 0 | 0 |
| 71 | 118 | Y | -0.052 | %20 |
| 72 | 118 | Y | 0 | 0 |
| 73 | 118 | Y | 0 | 0 |
| 74 | 118 | Y | 0 | 0 |
| 75 | 118 | Y | 0 | 0 |
| 76 | 72 | Y | -0.043 | %50 |
| 77 | 72 | Y | 0 | 0 |
| 78 | 72 | Y | 0 | 0 |
| 79 | 72 | Y | 0 | 0 |
| 80 | 72 | Y | 0 | 0 |
| 81 | 42 | Y | -0.085 | %50 |
| 82 | 42 | Y | 0 | 0 |
| 83 | 42 | Y | 0 | 0 |
| 84 | 42 | Y | 0 | 0 |
| 85 | 42 | Y | 0 | 0 |
| 86 | 106 | Y | -0.032 | %50 |
| 87 | 106 | Y | 0 | 0 |
| 88 | 106 | Y | 0 | 0 |
| 89 | 106 | Y | 0 | 0 |
| 90 | 106 | Y | 0 | 0 |

***Member Point Loads (BLC 9 : 0 Seismic)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | Z | -0.033 | %5 |
| 2 | 93 | Z | -0.033 | %60 |
| 3 | 93 | Z | 0 | 0 |
| 4 | 93 | Z | 0 | 0 |
| 5 | 93 | Z | 0 | 0 |
| 6 | 94 | Z | -0.011 | %5 |
| 7 | 94 | Z | -0.011 | %25 |
| 8 | 94 | Z | -0.021 | %75 |
| 9 | 94 | Z | -0.021 | %95 |
| 10 | 94 | Z | 0 | 0 |
| 11 | 95 | Z | -0.016 | %20 |
| 12 | 95 | Z | -0.016 | %55 |
| 13 | 95 | Z | 0 | 0 |
| 14 | 95 | Z | 0 | 0 |
| 15 | 95 | Z | 0 | 0 |
| 16 | 109 | Z | -0.013 | %35 |
| 17 | 109 | Z | 0 | 0 |
| 18 | 109 | Z | 0 | 0 |
| 19 | 109 | Z | 0 | 0 |
| 20 | 109 | Z | 0 | 0 |
| 21 | 112 | Z | -0.014 | %20 |
| 22 | 112 | Z | 0 | 0 |

***Member Point Loads (BLC 9 : 0 Seismic) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 23 | 112 | Z | 0 | 0 |
| 24 | 112 | Z | 0 | 0 |
| 25 | 112 | Z | 0 | 0 |
| 26 | 138 | Z | -0.038 | %5 |
| 27 | 138 | Z | -0.038 | %80 |
| 28 | 138 | Z | 0 | 0 |
| 29 | 138 | Z | 0 | 0 |
| 30 | 138 | Z | 0 | 0 |
| 31 | 139 | Z | -0.011 | %5 |
| 32 | 139 | Z | -0.011 | %25 |
| 33 | 139 | Z | -0.021 | %75 |
| 34 | 139 | Z | -0.021 | %95 |
| 35 | 139 | Z | 0 | 0 |
| 36 | 140 | Z | -0.026 | %25 |
| 37 | 140 | Z | -0.026 | %60 |
| 38 | 140 | Z | 0 | 0 |
| 39 | 140 | Z | 0 | 0 |
| 40 | 140 | Z | 0 | 0 |
| 41 | 121 | Z | -0.013 | %35 |
| 42 | 121 | Z | 0 | 0 |
| 43 | 121 | Z | 0 | 0 |
| 44 | 121 | Z | 0 | 0 |
| 45 | 121 | Z | 0 | 0 |
| 46 | 124 | Z | -0.014 | %20 |
| 47 | 124 | Z | 0 | 0 |
| 48 | 124 | Z | 0 | 0 |
| 49 | 124 | Z | 0 | 0 |
| 50 | 124 | Z | 0 | 0 |
| 51 | 126 | Z | -0.033 | %5 |
| 52 | 126 | Z | -0.033 | %60 |
| 53 | 126 | Z | 0 | 0 |
| 54 | 126 | Z | 0 | 0 |
| 55 | 126 | Z | 0 | 0 |
| 56 | 127 | Z | -0.011 | %5 |
| 57 | 127 | Z | -0.011 | %25 |
| 58 | 127 | Z | -0.021 | %75 |
| 59 | 127 | Z | -0.021 | %95 |
| 60 | 127 | Z | 0 | 0 |
| 61 | 128 | Z | -0.016 | %20 |
| 62 | 128 | Z | -0.016 | %55 |
| 63 | 128 | Z | 0 | 0 |
| 64 | 128 | Z | 0 | 0 |
| 65 | 128 | Z | 0 | 0 |
| 66 | 115 | Z | -0.013 | %35 |
| 67 | 115 | Z | 0 | 0 |
| 68 | 115 | Z | 0 | 0 |
| 69 | 115 | Z | 0 | 0 |
| 70 | 115 | Z | 0 | 0 |
| 71 | 118 | Z | -0.014 | %20 |
| 72 | 118 | Z | 0 | 0 |
| 73 | 118 | Z | 0 | 0 |
| 74 | 118 | Z | 0 | 0 |
| 75 | 118 | Z | 0 | 0 |
| 76 | 72 | Z | -0.007 | %50 |
| 77 | 72 | Z | 0 | 0 |

### *Member Point Loads (BLC 9 : 0 Seismic) (Continued)*

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 78 | 72 | Z | 0 | 0 |
| 79 | 72 | Z | 0 | 0 |
| 80 | 72 | Z | 0 | 0 |
| 81 | 42 | Z | -0.008 | %50 |
| 82 | 42 | Z | 0 | 0 |
| 83 | 42 | Z | 0 | 0 |
| 84 | 42 | Z | 0 | 0 |
| 85 | 42 | Z | 0 | 0 |
| 86 | 106 | Z | -0.005 | %50 |
| 87 | 106 | Z | 0 | 0 |
| 88 | 106 | Z | 0 | 0 |
| 89 | 106 | Z | 0 | 0 |
| 90 | 106 | Z | 0 | 0 |

### *Member Point Loads (BLC 10 : 90 Seismic)*

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 93 | X | -0.033 | %5 |
| 2 | 93 | X | -0.033 | %60 |
| 3 | 93 | X | 0 | 0 |
| 4 | 93 | X | 0 | 0 |
| 5 | 93 | X | 0 | 0 |
| 6 | 94 | X | -0.011 | %5 |
| 7 | 94 | X | -0.011 | %25 |
| 8 | 94 | X | -0.021 | %75 |
| 9 | 94 | X | -0.021 | %95 |
| 10 | 94 | X | 0 | 0 |
| 11 | 95 | X | -0.016 | %20 |
| 12 | 95 | X | -0.016 | %55 |
| 13 | 95 | X | 0 | 0 |
| 14 | 95 | X | 0 | 0 |
| 15 | 95 | X | 0 | 0 |
| 16 | 109 | X | -0.013 | %35 |
| 17 | 109 | X | 0 | 0 |
| 18 | 109 | X | 0 | 0 |
| 19 | 109 | X | 0 | 0 |
| 20 | 109 | X | 0 | 0 |
| 21 | 112 | X | -0.014 | %20 |
| 22 | 112 | X | 0 | 0 |
| 23 | 112 | X | 0 | 0 |
| 24 | 112 | X | 0 | 0 |
| 25 | 112 | X | 0 | 0 |
| 26 | 138 | X | -0.038 | %5 |
| 27 | 138 | X | -0.038 | %80 |
| 28 | 138 | X | 0 | 0 |
| 29 | 138 | X | 0 | 0 |
| 30 | 138 | X | 0 | 0 |
| 31 | 139 | X | -0.011 | %5 |
| 32 | 139 | X | -0.011 | %25 |
| 33 | 139 | X | -0.021 | %75 |
| 34 | 139 | X | -0.021 | %95 |
| 35 | 139 | X | 0 | 0 |
| 36 | 140 | X | -0.026 | %25 |
| 37 | 140 | X | -0.026 | %60 |
| 38 | 140 | X | 0 | 0 |
| 39 | 140 | X | 0 | 0 |

***Member Point Loads (BLC 10 : 90 Seismic) (Continued)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 40 | 140 | X | 0 | 0 |
| 41 | 121 | X | -0.013 | %35 |
| 42 | 121 | X | 0 | 0 |
| 43 | 121 | X | 0 | 0 |
| 44 | 121 | X | 0 | 0 |
| 45 | 121 | X | 0 | 0 |
| 46 | 124 | X | -0.014 | %20 |
| 47 | 124 | X | 0 | 0 |
| 48 | 124 | X | 0 | 0 |
| 49 | 124 | X | 0 | 0 |
| 50 | 124 | X | 0 | 0 |
| 51 | 126 | X | -0.033 | %5 |
| 52 | 126 | X | -0.033 | %60 |
| 53 | 126 | X | 0 | 0 |
| 54 | 126 | X | 0 | 0 |
| 55 | 126 | X | 0 | 0 |
| 56 | 127 | X | -0.011 | %5 |
| 57 | 127 | X | -0.011 | %25 |
| 58 | 127 | X | -0.021 | %75 |
| 59 | 127 | X | -0.021 | %95 |
| 60 | 127 | X | 0 | 0 |
| 61 | 128 | X | -0.016 | %20 |
| 62 | 128 | X | -0.016 | %55 |
| 63 | 128 | X | 0 | 0 |
| 64 | 128 | X | 0 | 0 |
| 65 | 128 | X | 0 | 0 |
| 66 | 115 | X | -0.013 | %35 |
| 67 | 115 | X | 0 | 0 |
| 68 | 115 | X | 0 | 0 |
| 69 | 115 | X | 0 | 0 |
| 70 | 115 | X | 0 | 0 |
| 71 | 118 | X | -0.014 | %20 |
| 72 | 118 | X | 0 | 0 |
| 73 | 118 | X | 0 | 0 |
| 74 | 118 | X | 0 | 0 |
| 75 | 118 | X | 0 | 0 |
| 76 | 72 | X | -0.007 | %50 |
| 77 | 72 | X | 0 | 0 |
| 78 | 72 | X | 0 | 0 |
| 79 | 72 | X | 0 | 0 |
| 80 | 72 | X | 0 | 0 |
| 81 | 42 | X | -0.008 | %50 |
| 82 | 42 | X | 0 | 0 |
| 83 | 42 | X | 0 | 0 |
| 84 | 42 | X | 0 | 0 |
| 85 | 42 | X | 0 | 0 |
| 86 | 106 | X | -0.005 | %50 |
| 87 | 106 | X | 0 | 0 |
| 88 | 106 | X | 0 | 0 |
| 89 | 106 | X | 0 | 0 |
| 90 | 106 | X | 0 | 0 |

***Member Point Loads (BLC 15 : Maint LL 1)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 4 | Y | -0.25 | %95 |

***Member Point Loads (BLC 16 : Maint LL 2)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 5 | Y | -0.25 | %95 |

***Member Point Loads (BLC 17 : Maint LL 3)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 34 | Y | -0.25 | %95 |

***Member Point Loads (BLC 18 : Maint LL 4)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 35 | Y | -0.25 | %95 |

***Member Point Loads (BLC 19 : Maint LL 5)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 64 | Y | -0.25 | %95 |

***Member Point Loads (BLC 20 : Maint LL 6)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 65 | Y | -0.25 | %95 |

***Member Point Loads (BLC 21 : Maint LL 7)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 16 | Y | -0.25 | %50 |

***Member Point Loads (BLC 22 : Maint LL 8)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 12 | Y | -0.25 | %50 |

***Member Point Loads (BLC 23 : Maint LL 9)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 28 | Y | -0.25 | %50 |

***Member Point Loads (BLC 24 : Maint LL 10)***

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 25 | Y | -0.25 | %50 |

### Member Point Loads (BLC 25 : Maint LL 11)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 46 | Y | -0.25 | %50 |

### Member Point Loads (BLC 26 : Maint LL 12)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 42 | Y | -0.25 | %50 |

### Member Point Loads (BLC 27 : Maint LL 13)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 58 | Y | -0.25 | %50 |

### Member Point Loads (BLC 28 : Maint LL 14)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 55 | Y | -0.25 | %50 |

### Member Point Loads (BLC 29 : Maint LL 15)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 76 | Y | -0.25 | %50 |

### Member Point Loads (BLC 30 : Maint LL 16)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 72 | Y | -0.25 | %50 |

### Member Point Loads (BLC 31 : Maint LL 17)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 88 | Y | -0.25 | %50 |

### Member Point Loads (BLC 32 : Maint LL 18)

| | Member Label | Direction | Magnitude [k, k-ft] | Location [(ft, %)] |
|---|---|---|---|---|
| 1 | 85 | Y | -0.25 | %50 |

### Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | Z | -0.004 | -0.004 | 0 | %100 |
| 2 | 2 | Z | -0.004 | -0.004 | 0 | %100 |
| 3 | 3 | Z | -0.003 | -0.003 | 0 | %100 |
| 4 | 4 | Z | -0.01 | -0.01 | 0 | %100 |
| 5 | 5 | Z | -0.01 | -0.01 | 0 | %100 |
| 6 | 6 | Z | -0.003 | -0.003 | 0 | %100 |
| 7 | 7 | Z | -0.003 | -0.003 | 0 | %100 |
| 8 | 11 | Z | -0.002 | -0.002 | 0 | %100 |
| 9 | 12 | Z | -0.009 | -0.009 | 0 | %100 |
| 10 | 13 | Z | -0.002 | -0.002 | 0 | %100 |
| 11 | 15 | Z | -0.002 | -0.002 | 0 | %100 |

***Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 12 | 16 | Z | -0.009 | -0.009 | 0 | %100 |
| 13 | 17 | Z | -0.002 | -0.002 | 0 | %100 |
| 14 | 20 | Z | -0.01 | -0.01 | 0 | %100 |
| 15 | 21 | Z | -0.003 | -0.003 | 0 | %100 |
| 16 | 22 | Z | -0.003 | -0.003 | 0 | %100 |
| 17 | 23 | Z | -0.003 | -0.003 | 0 | %100 |
| 18 | 24 | Z | -0.002 | -0.002 | 0 | %100 |
| 19 | 25 | Z | -0.009 | -0.009 | 0 | %100 |
| 20 | 26 | Z | -0.002 | -0.002 | 0 | %100 |
| 21 | 27 | Z | -0.002 | -0.002 | 0 | %100 |
| 22 | 28 | Z | -0.009 | -0.009 | 0 | %100 |
| 23 | 29 | Z | -0.002 | -0.002 | 0 | %100 |
| 24 | 31 | Z | -0.004 | -0.004 | 0 | %100 |
| 25 | 32 | Z | -0.004 | -0.004 | 0 | %100 |
| 26 | 33 | Z | -0.003 | -0.003 | 0 | %100 |
| 27 | 34 | Z | -0.01 | -0.01 | 0 | %100 |
| 28 | 35 | Z | -0.01 | -0.01 | 0 | %100 |
| 29 | 36 | Z | -0.003 | -0.003 | 0 | %100 |
| 30 | 37 | Z | -0.003 | -0.003 | 0 | %100 |
| 31 | 41 | Z | -0.002 | -0.002 | 0 | %100 |
| 32 | 42 | Z | -0.009 | -0.009 | 0 | %100 |
| 33 | 43 | Z | -0.002 | -0.002 | 0 | %100 |
| 34 | 45 | Z | -0.002 | -0.002 | 0 | %100 |
| 35 | 46 | Z | -0.009 | -0.009 | 0 | %100 |
| 36 | 47 | Z | -0.002 | -0.002 | 0 | %100 |
| 37 | 50 | Z | -0.01 | -0.01 | 0 | %100 |
| 38 | 51 | Z | -0.003 | -0.003 | 0 | %100 |
| 39 | 52 | Z | -0.003 | -0.003 | 0 | %100 |
| 40 | 53 | Z | -0.003 | -0.003 | 0 | %100 |
| 41 | 54 | Z | -0.002 | -0.002 | 0 | %100 |
| 42 | 55 | Z | -0.009 | -0.009 | 0 | %100 |
| 43 | 56 | Z | -0.002 | -0.002 | 0 | %100 |
| 44 | 57 | Z | -0.002 | -0.002 | 0 | %100 |
| 45 | 58 | Z | -0.009 | -0.009 | 0 | %100 |
| 46 | 59 | Z | -0.002 | -0.002 | 0 | %100 |
| 47 | 61 | Z | -0.004 | -0.004 | 0 | %100 |
| 48 | 62 | Z | -0.004 | -0.004 | 0 | %100 |
| 49 | 63 | Z | -0.003 | -0.003 | 0 | %100 |
| 50 | 64 | Z | -0.01 | -0.01 | 0 | %100 |
| 51 | 65 | Z | -0.01 | -0.01 | 0 | %100 |
| 52 | 66 | Z | -0.003 | -0.003 | 0 | %100 |
| 53 | 67 | Z | -0.003 | -0.003 | 0 | %100 |
| 54 | 71 | Z | -0.002 | -0.002 | 0 | %100 |
| 55 | 72 | Z | -0.009 | -0.009 | 0 | %100 |
| 56 | 73 | Z | -0.002 | -0.002 | 0 | %100 |
| 57 | 75 | Z | -0.002 | -0.002 | 0 | %100 |
| 58 | 76 | Z | -0.009 | -0.009 | 0 | %100 |
| 59 | 77 | Z | -0.002 | -0.002 | 0 | %100 |
| 60 | 80 | Z | -0.01 | -0.01 | 0 | %100 |
| 61 | 81 | Z | -0.003 | -0.003 | 0 | %100 |
| 62 | 82 | Z | -0.003 | -0.003 | 0 | %100 |
| 63 | 83 | Z | -0.003 | -0.003 | 0 | %100 |
| 64 | 84 | Z | -0.002 | -0.002 | 0 | %100 |
| 65 | 85 | Z | -0.009 | -0.009 | 0 | %100 |
| 66 | 86 | Z | -0.002 | -0.002 | 0 | %100 |

### Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 67 | 87 | Z | -0.002 | -0.002 | 0 | %100 |
| 68 | 88 | Z | -0.009 | -0.009 | 0 | %100 |
| 69 | 89 | Z | -0.002 | -0.002 | 0 | %100 |
| 70 | 93 | Z | -0.01 | -0.01 | 0 | %100 |
| 71 | 94 | Z | -0.01 | -0.01 | 0 | %100 |
| 72 | 95 | Z | -0.01 | -0.01 | 0 | %100 |
| 73 | 106 | Z | -0.01 | -0.01 | 0 | %100 |
| 74 | 109 | Z | -0.01 | -0.01 | 0 | %100 |
| 75 | 112 | Z | -0.01 | -0.01 | 0 | %100 |
| 76 | 115 | Z | -0.01 | -0.01 | 0 | %100 |
| 77 | 118 | Z | -0.01 | -0.01 | 0 | %100 |
| 78 | 121 | Z | -0.01 | -0.01 | 0 | %100 |
| 79 | 124 | Z | -0.01 | -0.01 | 0 | %100 |
| 80 | 126 | Z | -0.01 | -0.01 | 0 | %100 |
| 81 | 127 | Z | -0.01 | -0.01 | 0 | %100 |
| 82 | 128 | Z | -0.01 | -0.01 | 0 | %100 |
| 83 | 138 | Z | -0.01 | -0.01 | 0 | %100 |
| 84 | 139 | Z | -0.01 | -0.01 | 0 | %100 |
| 85 | 140 | Z | -0.01 | -0.01 | 0 | %100 |
| 86 | 150 | Z | -0.008 | -0.008 | 0 | %100 |

### Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | X | -0.004 | -0.004 | 0 | %100 |
| 2 | 2 | X | -0.004 | -0.004 | 0 | %100 |
| 3 | 3 | X | -0.003 | -0.003 | 0 | %100 |
| 4 | 4 | X | -0.01 | -0.01 | 0 | %100 |
| 5 | 5 | X | -0.01 | -0.01 | 0 | %100 |
| 6 | 6 | X | -0.003 | -0.003 | 0 | %100 |
| 7 | 7 | X | -0.003 | -0.003 | 0 | %100 |
| 8 | 11 | X | -0.002 | -0.002 | 0 | %100 |
| 9 | 12 | X | -0.009 | -0.009 | 0 | %100 |
| 10 | 13 | X | -0.002 | -0.002 | 0 | %100 |
| 11 | 15 | X | -0.002 | -0.002 | 0 | %100 |
| 12 | 16 | X | -0.009 | -0.009 | 0 | %100 |
| 13 | 17 | X | -0.002 | -0.002 | 0 | %100 |
| 14 | 20 | X | -0.01 | -0.01 | 0 | %100 |
| 15 | 21 | X | -0.003 | -0.003 | 0 | %100 |
| 16 | 22 | X | -0.003 | -0.003 | 0 | %100 |
| 17 | 23 | X | -0.003 | -0.003 | 0 | %100 |
| 18 | 24 | X | -0.002 | -0.002 | 0 | %100 |
| 19 | 25 | X | -0.009 | -0.009 | 0 | %100 |
| 20 | 26 | X | -0.002 | -0.002 | 0 | %100 |
| 21 | 27 | X | -0.002 | -0.002 | 0 | %100 |
| 22 | 28 | X | -0.009 | -0.009 | 0 | %100 |
| 23 | 29 | X | -0.002 | -0.002 | 0 | %100 |
| 24 | 31 | X | -0.004 | -0.004 | 0 | %100 |
| 25 | 32 | X | -0.004 | -0.004 | 0 | %100 |
| 26 | 33 | X | -0.003 | -0.003 | 0 | %100 |
| 27 | 34 | X | -0.01 | -0.01 | 0 | %100 |
| 28 | 35 | X | -0.01 | -0.01 | 0 | %100 |
| 29 | 36 | X | -0.003 | -0.003 | 0 | %100 |
| 30 | 37 | X | -0.003 | -0.003 | 0 | %100 |
| 31 | 41 | X | -0.002 | -0.002 | 0 | %100 |
| 32 | 42 | X | -0.009 | -0.009 | 0 | %100 |

***Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 33 | 43 | X | -0.002 | -0.002 | 0 | %100 |
| 34 | 45 | X | -0.002 | -0.002 | 0 | %100 |
| 35 | 46 | X | -0.009 | -0.009 | 0 | %100 |
| 36 | 47 | X | -0.002 | -0.002 | 0 | %100 |
| 37 | 50 | X | -0.01 | -0.01 | 0 | %100 |
| 38 | 51 | X | -0.003 | -0.003 | 0 | %100 |
| 39 | 52 | X | -0.003 | -0.003 | 0 | %100 |
| 40 | 53 | X | -0.003 | -0.003 | 0 | %100 |
| 41 | 54 | X | -0.002 | -0.002 | 0 | %100 |
| 42 | 55 | X | -0.009 | -0.009 | 0 | %100 |
| 43 | 56 | X | -0.002 | -0.002 | 0 | %100 |
| 44 | 57 | X | -0.002 | -0.002 | 0 | %100 |
| 45 | 58 | X | -0.009 | -0.009 | 0 | %100 |
| 46 | 59 | X | -0.002 | -0.002 | 0 | %100 |
| 47 | 61 | X | -0.004 | -0.004 | 0 | %100 |
| 48 | 62 | X | -0.004 | -0.004 | 0 | %100 |
| 49 | 63 | X | -0.003 | -0.003 | 0 | %100 |
| 50 | 64 | X | -0.01 | -0.01 | 0 | %100 |
| 51 | 65 | X | -0.01 | -0.01 | 0 | %100 |
| 52 | 66 | X | -0.003 | -0.003 | 0 | %100 |
| 53 | 67 | X | -0.003 | -0.003 | 0 | %100 |
| 54 | 71 | X | -0.002 | -0.002 | 0 | %100 |
| 55 | 72 | X | -0.009 | -0.009 | 0 | %100 |
| 56 | 73 | X | -0.002 | -0.002 | 0 | %100 |
| 57 | 75 | X | -0.002 | -0.002 | 0 | %100 |
| 58 | 76 | X | -0.009 | -0.009 | 0 | %100 |
| 59 | 77 | X | -0.002 | -0.002 | 0 | %100 |
| 60 | 80 | X | -0.01 | -0.01 | 0 | %100 |
| 61 | 81 | X | -0.003 | -0.003 | 0 | %100 |
| 62 | 82 | X | -0.003 | -0.003 | 0 | %100 |
| 63 | 83 | X | -0.003 | -0.003 | 0 | %100 |
| 64 | 84 | X | -0.002 | -0.002 | 0 | %100 |
| 65 | 85 | X | -0.009 | -0.009 | 0 | %100 |
| 66 | 86 | X | -0.002 | -0.002 | 0 | %100 |
| 67 | 87 | X | -0.002 | -0.002 | 0 | %100 |
| 68 | 88 | X | -0.009 | -0.009 | 0 | %100 |
| 69 | 89 | X | -0.002 | -0.002 | 0 | %100 |
| 70 | 93 | X | -0.01 | -0.01 | 0 | %100 |
| 71 | 94 | X | -0.01 | -0.01 | 0 | %100 |
| 72 | 95 | X | -0.01 | -0.01 | 0 | %100 |
| 73 | 106 | X | -0.01 | -0.01 | 0 | %100 |
| 74 | 109 | X | -0.01 | -0.01 | 0 | %100 |
| 75 | 112 | X | -0.01 | -0.01 | 0 | %100 |
| 76 | 115 | X | -0.01 | -0.01 | 0 | %100 |
| 77 | 118 | X | -0.01 | -0.01 | 0 | %100 |
| 78 | 121 | X | -0.01 | -0.01 | 0 | %100 |
| 79 | 124 | X | -0.01 | -0.01 | 0 | %100 |
| 80 | 126 | X | -0.01 | -0.01 | 0 | %100 |
| 81 | 127 | X | -0.01 | -0.01 | 0 | %100 |
| 82 | 128 | X | -0.01 | -0.01 | 0 | %100 |
| 83 | 138 | X | -0.01 | -0.01 | 0 | %100 |
| 84 | 139 | X | -0.01 | -0.01 | 0 | %100 |
| 85 | 140 | X | -0.01 | -0.01 | 0 | %100 |
| 86 | 150 | X | -0.008 | -0.008 | 0 | %100 |

***Member Distributed Loads (BLC 4 : 0 Wind - Ice)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | Z | -0.004 | -0.004 | 0 | %100 |
| 2 | 2 | Z | -0.004 | -0.004 | 0 | %100 |
| 3 | 3 | Z | -0.002 | -0.002 | 0 | %100 |
| 4 | 4 | Z | -0.002 | -0.002 | 0 | %100 |
| 5 | 5 | Z | -0.002 | -0.002 | 0 | %100 |
| 6 | 6 | Z | -0.002 | -0.002 | 0 | %100 |
| 7 | 7 | Z | -0.002 | -0.002 | 0 | %100 |
| 8 | 11 | Z | -0.004 | -0.004 | 0 | %100 |
| 9 | 12 | Z | -0.002 | -0.002 | 0 | %100 |
| 10 | 13 | Z | -0.004 | -0.004 | 0 | %100 |
| 11 | 15 | Z | -0.004 | -0.004 | 0 | %100 |
| 12 | 16 | Z | -0.002 | -0.002 | 0 | %100 |
| 13 | 17 | Z | -0.004 | -0.004 | 0 | %100 |
| 14 | 20 | Z | -0.002 | -0.002 | 0 | %100 |
| 15 | 21 | Z | -0.002 | -0.002 | 0 | %100 |
| 16 | 22 | Z | -0.002 | -0.002 | 0 | %100 |
| 17 | 23 | Z | -0.002 | -0.002 | 0 | %100 |
| 18 | 24 | Z | -0.004 | -0.004 | 0 | %100 |
| 19 | 25 | Z | -0.002 | -0.002 | 0 | %100 |
| 20 | 26 | Z | -0.004 | -0.004 | 0 | %100 |
| 21 | 27 | Z | -0.004 | -0.004 | 0 | %100 |
| 22 | 28 | Z | -0.002 | -0.002 | 0 | %100 |
| 23 | 29 | Z | -0.004 | -0.004 | 0 | %100 |
| 24 | 31 | Z | -0.004 | -0.004 | 0 | %100 |
| 25 | 32 | Z | -0.004 | -0.004 | 0 | %100 |
| 26 | 33 | Z | -0.002 | -0.002 | 0 | %100 |
| 27 | 34 | Z | -0.002 | -0.002 | 0 | %100 |
| 28 | 35 | Z | -0.002 | -0.002 | 0 | %100 |
| 29 | 36 | Z | -0.002 | -0.002 | 0 | %100 |
| 30 | 37 | Z | -0.002 | -0.002 | 0 | %100 |
| 31 | 41 | Z | -0.004 | -0.004 | 0 | %100 |
| 32 | 42 | Z | -0.002 | -0.002 | 0 | %100 |
| 33 | 43 | Z | -0.004 | -0.004 | 0 | %100 |
| 34 | 45 | Z | -0.004 | -0.004 | 0 | %100 |
| 35 | 46 | Z | -0.002 | -0.002 | 0 | %100 |
| 36 | 47 | Z | -0.004 | -0.004 | 0 | %100 |
| 37 | 50 | Z | -0.002 | -0.002 | 0 | %100 |
| 38 | 51 | Z | -0.002 | -0.002 | 0 | %100 |
| 39 | 52 | Z | -0.002 | -0.002 | 0 | %100 |
| 40 | 53 | Z | -0.002 | -0.002 | 0 | %100 |
| 41 | 54 | Z | -0.004 | -0.004 | 0 | %100 |
| 42 | 55 | Z | -0.002 | -0.002 | 0 | %100 |
| 43 | 56 | Z | -0.004 | -0.004 | 0 | %100 |
| 44 | 57 | Z | -0.004 | -0.004 | 0 | %100 |
| 45 | 58 | Z | -0.002 | -0.002 | 0 | %100 |
| 46 | 59 | Z | -0.004 | -0.004 | 0 | %100 |
| 47 | 61 | Z | -0.004 | -0.004 | 0 | %100 |
| 48 | 62 | Z | -0.004 | -0.004 | 0 | %100 |
| 49 | 63 | Z | -0.002 | -0.002 | 0 | %100 |
| 50 | 64 | Z | -0.002 | -0.002 | 0 | %100 |
| 51 | 65 | Z | -0.002 | -0.002 | 0 | %100 |
| 52 | 66 | Z | -0.002 | -0.002 | 0 | %100 |
| 53 | 67 | Z | -0.002 | -0.002 | 0 | %100 |
| 54 | 71 | Z | -0.004 | -0.004 | 0 | %100 |
| 55 | 72 | Z | -0.002 | -0.002 | 0 | %100 |

### Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 56 | 73 | Z | -0.004 | -0.004 | 0 | %100 |
| 57 | 75 | Z | -0.004 | -0.004 | 0 | %100 |
| 58 | 76 | Z | -0.002 | -0.002 | 0 | %100 |
| 59 | 77 | Z | -0.004 | -0.004 | 0 | %100 |
| 60 | 80 | Z | -0.002 | -0.002 | 0 | %100 |
| 61 | 81 | Z | -0.002 | -0.002 | 0 | %100 |
| 62 | 82 | Z | -0.002 | -0.002 | 0 | %100 |
| 63 | 83 | Z | -0.002 | -0.002 | 0 | %100 |
| 64 | 84 | Z | -0.004 | -0.004 | 0 | %100 |
| 65 | 85 | Z | -0.002 | -0.002 | 0 | %100 |
| 66 | 86 | Z | -0.004 | -0.004 | 0 | %100 |
| 67 | 87 | Z | -0.004 | -0.004 | 0 | %100 |
| 68 | 88 | Z | -0.002 | -0.002 | 0 | %100 |
| 69 | 89 | Z | -0.004 | -0.004 | 0 | %100 |
| 70 | 93 | Z | -0.002 | -0.002 | 0 | %100 |
| 71 | 94 | Z | -0.002 | -0.002 | 0 | %100 |
| 72 | 95 | Z | -0.002 | -0.002 | 0 | %100 |
| 73 | 106 | Z | -0.002 | -0.002 | 0 | %100 |
| 74 | 109 | Z | -0.002 | -0.002 | 0 | %100 |
| 75 | 112 | Z | -0.002 | -0.002 | 0 | %100 |
| 76 | 115 | Z | -0.002 | -0.002 | 0 | %100 |
| 77 | 118 | Z | -0.002 | -0.002 | 0 | %100 |
| 78 | 121 | Z | -0.002 | -0.002 | 0 | %100 |
| 79 | 124 | Z | -0.002 | -0.002 | 0 | %100 |
| 80 | 126 | Z | -0.002 | -0.002 | 0 | %100 |
| 81 | 127 | Z | -0.002 | -0.002 | 0 | %100 |
| 82 | 128 | Z | -0.002 | -0.002 | 0 | %100 |
| 83 | 138 | Z | -0.002 | -0.002 | 0 | %100 |
| 84 | 139 | Z | -0.002 | -0.002 | 0 | %100 |
| 85 | 140 | Z | -0.002 | -0.002 | 0 | %100 |
| 86 | 150 | Z | -0.002 | -0.002 | 0 | %100 |

### Member Distributed Loads (BLC 5 : 90 Wind - Ice)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | X | -0.004 | -0.004 | 0 | %100 |
| 2 | 2 | X | -0.004 | -0.004 | 0 | %100 |
| 3 | 3 | X | -0.002 | -0.002 | 0 | %100 |
| 4 | 4 | X | -0.002 | -0.002 | 0 | %100 |
| 5 | 5 | X | -0.002 | -0.002 | 0 | %100 |
| 6 | 6 | X | -0.002 | -0.002 | 0 | %100 |
| 7 | 7 | X | -0.002 | -0.002 | 0 | %100 |
| 8 | 11 | X | -0.004 | -0.004 | 0 | %100 |
| 9 | 12 | X | -0.002 | -0.002 | 0 | %100 |
| 10 | 13 | X | -0.004 | -0.004 | 0 | %100 |
| 11 | 15 | X | -0.004 | -0.004 | 0 | %100 |
| 12 | 16 | X | -0.002 | -0.002 | 0 | %100 |
| 13 | 17 | X | -0.004 | -0.004 | 0 | %100 |
| 14 | 20 | X | -0.002 | -0.002 | 0 | %100 |
| 15 | 21 | X | -0.002 | -0.002 | 0 | %100 |
| 16 | 22 | X | -0.002 | -0.002 | 0 | %100 |
| 17 | 23 | X | -0.002 | -0.002 | 0 | %100 |
| 18 | 24 | X | -0.004 | -0.004 | 0 | %100 |
| 19 | 25 | X | -0.002 | -0.002 | 0 | %100 |
| 20 | 26 | X | -0.004 | -0.004 | 0 | %100 |
| 21 | 27 | X | -0.004 | -0.004 | 0 | %100 |

***Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 22 | 28 | X | -0.002 | -0.002 | 0 | %100 |
| 23 | 29 | X | -0.004 | -0.004 | 0 | %100 |
| 24 | 31 | X | -0.004 | -0.004 | 0 | %100 |
| 25 | 32 | X | -0.004 | -0.004 | 0 | %100 |
| 26 | 33 | X | -0.002 | -0.002 | 0 | %100 |
| 27 | 34 | X | -0.002 | -0.002 | 0 | %100 |
| 28 | 35 | X | -0.002 | -0.002 | 0 | %100 |
| 29 | 36 | X | -0.002 | -0.002 | 0 | %100 |
| 30 | 37 | X | -0.002 | -0.002 | 0 | %100 |
| 31 | 41 | X | -0.004 | -0.004 | 0 | %100 |
| 32 | 42 | X | -0.002 | -0.002 | 0 | %100 |
| 33 | 43 | X | -0.004 | -0.004 | 0 | %100 |
| 34 | 45 | X | -0.004 | -0.004 | 0 | %100 |
| 35 | 46 | X | -0.002 | -0.002 | 0 | %100 |
| 36 | 47 | X | -0.004 | -0.004 | 0 | %100 |
| 37 | 50 | X | -0.002 | -0.002 | 0 | %100 |
| 38 | 51 | X | -0.002 | -0.002 | 0 | %100 |
| 39 | 52 | X | -0.002 | -0.002 | 0 | %100 |
| 40 | 53 | X | -0.002 | -0.002 | 0 | %100 |
| 41 | 54 | X | -0.004 | -0.004 | 0 | %100 |
| 42 | 55 | X | -0.002 | -0.002 | 0 | %100 |
| 43 | 56 | X | -0.004 | -0.004 | 0 | %100 |
| 44 | 57 | X | -0.004 | -0.004 | 0 | %100 |
| 45 | 58 | X | -0.002 | -0.002 | 0 | %100 |
| 46 | 59 | X | -0.004 | -0.004 | 0 | %100 |
| 47 | 61 | X | -0.004 | -0.004 | 0 | %100 |
| 48 | 62 | X | -0.004 | -0.004 | 0 | %100 |
| 49 | 63 | X | -0.002 | -0.002 | 0 | %100 |
| 50 | 64 | X | -0.002 | -0.002 | 0 | %100 |
| 51 | 65 | X | -0.002 | -0.002 | 0 | %100 |
| 52 | 66 | X | -0.002 | -0.002 | 0 | %100 |
| 53 | 67 | X | -0.002 | -0.002 | 0 | %100 |
| 54 | 71 | X | -0.004 | -0.004 | 0 | %100 |
| 55 | 72 | X | -0.002 | -0.002 | 0 | %100 |
| 56 | 73 | X | -0.004 | -0.004 | 0 | %100 |
| 57 | 75 | X | -0.004 | -0.004 | 0 | %100 |
| 58 | 76 | X | -0.002 | -0.002 | 0 | %100 |
| 59 | 77 | X | -0.004 | -0.004 | 0 | %100 |
| 60 | 80 | X | -0.002 | -0.002 | 0 | %100 |
| 61 | 81 | X | -0.002 | -0.002 | 0 | %100 |
| 62 | 82 | X | -0.002 | -0.002 | 0 | %100 |
| 63 | 83 | X | -0.002 | -0.002 | 0 | %100 |
| 64 | 84 | X | -0.004 | -0.004 | 0 | %100 |
| 65 | 85 | X | -0.002 | -0.002 | 0 | %100 |
| 66 | 86 | X | -0.004 | -0.004 | 0 | %100 |
| 67 | 87 | X | -0.004 | -0.004 | 0 | %100 |
| 68 | 88 | X | -0.002 | -0.002 | 0 | %100 |
| 69 | 89 | X | -0.004 | -0.004 | 0 | %100 |
| 70 | 93 | X | -0.002 | -0.002 | 0 | %100 |
| 71 | 94 | X | -0.002 | -0.002 | 0 | %100 |
| 72 | 95 | X | -0.002 | -0.002 | 0 | %100 |
| 73 | 106 | X | -0.002 | -0.002 | 0 | %100 |
| 74 | 109 | X | -0.002 | -0.002 | 0 | %100 |
| 75 | 112 | X | -0.002 | -0.002 | 0 | %100 |
| 76 | 115 | X | -0.002 | -0.002 | 0 | %100 |

### Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 77 | 118 | X | -0.002 | -0.002 | 0 | %100 |
| 78 | 121 | X | -0.002 | -0.002 | 0 | %100 |
| 79 | 124 | X | -0.002 | -0.002 | 0 | %100 |
| 80 | 126 | X | -0.002 | -0.002 | 0 | %100 |
| 81 | 127 | X | -0.002 | -0.002 | 0 | %100 |
| 82 | 128 | X | -0.002 | -0.002 | 0 | %100 |
| 83 | 138 | X | -0.002 | -0.002 | 0 | %100 |
| 84 | 139 | X | -0.002 | -0.002 | 0 | %100 |
| 85 | 140 | X | -0.002 | -0.002 | 0 | %100 |
| 86 | 150 | X | -0.002 | -0.002 | 0 | %100 |

### Member Distributed Loads (BLC 6 : 0 Wind - Service)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 2 | 2 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 3 | 3 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 4 | 4 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 5 | 5 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 6 | 6 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 7 | 7 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 8 | 11 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 9 | 12 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 10 | 13 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 11 | 15 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 12 | 16 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 13 | 17 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 14 | 20 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 15 | 21 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 16 | 22 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 17 | 23 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 18 | 24 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 19 | 25 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 20 | 26 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 21 | 27 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 22 | 28 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 23 | 29 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 24 | 31 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 25 | 32 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 26 | 33 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 27 | 34 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 28 | 35 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 29 | 36 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 30 | 37 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 31 | 41 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 32 | 42 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 33 | 43 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 34 | 45 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 35 | 46 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 36 | 47 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 37 | 50 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 38 | 51 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 39 | 52 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 40 | 53 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 41 | 54 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 42 | 55 | Z | -0.0003 | -0.0003 | 0 | %100 |

### Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 43 | 56 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 44 | 57 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 45 | 58 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 46 | 59 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 47 | 61 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 48 | 62 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 49 | 63 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 50 | 64 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 51 | 65 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 52 | 66 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 53 | 67 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 54 | 71 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 55 | 72 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 56 | 73 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 57 | 75 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 58 | 76 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 59 | 77 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 60 | 80 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 61 | 81 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 62 | 82 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 63 | 83 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 64 | 84 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 65 | 85 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 66 | 86 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 67 | 87 | Z | -0.0001 | -0.0001 | 0 | %100 |
| 68 | 88 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 69 | 89 | Z | -0.0002 | -0.0002 | 0 | %100 |
| 70 | 93 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 71 | 94 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 72 | 95 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 73 | 106 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 74 | 109 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 75 | 112 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 76 | 115 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 77 | 118 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 78 | 121 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 79 | 124 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 80 | 126 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 81 | 127 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 82 | 128 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 83 | 138 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 84 | 139 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 85 | 140 | Z | -0.0003 | -0.0003 | 0 | %100 |
| 86 | 150 | Z | -0.0003 | -0.0003 | 0 | %100 |

### Member Distributed Loads (BLC 7 : 90 Wind - Service)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | X | -0.0003 | -0.0003 | 0 | %100 |
| 2 | 2 | X | -0.0003 | -0.0003 | 0 | %100 |
| 3 | 3 | X | -0.0002 | -0.0002 | 0 | %100 |
| 4 | 4 | X | -0.0003 | -0.0003 | 0 | %100 |
| 5 | 5 | X | -0.0003 | -0.0003 | 0 | %100 |
| 6 | 6 | X | -0.0002 | -0.0002 | 0 | %100 |
| 7 | 7 | X | -0.0002 | -0.0002 | 0 | %100 |
| 8 | 11 | X | -0.0001 | -0.0001 | 0 | %100 |

***Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 9 | 12 | X | -0.0003 | -0.0003 | 0 | %100 |
| 10 | 13 | X | -0.0002 | -0.0002 | 0 | %100 |
| 11 | 15 | X | -0.0001 | -0.0001 | 0 | %100 |
| 12 | 16 | X | -0.0003 | -0.0003 | 0 | %100 |
| 13 | 17 | X | -0.0002 | -0.0002 | 0 | %100 |
| 14 | 20 | X | -0.0003 | -0.0003 | 0 | %100 |
| 15 | 21 | X | -0.0002 | -0.0002 | 0 | %100 |
| 16 | 22 | X | -0.0002 | -0.0002 | 0 | %100 |
| 17 | 23 | X | -0.0002 | -0.0002 | 0 | %100 |
| 18 | 24 | X | -0.0001 | -0.0001 | 0 | %100 |
| 19 | 25 | X | -0.0003 | -0.0003 | 0 | %100 |
| 20 | 26 | X | -0.0002 | -0.0002 | 0 | %100 |
| 21 | 27 | X | -0.0001 | -0.0001 | 0 | %100 |
| 22 | 28 | X | -0.0003 | -0.0003 | 0 | %100 |
| 23 | 29 | X | -0.0002 | -0.0002 | 0 | %100 |
| 24 | 31 | X | -0.0003 | -0.0003 | 0 | %100 |
| 25 | 32 | X | -0.0003 | -0.0003 | 0 | %100 |
| 26 | 33 | X | -0.0002 | -0.0002 | 0 | %100 |
| 27 | 34 | X | -0.0003 | -0.0003 | 0 | %100 |
| 28 | 35 | X | -0.0003 | -0.0003 | 0 | %100 |
| 29 | 36 | X | -0.0002 | -0.0002 | 0 | %100 |
| 30 | 37 | X | -0.0002 | -0.0002 | 0 | %100 |
| 31 | 41 | X | -0.0001 | -0.0001 | 0 | %100 |
| 32 | 42 | X | -0.0003 | -0.0003 | 0 | %100 |
| 33 | 43 | X | -0.0002 | -0.0002 | 0 | %100 |
| 34 | 45 | X | -0.0001 | -0.0001 | 0 | %100 |
| 35 | 46 | X | -0.0003 | -0.0003 | 0 | %100 |
| 36 | 47 | X | -0.0002 | -0.0002 | 0 | %100 |
| 37 | 50 | X | -0.0003 | -0.0003 | 0 | %100 |
| 38 | 51 | X | -0.0002 | -0.0002 | 0 | %100 |
| 39 | 52 | X | -0.0002 | -0.0002 | 0 | %100 |
| 40 | 53 | X | -0.0002 | -0.0002 | 0 | %100 |
| 41 | 54 | X | -0.0001 | -0.0001 | 0 | %100 |
| 42 | 55 | X | -0.0003 | -0.0003 | 0 | %100 |
| 43 | 56 | X | -0.0002 | -0.0002 | 0 | %100 |
| 44 | 57 | X | -0.0001 | -0.0001 | 0 | %100 |
| 45 | 58 | X | -0.0003 | -0.0003 | 0 | %100 |
| 46 | 59 | X | -0.0002 | -0.0002 | 0 | %100 |
| 47 | 61 | X | -0.0003 | -0.0003 | 0 | %100 |
| 48 | 62 | X | -0.0003 | -0.0003 | 0 | %100 |
| 49 | 63 | X | -0.0002 | -0.0002 | 0 | %100 |
| 50 | 64 | X | -0.0003 | -0.0003 | 0 | %100 |
| 51 | 65 | X | -0.0003 | -0.0003 | 0 | %100 |
| 52 | 66 | X | -0.0002 | -0.0002 | 0 | %100 |
| 53 | 67 | X | -0.0002 | -0.0002 | 0 | %100 |
| 54 | 71 | X | -0.0001 | -0.0001 | 0 | %100 |
| 55 | 72 | X | -0.0003 | -0.0003 | 0 | %100 |
| 56 | 73 | X | -0.0002 | -0.0002 | 0 | %100 |
| 57 | 75 | X | -0.0001 | -0.0001 | 0 | %100 |
| 58 | 76 | X | -0.0003 | -0.0003 | 0 | %100 |
| 59 | 77 | X | -0.0002 | -0.0002 | 0 | %100 |
| 60 | 80 | X | -0.0003 | -0.0003 | 0 | %100 |
| 61 | 81 | X | -0.0002 | -0.0002 | 0 | %100 |
| 62 | 82 | X | -0.0002 | -0.0002 | 0 | %100 |
| 63 | 83 | X | -0.0002 | -0.0002 | 0 | %100 |

### *Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)*

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 64 | 84 | X | -0.0001 | -0.0001 | 0 | %100 |
| 65 | 85 | X | -0.0003 | -0.0003 | 0 | %100 |
| 66 | 86 | X | -0.0002 | -0.0002 | 0 | %100 |
| 67 | 87 | X | -0.0001 | -0.0001 | 0 | %100 |
| 68 | 88 | X | -0.0003 | -0.0003 | 0 | %100 |
| 69 | 89 | X | -0.0002 | -0.0002 | 0 | %100 |
| 70 | 93 | X | -0.0003 | -0.0003 | 0 | %100 |
| 71 | 94 | X | -0.0003 | -0.0003 | 0 | %100 |
| 72 | 95 | X | -0.0003 | -0.0003 | 0 | %100 |
| 73 | 106 | X | -0.0003 | -0.0003 | 0 | %100 |
| 74 | 109 | X | -0.0003 | -0.0003 | 0 | %100 |
| 75 | 112 | X | -0.0003 | -0.0003 | 0 | %100 |
| 76 | 115 | X | -0.0003 | -0.0003 | 0 | %100 |
| 77 | 118 | X | -0.0003 | -0.0003 | 0 | %100 |
| 78 | 121 | X | -0.0003 | -0.0003 | 0 | %100 |
| 79 | 124 | X | -0.0003 | -0.0003 | 0 | %100 |
| 80 | 126 | X | -0.0003 | -0.0003 | 0 | %100 |
| 81 | 127 | X | -0.0003 | -0.0003 | 0 | %100 |
| 82 | 128 | X | -0.0003 | -0.0003 | 0 | %100 |
| 83 | 138 | X | -0.0003 | -0.0003 | 0 | %100 |
| 84 | 139 | X | -0.0003 | -0.0003 | 0 | %100 |
| 85 | 140 | X | -0.0003 | -0.0003 | 0 | %100 |
| 86 | 150 | X | -0.0003 | -0.0003 | 0 | %100 |

### *Member Distributed Loads (BLC 8 : Ice)*

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | Y | -0.01 | -0.01 | 0 | %100 |
| 2 | 2 | Y | -0.01 | -0.01 | 0 | %100 |
| 3 | 3 | Y | -0.003 | -0.003 | 0 | %100 |
| 4 | 4 | Y | -0.005 | -0.005 | 0 | %100 |
| 5 | 5 | Y | -0.005 | -0.005 | 0 | %100 |
| 6 | 6 | Y | -0.003 | -0.003 | 0 | %100 |
| 7 | 7 | Y | -0.003 | -0.003 | 0 | %100 |
| 8 | 11 | Y | -0.007 | -0.007 | 0 | %100 |
| 9 | 12 | Y | -0.005 | -0.005 | 0 | %100 |
| 10 | 13 | Y | -0.007 | -0.007 | 0 | %100 |
| 11 | 15 | Y | -0.007 | -0.007 | 0 | %100 |
| 12 | 16 | Y | -0.005 | -0.005 | 0 | %100 |
| 13 | 17 | Y | -0.007 | -0.007 | 0 | %100 |
| 14 | 20 | Y | -0.005 | -0.005 | 0 | %100 |
| 15 | 21 | Y | -0.003 | -0.003 | 0 | %100 |
| 16 | 22 | Y | -0.003 | -0.003 | 0 | %100 |
| 17 | 23 | Y | -0.003 | -0.003 | 0 | %100 |
| 18 | 24 | Y | -0.007 | -0.007 | 0 | %100 |
| 19 | 25 | Y | -0.005 | -0.005 | 0 | %100 |
| 20 | 26 | Y | -0.007 | -0.007 | 0 | %100 |
| 21 | 27 | Y | -0.007 | -0.007 | 0 | %100 |
| 22 | 28 | Y | -0.005 | -0.005 | 0 | %100 |
| 23 | 29 | Y | -0.007 | -0.007 | 0 | %100 |
| 24 | 31 | Y | -0.01 | -0.01 | 0 | %100 |
| 25 | 32 | Y | -0.01 | -0.01 | 0 | %100 |
| 26 | 33 | Y | -0.003 | -0.003 | 0 | %100 |
| 27 | 34 | Y | -0.005 | -0.005 | 0 | %100 |
| 28 | 35 | Y | -0.005 | -0.005 | 0 | %100 |
| 29 | 36 | Y | -0.003 | -0.003 | 0 | %100 |

***Member Distributed Loads (BLC 8 : Ice) (Continued)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 30 | 37 | Y | -0.003 | -0.003 | 0 | %100 |
| 31 | 41 | Y | -0.007 | -0.007 | 0 | %100 |
| 32 | 42 | Y | -0.005 | -0.005 | 0 | %100 |
| 33 | 43 | Y | -0.007 | -0.007 | 0 | %100 |
| 34 | 45 | Y | -0.007 | -0.007 | 0 | %100 |
| 35 | 46 | Y | -0.005 | -0.005 | 0 | %100 |
| 36 | 47 | Y | -0.007 | -0.007 | 0 | %100 |
| 37 | 50 | Y | -0.005 | -0.005 | 0 | %100 |
| 38 | 51 | Y | -0.003 | -0.003 | 0 | %100 |
| 39 | 52 | Y | -0.003 | -0.003 | 0 | %100 |
| 40 | 53 | Y | -0.003 | -0.003 | 0 | %100 |
| 41 | 54 | Y | -0.007 | -0.007 | 0 | %100 |
| 42 | 55 | Y | -0.005 | -0.005 | 0 | %100 |
| 43 | 56 | Y | -0.007 | -0.007 | 0 | %100 |
| 44 | 57 | Y | -0.007 | -0.007 | 0 | %100 |
| 45 | 58 | Y | -0.005 | -0.005 | 0 | %100 |
| 46 | 59 | Y | -0.007 | -0.007 | 0 | %100 |
| 47 | 61 | Y | -0.01 | -0.01 | 0 | %100 |
| 48 | 62 | Y | -0.01 | -0.01 | 0 | %100 |
| 49 | 63 | Y | -0.003 | -0.003 | 0 | %100 |
| 50 | 64 | Y | -0.005 | -0.005 | 0 | %100 |
| 51 | 65 | Y | -0.005 | -0.005 | 0 | %100 |
| 52 | 66 | Y | -0.003 | -0.003 | 0 | %100 |
| 53 | 67 | Y | -0.003 | -0.003 | 0 | %100 |
| 54 | 71 | Y | -0.007 | -0.007 | 0 | %100 |
| 55 | 72 | Y | -0.005 | -0.005 | 0 | %100 |
| 56 | 73 | Y | -0.007 | -0.007 | 0 | %100 |
| 57 | 75 | Y | -0.007 | -0.007 | 0 | %100 |
| 58 | 76 | Y | -0.005 | -0.005 | 0 | %100 |
| 59 | 77 | Y | -0.007 | -0.007 | 0 | %100 |
| 60 | 80 | Y | -0.005 | -0.005 | 0 | %100 |
| 61 | 81 | Y | -0.003 | -0.003 | 0 | %100 |
| 62 | 82 | Y | -0.003 | -0.003 | 0 | %100 |
| 63 | 83 | Y | -0.003 | -0.003 | 0 | %100 |
| 64 | 84 | Y | -0.007 | -0.007 | 0 | %100 |
| 65 | 85 | Y | -0.005 | -0.005 | 0 | %100 |
| 66 | 86 | Y | -0.007 | -0.007 | 0 | %100 |
| 67 | 87 | Y | -0.007 | -0.007 | 0 | %100 |
| 68 | 88 | Y | -0.005 | -0.005 | 0 | %100 |
| 69 | 89 | Y | -0.007 | -0.007 | 0 | %100 |
| 70 | 93 | Y | -0.005 | -0.005 | 0 | %100 |
| 71 | 94 | Y | -0.005 | -0.005 | 0 | %100 |
| 72 | 95 | Y | -0.005 | -0.005 | 0 | %100 |
| 73 | 106 | Y | -0.005 | -0.005 | 0 | %100 |
| 74 | 109 | Y | -0.005 | -0.005 | 0 | %100 |
| 75 | 112 | Y | -0.005 | -0.005 | 0 | %100 |
| 76 | 115 | Y | -0.005 | -0.005 | 0 | %100 |
| 77 | 118 | Y | -0.005 | -0.005 | 0 | %100 |
| 78 | 121 | Y | -0.005 | -0.005 | 0 | %100 |
| 79 | 124 | Y | -0.005 | -0.005 | 0 | %100 |
| 80 | 126 | Y | -0.005 | -0.005 | 0 | %100 |
| 81 | 127 | Y | -0.005 | -0.005 | 0 | %100 |
| 82 | 128 | Y | -0.005 | -0.005 | 0 | %100 |
| 83 | 138 | Y | -0.005 | -0.005 | 0 | %100 |
| 84 | 139 | Y | -0.005 | -0.005 | 0 | %100 |

### Member Distributed Loads (BLC 8 : Ice) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 85 | 140 | Y | -0.005 | -0.005 | 0 | %100 |
| 86 | 150 | Y | -0.005 | -0.005 | 0 | %100 |

### Member Distributed Loads (BLC 9 : 0 Seismic)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | Z | -0.003 | -0.003 | 0 | %100 |
| 2 | 2 | Z | -0.003 | -0.003 | 0 | %100 |
| 3 | 3 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 4 | 4 | Z | -0.001 | -0.001 | 0 | %100 |
| 5 | 5 | Z | -0.001 | -0.001 | 0 | %100 |
| 6 | 6 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 7 | 7 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 8 | 11 | Z | -0.001 | -0.001 | 0 | %100 |
| 9 | 12 | Z | -0.001 | -0.001 | 0 | %100 |
| 10 | 13 | Z | -0.001 | -0.001 | 0 | %100 |
| 11 | 15 | Z | -0.001 | -0.001 | 0 | %100 |
| 12 | 16 | Z | -0.001 | -0.001 | 0 | %100 |
| 13 | 17 | Z | -0.001 | -0.001 | 0 | %100 |
| 14 | 20 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 15 | 21 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 16 | 22 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 17 | 23 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 18 | 24 | Z | -0.001 | -0.001 | 0 | %100 |
| 19 | 25 | Z | -0.001 | -0.001 | 0 | %100 |
| 20 | 26 | Z | -0.001 | -0.001 | 0 | %100 |
| 21 | 27 | Z | -0.001 | -0.001 | 0 | %100 |
| 22 | 28 | Z | -0.001 | -0.001 | 0 | %100 |
| 23 | 29 | Z | -0.001 | -0.001 | 0 | %100 |
| 24 | 31 | Z | -0.003 | -0.003 | 0 | %100 |
| 25 | 32 | Z | -0.003 | -0.003 | 0 | %100 |
| 26 | 33 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 27 | 34 | Z | -0.001 | -0.001 | 0 | %100 |
| 28 | 35 | Z | -0.001 | -0.001 | 0 | %100 |
| 29 | 36 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 30 | 37 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 31 | 41 | Z | -0.001 | -0.001 | 0 | %100 |
| 32 | 42 | Z | -0.001 | -0.001 | 0 | %100 |
| 33 | 43 | Z | -0.001 | -0.001 | 0 | %100 |
| 34 | 45 | Z | -0.001 | -0.001 | 0 | %100 |
| 35 | 46 | Z | -0.001 | -0.001 | 0 | %100 |
| 36 | 47 | Z | -0.001 | -0.001 | 0 | %100 |
| 37 | 50 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 38 | 51 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 39 | 52 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 40 | 53 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 41 | 54 | Z | -0.001 | -0.001 | 0 | %100 |
| 42 | 55 | Z | -0.001 | -0.001 | 0 | %100 |
| 43 | 56 | Z | -0.001 | -0.001 | 0 | %100 |
| 44 | 57 | Z | -0.001 | -0.001 | 0 | %100 |
| 45 | 58 | Z | -0.001 | -0.001 | 0 | %100 |
| 46 | 59 | Z | -0.001 | -0.001 | 0 | %100 |
| 47 | 61 | Z | -0.003 | -0.003 | 0 | %100 |
| 48 | 62 | Z | -0.003 | -0.003 | 0 | %100 |
| 49 | 63 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 50 | 64 | Z | -0.001 | -0.001 | 0 | %100 |

### Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 51 | 65 | Z | -0.001 | -0.001 | 0 | %100 |
| 52 | 66 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 53 | 67 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 54 | 71 | Z | -0.001 | -0.001 | 0 | %100 |
| 55 | 72 | Z | -0.001 | -0.001 | 0 | %100 |
| 56 | 73 | Z | -0.001 | -0.001 | 0 | %100 |
| 57 | 75 | Z | -0.001 | -0.001 | 0 | %100 |
| 58 | 76 | Z | -0.001 | -0.001 | 0 | %100 |
| 59 | 77 | Z | -0.001 | -0.001 | 0 | %100 |
| 60 | 80 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 61 | 81 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 62 | 82 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 63 | 83 | Z | -0.0006 | -0.0006 | 0 | %100 |
| 64 | 84 | Z | -0.001 | -0.001 | 0 | %100 |
| 65 | 85 | Z | -0.001 | -0.001 | 0 | %100 |
| 66 | 86 | Z | -0.001 | -0.001 | 0 | %100 |
| 67 | 87 | Z | -0.001 | -0.001 | 0 | %100 |
| 68 | 88 | Z | -0.001 | -0.001 | 0 | %100 |
| 69 | 89 | Z | -0.001 | -0.001 | 0 | %100 |
| 70 | 93 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 71 | 94 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 72 | 95 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 73 | 106 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 74 | 109 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 75 | 112 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 76 | 115 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 77 | 118 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 78 | 121 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 79 | 124 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 80 | 126 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 81 | 127 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 82 | 128 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 83 | 138 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 84 | 139 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 85 | 140 | Z | -0.0009 | -0.0009 | 0 | %100 |
| 86 | 150 | Z | -0.0009 | -0.0009 | 0 | %100 |

### Member Distributed Loads (BLC 10 : 90 Seismic)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 1 | 1 | X | -0.003 | -0.003 | 0 | %100 |
| 2 | 2 | X | -0.003 | -0.003 | 0 | %100 |
| 3 | 3 | X | -0.0006 | -0.0006 | 0 | %100 |
| 4 | 4 | X | -0.001 | -0.001 | 0 | %100 |
| 5 | 5 | X | -0.001 | -0.001 | 0 | %100 |
| 6 | 6 | X | -0.0006 | -0.0006 | 0 | %100 |
| 7 | 7 | X | -0.0006 | -0.0006 | 0 | %100 |
| 8 | 11 | X | -0.001 | -0.001 | 0 | %100 |
| 9 | 12 | X | -0.001 | -0.001 | 0 | %100 |
| 10 | 13 | X | -0.001 | -0.001 | 0 | %100 |
| 11 | 15 | X | -0.001 | -0.001 | 0 | %100 |
| 12 | 16 | X | -0.001 | -0.001 | 0 | %100 |
| 13 | 17 | X | -0.001 | -0.001 | 0 | %100 |
| 14 | 20 | X | -0.0009 | -0.0009 | 0 | %100 |
| 15 | 21 | X | -0.0006 | -0.0006 | 0 | %100 |
| 16 | 22 | X | -0.0006 | -0.0006 | 0 | %100 |

***Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)***

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 17 | 23 | X | -0.0006 | -0.0006 | 0 | %100 |
| 18 | 24 | X | -0.001 | -0.001 | 0 | %100 |
| 19 | 25 | X | -0.001 | -0.001 | 0 | %100 |
| 20 | 26 | X | -0.001 | -0.001 | 0 | %100 |
| 21 | 27 | X | -0.001 | -0.001 | 0 | %100 |
| 22 | 28 | X | -0.001 | -0.001 | 0 | %100 |
| 23 | 29 | X | -0.001 | -0.001 | 0 | %100 |
| 24 | 31 | X | -0.003 | -0.003 | 0 | %100 |
| 25 | 32 | X | -0.003 | -0.003 | 0 | %100 |
| 26 | 33 | X | -0.0006 | -0.0006 | 0 | %100 |
| 27 | 34 | X | -0.001 | -0.001 | 0 | %100 |
| 28 | 35 | X | -0.001 | -0.001 | 0 | %100 |
| 29 | 36 | X | -0.0006 | -0.0006 | 0 | %100 |
| 30 | 37 | X | -0.0006 | -0.0006 | 0 | %100 |
| 31 | 41 | X | -0.001 | -0.001 | 0 | %100 |
| 32 | 42 | X | -0.001 | -0.001 | 0 | %100 |
| 33 | 43 | X | -0.001 | -0.001 | 0 | %100 |
| 34 | 45 | X | -0.001 | -0.001 | 0 | %100 |
| 35 | 46 | X | -0.001 | -0.001 | 0 | %100 |
| 36 | 47 | X | -0.001 | -0.001 | 0 | %100 |
| 37 | 50 | X | -0.0009 | -0.0009 | 0 | %100 |
| 38 | 51 | X | -0.0006 | -0.0006 | 0 | %100 |
| 39 | 52 | X | -0.0006 | -0.0006 | 0 | %100 |
| 40 | 53 | X | -0.0006 | -0.0006 | 0 | %100 |
| 41 | 54 | X | -0.001 | -0.001 | 0 | %100 |
| 42 | 55 | X | -0.001 | -0.001 | 0 | %100 |
| 43 | 56 | X | -0.001 | -0.001 | 0 | %100 |
| 44 | 57 | X | -0.001 | -0.001 | 0 | %100 |
| 45 | 58 | X | -0.001 | -0.001 | 0 | %100 |
| 46 | 59 | X | -0.001 | -0.001 | 0 | %100 |
| 47 | 61 | X | -0.003 | -0.003 | 0 | %100 |
| 48 | 62 | X | -0.003 | -0.003 | 0 | %100 |
| 49 | 63 | X | -0.0006 | -0.0006 | 0 | %100 |
| 50 | 64 | X | -0.001 | -0.001 | 0 | %100 |
| 51 | 65 | X | -0.001 | -0.001 | 0 | %100 |
| 52 | 66 | X | -0.0006 | -0.0006 | 0 | %100 |
| 53 | 67 | X | -0.0006 | -0.0006 | 0 | %100 |
| 54 | 71 | X | -0.001 | -0.001 | 0 | %100 |
| 55 | 72 | X | -0.001 | -0.001 | 0 | %100 |
| 56 | 73 | X | -0.001 | -0.001 | 0 | %100 |
| 57 | 75 | X | -0.001 | -0.001 | 0 | %100 |
| 58 | 76 | X | -0.001 | -0.001 | 0 | %100 |
| 59 | 77 | X | -0.001 | -0.001 | 0 | %100 |
| 60 | 80 | X | -0.0009 | -0.0009 | 0 | %100 |
| 61 | 81 | X | -0.0006 | -0.0006 | 0 | %100 |
| 62 | 82 | X | -0.0006 | -0.0006 | 0 | %100 |
| 63 | 83 | X | -0.0006 | -0.0006 | 0 | %100 |
| 64 | 84 | X | -0.001 | -0.001 | 0 | %100 |
| 65 | 85 | X | -0.001 | -0.001 | 0 | %100 |
| 66 | 86 | X | -0.001 | -0.001 | 0 | %100 |
| 67 | 87 | X | -0.001 | -0.001 | 0 | %100 |
| 68 | 88 | X | -0.001 | -0.001 | 0 | %100 |
| 69 | 89 | X | -0.001 | -0.001 | 0 | %100 |
| 70 | 93 | X | -0.0009 | -0.0009 | 0 | %100 |
| 71 | 94 | X | -0.0009 | -0.0009 | 0 | %100 |

### Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

| | Member Label | Direction | Start Magnitude [k/ft, F, ksf, k-ft/ft] | End Magnitude [k/ft, F, ksf, k-ft/ft] | Start Location [(ft, %)] | End Location [(ft, %)] |
|---|---|---|---|---|---|---|
| 72 | 95 | X | -0.0009 | -0.0009 | 0 | %100 |
| 73 | 106 | X | -0.0009 | -0.0009 | 0 | %100 |
| 74 | 109 | X | -0.0009 | -0.0009 | 0 | %100 |
| 75 | 112 | X | -0.0009 | -0.0009 | 0 | %100 |
| 76 | 115 | X | -0.0009 | -0.0009 | 0 | %100 |
| 77 | 118 | X | -0.0009 | -0.0009 | 0 | %100 |
| 78 | 121 | X | -0.0009 | -0.0009 | 0 | %100 |
| 79 | 124 | X | -0.0009 | -0.0009 | 0 | %100 |
| 80 | 126 | X | -0.0009 | -0.0009 | 0 | %100 |
| 81 | 127 | X | -0.0009 | -0.0009 | 0 | %100 |
| 82 | 128 | X | -0.0009 | -0.0009 | 0 | %100 |
| 83 | 138 | X | -0.0009 | -0.0009 | 0 | %100 |
| 84 | 139 | X | -0.0009 | -0.0009 | 0 | %100 |
| 85 | 140 | X | -0.0009 | -0.0009 | 0 | %100 |
| 86 | 150 | X | -0.0009 | -0.0009 | 0 | %100 |

### Node Loads and Enforced Displacements (BLC 11 : Live Load a)

| | Node Label | L, D, M | Direction | Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)] |
|---|---|---|---|---|
| 1 | 156 | L | Y | -0.5 |
| 2 | 222 | L | Y | -0.5 |
| 3 | 246 | L | Y | -0.5 |

### Node Loads and Enforced Displacements (BLC 12 : Live Load b)

| | Node Label | L, D, M | Direction | Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)] |
|---|---|---|---|---|
| 1 | 152 | L | Y | -0.5 |
| 2 | 218 | L | Y | -0.5 |
| 3 | 242 | L | Y | -0.5 |

### Node Loads and Enforced Displacements (BLC 13 : Live Load c)

| | Node Label | L, D, M | Direction | Magnitude [(k, k-ft), (in, rad), (k*s²/ft, k*s²*ft)] |
|---|---|---|---|---|
| 1 | 148 | L | Y | -0.5 |
| 2 | 214 | L | Y | -0.5 |
| 3 | 238 | L | Y | -0.5 |

### Basic Load Cases

| | BLC Description | Category | Y Gravity | Nodal | Point | Distributed |
|---|---|---|---|---|---|---|
| 1 | Dead | DL | -1 | | 90 | |
| 2 | 0 Wind - No Ice | WLZ | | | 90 | 86 |
| 3 | 90 Wind - No Ice | WLX | | | 90 | 86 |
| 4 | 0 Wind - Ice | WLZ | | | 90 | 86 |
| 5 | 90 Wind - Ice | WLX | | | 90 | 86 |
| 6 | 0 Wind - Service | WLZ | | | 90 | 86 |
| 7 | 90 Wind - Service | WLX | | | 90 | 86 |
| 8 | Ice | OL1 | | | 90 | 86 |
| 9 | 0 Seismic | ELZ | | | 90 | 86 |
| 10 | 90 Seismic | ELX | | | 90 | 86 |
| 11 | Live Load a | LL | | 3 | | |
| 12 | Live Load b | LL | | 3 | | |
| 13 | Live Load c | LL | | 3 | | |
| 14 | Live Load d | LL | | | | |

### Basic Load Cases (Continued)

| | BLC Description | Category | Y Gravity | Nodal | Point | Distributed |
|---|---|---|---|---|---|---|
| 15 | Maint LL 1 | LL | | | 1 | |
| 16 | Maint LL 2 | LL | | | 1 | |
| 17 | Maint LL 3 | LL | | | 1 | |
| 18 | Maint LL 4 | LL | | | 1 | |
| 19 | Maint LL 5 | LL | | | 1 | |
| 20 | Maint LL 6 | LL | | | 1 | |
| 21 | Maint LL 7 | LL | | | 1 | |
| 22 | Maint LL 8 | LL | | | 1 | |
| 23 | Maint LL 9 | LL | | | 1 | |
| 24 | Maint LL 10 | LL | | | 1 | |
| 25 | Maint LL 11 | LL | | | 1 | |
| 26 | Maint LL 12 | LL | | | 1 | |
| 27 | Maint LL 13 | LL | | | 1 | |
| 28 | Maint LL 14 | LL | | | 1 | |
| 29 | Maint LL 15 | LL | | | 1 | |
| 30 | Maint LL 16 | LL | | | 1 | |
| 31 | Maint LL 17 | LL | | | 1 | |
| 32 | Maint LL 18 | LL | | | 1 | |
| 33 | Maint LL 19 | LL | | | | |
| 34 | Maint LL 20 | LL | | | | |
| 35 | Maint LL 21 | LL | | | | |
| 36 | Maint LL 22 | LL | | | | |
| 37 | Maint LL 23 | LL | | | | |
| 38 | Maint LL 24 | LL | | | | |

### Load Combinations

| | Description | Solve | P-Delta | BLC | Factor | BLC | Factor | BLC | Factor | BLC | Factor |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.4 Dead | Yes | Y | 1 | 1.4 | | | | | | |
| 2 | 1.2 D + 1.0 - 0 W | Yes | Y | 1 | 1.2 | 2 | 1 | | | | |
| 3 | 1.2 D + 1.0 - 30 W | Yes | Y | 1 | 1.2 | 2 | 0.866 | 3 | 0.5 | | |
| 4 | 1.2 D + 1.0 - 60 W | Yes | Y | 1 | 1.2 | 3 | 0.866 | 2 | 0.5 | | |
| 5 | 1.2 D + 1.0 - 90 W | Yes | Y | 1 | 1.2 | 3 | 1 | | | | |
| 6 | 1.2 D + 1.0 - 120 W | Yes | Y | 1 | 1.2 | 3 | 0.866 | 2 | -0.5 | | |
| 7 | 1.2 D + 1.0 - 150 W | Yes | Y | 1 | 1.2 | 2 | -0.866 | 3 | 0.5 | | |
| 8 | 1.2 D + 1.0 - 180 W | Yes | Y | 1 | 1.2 | 2 | -1 | | | | |
| 9 | 1.2 D + 1.0 - 210 W | Yes | Y | 1 | 1.2 | 2 | -0.866 | 3 | -0.5 | | |
| 10 | 1.2 D + 1.0 - 240 W | Yes | Y | 1 | 1.2 | 3 | -0.866 | 2 | -0.5 | | |
| 11 | 1.2 D + 1.0 - 270 W | Yes | Y | 1 | 1.2 | 3 | -1 | | | | |
| 12 | 1.2 D + 1.0 - 300 W | Yes | Y | 1 | 1.2 | 3 | -0.866 | 2 | 0.5 | | |
| 13 | 1.2 D + 1.0 - 330 W | Yes | Y | 1 | 1.2 | 2 | 0.866 | 3 | -0.5 | | |
| 14 | 1.2 D + 1.0 - 0 W/Ice | Yes | Y | 1 | 1.2 | 4 | 1 | | | 8 | 1 |
| 15 | 1.2 D + 1.0 - 30 W/Ice | Yes | Y | 1 | 1.2 | 4 | 0.866 | 5 | 0.5 | 8 | 1 |
| 16 | 1.2 D + 1.0 - 60 W/Ice | Yes | Y | 1 | 1.2 | 5 | 0.866 | 4 | 0.5 | 8 | 1 |
| 17 | 1.2 D + 1.0 - 90 W/Ice | Yes | Y | 1 | 1.2 | 5 | 1 | | | 8 | 1 |
| 18 | 1.2 D + 1.0 - 120 W/Ice | Yes | Y | 1 | 1.2 | 5 | 0.866 | 4 | -0.5 | 8 | 1 |
| 19 | 1.2 D + 1.0 - 150 W/Ice | Yes | Y | 1 | 1.2 | 4 | -0.866 | 5 | 0.5 | 8 | 1 |
| 20 | 1.2 D + 1.0 - 180 W/Ice | Yes | Y | 1 | 1.2 | 4 | -1 | | | 8 | 1 |
| 21 | 1.2 D + 1.0 - 210 W/Ice | Yes | Y | 1 | 1.2 | 4 | -0.866 | 5 | -0.5 | 8 | 1 |
| 22 | 1.2 D + 1.0 - 240 W/Ice | Yes | Y | 1 | 1.2 | 5 | -0.866 | 4 | -0.5 | 8 | 1 |
| 23 | 1.2 D + 1.0 - 270 W/Ice | Yes | Y | 1 | 1.2 | 5 | -1 | | | 8 | 1 |
| 24 | 1.2 D + 1.0 - 300 W/Ice | Yes | Y | 1 | 1.2 | 5 | -0.866 | 4 | 0.5 | 8 | 1 |
| 25 | 1.2 D + 1.0 - 330 W/Ice | Yes | Y | 1 | 1.2 | 4 | 0.866 | 5 | -0.5 | 8 | 1 |
| 26 | 1.2 D + 1.0 E - 0 | Yes | Y | 1 | 1.2 | 9 | 1 | | | | |
| 27 | 1.2 D + 1.0 E - 30 | Yes | Y | 1 | 1.2 | 9 | 0.866 | 10 | 0.5 | | |
| 28 | 1.2 D + 1.0 E - 60 | Yes | Y | 1 | 1.2 | 10 | 0.866 | 9 | 0.5 | | |

***Load Combinations (Continued)***

| | Description | Solve | P-Delta | BLC | Factor | BLC | Factor | BLC | Factor | BLC | Factor |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | 1.2 D + 1.0 E - 90 | Yes | Y | 1 | 1.2 | 10 | 1 | | | | |
| 30 | 1.2 D + 1.0 E - 120 | Yes | Y | 1 | 1.2 | 10 | 0.866 | 9 | -0.5 | | |
| 31 | 1.2 D + 1.0 E - 150 | Yes | Y | 1 | 1.2 | 9 | -0.866 | 10 | 0.5 | | |
| 32 | 1.2 D + 1.0 E - 180 | Yes | Y | 1 | 1.2 | 9 | -1 | | | | |
| 33 | 1.2 D + 1.0 E - 210 | Yes | Y | 1 | 1.2 | 9 | -0.866 | 10 | -0.5 | | |
| 34 | 1.2 D + 1.0 E - 240 | Yes | Y | 1 | 1.2 | 10 | -0.866 | 9 | -0.5 | | |
| 35 | 1.2 D + 1.0 E - 270 | Yes | Y | 1 | 1.2 | 10 | -1 | | | | |
| 36 | 1.2 D + 1.0 E - 300 | Yes | Y | 1 | 1.2 | 10 | -0.866 | 9 | 0.5 | | |
| 37 | 1.2 D + 1.0 E - 330 | Yes | Y | 1 | 1.2 | 9 | 0.866 | 10 | -0.5 | | |
| 38 | 1.2 D + 1.5 LL a + Service - 0 W | Yes | Y | 1 | 1.2 | 6 | 1 | | | 11 | 1.5 |
| 39 | 1.2 D + 1.5 LL a + Service - 30 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | 0.5 | 11 | 1.5 |
| 40 | 1.2 D + 1.5 LL a + Service - 60 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | 0.5 | 11 | 1.5 |
| 41 | 1.2 D + 1.5 LL a + Service - 90 W | Yes | Y | 1 | 1.2 | 7 | 1 | | | 11 | 1.5 |
| 42 | 1.2 D + 1.5 LL a + Service - 120 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | -0.5 | 11 | 1.5 |
| 43 | 1.2 D + 1.5 LL a + Service - 150 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | 0.5 | 11 | 1.5 |
| 44 | 1.2 D + 1.5 LL a + Service - 180 W | Yes | Y | 1 | 1.2 | 6 | -1 | | | 11 | 1.5 |
| 45 | 1.2 D + 1.5 LL a + Service - 210 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | -0.5 | 11 | 1.5 |
| 46 | 1.2 D + 1.5 LL a + Service - 240 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | -0.5 | 11 | 1.5 |
| 47 | 1.2 D + 1.5 LL a + Service - 270 W | Yes | Y | 1 | 1.2 | 7 | -1 | | | 11 | 1.5 |
| 48 | 1.2 D + 1.5 LL a + Service - 300 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | 0.5 | 11 | 1.5 |
| 49 | 1.2 D + 1.5 LL a + Service - 330 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | -0.5 | 11 | 1.5 |
| 50 | 1.2 D + 1.5 LL b + Service - 0 W | Yes | Y | 1 | 1.2 | 6 | 1 | | | 12 | 1.5 |
| 51 | 1.2 D + 1.5 LL b + Service - 30 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | 0.5 | 12 | 1.5 |
| 52 | 1.2 D + 1.5 LL b + Service - 60 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | 0.5 | 12 | 1.5 |
| 53 | 1.2 D + 1.5 LL b + Service - 90 W | Yes | Y | 1 | 1.2 | 7 | 1 | | | 12 | 1.5 |
| 54 | 1.2 D + 1.5 LL b + Service - 120 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | -0.5 | 12 | 1.5 |
| 55 | 1.2 D + 1.5 LL b + Service - 150 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | 0.5 | 12 | 1.5 |
| 56 | 1.2 D + 1.5 LL b + Service - 180 W | Yes | Y | 1 | 1.2 | 6 | -1 | | | 12 | 1.5 |
| 57 | 1.2 D + 1.5 LL b + Service - 210 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | -0.5 | 12 | 1.5 |
| 58 | 1.2 D + 1.5 LL b + Service - 240 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | -0.5 | 12 | 1.5 |
| 59 | 1.2 D + 1.5 LL b + Service - 270 W | Yes | Y | 1 | 1.2 | 7 | -1 | | | 12 | 1.5 |
| 60 | 1.2 D + 1.5 LL b + Service - 300 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | 0.5 | 12 | 1.5 |
| 61 | 1.2 D + 1.5 LL b + Service - 330 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | -0.5 | 12 | 1.5 |
| 62 | 1.2 D + 1.5 LL c + Service - 0 W | Yes | Y | 1 | 1.2 | 6 | 1 | | | 13 | 1.5 |
| 63 | 1.2 D + 1.5 LL c + Service - 30 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | 0.5 | 13 | 1.5 |
| 64 | 1.2 D + 1.5 LL c + Service - 60 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | 0.5 | 13 | 1.5 |
| 65 | 1.2 D + 1.5 LL c + Service - 90 W | Yes | Y | 1 | 1.2 | 7 | 1 | | | 13 | 1.5 |
| 66 | 1.2 D + 1.5 LL c + Service - 120 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | -0.5 | 13 | 1.5 |
| 67 | 1.2 D + 1.5 LL c + Service - 150 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | 0.5 | 13 | 1.5 |
| 68 | 1.2 D + 1.5 LL c + Service - 180 W | Yes | Y | 1 | 1.2 | 6 | -1 | | | 13 | 1.5 |
| 69 | 1.2 D + 1.5 LL c + Service - 210 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | -0.5 | 13 | 1.5 |
| 70 | 1.2 D + 1.5 LL c + Service - 240 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | -0.5 | 13 | 1.5 |
| 71 | 1.2 D + 1.5 LL c + Service - 270 W | Yes | Y | 1 | 1.2 | 7 | -1 | | | 13 | 1.5 |
| 72 | 1.2 D + 1.5 LL c + Service - 300 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | 0.5 | 13 | 1.5 |
| 73 | 1.2 D + 1.5 LL c + Service - 330 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | -0.5 | 13 | 1.5 |
| 74 | 1.2 D + 1.5 LL d + Service - 0 W | Yes | Y | 1 | 1.2 | 6 | 1 | | | 14 | 1.5 |
| 75 | 1.2 D + 1.5 LL d + Service - 30 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | 0.5 | 14 | 1.5 |
| 76 | 1.2 D + 1.5 LL d + Service - 60 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | 0.5 | 14 | 1.5 |
| 77 | 1.2 D + 1.5 LL d + Service - 90 W | Yes | Y | 1 | 1.2 | 7 | 1 | | | 14 | 1.5 |
| 78 | 1.2 D + 1.5 LL d + Service - 120 W | Yes | Y | 1 | 1.2 | 7 | 0.866 | 6 | -0.5 | 14 | 1.5 |
| 79 | 1.2 D + 1.5 LL d + Service - 150 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | 0.5 | 14 | 1.5 |
| 80 | 1.2 D + 1.5 LL d + Service - 180 W | Yes | Y | 1 | 1.2 | 6 | -1 | | | 14 | 1.5 |
| 81 | 1.2 D + 1.5 LL d + Service - 210 W | Yes | Y | 1 | 1.2 | 6 | -0.866 | 7 | -0.5 | 14 | 1.5 |
| 82 | 1.2 D + 1.5 LL d + Service - 240 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | -0.5 | 14 | 1.5 |
| 83 | 1.2 D + 1.5 LL d + Service - 270 W | Yes | Y | 1 | 1.2 | 7 | -1 | | | 14 | 1.5 |

### Load Combinations (Continued)

| | Description | Solve | P-Delta | BLC | Factor | BLC | Factor | BLC | Factor | BLC | Factor |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 1.2 D + 1.5 LL d + Service - 300 W | Yes | Y | 1 | 1.2 | 7 | -0.866 | 6 | 0.5 | 14 | 1.5 |
| 85 | 1.2 D + 1.5 LL d + Service - 330 W | Yes | Y | 1 | 1.2 | 6 | 0.866 | 7 | -0.5 | 14 | 1.5 |
| 86 | 1.2 D + 1.5 LL Maint (1) | Yes | Y | 1 | 1.2 | | | | | 15 | 1.5 |
| 87 | 1.2 D + 1.5 LL Maint (2) | Yes | Y | 1 | 1.2 | | | | | 16 | 1.5 |
| 88 | 1.2 D + 1.5 LL Maint (3) | Yes | Y | 1 | 1.2 | | | | | 17 | 1.5 |
| 89 | 1.2 D + 1.5 LL Maint (4) | Yes | Y | 1 | 1.2 | | | | | 18 | 1.5 |
| 90 | 1.2 D + 1.5 LL Maint (5) | Yes | Y | 1 | 1.2 | | | | | 19 | 1.5 |
| 91 | 1.2 D + 1.5 LL Maint (6) | Yes | Y | 1 | 1.2 | | | | | 20 | 1.5 |
| 92 | 1.2 D + 1.5 LL Maint (7) | Yes | Y | 1 | 1.2 | | | | | 21 | 1.5 |
| 93 | 1.2 D + 1.5 LL Maint (8) | Yes | Y | 1 | 1.2 | | | | | 22 | 1.5 |
| 94 | 1.2 D + 1.5 LL Maint (9) | Yes | Y | 1 | 1.2 | | | | | 23 | 1.5 |
| 95 | 1.2 D + 1.5 LL Maint (10) | Yes | Y | 1 | 1.2 | | | | | 24 | 1.5 |
| 96 | 1.2 D + 1.5 LL Maint (11) | Yes | Y | 1 | 1.2 | | | | | 25 | 1.5 |
| 97 | 1.2 D + 1.5 LL Maint (12) | Yes | Y | 1 | 1.2 | | | | | 26 | 1.5 |
| 98 | 1.2 D + 1.5 LL Maint (13) | Yes | Y | 1 | 1.2 | | | | | 27 | 1.5 |
| 99 | 1.2 D + 1.5 LL Maint (14) | Yes | Y | 1 | 1.2 | | | | | 28 | 1.5 |
| 100 | 1.2 D + 1.5 LL Maint (15) | Yes | Y | 1 | 1.2 | | | | | 29 | 1.5 |
| 101 | 1.2 D + 1.5 LL Maint (16) | Yes | Y | 1 | 1.2 | | | | | 30 | 1.5 |
| 102 | 1.2 D + 1.5 LL Maint (17) | Yes | Y | 1 | 1.2 | | | | | 31 | 1.5 |
| 103 | 1.2 D + 1.5 LL Maint (18) | Yes | Y | 1 | 1.2 | | | | | 32 | 1.5 |
| 104 | 1.2 D + 1.5 LL Maint (19) | Yes | Y | 1 | 1.2 | | | | | 33 | 1.5 |
| 105 | 1.2 D + 1.5 LL Maint (20) | Yes | Y | 1 | 1.2 | | | | | 34 | 1.5 |
| 106 | 1.2 D + 1.5 LL Maint (21) | Yes | Y | 1 | 1.2 | | | | | 35 | 1.5 |
| 107 | 1.2 D + 1.5 LL Maint (22) | Yes | Y | 1 | 1.2 | | | | | 36 | 1.5 |
| 108 | 1.2 D + 1.5 LL Maint (23) | Yes | Y | 1 | 1.2 | | | | | 37 | 1.5 |
| 109 | 1.2 D + 1.5 LL Maint (24) | Yes | Y | 1 | 1.2 | | | | | 38 | 1.5 |

### Envelope Node Reactions

| | Node Label | | X [k] | LC | Y [k] | LC | Z [k] | LC | MX [k-ft] | LC | MY [k-ft] | LC | MZ [k-ft] | LC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13 | max | 1.453 | 41 | 1.309 | 22 | 1.273 | 13 | -0.224 | 3 | 0 | 109 | 0.173 | 64 |
| 2 | | min | -1.078 | 11 | 0.545 | 4 | -2.725 | 7 | -0.566 | 21 | 0 | 1 | -0.26 | 46 |
| 3 | 14 | max | 0.656 | 65 | 1.174 | 22 | 1.876 | 14 | -0.215 | 4 | 0 | 109 | 0.157 | 64 |
| 4 | | min | -1.422 | 47 | 0.493 | 4 | 0.069 | 8 | -0.511 | 22 | 0 | 1 | -0.232 | 46 |
| 5 | 43 | max | 0.103 | 5 | 0.075 | 4 | 1.187 | 4 | 0 | 109 | 0 | 109 | 0 | 109 |
| 6 | | min | -0.103 | 11 | -0.029 | 10 | -1.189 | 10 | 0 | 1 | 0 | 1 | 0 | 1 |
| 7 | 44 | max | 1.448 | 4 | 1.29 | 14 | 1.568 | 2 | 0.363 | 69 | 0 | 109 | 0.498 | 14 |
| 8 | | min | -2.792 | 10 | 0.515 | 8 | -0.959 | 8 | -0.031 | 39 | 0 | 1 | 0.12 | 8 |
| 9 | 45 | max | 2.044 | 3 | 1.41 | 19 | 3.312 | 2 | 0.446 | 43 | 0 | 109 | -0.157 | 7 |
| 10 | | min | -0.763 | 9 | 0.565 | 13 | -2.284 | 8 | -0.008 | 13 | 0 | 1 | -0.528 | 25 |
| 11 | 58 | max | 1.926 | 41 | 1.221 | 15 | 0.537 | 38 | 0.324 | 68 | 0 | 109 | 0.476 | 14 |
| 12 | | min | 0.063 | 11 | 0.49 | 9 | -1.253 | 68 | -0.038 | 38 | 0 | 1 | 0.134 | 9 |
| 13 | 87 | max | 1.487 | 8 | 0.102 | 8 | 1.006 | 2 | 0 | 109 | 0 | 109 | 0 | 109 |
| 14 | | min | -1.49 | 2 | -0.057 | 2 | -1.004 | 8 | 0 | 1 | 0 | 1 | 0 | 1 |
| 15 | 100 | max | 0.103 | 5 | 1.309 | 19 | 0.564 | 2 | 0.412 | 43 | 0 | 109 | -0.157 | 6 |
| 16 | | min | -1.679 | 23 | 0.52 | 13 | -2.04 | 44 | -0.006 | 13 | 0 | 1 | -0.482 | 25 |
| 17 | 129 | max | 1.543 | 7 | 0.1 | 13 | 0.739 | 7 | 0 | 109 | 0 | 109 | 0 | 109 |
| 18 | | min | -1.543 | 13 | -0.054 | 7 | -0.74 | 13 | 0 | 1 | 0 | 1 | 0 | 1 |
| 19 | Totals: | max | 5.982 | 5 | 7.822 | 15 | 8.995 | 2 | | | | | | |
| 20 | | min | -5.982 | 11 | 3.406 | 9 | -8.995 | 8 | | | | | | |

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

| | Member | Shape | Code Check | Loc[ft] | LC | Shear Check | Loc[ft] | Dir | LC | phi*Pnc [k] | phi*Pnt [k] | phi*Mn y-y [k-ft] | phi*Mn z-z [k-ft] | Cb | Eqn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | PL5/8X6 | 0.19 | 0.667 | 47 | 0.055 | 0.667 | y | 22 | 94.955 | 168.75 | 2.197 | 21.094 | 1.652 | H1-1b |
| 2 | 2 | PL5/8X6 | 0.203 | 0.667 | 44 | 0.06 | 0.667 | y | 20 | 94.955 | 168.75 | 2.197 | 21.094 | 1.627 | H1-1b |
| 3 | 3 | 3/4"SR | 0.116 | 4.673 | 46 | 0.004 | 4.673 | | 9 | 1.116 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 4 | 4 | HSS2.375X0.218 | 0.193 | 10.427 | 86 | 0.078 | 10.427 | | 86 | 7.649 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 5 | 5 | HSS2.375X0.218 | 0.271 | 9.75 | 8 | 0.095 | 10.427 | | 2 | 7.649 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 6 | 6 | 3/4"SR | 0.278 | 3 | 46 | 0.01 | 0 | | 4 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 7 | 7 | 3/4"SR | 0.286 | 3 | 49 | 0.012 | 0 | | 11 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 8 | 11 | PL1/2X311/16 | 0.16 | 0.227 | 38 | 0.182 | 0.227 | y | 8 | 80.831 | 82.969 | 0.864 | 6.374 | 1.668 | H1-1b |
| 9 | 12 | HSS2.375X0.218 | 0.086 | 3.75 | 7 | 0.053 | 3.75 | | 42 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 10 | 13 | PL1/2X311/16 | 0.202 | 0 | 48 | 0.082 | 0.276 | y | 16 | 79.835 | 82.969 | 0.864 | 6.374 | 1.186 | H1-1b |
| 11 | 15 | PL1/2X311/16 | 0.178 | 0.227 | 45 | 0.113 | 0.005 | y | 53 | 80.831 | 82.969 | 0.864 | 6.374 | 1.671 | H1-1b |
| 12 | 16 | HSS2.375X0.218 | 0.079 | 2.773 | 93 | 0.048 | 0.078 | | 56 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 13 | 17 | PL1/2X311/16 | 0.177 | 0 | 45 | 0.071 | 0.276 | y | 15 | 79.835 | 82.969 | 0.864 | 6.374 | 1.4 | H1-1b |
| 14 | 20 | HSS2.375X0.154 | 0.149 | 11.1 | 4 | 0.004 | 11.1 | | 11 | 7.984 | 45 | 2.674 | 2.674 | 1 | H1-1b* |
| 15 | 21 | 3/4"SR | 0.094 | 4.673 | 64 | 0.005 | 0 | | 3 | 1.116 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 16 | 22 | 3/4"SR | 0.199 | 3 | 64 | 0.011 | 0 | | 9 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 17 | 23 | 3/4"SR | 0.353 | 0 | 87 | 0.013 | 3 | | 10 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 18 | 24 | PL1/2X311/16 | 0.199 | 0.227 | 87 | 0.215 | 0 | y | 8 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 19 | 25 | HSS2.375X0.218 | 0.072 | 2.773 | 95 | 0.052 | 0.078 | | 2 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 20 | 26 | PL1/2X311/16 | 0.17 | 0 | 63 | 0.091 | 0.276 | y | 21 | 79.835 | 82.969 | 0.864 | 6.374 | 1.198 | H1-1b |
| 21 | 27 | PL1/2X311/16 | 0.204 | 0.227 | 86 | 0.104 | 0 | y | 18 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 22 | 28 | HSS2.375X0.218 | 0.086 | 2.773 | 16 | 0.049 | 0.078 | | 67 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 23 | 29 | PL1/2X311/16 | 0.15 | 0 | 63 | 0.082 | 0.276 | y | 21 | 79.835 | 82.969 | 0.864 | 6.374 | 1.085 | H1-1b |
| 24 | 31 | PL5/8X6 | 0.199 | 0.667 | 39 | 0.056 | 0.667 | y | 15 | 94.955 | 168.75 | 2.197 | 21.094 | 1.634 | H1-1b |
| 25 | 32 | PL5/8X6 | 0.205 | 0.667 | 47 | 0.058 | 0.667 | y | 23 | 94.955 | 168.75 | 2.197 | 21.094 | 1.619 | H1-1b |
| 26 | 33 | 3/4"SR | 0.12 | 4.673 | 38 | 0.004 | 0 | | 15 | 1.116 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 27 | 34 | HSS2.375X0.218 | 0.193 | 10.427 | 88 | 0.078 | 10.427 | | 88 | 7.649 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 28 | 35 | HSS2.375X0.218 | 0.213 | 2.167 | 13 | 0.112 | 2.438 | | 3 | 7.649 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 29 | 36 | 3/4"SR | 0.322 | 3 | 38 | 0.01 | 0 | | 8 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 30 | 37 | 3/4"SR | 0.3 | 3 | 41 | 0.017 | 0 | | 2 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 31 | 41 | PL1/2X311/16 | 0.161 | 0.227 | 42 | 0.111 | 0.002 | y | 60 | 80.831 | 82.969 | 0.864 | 6.374 | 1.663 | H1-1b |
| 32 | 42 | HSS2.375X0.218 | 0.104 | 1.875 | 97 | 0.047 | 3.75 | | 23 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 33 | 43 | PL1/2X311/16 | 0.191 | 0 | 41 | 0.092 | 0.276 | y | 59 | 79.835 | 82.969 | 0.864 | 6.374 | 1.063 | H1-1b |
| 34 | 45 | PL1/2X311/16 | 0.176 | 0.227 | 49 | 0.1 | 0.002 | y | 55 | 80.831 | 82.969 | 0.864 | 6.374 | 1.702 | H1-1b |
| 35 | 46 | HSS2.375X0.218 | 0.105 | 1.875 | 96 | 0.046 | 3.75 | | 18 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 36 | 47 | PL1/2X311/16 | 0.185 | 0 | 38 | 0.082 | 0.276 | y | 56 | 79.835 | 82.969 | 0.864 | 6.374 | 1.103 | H1-1b |
| 37 | 50 | HSS2.375X0.154 | 0.268 | 5.781 | 8 | 0.004 | 11.1 | | 3 | 7.984 | 45 | 2.674 | 2.674 | 1 | H1-1a |
| 38 | 51 | 3/4"SR | 0.094 | 4.673 | 68 | 0.005 | 0 | | 8 | 1.116 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 39 | 52 | 3/4"SR | 0.198 | 3 | 68 | 0.01 | 3 | | 8 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 40 | 53 | 3/4"SR | 0.353 | 0 | 89 | 0.017 | 3 | | 2 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 41 | 54 | PL1/2X311/16 | 0.199 | 0.227 | 89 | 0.152 | 0.227 | y | 13 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 42 | 55 | HSS2.375X0.218 | 0.072 | 2.773 | 99 | 0.051 | 3.75 | | 62 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 43 | 56 | PL1/2X311/16 | 0.17 | 0 | 67 | 0.091 | 0.276 | y | 15 | 79.835 | 82.969 | 0.864 | 6.374 | 1.142 | H1-1b |
| 44 | 57 | PL1/2X311/16 | 0.204 | 0.227 | 88 | 0.104 | 0 | y | 21 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 45 | 58 | HSS2.375X0.218 | 0.086 | 2.773 | 20 | 0.049 | 0.078 | | 70 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 46 | 59 | PL1/2X311/16 | 0.15 | 0 | 67 | 0.08 | 0 | y | 14 | 79.835 | 82.969 | 0.864 | 6.374 | 1.103 | H1-1b |
| 47 | 61 | PL5/8X6 | 0.208 | 0.667 | 44 | 0.062 | 0.667 | y | 20 | 94.955 | 168.75 | 2.197 | 21.094 | 1.626 | H1-1b |
| 48 | 62 | PL5/8X6 | 0.213 | 0.667 | 39 | 0.067 | 0.667 | y | 2 | 94.955 | 168.75 | 2.197 | 21.094 | 1.617 | H1-1b |
| 49 | 63 | 3/4"SR | 0.126 | 4.673 | 43 | 0.005 | 0 | | 19 | 1.116 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 50 | 64 | HSS2.375X0.218 | 0.193 | 10.427 | 90 | 0.095 | 10.427 | | 2 | 7.649 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 51 | 65 | HSS2.375X0.218 | 0.328 | 2.573 | 2 | 0.136 | 2.438 | | 8 | 7.649 | 62.55 | 3.6 | 3.6 | 1 | H1-1a |
| 52 | 66 | 3/4"SR | 0.335 | 3 | 43 | 0.011 | 3 | | 7 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 53 | 67 | 3/4"SR | 0.328 | 3 | 20 | 0.018 | 0 | | 7 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 54 | 71 | PL1/2X311/16 | 0.17 | 0.227 | 44 | 0.109 | 0.007 | y | 51 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 55 | 72 | HSS2.375X0.218 | 0.103 | 1.875 | 101 | 0.051 | 3.75 | | 15 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |

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

| | Member | Shape | Code Check | Loc[ft] | LC | Shear Check | Loc[ft] | Dir | LC | phi*Pnc [k] | phi*Pnt [k] | phi*Mn y-y [k-ft] | phi*Mn z-z [k-ft] | Cb | Eqn |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 56 | 73 | PL1/2X311/16 | 0.201 | 0 | 44 | 0.092 | 0.02 | y | 50 | 79.835 | 82.969 | 0.864 | 6.374 | 1.047 | H1-1b |
| 57 | 75 | PL1/2X311/16 | 0.184 | 0.227 | 41 | 0.098 | 0.002 | y | 60 | 80.831 | 82.969 | 0.864 | 6.374 | 1.695 | H1-1b |
| 58 | 76 | HSS2.375X0.218 | 0.105 | 1.875 | 100 | 0.049 | 3.75 | | 20 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 59 | 77 | PL1/2X311/16 | 0.193 | 0 | 42 | 0.081 | 0.276 | y | 60 | 79.835 | 82.969 | 0.864 | 6.374 | 1.102 | H1-1b |
| 60 | 80 | HSS2.375X0.154 | 0.269 | 5.55 | 13 | 0.004 | 11.1 | | 7 | 7.984 | 45 | 2.674 | 2.674 | 1 | H1-1a |
| 61 | 81 | 3/4"SR | 0.097 | 4.673 | 73 | 0.005 | 0 | | 11 | 1.116 | 19.88 | 0.249 | 0.249 | 1 | H1-1b* |
| 62 | 82 | 3/4"SR | 0.236 | 3 | 73 | 0.009 | 0 | | 6 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 63 | 83 | 3/4"SR | 0.374 | 0 | 91 | 0.017 | 0 | | 7 | 2.707 | 19.88 | 0.249 | 0.249 | 1 | H1-1a |
| 64 | 84 | PL1/2X311/16 | 0.211 | 0.227 | 91 | 0.098 | 0.227 | y | 17 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 65 | 85 | HSS2.375X0.218 | 0.072 | 2.773 | 103 | 0.054 | 3.75 | | 19 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 66 | 86 | PL1/2X311/16 | 0.176 | 0 | 14 | 0.098 | 0.276 | y | 19 | 79.835 | 82.969 | 0.864 | 6.374 | 1.121 | H1-1b |
| 67 | 87 | PL1/2X311/16 | 0.212 | 0.227 | 90 | 0.118 | 0.227 | y | 22 | 80.831 | 82.969 | 0.864 | 6.374 | 1.667 | H1-1b |
| 68 | 88 | HSS2.375X0.218 | 0.09 | 2.773 | 24 | 0.049 | 0.078 | | 13 | 48.725 | 62.55 | 3.6 | 3.6 | 1 | H1-1b |
| 69 | 89 | PL1/2X311/16 | 0.158 | 0 | 24 | 0.088 | 0 | y | 18 | 79.835 | 82.969 | 0.864 | 6.374 | 1.089 | H1-1b |
| 70 | 93 | PIPE_2.0 | 0.579 | 3.719 | 8 | 0.11 | 3.828 | | 7 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 71 | 94 | PIPE_2.0 | 0.26 | 3.828 | 9 | 0.089 | 3.828 | | 9 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 72 | 95 | PIPE_2.0 | 0.284 | 3.719 | 8 | 0.098 | 3.828 | | 8 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 73 | 106 | PIPE_2.0 | 0.088 | 0.677 | 93 | 0.039 | 3.646 | | 10 | 23.809 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 74 | 109 | PIPE_2.0 | 0.036 | 2.042 | 13 | 0.045 | 2.042 | | 10 | 17.855 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 75 | 112 | PIPE_2.0 | 0.097 | 3.646 | 94 | 0.054 | 0.677 | | 9 | 23.809 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 76 | 115 | PIPE_2.0 | 0.032 | 4.958 | 2 | 0.058 | 2.042 | | 2 | 17.855 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 77 | 118 | PIPE_2.0 | 0.098 | 3.646 | 98 | 0.057 | 0.677 | | 2 | 23.809 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 78 | 121 | PIPE_2.0 | 0.032 | 4.958 | 5 | 0.055 | 2.042 | | 7 | 17.855 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 79 | 124 | PIPE_2.0 | 0.098 | 3.646 | 102 | 0.048 | 0.677 | | 7 | 23.809 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 80 | 126 | PIPE_2.0 | 0.579 | 3.719 | 8 | 0.077 | 3.828 | | 9 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 81 | 127 | PIPE_2.0 | 0.259 | 3.828 | 2 | 0.093 | 3.828 | | 2 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 82 | 128 | PIPE_2.0 | 0.284 | 3.719 | 2 | 0.082 | 3.828 | | 2 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 83 | 138 | PIPE_2.0 | 0.776 | 3.5 | 2 | 0.129 | 5.578 | | 2 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 84 | 139 | PIPE_2.0 | 0.259 | 3.828 | 7 | 0.068 | 3.828 | | 6 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 85 | 140 | PIPE_2.0 | 0.294 | 3.828 | 38 | 0.049 | 3.828 | | 3 | 8.922 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |
| 86 | 150 | PIPE_2.0 | 0.275 | 0.26 | 13 | 0.083 | 0.26 | | 2 | 29.81 | 32.13 | 1.872 | 1.872 | 1 | H1-1b |

**APPENDIX D**

**ADDITIONAL CALCULATIONS**

| | | | | | |
|---|---|---|---|---|---|
| PROJECT | **104053.013.01.0002 - NHV 108 94313 KSC** | | | | |
| SUBJECT | **Sector Mount Analysis** | | | | |
| DATE | **09/22/22** | PAGE | 1 | OF | 1 |

**B+T Group**
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

[REF: AISC 360-05]

## Reactions at Bolted Connection

| | | | |
|---|---|---|---|
| Tension | : | 2.834 | k |
| Vertical Shear | : | 1.41 | k |
| Horizontal Shear | : | 1.505 | k |
| Torsion | : | 0.276 | k.ft |
| Moment from Horizontal Forces | : | 0 | k.ft |
| Moment from Vertical Forces | : | 0.609 | k.ft |

## Bolt Parameters

| | | | |
|---|---|---|---|
| Bolt Grade | : | A325 | |
| Bolt Diameter | : | 0.625 | in |
| Nominal Bolt Area | : | 0.307 | $in^2$ |
| Bolt spacing, Horizontal | : | 6 | in |
| Bolt spacing, Vertical | : | 6 | in |
| Bolt edge distance, plate height | : | 1.5 | in |
| Bolt edge distance, plate width | : | 1.5 | in |
| Total Number of Bolts | : | 4 | bolts |

## Summary of Forces

| | | | |
|---|---|---|---|
| Shear Resultant Force | : | 2.06 | k |
| Force from Horz. Moment | : | 0.00 | k |
| Force from Vert. Moment | : | 1.10 | k |
| Shear Load / Bolt | : | 0.52 | k |
| Tension Load / Bolt | : | 0.71 | k |
| Resultant from Moments / Bolt | : | 0.55 | k |

## Bolt Checks

| | | | | |
|---|---|---|---|---|
| Nominal Tensile Stress, $F_{nt}$ | : | 90.00 | ksi | [AISC Table J3.2] |
| Available Tensile Stress, $\Phi R_{nt}$ | : | 20.72 | k/bolt | [Eq. J3-1] |
| Unity Check, Bolt Tension | : | **6.08%** | | **OKAY** |
| Nominal Shear Stress, $F_{nv}$ | : | 48.00 | ksi | [AISC Table J3.2] |
| Available Shear Stress, $\Phi R_{nv}$ | : | 11.05 | k/bolt | [Eq. J3-1] |
| Unity Check, Bolt Shear | : | **11.08%** | | **OKAY** |
| Unity Check, Combined | : | **17.16%** | | **OKAY** |
| Available Bearing Strength, $\Phi R_n$ | : | 34.66 | k/bolt | |
| Unity Check, Bolt Bearing | : | **1.49%** | | **OKAY** |