CROWN CASTLE

December 20, 2024

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

RE: **Notice of Exempt Modification for Verizon**
        Crown #806372; Verizon Site ID 5000381961
        266R Center Street, Manchester, CT 06040
        Latitude: 41° 46′ 18.96″ / Longitude: -72° 31′ 48.81″

Dear Ms. Bachman:

Verizon currently maintains twelve (12) antennas at the 120-foot level of the existing 120-foot monopole tower at 266R Center Street, Manchester, CT. The tower is owned by Crown Atlantic Co, LLC and the property is as well. Verizon now intends to replace three (3) antennas, and install four (4), new antennas and ancillary equipment at the 120-foot level. This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modification:

Tower:

Installed New:
        (4) CBNG – 39GHZ VECTASTAR NR GNB ANTENNAS
        (1) RAYCAP RVZDC-6627-PF-48 OVP
        (1) HUBER & SUHNER INC. -SD-06X6GA-12SM-180 HYBRID CABLE
        INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS DATED 11/13/24

Remove:
        (3) COMMSCOPE – LNX-6514DS ANTENNAS
        (1) ANDREW – LDF7-50A COAX CABLE

Ground:

Installed New:
        (1) RAYCAP INC - VZDC-4520-RM-48 OVP

Melanie A. Bachman

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The facility was approved by the Connecticut Siting Council in Docket No. 129 on July 20, 1990. Said approval given with conditions. Verizon's proposed exempt modification complies with the conditions of approval.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Stewart, First Selectman for the Town of Manchester, as the municipality, Jeff Cormier, Town Planner, and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, Verizon respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Keenan /Brinn.

Sincerely,

Keenan Brinn
Permitting Specialist
1800 W. Park Drive
Westborough, MA 01581
(617) 680-5464/Keenan.Brinn.Contractor@crowncastle.com

Attachments

Melanie A. Bachman

Page 3

cc:

Steve Stephanou, Town Manager
Manchester Town Hall
41 Center St.
Manchester, CT 06040
860-647-3130

Gary Anderson, Director of Planning
Manchester Town Hall
41 Center St.
Manchester, CT 06040
860-647-3044

Crown Castle, Tower Owner

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401
New Britain, Connecticut 06051
Phone: 827-7682

Gloria Dibble Pond
Chairperson

COMMISSIONERS

Energy / Telecommunications

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Hazardous Waste / Low-level
Radioactive Waste

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Joel M. Rinebold
Executive Director

Stanley J. Modzelesky
Executive Assistant

August 24, 1990

Mr. David S. Malko
Manager, Engineering and Regulatory Services
Metro Mobile
50 Rockland Road
South Norwalk, CT 06854

RE: DOCKET NO. 129 - Metro Mobile CTS of Hartford, Inc.,
Certificate of Environmental Compatibility and Public
Need for the construction, maintenance, and operation
of a cellular telephone tower and associated equipment
in the Town of Manchester, Connecticut.

Dear Mr. Malko:

On August 22, 1990, the Siting Council considered and
approved all remaining sections of the Development and
Management Plan (D&M) for this cellular telephone tower
and associated equipment in the Town of Manchester,
Connecticut. This decision confirms use of barbed wire on
the security fence surrounding the cellular site that was
approved by the Council by its Decision and Order on March
12, 1990.

This approval applies only to the D&M plan submitted for
the Manchester site. Modifications to this D&M Plan
require advance Council notification and approval. Please
notify the Council when construction is completed.

Enclosed for your use is a copy of the Staff Report
regarding the D&M Plan.

Very truly yours,

Gloria Dibble Pond
Chairperson

SMH/smh

enclosure

4706-2

METRO ⊛ MOBILE

July 20, 1990

Connecticut Siting Council
136 Main Street
Suite 401
New Britain, CT 06051

Attention: Joel M. Rinebold, Executive Director

Re: Docket No. 129 - Metro Mobile CTS of Hartford, Inc.
    Manchester Cell Site

Dear Mr. Rinebold:

Metro Mobile CTS of Hartford, Inc. ("Metro Mobile") has submitted a proposed D&M Plan in the above-referenced proceeding and has received comments on it from the Town of Manchester and the Council.

Metro Mobile intends to construct an eight foot security fence around the facility with three strands of barbed wire on top. One of the comments received addresses the potential restriction on the use of barbed wire in constructing a fence at the proposed facility under Section 47-47 of the Connecticut General Statutes. This communication sets forth Metro Mobile's position that Metro Mobile is unaffected by said provision, as well as the Company's arguments in support of its position that the fencing plans already submitted are within State laws.

The provision of interest is Section 47-47 of the Connecticut General Statutes, which reads, in relevant part, as follows:

> Barbed wire between adjoining premises or enclosing grounds of public buildings. No person shall use barbed wire in the construction of fences or have barbed wire upon existing fences between his own premises and those of an adjoining proprietor, within twenty-five rods of any house or barn belonging to such proprietor, unless either premises are used in connection with raising livestock, without first obtaining his written consent . . . .

A. THE SITING COUNCIL'S JURISDICTION SUPERSEDES THE RESTRICTIONS IMPOSED BY C.G.S. SECTION 16-50x.

The Connecticut Siting Council was created with the express purpose of considering applications for the construction, operation, and maintenance of certain types of facilities within the state, including the proposed Manchester facility. The Council's jurisdiction overrides select state and local laws which would otherwise place restrictions on such activities. Section 16-50x of the C.G.S. contains the override language, as follows:

> (a) Notwithstanding any other provision of the general statutes to the contrary, except as provided in Section 16-243, the council shall have exclusive jurisdiction over the location and type of facilities and over the location and type of modifications of facilities subject to the provisions of subsection (d) of this section. (emphasis added)

It should be noted that neither Section 16-243 nor subsection (d) of Section 16-50x modifies the applicability of the section quoted above with respect to the proposed Metro Mobile facility.

Whether the proposed facility uses barbed wire is an issue as to the type of facility to be constructed. Thus, it falls within the exclusive jurisdiction of the Council and cannot be affected by other statutes or local regulations.

B. EVEN IF THE COUNCIL'S JURISDICTION DOES NOT SUPERSEDE SECTION 47-47, METRO MOBILE'S PROPOSED FACILITY WILL NOT COME WITHIN THE AMBIT OF THAT PROVISION.

As set forth above, Metro Mobile's position is that the Council's jurisdiction supersedes the provisions of Section 47-47, and that the statute is therefore inapplicable to Metro Mobile at the Manchester facility certificated by the Council. If, however, the Council concludes that its jurisdiction does not supersede the statute, Metro Mobile contends that the provisions of the statute are inapplicable to Metro Mobile for the following reasons.

1. Proposed Fence Not Between Proprietors

The statute prohibits the use of barbed wire ". . . between his own premises and those of an adjoining proprietor . . . ." In Manchester, Metro Mobile's proposed facility will not border two separate land parcels except on the east and southwest sides (see page 5 of Tab 1 in the Metro Mobile Application for the Manchester Site, Siting Council Docket No. 129).

On the north side of Metro Mobile's facility, the proposed barbed wire will not be between two adjoining proprietors, since Metro Mobile facility is located on a portion of a parcel owned by S. Mark Stephens.

2.   No Houses or Barns Located on Adjacent Property

The statute prohibits the use of barbed wire ". . . within twenty-five rods of any house or barn belonging to such proprietor . . . ." On the east side of the Metro Mobile facility, there is a strip of land owned by Kenneth C. Burkamp over which the Consolidated Rail Corporation at one time had an easement to operate a railway. There are no houses or barns located on this parcel, and therefore the prohibition cannot apply to Metro Mobile with respect to this parcel.

Similarly, the southwest side of the Metro Mobile facility is bordered by a parcel owned by Kenneth C. Burkamp. There are no houses or barns located on this parcel. The prohibition stated in the barbed wire statute therefore cannot apply to Metro Mobile with respect to this parcel.

Thus, even if the Council finds that its jurisdiction does not supersede the provisions of Section 47-47 of the C.G.S., those provisions do not apply to Metro Mobile in this case.

Respectfully yours,

David S. Malko, P.E.
Manager, Engineering and Regulatory Services

DSM:mb

cc: Service List Docket 129

266R CENTER STREET

Location	266R CENTER STREET	**Mblu**	62/ 1020/ 266/ /
Acct#	102000266R	**Owner**	CROWN ATLANTIC CO LLC
Assessment	$105,800	**Appraisal**	$151,100
PID	2635	**Building Count**	1
DISTRICT	T	**CONCRETE**	

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$68,900	$82,200	$151,100

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$48,300	$57,500	$105,800

Owner of Record

Owner	CROWN ATLANTIC CO LLC	**Sale Price**	$0
	PMB 353-806372	**Certificate**	C
Address	4017 WASHINGTON ROAD	**Book & Page**	2071/0309
	MCMURRAY, PA 15317	**Sale Date**	04/19/1999
		Instrument	25

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
CROWN ATLANTIC CO LLC	$0	C	2071/0309	25	04/19/1999
CELCO PARTNERSHIP	$0		1923/0202	25	10/16/1997
METRO MOBILE	$0		1382_142/0		04/01/1990

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0

Replacement Cost: $0

Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style:	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Extra Kitchens	
Whirlpool	
Fireplace	
Fin Basement	
Fin Bsmnt Qual	
Fin Bsmnt 2	
Fin Bsmnt2 Qual	
Bsmnt Garage	
Fireplaces	
Fndtn Level	
SFA Code	
Fndtn Cndtn	
Basement	

Building Photo

(https://images.vgsi.com/photos2/ManchesterCTPhotos//\00\02\40\81.jpg)

Building Layout

 Building Layout

(https://images.vgsi.com/photos2/ManchesterCTPhotos//Sketches/2635_2(

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Land

Land Use

Use Code	302
Description	Ind Vac
Zone	IND
Neighborhood	4500
Alt Land Appr Category	No

Land Line Valuation

Size (Acres)	0.17
Frontage	0
Depth	0
Assessed Value	$57,500
Appraised Value	$82,200

Outbuildings

	Outbuildings					Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FN4	Fence 8' Chain			264.00 L.F.	$4,000	1
PAV1	Paving Asphalt			4400.00 S.F.	$5,500	1
SHDT	Telephone Shed			720.00 S.F.	$59,400	1
PAV2	Paving Concrete			12.00 S.F.	$0	1
GEN	Generator			1.00 UNIT	$0	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2023	$68,900	$82,200	$151,100
2022	$68,900	$82,200	$151,100
2021	$68,900	$82,200	$151,100

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2023	$48,300	$57,500	$105,800
2022	$48,300	$57,500	$105,800
2021	$48,300	$57,500	$105,800

Town of Manchester, CT

Date: 12/19/2024

1 inch = 60 feet

Author:

Map labels: 40, 266, 266R, 20R, 31, 63, 67, 69, 67, 63, 58, 50, 44, 46, 50, 50B, 58, 60, 11-1, 11, 13, 15, 11, 15

PINE ST, RIDGE ST

Here is the 3rd Manchester delivery.

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Friday, December 20, 2024 11:32 AM
To: Brinn, Keenan (Contractor) <keenan.brinn.contractor@crowncastle.com>
Subject: Your shipment was delivered 770909256175

Your shipment was delivered.

Delivery Date

Fri, 12/20/2024
11:20am

Delivered to

41 CENTER ST MGR, MANCHESTER, CT 06040

Received by

A.BONILLA

Report missing package

How was your delivery?

Tracking details

Tracking ID	[770909256175](#)
From	Crown Castle 1800 West Park Drive Suite 200 WESTBOROUGH, MA, US 01581
To	Manchester Town Hall 41 Center Street MANCHESTER, CT, US 06040
Ship date	Thu 12/19/2024 06:49 PM
Number of pieces	1
Total shipment weight	1.00 LB
Service	FedEx Priority Overnight
Reference	799001.7680
Shipper reference	799001.7680

TRACK SHIPMENT

FedEx

FedEx can ship your holiday packages for less than the Post Office.*

Two-day retail shipping, one flat rate. FedEx One Rate®.*Effective 10/6/24 – 1/19/25.

EXPLORE FEDEX ONE RATE®

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

ID 1026

From:	Brinn, Keenan (Contractor)
To:	Barbadora, Jeff
Subject:	Fw: Your shipment was delivered 770909309345
Date:	Friday, December 20, 2024 12:04:48 PM

Jeff -

Here is the second Manchester delivery.

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Friday, December 20, 2024 11:36 AM
To: Brinn, Keenan (Contractor) <keenan.brinn.contractor@crowncastle.com>
Subject: Your shipment was delivered 770909309345

Your shipment was delivered.

Delivery Date

Fri, 12/20/2024
11:22am

Delivered to

41 CENTER ST MAIL ROOM, MANCHESTER, CT 06040

Received by

L.RAINEY

Report missing package

How was your delivery?

Tracking details

Tracking ID	770909309345
From	Crown Castle 1800 West Park Drive Suite 200 WESTBOROUGH, MA, US 01581
To	Manchester Town Hall 41 Center Street MANCHESTER, CT, US 06040
Ship date	Thu 12/19/2024 08:35 PM
Number of pieces	1
Total shipment weight	1.00 LB
Service	FedEx Priority Overnight
Reference	799001.7680
Shipper reference	799001.7680

TRACK SHIPMENT

MORRISON HERSHFIELD

Stantec

Morrison Hershfield
1455 Lincoln Parkway, Suite 5000
Atlanta, GA 30346
(770) 379-8500

Subject:	**Structural Analysis Report**
Carrier Designation:	***Verizon Wireless* Co-Locate**
	Site Number: 5000381961
	Site Name: Manchester CT
Crown Castle Designation:	**BU Number:** 806372
	Site Name: HRT 093 943228
	JDE Job Number: 2119620
	Work Order Number: 2330697
	Order Number: 674388 Rev. 0
Engineering Firm Designation:	**Morrison Hershfield Project Number:** CN3-041R1 / 2400001
Site Data:	**266R Center Street, Manchester, Hartford County, CT 06040**
	Latitude *41° 46' 18.97"*, Longitude *-72° 31' 48.79"*
	115 Foot – Valmont Monopole Tower

Morrison Hershfield is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above-mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Proposed Equipment Configuration   **Sufficient Capacity – 64.5%**

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

Respectfully submitted by:

STATE OF CONNECTICUT
G. LANCE COOKE
No. 29133
LICENSED
PROFESSIONAL ENGINEER

Digitally signed by G.
Lance Cooke
Date: 2024.10.05
13:18:18-07'00'

EXP 1/31/25

G. Lance Cooke, P.E. (CT License No. PEN.0028133)
Senior Engineer

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 115 ft monopole tower designed by Valmont Industries, Inc.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
117.0	120.0	4	cambridge broadband networks group	39GHz VectaStar w/ Mount Pipe	8	1-5/8
		3	samsung telecommunications	MT6407-77A		
	118.0	6	commscope	NNHH-65B-R4 w/ Mount Pipe		
	117.0	1	tower mounts	Platform Mount [LP 1201-1_KCKR-HR-1]		
	116.0	3	samsung telecommunications	XXDWMM-12.5-65-8T-CBRS		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
		2	kaelus	BSF0020F3V1		
		1	raycap	RRFDC-3315-PF-48		
		1	raycap	RVZDC-6627-PF-48		
		1	rfs/celwave	DB-T1-6Z-8AB-0Z		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
105.0	107.0	2	andrew	VHLP1-23	5	1/2
		1	andrew	VHLP2-23	5	5/16
	105.0	1	-	Platform Mount [LP 602-1]	5	1/4
					2	2C
94.0	95.0	3	jma wireless	MX08FRO665-21 w/ Mount Pipe	1	1-1/2
		3	fujitsu	TA08025-B604		
		3	fujitsu	TA08025-B605		
		1	raycap	RDIDC-9181-PF-48		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
94.0	94.0	1	tower mounts	Sabre_C10801018-32788	-	-
85.0	85.0	1	wade antenna	WH14-69/S	5	13/32
		4	-	Side Arm Mount [SO 701-1]		
	84.0	3	wade antenna	WL 14-69/S		
	78.0	1	wade antenna	J105-HI		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	262174	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	2668863	CCISITES
4-TOWER MANUFACTURER DRAWINGS	262172	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.4.3), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

3.2) Assumptions

1) Tower and structures were maintained in accordance with the TIA-222 Standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Morrison Hershfield should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	115 - 72.3334	Pole	TP30.45x21.91x0.2188	1	-13.98	1267.58	52.0	Pass
L2	72.3334 - 29.3334	Pole	TP38.61x29.0784x0.3125	2	-21.11	2297.09	55.7	Pass
L3	29.3334 - 0	Pole	TP43.85x36.8519x0.375	3	-29.72	3224.57	54.0	Pass
							Summary	
						Pole (L2)	55.7	Pass
						Rating =	55.7	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	49.4	Pass
1	Base Plate		29.4	Pass
1	Base Foundation (Structure)	0	62.0	Pass
1	Base Foundation (Soil Interaction)		64.5	Pass

Structure Rating (max from all components) =	64.5%*

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) *Rating per TIA-222-H, Section 15.5.

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 55.7%

	1	2	3
Section	1	2	3
Length (ft)	42.67	47.67	35.00
Number of Sides	12	12	12
Thickness (in)	0.2188	0.3125	0.3750
Socket Length (ft)	4.67	5.67	5.67
Top Dia (in)	21.9100	29.0784	36.8519
Bot Dia (in)	30.4500	38.6100	43.8500
Grade		A572-65	
Weight (K)	2.7	5.5	5.7

Total Weight (K): 13.9

115.0 ft

72.3 ft

29.3 ft

0.0 ft

ALL REACTIONS ARE FACTORED

AXIAL
52 K

SHEAR
5 K

MOMENT
471 kip-ft

TORQUE 1 kip-ft
50 mph WIND - 1.5000 in ICE

AXIAL
30 K

SHEAR
19 K

MOMENT
1675 kip-ft

TORQUE 3 kip-ft
REACTIONS - 118 mph WIND

Job: *CN3-041R1 / 2400001*
Project: *806372 / HRT 093 943228*
Client: Crown Castle USA
Drawn by: RBA
App'd:
Code: TIA-222-H
Date: 10/04/24
Scale: NTS
Path:
Dwg No. E-1

Tower Input Data

The tower is a monopole.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Tower base elevation above sea level: 196.00 ft.
Basic wind speed of 118 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.5000 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w)$ = 0.95, $K_{es}(t_i)$ = 0.85.
Maximum demand-capacity ratio is: 1.05.
Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Horizontals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Consider Moments - Diagonals	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Moment Magnification	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Stress Ratios	Retension Guys To Initial Tension	Offset Girt At Foundation
√ Use Code Safety Factors - Guys	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Escalate Ice	√ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Always Use Max Kz	√ Project Wind Area of Appurtenances	Use TIA-222-H Bracing Resist. Exemption
Use Special Wind Profile	√ Alternative Appurt. EPA Calculation	Use TIA-222-H Tension Splice Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	**Poles**
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	√ Include Shear-Torsion Interaction
Secondary Horizontal Braces Leg	Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Pole Without Linear Attachments
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole With Shroud Or No Appurtenances
Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules	Outside and Inside Corner Radii Are Known

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	115.00-72.33	42.67	4.67	12	21.9100	30.4500	0.2188	0.8750	A572-65 (65 ksi)
L2	72.33-29.33	47.67	5.67	12	29.0784	38.6100	0.3125	1.2500	A572-65 (65 ksi)
L3	29.33-0.00	35.00		12	36.8519	43.8500	0.3750	1.5000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
L1	22.6057	15.2788	917.5793	7.7655	11.3494	80.8484	1859.2645	7.5197	5.2856	24.163
	31.4470	21.2941	2484.0378	10.8228	15.7731	157.4857	5033.3340	10.4803	7.5743	34.626
L2	30.9601	28.9457	3057.2289	10.2982	15.0626	202.9677	6194.7747	14.2462	6.9555	22.258
	39.8618	38.5369	7214.4482	13.7105	20.0000	360.7228	14618.4279	18.9667	9.5100	30.432
L3	39.1926	44.0458	7480.4289	13.0587	19.0893	391.8654	15157.3770	21.6780	8.8713	23.657
	45.2646	52.4961	12664.6112	15.5640	22.7143	557.5611	25661.9358	25.8370	10.7468	28.658

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 115.00-72.33				1	1	1			
L2 72.33-29.33				1	1	1			
L3 29.33-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
******										
Climbing Pegs	B	No	Surface Ar (CaAa)	115.00 - 8.00	1	1	-0.050 0.050	0.7050		1.80
Safety Line 3/8"	B	No	Surface Ar (CaAa)	115.00 - 8.00	1	1	0.000 0.000	0.3750		0.22
******										
CU12PSM9P6XXX(1-1/2)	A	No	Surface Ar (CaAa)	94.00 - 8.00	1	1	-0.450 -0.450	1.6000		2.35
******										
1110(13/32)	A	No	Surface Ar (CaAa)	85.00 - 8.00	5	5	0.200 0.280	0.4050		0.05
******										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		$C_A A_A$ ft²/ft	Weight plf
******									
LDF7-50A(1-5/8)	C	No	No	Inside Pole	115.00 - 8.00	5	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	115.00 - 8.00	1	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
***									
MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	C	No	No	Inside Pole	115.00 - 8.00	1	No Ice	0.00	1.07
							1/2" Ice	0.00	1.07
							1" Ice	0.00	1.07
							2" Ice	0.00	1.07

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft²/ft	Weight plf
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	115.00 - 8.00	1	No Ice	0.00	1.30
							1/2" Ice	0.00	1.30
							1" Ice	0.00	1.30
							2" Ice	0.00	1.30
*******									
FSJ1-50A(1/4)	C	No	No	Inside Pole	105.00 - 8.00	5	No Ice	0.00	0.05
							1/2" Ice	0.00	0.05
							1" Ice	0.00	0.05
							2" Ice	0.00	0.05
FSJ4-50B(1/2)	C	No	No	Inside Pole	105.00 - 8.00	5	No Ice	0.00	0.14
							1/2" Ice	0.00	0.14
							1" Ice	0.00	0.14
							2" Ice	0.00	0.14
9207(5/16)	C	No	No	Inside Pole	105.00 - 8.00	5	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
Conduit (2)	C	No	No	Inside Pole	105.00 - 8.00	2	No Ice	0.00	0.34
							1/2" Ice	0.00	0.34
							1" Ice	0.00	0.34
							2" Ice	0.00	0.34
******									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L1	115.00-72.33	A	0.000	0.000	6.032	0.000	0.05
		B	0.000	0.000	4.608	0.000	0.09
		C	0.000	0.000	0.000	0.000	0.40
L2	72.33-29.33	A	0.000	0.000	15.588	0.000	0.11
		B	0.000	0.000	4.644	0.000	0.09
		C	0.000	0.000	0.000	0.000	0.42
L3	29.33-0.00	A	0.000	0.000	7.733	0.000	0.06
		B	0.000	0.000	2.304	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.21

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L1	115.00-72.33	A	1.414	0.000	0.000	17.278	0.000	0.23
		B		0.000	0.000	28.740	0.000	0.37
		C		0.000	0.000	0.000	0.000	0.40
L2	72.33-29.33	A	1.331	0.000	0.000	45.124	0.000	0.55
		B		0.000	0.000	28.964	0.000	0.38
		C		0.000	0.000	0.000	0.000	0.42
L3	29.33-0.00	A	1.173	0.000	0.000	21.588	0.000	0.25
		B		0.000	0.000	13.659	0.000	0.17
		C		0.000	0.000	0.000	0.000	0.21

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	115.00-72.33	-0.1330	-0.4143	0.7999	-1.2938
L2	72.33-29.33	-0.8593	-0.8493	-0.4298	-1.9620
L3	29.33-0.00	-0.6454	-0.6416	-0.3667	-1.5979

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	2	Climbing Pegs	72.33 - 115.00	1.0000	1.0000
L1	3	Safety Line 3/8"	72.33 - 115.00	1.0000	1.0000
L1	18	CU12PSM9P6XXX(1-1/2)	72.33 - 94.00	1.0000	1.0000
L1	20	1110(13/32)	72.33 - 85.00	1.0000	1.0000
L2	2	Climbing Pegs	29.33 - 72.33	1.0000	1.0000
L2	3	Safety Line 3/8"	29.33 - 72.33	1.0000	1.0000
L2	18	CU12PSM9P6XXX(1-1/2)	29.33 - 72.33	1.0000	1.0000
L2	20	1110(13/32)	29.33 - 72.33	1.0000	1.0000
L3	2	Climbing Pegs	8.00 - 29.33	1.0000	1.0000
L3	3	Safety Line 3/8"	8.00 - 29.33	1.0000	1.0000
L3	18	CU12PSM9P6XXX(1-1/2)	8.00 - 29.33	1.0000	1.0000
L3	20	1110(13/32)	8.00 - 29.33	1.0000	1.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight K
*******									
MT6407-77A	A	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.74 7.36 8.00 9.36	2.34 2.83 3.35 4.45	0.08 0.11 0.14 0.22
MT6407-77A	B	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.74 7.36 8.00 9.36	2.34 2.83 3.35 4.45	0.08 0.11 0.14 0.22
MT6407-77A	C	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.74 7.36 8.00 9.36	2.34 2.83 3.35 4.45	0.08 0.11 0.14 0.22
(2) NNHH-65B-R4 w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice	7.55 8.04 8.53 9.56	4.23 4.67 5.12 6.05	0.11 0.20 0.30 0.53

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight K
(2) NNHH-65B-R4 w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	7.55 8.04 8.53 9.56	4.23 4.67 5.12 6.05	0.11 0.20 0.30 0.53
(2) NNHH-65B-R4 w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	7.55 8.04 8.53 9.56	4.23 4.67 5.12 6.05	0.11 0.20 0.30 0.53
RFV01U-D1A	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
RFV01U-D1A	B	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
RFV01U-D1A	C	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
RFV01U-D2A	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.01 1.14 1.28 1.59	0.07 0.09 0.11 0.15
RFV01U-D2A	B	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.01 1.14 1.28 1.59	0.07 0.09 0.11 0.15
RFV01U-D2A	C	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.01 1.14 1.28 1.59	0.07 0.09 0.11 0.15
RRFDC-3315-PF-48	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.79 4.04 4.30 4.84	2.51 2.73 2.95 3.42	0.03 0.06 0.10 0.18
DB-T1-6Z-8AB-0Z	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.80 5.07 5.35 5.93	2.00 2.19 2.39 2.81	0.04 0.08 0.12 0.21
(2) 3.5' Hor 2.5x2.5 Angle	A	From Leg	4.00 0.00 0.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.26 1.44 1.64 2.10	0.02 0.07 0.13 0.32	0.01 0.02 0.03 0.07
(2) 3.5' Hor 2.5x2.5 Angle	B	From Leg	4.00 0.00 0.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.26 1.44 1.64 2.10	0.02 0.07 0.13 0.32	0.01 0.02 0.03 0.07
(2) 3.5' Hor 2.5x2.5 Angle	C	From Leg	4.00 0.00 0.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.26 1.44 1.64 2.10	0.02 0.07 0.13 0.32	0.01 0.02 0.03 0.07

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight K
12.5' x 2.375" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	2.97 4.25 5.54 8.05	2.97 4.25 5.54 8.05	0.04 0.06 0.09 0.17
(2) 12.5' x 2.375" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	2.97 4.25 5.54 8.05	2.97 4.25 5.54 8.05	0.04 0.06 0.09 0.17
12.5' x 2.375" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	2.97 4.25 5.54 8.05	2.97 4.25 5.54 8.05	0.04 0.06 0.09 0.17
12.5' x 2.375" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	2.97 4.25 5.54 8.05	2.97 4.25 5.54 8.05	0.04 0.06 0.09 0.17
12.5' x 2.375" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	2.97 4.25 5.54 8.05	2.97 4.25 5.54 8.05	0.04 0.06 0.09 0.17
12.5' x 2.375" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	2.97 4.25 5.54 8.05	2.97 4.25 5.54 8.05	0.04 0.06 0.09 0.17
Platform Mount [LP 1201-1_KCKR-HR-1]	C	None		0.0000	117.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	37.61 45.62 53.59 69.65	37.61 45.62 53.59 69.65	2.63 3.48 4.46 6.85
*** 39GHz VectaStar w/ Mount Pipe	A	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.59 2.84 3.11 3.68	1.80 2.11 2.44 3.15	0.05 0.08 0.11 0.18
(2) 39GHz VectaStar w/ Mount Pipe	B	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.59 2.84 3.11 3.68	1.80 2.11 2.44 3.15	0.05 0.08 0.11 0.18
39GHz VectaStar w/ Mount Pipe	C	From Leg	4.00 0.00 3.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.59 2.84 3.11 3.68	1.80 2.11 2.44 3.15	0.05 0.08 0.11 0.18
XXDWMM-12.5-65-8T-CBRS	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.01 1.14 1.27 1.57	0.65 0.76 0.88 1.14	0.02 0.03 0.04 0.07
XXDWMM-12.5-65-8T-CBRS	B	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.01 1.14 1.27 1.57	0.65 0.76 0.88 1.14	0.02 0.03 0.04 0.07
XXDWMM-12.5-65-8T-CBRS	C	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice	1.01 1.14 1.27	0.65 0.76 0.88	0.02 0.03 0.04

tnxTower Report - version 8.2.4.3

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight K
						1" Ice	1.57	1.14	0.07
						2" Ice			
BSF0020F3V1	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.96 1.09 1.22 1.50	0.29 0.36 0.45 0.64	0.02 0.02 0.03 0.06
BSF0020F3V1	C	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.96 1.09 1.22 1.50	0.29 0.36 0.45 0.64	0.02 0.02 0.03 0.06
RVZDC-6627-PF-48	A	From Leg	4.00 0.00 -1.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.79 4.04 4.30 4.84	2.51 2.73 2.95 3.42	0.03 0.06 0.10 0.18
8' Mount Pipe [#P2.0STD]	A	From Leg	4.00 0.00 0.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
8' Mount Pipe [#P2.0STD]	C	From Leg	4.00 0.00 0.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
6' Mount Pipe [P#2.0STD]	B	From Leg	2.00 0.00 0.00	0.0000	117.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	0.02 0.03 0.05 0.09
***** (4) 8' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	105.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(4) 8' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	105.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(4) 8' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	105.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
Platform Mount [LP 602-1]	C	None		0.0000	105.00	No Ice 1/2" Ice 1" Ice 2" Ice	31.07 34.82 38.48 45.60	31.07 34.82 38.48 45.60	1.34 1.97 2.67 4.31
****** MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.01 8.52 9.04 10.11	4.23 4.69 5.16 6.12	0.11 0.19 0.29 0.52
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.01 8.52 9.04 10.11	4.23 4.69 5.16 6.12	0.11 0.19 0.29 0.52

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight K
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.01 8.52 9.04 10.11	4.23 4.69 5.16 6.12	0.11 0.19 0.29 0.52
TA08025-B604	A	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	0.98 1.11 1.25 1.55	0.06 0.08 0.10 0.15
TA08025-B604	B	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	0.98 1.11 1.25 1.55	0.06 0.08 0.10 0.15
TA08025-B604	C	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	0.98 1.11 1.25 1.55	0.06 0.08 0.10 0.15
TA08025-B605	A	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
TA08025-B605	B	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
TA08025-B605	C	From Leg	4.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
RDIDC-9181-PF-48	A	From Leg	2.00 0.00 1.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.01 2.19 2.37 2.76	1.17 1.31 1.46 1.78	0.02 0.04 0.06 0.11
6' x 2" Mount Pipe	A	From Leg	2.00 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.43 1.92 2.29 3.06	1.43 1.92 2.29 3.06	0.02 0.03 0.05 0.09
(2) 8' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 8' x 2" Mount Pipe	B	From Leg	4.00 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 8' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
Sabre_C10801018-32788	C	None		0.0000	94.00	No Ice 1/2" Ice 1" Ice 2" Ice	26.80 32.20 37.60 48.40	26.80 32.20 37.60 48.40	1.51 1.81 2.11 2.72

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft²	C_AA_A Side ft²	Weight K
******									
WH14-69/S	C	From Leg	4.00 0.00 0.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.80 5.07 5.35 5.93	13.00 13.50 14.00 15.04	0.02 0.14 0.27 0.56
WL 14-69/S	A	From Leg	4.00 0.00 -1.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.29 0.37 0.45 0.65	4.15 4.46 4.79 5.46	0.01 0.03 0.06 0.12
WL 14-69/S	A	From Leg	4.00 0.00 -1.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.29 0.37 0.45 0.65	4.15 4.46 4.79 5.46	0.01 0.03 0.06 0.12
WL 14-69/S	C	From Leg	4.00 0.00 -1.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.29 0.37 0.45 0.65	4.15 4.46 4.79 5.46	0.01 0.03 0.06 0.12
J105-HI	C	From Leg	4.00 0.00 -7.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.92 3.39 4.85 7.79	0.10 0.24 0.37 0.64	0.01 0.02 0.04 0.07
10' x 2" Mount Pipe	A	From Leg	4.00 0.00 0.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.38 3.40 4.45 5.91	2.38 3.40 4.45 5.91	0.04 0.05 0.08 0.15
10' x 2" Mount Pipe	C	From Leg	4.00 0.00 0.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.38 3.40 4.45 5.91	2.38 3.40 4.45 5.91	0.04 0.05 0.08 0.15
(2) Side Arm Mount [SO 701-1]	A	From Leg	2.00 0.00 0.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.85 1.14 1.43 2.01	1.67 2.34 3.01 4.35	0.07 0.08 0.09 0.12
(2) Side Arm Mount [SO 701-1]	C	From Leg	2.00 0.00 0.00	0.0000	85.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.85 1.14 1.43 2.01	1.67 2.34 3.01 4.35	0.07 0.08 0.09 0.12
*******									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft²	Weight K
VHLP1-23	A	Paraboloid w/Shroud (HP)	From Leg	4.00 0.00 2.00	57.0000		105.00	1.27	No Ice 1/2" Ice 1" Ice 2" Ice	1.28 1.45 1.62 1.97	0.01 0.02 0.03 0.04
VHLP2-23	B	Paraboloid w/Shroud (HP)	From Leg	4.00 0.00 2.00	90.0000		105.00	2.17	No Ice 1/2" Ice 1" Ice	3.72 4.01 4.30	0.03 0.05 0.07

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft²	Weight K
VHLP1-23	C	Paraboloid w/Shroud (HP)	From Leg	4.00 0.00 2.00	-53.0000		105.00	1.27	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	4.88 1.28 1.45 1.62 1.97	0.11 0.01 0.02 0.03 0.04

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	115 - 72.3334	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-30.34	2.50	2.88
			Max. Mx	20	-14.01	384.04	0.17
			Max. My	2	-13.98	-0.25	394.41
			Max. Vy	20	-13.62	384.04	0.17
			Max. Vx	2	-13.81	-0.25	394.41
			Max. Torque	16			-2.77
L2	72.3334 - 29.3334	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-40.55	2.83	3.71
			Max. Mx	20	-21.12	1021.80	4.32
			Max. My	2	-21.11	4.01	1039.92
			Max. Vy	20	-16.69	1021.80	4.32
			Max. Vx	2	-16.86	4.01	1039.92
			Max. Torque	16			-2.77
L3	29.3334 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.72	2.99	4.19
			Max. Mx	20	-29.72	1648.41	7.69
			Max. My	2	-29.72	7.48	1672.74
			Max. Vy	20	-19.10	1648.41	7.69
			Max. Vx	2	-19.27	7.48	1672.74
			Max. Torque	16			-2.77

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	38	51.72	2.51	4.38
	Max. H$_x$	20	29.73	19.09	0.09
	Max. H$_z$	2	29.73	0.10	19.26
	Max. M$_x$	2	1672.74	0.10	19.26
	Max. M$_z$	8	1646.90	-19.08	-0.07
	Max. Torsion	4	2.63	-9.44	16.61
	Min. Vert	19	22.30	16.44	-9.52
	Min. H$_x$	8	29.73	-19.08	-0.07
	Min. H$_z$	14	29.73	-0.10	-19.22
	Min. M$_x$	14	-1665.57	-0.10	-19.22
	Min. M$_z$	20	-1648.41	19.09	0.09
	Min. Torsion	16	-2.77	9.42	-16.57

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear$_x$ K	Shear$_z$ K	Overturning Moment, M$_x$ kip-ft	Overturning Moment, M$_z$ kip-ft	Torque kip-ft
Dead Only	24.78	0.00	0.00	-1.04	0.40	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	29.73	-0.10	-19.26	-1672.74	7.48	-2.21
0.9 Dead+1.0 Wind 0 deg - No Ice	22.30	-0.10	-19.26	-1656.18	7.31	-2.21
1.2 Dead+1.0 Wind 30 deg - No Ice	29.73	9.44	-16.61	-1443.00	-814.82	-2.63
0.9 Dead+1.0 Wind 30 deg - No Ice	22.30	9.44	-16.61	-1428.65	-807.05	-2.62
1.2 Dead+1.0 Wind 60 deg - No Ice	29.73	16.45	-9.55	-831.42	-1420.31	-2.22

Load Combination	Vertical K	Shear$_x$ K	Shear$_z$ K	Overturning Moment, M$_x$ kip-ft	Overturning Moment, M$_z$ kip-ft	Torque kip-ft
0.9 Dead+1.0 Wind 60 deg - No Ice	22.30	16.45	-9.55	-823.00	-1406.69	-2.21
1.2 Dead+1.0 Wind 90 deg - No Ice	29.73	19.08	0.07	2.56	-1646.90	-1.04
0.9 Dead+1.0 Wind 90 deg - No Ice	22.30	19.08	0.07	2.89	-1631.10	-1.03
1.2 Dead+1.0 Wind 120 deg - No Ice	29.73	16.58	9.74	843.55	-1430.61	-0.01
0.9 Dead+1.0 Wind 120 deg - No Ice	22.30	16.58	9.74	835.71	-1416.91	-0.00
1.2 Dead+1.0 Wind 150 deg - No Ice	29.73	9.63	16.73	1450.00	-829.43	1.26
0.9 Dead+1.0 Wind 150 deg - No Ice	22.30	9.63	16.73	1436.27	-821.55	1.26
1.2 Dead+1.0 Wind 180 deg - No Ice	29.73	0.10	19.22	1665.57	-6.65	2.40
0.9 Dead+1.0 Wind 180 deg - No Ice	22.30	0.10	19.22	1649.74	-6.73	2.40
1.2 Dead+1.0 Wind 210 deg - No Ice	29.73	-9.42	16.57	1436.84	814.62	2.77
0.9 Dead+1.0 Wind 210 deg - No Ice	22.30	-9.42	16.57	1423.22	806.60	2.76
1.2 Dead+1.0 Wind 240 deg - No Ice	29.73	-16.44	9.52	825.53	1419.76	2.34
0.9 Dead+1.0 Wind 240 deg - No Ice	22.30	-16.44	9.52	817.83	1405.90	2.33
1.2 Dead+1.0 Wind 270 deg - No Ice	29.73	-19.09	-0.09	-7.69	1648.41	1.24
0.9 Dead+1.0 Wind 270 deg - No Ice	22.30	-19.09	-0.09	-7.31	1632.34	1.23
1.2 Dead+1.0 Wind 300 deg - No Ice	29.73	-16.60	-9.71	-843.36	1433.50	-0.11
0.9 Dead+1.0 Wind 300 deg - No Ice	22.30	-16.60	-9.71	-834.86	1419.52	-0.11
1.2 Dead+1.0 Wind 330 deg - No Ice	29.73	-9.60	-16.76	-1456.81	827.21	-1.15
0.9 Dead+1.0 Wind 330 deg - No Ice	22.30	-9.60	-16.76	-1442.34	819.11	-1.15
1.2 Dead+1.0 Ice+1.0 Temp	51.72	-0.00	-0.00	-4.19	2.99	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	51.72	-0.01	-5.04	-469.91	3.81	-0.54
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	51.72	2.49	-4.35	-406.58	-226.72	-0.67
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	51.72	4.33	-2.51	-236.53	-396.06	-0.59
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	51.72	5.02	0.01	-4.19	-458.93	-0.32
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	51.72	4.35	2.53	229.96	-397.67	-0.06
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	51.72	2.52	4.37	399.47	-228.67	0.27
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	51.72	0.01	5.03	460.32	2.26	0.58
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	51.72	-2.49	4.34	397.24	232.55	0.70
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	51.72	-4.33	2.50	227.24	401.82	0.62
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	51.72	-5.02	-0.01	-4.87	465.17	0.36
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	51.72	-4.36	-2.53	-237.83	404.19	0.03
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	51.72	-2.51	-4.38	-409.00	234.00	-0.25
Dead+Wind 0 deg - Service	24.78	-0.02	-4.69	-405.74	2.11	-0.54
Dead+Wind 30 deg - Service	24.78	2.30	-4.04	-350.11	-196.97	-0.64
Dead+Wind 60 deg - Service	24.78	4.01	-2.32	-202.05	-343.55	-0.54
Dead+Wind 90 deg - Service	24.78	4.65	0.02	-0.15	-398.41	-0.25
Dead+Wind 120 deg - Service	24.78	4.04	2.37	203.45	-346.05	-0.00

Load Combination	Vertical	Shear$_x$	Shear$_z$	Overturning Moment, M$_x$	Overturning Moment, M$_z$	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 150 deg - Service	24.78	2.34	4.07	350.27	-200.51	0.31
Dead+Wind 180 deg - Service	24.78	0.02	4.68	402.46	-1.32	0.59
Dead+Wind 210 deg - Service	24.78	-2.30	4.04	347.07	197.51	0.68
Dead+Wind 240 deg - Service	24.78	-4.00	2.32	199.07	344.01	0.57
Dead+Wind 270 deg - Service	24.78	-4.65	-0.02	-2.64	399.37	0.30
Dead+Wind 300 deg - Service	24.78	-4.04	-2.37	-204.95	347.34	-0.03
Dead+Wind 330 deg - Service	24.78	-2.34	-4.08	-353.46	200.57	-0.28

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-24.78	0.00	0.00	24.78	0.00	0.000%
2	-0.10	-29.73	-19.26	0.10	29.73	19.26	0.000%
3	-0.10	-22.30	-19.26	0.10	22.30	19.26	0.000%
4	9.44	-29.73	-16.61	-9.44	29.73	16.61	0.000%
5	9.44	-22.30	-16.61	-9.44	22.30	16.61	0.000%
6	16.45	-29.73	-9.55	-16.45	29.73	9.55	0.000%
7	16.45	-22.30	-9.55	-16.45	22.30	9.55	0.000%
8	19.08	-29.73	0.07	-19.08	29.73	-0.07	0.000%
9	19.08	-22.30	0.07	-19.08	22.30	-0.07	0.000%
10	16.58	-29.73	9.74	-16.58	29.73	-9.74	0.000%
11	16.58	-22.30	9.74	-16.58	22.30	-9.74	0.000%
12	9.63	-29.73	16.73	-9.63	29.73	-16.73	0.000%
13	9.63	-22.30	16.73	-9.63	22.30	-16.73	0.000%
14	0.10	-29.73	19.22	-0.10	29.73	-19.22	0.000%
15	0.10	-22.30	19.22	-0.10	22.30	-19.22	0.000%
16	-9.42	-29.73	16.57	9.42	29.73	-16.57	0.000%
17	-9.42	-22.30	16.57	9.42	22.30	-16.57	0.000%
18	-16.44	-29.73	9.52	16.44	29.73	-9.52	0.000%
19	-16.44	-22.30	9.52	16.44	22.30	-9.52	0.000%
20	-19.09	-29.73	-0.09	19.09	29.73	0.09	0.000%
21	-19.09	-22.30	-0.09	19.09	22.30	0.09	0.000%
22	-16.60	-29.73	-9.71	16.60	29.73	9.71	0.000%
23	-16.60	-22.30	-9.71	16.60	22.30	9.71	0.000%
24	-9.60	-29.73	-16.76	9.60	29.73	16.76	0.000%
25	-9.60	-22.30	-16.76	9.60	22.30	16.76	0.000%
26	0.00	-51.72	0.00	0.00	51.72	0.00	0.000%
27	-0.01	-51.72	-5.04	0.01	51.72	5.04	0.000%
28	2.49	-51.72	-4.35	-2.49	51.72	4.35	0.000%
29	4.33	-51.72	-2.51	-4.33	51.72	2.51	0.000%
30	5.02	-51.72	0.01	-5.02	51.72	-0.01	0.000%
31	4.35	-51.72	2.53	-4.35	51.72	-2.53	0.000%
32	2.52	-51.72	4.37	-2.52	51.72	-4.37	0.000%
33	0.01	-51.72	5.03	-0.01	51.72	-5.03	0.000%
34	-2.49	-51.72	4.34	2.49	51.72	-4.34	0.000%
35	-4.33	-51.72	2.50	4.33	51.72	-2.50	0.000%
36	-5.02	-51.72	-0.01	5.02	51.72	0.01	0.000%
37	-4.36	-51.72	-2.53	4.36	51.72	2.53	0.000%
38	-2.51	-51.72	-4.38	2.51	51.72	4.38	0.000%
39	-0.02	-24.78	-4.69	0.02	24.78	4.69	0.000%
40	2.30	-24.78	-4.04	-2.30	24.78	4.04	0.000%
41	4.01	-24.78	-2.32	-4.01	24.78	2.32	0.000%
42	4.65	-24.78	0.02	-4.65	24.78	-0.02	0.000%
43	4.04	-24.78	2.37	-4.04	24.78	-2.37	0.000%
44	2.34	-24.78	4.07	-2.34	24.78	-4.07	0.000%
45	0.02	-24.78	4.68	-0.02	24.78	-4.68	0.000%
46	-2.30	-24.78	4.04	2.30	24.78	-4.04	0.000%

| Load Comb. | Sum of Applied Forces | | | Sum of Reactions | | | % Error |
	PX K	PY K	PZ K	PX K	PY K	PZ K	
47	-4.00	-24.78	2.32	4.00	24.78	-2.32	0.000%
48	-4.65	-24.78	-0.02	4.65	24.78	0.02	0.000%
49	-4.04	-24.78	-2.37	4.04	24.78	2.37	0.000%
50	-2.34	-24.78	-4.08	2.34	24.78	4.08	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00083289
3	Yes	4	0.00000001	0.00054050
4	Yes	5	0.00000001	0.00026635
5	Yes	5	0.00000001	0.00012368
6	Yes	5	0.00000001	0.00031049
7	Yes	5	0.00000001	0.00014575
8	Yes	4	0.00000001	0.00049439
9	Yes	4	0.00000001	0.00031006
10	Yes	5	0.00000001	0.00028649
11	Yes	5	0.00000001	0.00013363
12	Yes	5	0.00000001	0.00028344
13	Yes	5	0.00000001	0.00013192
14	Yes	4	0.00000001	0.00082485
15	Yes	4	0.00000001	0.00053730
16	Yes	5	0.00000001	0.00031543
17	Yes	5	0.00000001	0.00014841
18	Yes	5	0.00000001	0.00026400
19	Yes	5	0.00000001	0.00012298
20	Yes	4	0.00000001	0.00064268
21	Yes	4	0.00000001	0.00041023
22	Yes	5	0.00000001	0.00029423
23	Yes	5	0.00000001	0.00013709
24	Yes	5	0.00000001	0.00030095
25	Yes	5	0.00000001	0.00014032
26	Yes	4	0.00000001	0.00003336
27	Yes	5	0.00000001	0.00019671
28	Yes	5	0.00000001	0.00021983
29	Yes	5	0.00000001	0.00022180
30	Yes	5	0.00000001	0.00018942
31	Yes	5	0.00000001	0.00021408
32	Yes	5	0.00000001	0.00021461
33	Yes	5	0.00000001	0.00019024
34	Yes	5	0.00000001	0.00021987
35	Yes	5	0.00000001	0.00021611
36	Yes	5	0.00000001	0.00019327
37	Yes	5	0.00000001	0.00022483
38	Yes	5	0.00000001	0.00022594
39	Yes	4	0.00000001	0.00005401
40	Yes	4	0.00000001	0.00009409
41	Yes	4	0.00000001	0.00013711
42	Yes	4	0.00000001	0.00003652
43	Yes	4	0.00000001	0.00010079
44	Yes	4	0.00000001	0.00009826
45	Yes	4	0.00000001	0.00005755
46	Yes	4	0.00000001	0.00014476
47	Yes	4	0.00000001	0.00009262
48	Yes	4	0.00000001	0.00004238
49	Yes	4	0.00000001	0.00010985
50	Yes	4	0.00000001	0.00011749

Maximum Tower Deflections - Service Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	115 - 72.3334	12.878	39	0.9895	0.0041
L2	77 - 29.3334	5.808	50	0.7184	0.0030
L3	35 - 0	1.183	50	0.3040	0.0008

Critical Deflections and Radius of Curvature - Service Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
117.00	MT6407-77A	39	12.878	0.9895	0.0041	40871
107.00	VHLP1-23	39	11.280	0.9384	0.0038	25544
105.00	(4) 8' x 2" Mount Pipe	39	10.885	0.9255	0.0037	20435
94.00	MX08FRO665-21 w/ Mount Pipe	39	8.762	0.8511	0.0034	9731
85.00	WH14-69/S	50	7.135	0.7843	0.0032	6811

Maximum Tower Deflections - Design Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	115 - 72.3334	53.089	2	4.0771	0.0174
L2	77 - 29.3334	23.947	24	2.9636	0.0122
L3	35 - 0	4.877	24	1.2539	0.0033

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
117.00	MT6407-77A	2	53.089	4.0771	0.0174	10008
107.00	VHLP1-23	2	46.508	3.8677	0.0160	6254
105.00	(4) 8' x 2" Mount Pipe	2	44.877	3.8145	0.0156	5003
94.00	MX08FRO665-21 w/ Mount Pipe	2	36.132	3.5095	0.0140	2381
85.00	WH14-69/S	2	29.419	3.2350	0.0132	1665

Compression Checks

Pole Design Data

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in²	K	K	
L1	115 - 72.3334 (1)	TP30.45x21.91x0.2188	42.67	0.00	0.0	20.6362	-13.98	1207.22	0.012
L2	72.3334 - 29.3334 (2)	TP38.61x29.0784x0.3125	47.67	0.00	0.0	37.3967	-21.11	2187.70	0.010
L3	29.3334 - 0 (3)	TP43.85x36.8519x0.375	35.00	0.00	0.0	52.4961	-29.72	3071.02	0.010

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	115 - 72.3334 (1)	TP30.45x21.91x0.2188	394.41	740.13	0.533	0.00	740.13	0.000
L2	72.3334 - 29.3334 (2)	TP38.61x29.0784x0.3125	1040.28	1811.54	0.574	0.00	1811.54	0.000
L3	29.3334 - 0 (3)	TP43.85x36.8519x0.375	1675.28	3010.72	0.556	0.00	3010.72	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	115 - 72.3334 (1)	TP30.45x21.91x0.2188	13.81	362.17	0.038	2.22	933.33	0.002
L2	72.3334 - 29.3334 (2)	TP38.61x29.0784x0.3125	16.93	656.31	0.026	1.15	2145.54	0.001
L3	29.3334 - 0 (3)	TP43.85x36.8519x0.375	19.33	921.31	0.021	1.15	3523.25	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	115 - 72.3334 (1)	0.012	0.533	0.000	0.038	0.002	0.546	1.050	
L2	72.3334 - 29.3334 (2)	0.010	0.574	0.000	0.026	0.001	0.585	1.050	
L3	29.3334 - 0 (3)	0.010	0.556	0.000	0.021	0.000	0.567	1.050	

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	115 - 72.3334	Pole	TP30.45x21.91x0.2188	1	-13.98	1267.58	52.0	Pass
L2	72.3334 - 29.3334	Pole	TP38.61x29.0784x0.3125	2	-21.11	2297.09	55.7	Pass
L3	29.3334 - 0	Pole	TP43.85x36.8519x0.375	3	-29.72	3224.57	54.0	Pass
							Summary	
						Pole (L2)	55.7	Pass
						RATING =	**55.7**	**Pass**

APPENDIX B

BASE LEVEL DRAWING

CLIMBING PEGS
W/ SAFETY CLIMB

(OTHER CONSIDERED EQUIPMENT-IN (2) 2-1/2"
CONDUITS)
(5) 1/4" TO 105 FT LEVEL
(5) 5/16" TO 105 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(5) 1/2" TO 105 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(5) 13/32" TO 85 FT LEVEL

Q4 Q1
Q3 Q2

(PROPOSED EQUIPMENT CONFIGARTION)
(8) 1-5/8" TO 117 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(1) 1-1/2" TO 94 FT LEVEL

BUSINESS UNIT: 806372   TOWER ID: C_BASELEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

Monopole Base Plate Connection

CROWN CASTLE

Site Info
BU #	806372
Site Name	HRT 093 943228
Order #	674388 Rev. 0

Analysis Considerations
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	2

Applied Loads
Moment (kip-ft)	1675.28
Axial Force (kips)	29.72
Shear Force (kips)	19.33

TIA-222-H Section 15.5 Applied

Connection Properties

Anchor Rod Data

(12) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 51.9" BC

Base Plate Data

57.9" OD x 2.625" Plate (S-128; Fy=60 ksi, Fu=80 ksi)

Stiffener Data

N/A

Pole Data

43.85" x 0.375" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

Pu_t = 126.54	φPn_t = 243.75	**Stress Rating**
Vu = 1.61	φVn = 149.1	**49.4%**
Mu = n/a	φMn = n/a	**Pass**

Base Plate Summary

Max Stress (ksi):	16.69	(Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**29.4%**	**Pass**

Drilled Pier Foundation

CROWN CASTLE

BU # :	806372
Site Name:	HRT 093 943228
Order Number:	674388 Rev. 0
TIA-222 Revison:	H
Tower Type:	Monopole

Check Limitation
Apply TIA-222-H Section 15.5:	☑
N/A	☐

Design Options
Input Effective Depths (else Actual):	☐
Consider non-tapered moment capacity:	☐
Check Shear along Depth of Pier:	☑
Utilize Shear-Friction Methodology:	☐
Override Critical Depth:	☐

Go to Soil Calculations

Applied Loads
	Comp.	Uplift
Moment (kip-ft)	1675.28	
Axial Force (kips)	29.73	
Shear Force (kips)	19.31	

Material Properties
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	40	ksi

Pier Design Data
Depth	21.1	ft
Ext. Above Grade	0.4	ft
Pier Section 1		
From 0.4' above grade to 21.1' below grade		
Pier Diameter	6	ft
Rebar Quantity	22	
Rebar Size	10	
Clear Cover to Ties	5	in
Tie Size	4	
Tie Spacing		in

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Analysis Results

Soil Lateral Check	Compression	Uplift
$D_{v=0}$ (ft from TOC)	6.77	-
Soil Safety Factor	1.96	-
Max Moment (kip-ft)	1793.90	-
Rating*	64.5%	-

Soil Vertical Check	Compression	Uplift
Skin Friction (kips)	226.42	-
End Bearing (kips)	1245.63	-
Weight of Concrete (kips)	109.42	-
Total Capacity (kips)	1472.05	-
Axial (kips)	139.15	-
Rating*	9.0%	-

Reinforced Concrete Flexure	Compression	Uplift
Critical Depth (ft from TOC)	6.61	-
Critical Moment (kip-ft)	1793.69	-
Critical Moment Capacity	3646.75	-
Rating*	46.8%	-

Reinforced Concrete Shear	Compression	Uplift
Critical Depth (ft from TOC)	16.05	-
Critical Shear (kip)	279.80	-
Critical Shear Capacity	430.05	-
Rating*	62.0%	-

Structural Foundation Rating*	62.0%
Soil Interaction Rating*	64.5%

*Rating per TIA-222-H Section 15.5

Soil Profile

Groundwater Depth	N/A		# of Layers	4

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	5	5	90	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	5	14	9	90	150	0	30	0.618	0.618				10	Cohesionless
3	14	18	4	90	150	0	39	1.382	1.382				43	Cohesionless
4	18	21.1	3.1	90	150	0	30	1.589	1.589			58.74	16	Cohesionless

Version 6.3.6

ASCE 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)

Latitude: 41.771936
Longitude: -72.530219
Elevation: 195.86237084764815 ft (NAVD 88)

Wind

Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	98 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 Oct 02 2024

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.

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

Results:

S_S :	0.191	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.103
F_v :	2.4	PGA_M :	0.164
S_{MS} :	0.305	F_{PGA} :	1.594
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.203	C_v :	0.7

Seismic Design Category: B

MCE_R Response Spectrum

$S_a(g)$ vs $T(s)$

Design Response Spectrum

$S_a(g)$ vs $T(s)$

MCE_R Vertical Response Spectrum

$S_a(g)$ vs $T(s)$

Design Vertical Response Spectrum

$S_a(g)$ vs $T(s)$

Data Accessed: **Wed Oct 02 2024**

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:	1.50 in.
Concurrent Temperature:	5 F
Gust Speed	50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Wed Oct 02 2024

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.

verizon

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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10241115
Colliers Engineering & Design Project #: 24777147 (Rev. 1)

August 29, 2024

Site Information

Site ID:	5000381961-VZW / MANCHESTER CT
Site Name:	MANCHESTER CT
Carrier Name:	Verizon Wireless
Address:	266R Center St.
	Manchester, Connecticut 06040
	Hartford County
Latitude:	41.771932°
Longitude:	-72.530226°

Structure Information

Tower Type:	118-Ft Monopole
Mount Type:	14.00-Ft Platform

FUZE ID # 17289548

Analysis Results

Platform: **82.3% Pass w/ Hardware Upgrades***

* Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.

***Contractor PMI Requirements:
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: David Anuka

Digitally signed by Dejian Xu
Date: 2024.08.29 13:12:57-04'00'

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 324288, Dated June 18, 2024*
Mount Mapping Report	*Structural Components, Site ID: 21777018-VZW* *Dated February 18, 2021*

Analysis Criteria:

Codes and Standards: ANSI/TIA-222-H
2022 Connecticut State Building Code (CSBC), Effective October 1, 2022

Wind Parameters:
Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:   120 mph
Ice Wind Speed (3-sec. Gust):   50 mph
Design Ice Thickness: 1.50 in
Risk Category: II
Exposure Category: C
Topographic Category: 1
Topographic Feature Considered: N/A
Topographic Method: N/A
Ground Elevation Factor, K_e: 0.993

Seismic Parameters:
S_S: 0.190 g
S_1:   0.055 g

Maintenance Parameters:
Wind Speed (3-sec. Gust):   30 mph
Maintenance Load, Lv: 250 lbs.
Maintenance Load, Lm: 500 lbs.

Analysis Software: RISA-3D (V17)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
114.00	120.00	4	CBNG	39GHz VectaStar NR gNB	Added
		3	Samsung	MT6407-77A	Retained
	118.10	6	Andrew	NNHH-65B-R4	
		2	KAelus	BSF0020F3V1-1	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	RFS	DB-T1-6Z-8AB-0Z	
		1	Raycap	RRFDC-3315-PF-48	
		1	Raycap	RVZDC-6627-PF-48	Added
	116.6	3	Samsung	XXDWMM-12.5-65-8T-CBRS	Retained

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

   Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

   The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate   ASTM A36 (Gr. 36)
   - HSS (Rectangular)   ASTM 500 (Gr. B-46)
   - Pipe   ASTM A53 (Gr. B-35)
   - Threaded Rod   F1554 (Gr. 36)
   - Bolts   ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	82.3 %	Pass
Grating Support	55.9 %	Pass
Outer Standoff	10.2 %	Pass
Inner Standoff	34.1 %	Pass
Support Rail	41.1 %	Pass
Conner Connection	64.9 %	Pass
Mount Pipe	47.0 %	Pass
Kicker	13.1 %	Pass
Platform Bracing	9.2 %	Pass
Threaded Rod	34.6 %	Pass
Connection Check	35.1 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**82.3%***

* Results valid after hardware upgrades noted in the PMI Requirements are installed.

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector A Standoff	114	N89	942	5158	3.628	3.635	1633	1612	3.586	1.118
Sector C Standoff	114	N97	1001	5203	3.171	4.066	1486	1636	3.665	1.219
Sector B Standoff	114	N101	947	5243	3.263	3.823	1528	1730	3.405	1.235
Sector C Reinforcement	100.7	N150A	1983	3041	0.158	0.248	2577	3917	0.046	0.072
Sector B Reinforcement	100.7	N152A	1915	2933	0.146	0.229	2399	3638	0.044	0.069
Sector A Reinforcement	100.7	N155A	1902	2914	0.164	0.257	2478	3762	0.048	0.074

Notes:
- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	55.5	55.4	77.8	77.7
0.5	72.6	72.5	104.3	104.1
1	88.9	88.7	130.0	129.7

Notes:
- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration shown in attachment 2 upon the completion of the requirements listed below.

Contractor shall install a new 96'' long P2 SCH40 in front of mount pipe position 5 in alpha & gamma & position 1 in gamma sector. Connect to existing position 5 pipe with (2) pipe to pipe clamps (VZWSMART-MSK3). Install pipe-to-pipe clamps 20'' from top of proposed pipe and existing pipe. Install the 2nd set of pipe-to-pipe clamps at 38'' from the 1st set. Proposed pipe tip height shall match existing pipe tip heights.

Contractor shall install a new 48'' long P2 SCH40 OVP pipe on standoff arm on the beta sector standoff.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Photos
4. Mount Mapping Report (for reference only)
5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis
Passing Mount Analysis requires a PMI due to a modification in loading.
Electronic pdf version of this can be downloaded at https://pmi.vzwsmart.com.
For additional questions and support, please reach out to pmisupport@colliersengineering.com

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MDG #: 5000381961   SMART Project #: 10241115   Fuze Project ID: 16997722

Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide "as built mount drawings" showing contractor's name, contact information, preparer's signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: ***https://pmi.vzwsmart.com***

Photo Requirements:

- *Photos taken at ground level*
    - Photo of Gate Signs showing the tower owner, site name, and number.
    - Overall tower structure after installation.
    - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
    - Photos showing the safety climb wire rope above and below the mount prior to installation.
    - Photos showing the climbing facility and safety climb if present.
    - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
    - Photos that show the model number of each antenna and piece of equipment installed per sector.

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.

    ☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

    OR

    ☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Contractor shall install a new 96'' long P2 SCH40 in front of mount pipe position 5 in alpha & gamma & position 1 in gamma sector. Connect to existing position 5 pipe with (2) pipe to pipe clamps (VZWSMART-MSK3). Install pipe-to-pipe clamps 20'' from top of proposed pipe and existing pipe. Install the 2nd set of pipe-to-pipe clamps at 38'' from the 1st set. Proposed pipe tip height shall match existing pipe tip heights.

Contractor shall install a new 48'' long P2 SCH40 OVP pipe on standoff arm on the beta sector standoff.

☐ The contractor has read and acknowledges the above special instructions.

☐ All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.

☐ The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an "equivalent" and this approval is included as part of the contractor submission.

Comments:

| |
| |

<mark>Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:</mark>

☐ Yes   ☐ No

<mark>Contractor certifies no new damage created during the current installation:</mark>

☐ Yes   ☐ No

<mark>Contractor to certify the condition of the safety climb and verify no damage when leaving the site:</mark>

☐ Safety Climb in Good Condition   ☐ Safety Climb Damaged

<mark>Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:</mark>

<mark>Illustration #1</mark>   *<mark>Illustration #2</mark>*

<mark>Certifying Individual:</mark>

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Structure: 5000381961-VZW - MANCHESTER CT

Sector:	**A**	8/22/2024
Structure Type: Monopole	10241115	
Mount Elev: 114.00		Page: 1

Colliers Engineering & Design

Plan View

Front View - Looking at Structure

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A9	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	149	1	a	Front	60	0	Retained	07/15/2022
R2	MT6407-77A	35.1	16.1	149	1	a	Front	24	0	Retained	07/15/2022
R5	B2/B66A RRH-BR049	15	15	125	2	a	Behind	48	0	Retained	07/15/2022
A4	NNHH-65B-R4	72	19.6	90	3	a	Front	45	0	Retained	07/15/2022
A4	NNHH-65B-R4	72	19.6	41.5	4	a	Front	45	0	Retained	07/15/2022
R6	B5/B13 RRH-BR04C	15	15	41.5	4	a	Behind	48	0	Retained	07/15/2022
A11	39GHz VectaStar NR gNB	17.9	16.1	18	5	a	Front	24	0	Added	
M82	DB-T1-6Z-8AB-0Z	24	24				Member			Retained	07/15/2022
M82	RRFDC-3315-PF-48	19.1	10.2				Member			Retained	07/15/2022
OVP	RVZDC-6627-PF-48	29.5	16.5				Member			Added	

Plan View

Front View - Looking at Structure

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A9	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	149	1	a	Front	60	0	Retained	07/15/2022
R2	MT6407-77A	35.1	16.1	149	1	a	Front	24	0	Retained	07/15/2022
R5	B2/B66A RRH-BR049	15	15	125	2	a	Behind	48	0	Retained	07/15/2022
A4	NNHH-65B-R4	72	19.6	90	3	a	Front	45	0	Retained	07/15/2022
A4	NNHH-65B-R4	72	19.6	41.5	4	a	Front	45	0	Retained	07/15/2022
R6	B5/B13 RRH-BR04C	15	15	41.5	4	a	Behind	48	0	Retained	07/15/2022
A11	39GHz VectaStar NR gNB	17.9	16.1	18	5	a	Front	24	0	Added	

Structure: 5000381961-VZW - MANCHESTER CT

Sector:	**C**		8/22/2024
Structure Type: Monopole		10241115	
Mount Elev:	114.00		Page: 3

Plan View

Front View - Looking at Structure

Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A11	39GHz VectaStar NR gNB	17.9	16.1	149	1	a	Front	24	0	Added	
A9	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	125	2	a	Front	60	0	Retained	07/15/2022
R2	MT6407-77A	35.1	16.1	125	2	a	Front	24	0	Retained	07/15/2022
R5	B2/B66A RRH-BR049	15	15	125	2	a	Behind	48	0	Retained	07/15/2022
A4	NNHH-65B-R4	72	19.6	90	3	a	Front	45	0	Retained	07/15/2022
A4	NNHH-65B-R4	72	19.6	41.5	4	a	Front	45	0	Retained	07/15/2022
A1	BSF0020F3V1-1	10.6	3.21	41.5	4	a	Behind	78	-5	Added	
A1	BSF0020F3V1-1	10.6	3.21	41.5	4	b	Behind	78	5	Added	
R6	B5/B13 RRH-BR04C	15	15	41.5	4	a	Behind	48	0	Retained	07/15/2022
A11	39GHz VectaStar NR gNB	17.9	16.1	18	5	a	Front	24	0	Added	

Jul 15, 2022 at 2:07:06 PM
63 Pine St
Manchester CT 06040
United States

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	Crown Castle	Mapping Date:	2/18/2021
Site Name:	Manchester CT	Tower Type:	Monopole
Site Number or ID:	21777018-VZW	Tower Height (Ft.):	118
Mapping Contractor:	Structural Components	Mount Elevation (Ft.):	119

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warrantying the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2-3/8" x 0.154" x 108"	75.00	11.00	C1	2-3/8" x 0.154" x 108"		75.00	10.00
A2	2-3/8" x 0.154" x 108"	75.00	35.00	C2	2-3/8" x 0.154" x 108"	75.00	34.00
A3	2-3/8" x 0.154" x 84" (empty)	82.00	70.00	C3	2-3/8" x 0.154" x 84" (empty)	78.00	70.00
A4	2-3/8" x 0.154" x 84" (empty)	77.00	98.00	C4	2-3/8" x 0.154" x 84" (empty)	74.00	98.00
A5	2-3/8" x 0.154" x 108"	75.00	118.50	C5	2-3/8" x 0.154" x 108"	75.00	118.00
A6	2-3/8" x 0.154" x 108"	75.00	142.00	C6	2-3/8" x 0.154" x 108"	75.00	143.00
B1	2-3/8" x 0.154" x 108"	75.00	8.00	D1			
B2	2-3/8" x 0.154" x 108"	75.00	36.00	D2			
B3	2-3/8" x 0.154" x 84" (empty)	79.00	70.50	D3			
B4	2-3/8" x 0.154" x 84" (empty)	77.00	104.50	D4			
B5	2-3/8" x 0.154" x 108"	75.00	120.00	D5			
B6	2-3/8" x 0.154" x 108"	75.00	142.00	D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	24.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	
Please enter additional infomation or comments below.	

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	22

Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b$_{1a}$, b$_{2a}$, b$_{3a}$, b$_{1b}$...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant$_{1a}$										
Ant$_{1b}$	DB844G65DAX	9.75	8.00	48.00	(1) 1-5/8tx	117.583	75.00	8.50	65.00	50
Ant$_{1c}$										
Ant$_{2a}$	Sam RFV01U-D2a	15.50	10.00	15.50		120.167	44.00	-8.00	230.00	50
Ant$_{2b}$	comm NNHH-65B-R4-V1	18.00	7.00	72.00	jumpers	117.417	77.00	9.00	50.00	50
Ant$_{2c}$										
Ant$_{3a}$	Sam RFV01U-D2a	15.50	10.00	15.50		120.167	44.00	-8.00	230.00	51
Ant$_{3b}$	comm NNHH-65B-R4-V1	18.00	7.00	72.00	jumpers	117.417	77.00	9.00	50.00	51
Ant$_{3c}$										
Ant$_{4a}$										
Ant$_{4b}$	DB844G65DAX	9.75	8.00	48.00	(1) 1-5/8tx	117.583	75.00	8.50	65.00	51
Ant$_{4c}$										
Ant$_{5a}$										
Ant$_{5b}$										
Ant$_{5c}$										
Ant on Standoff	(2) RRFDC 3315-PF-48	14.00	10.50	19.00	(2) 1.5 HYB	120.333	42.00	9.00	150.00	315
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector			Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	50.00 Deg	Leg A:	60.00	Deg
Sector B:	165.00 Deg	Leg B:	180.00	Deg
Sector C:	280.00 Deg	Leg C:	300.00	Deg
Sector D:	Deg	Leg D:		Deg

Climbing Facility Information	
Location:	270.00 Deg	Outside Face C
Climbing Facility — Corrosion Type:	N/A
Access:	Climbing path was unobstructed.
Condition:	Missing safety cable.

Sector B

	Model									
Ant1a										
Ant1b	DB844G65DAX	9.75	8.00	48.00	(1) 1-5/8tx	117	75.00	8.50	210.00	16
Ant1c										
Ant2a	Sam RFV01U-D2a	15.50	10.00	15.50		119.583	44.00	-8.00	350.00	16
Ant2b	comm NNHH-65B-R4-V1	18.00	7.00	72.00	jumpers	117	75.00	9.00	170.00	16
Ant2c										
Ant3a	Sam RFV01U-D2a	15.50	10.00	15.50		119.583	44.00	-8.00	350.00	16
Ant3b	comm NNHH-65B-R4-V1	18.00	7.00	72.00	jumpers	117	75.00	9.00	170.00	16
Ant3c										
Ant4a										
Ant4b	DB844G65DAX	9.75	8.00	48.00	(1) 1-5/8tx	117	75.00	8.50	210.00	16
Ant4c										
Ant5a										
Ant5b										
Ant5c										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Sector C

	Model									
Ant1a										
Ant1b	DB844G65DAX	9.75	8.00	48.00	(1) 1-5/8tx	117	75.00	8.50	280.00	23
Ant1c										
Ant2a	Sam RFV01U-D2a	15.50	10.00	15.50		119.583	44.00	-8.00	100.00	23
Ant2b	comm NNHH-65B-R4-V1	18.00	7.00	72.00		116.833	77.00	9.00	280.00	23
Ant2c										
Ant3a	Sam RFV01U-D2a	15.50	10.00	15.50		119.583	44.00	-8.00	100.00	23
Ant3b	comm NNHH-65B-R4-V1	18.00	7.00	72.00		116.833	77.00	9.00	280.00	23
Ant3c										
Ant4a										
Ant4b	DB844G65DAX	9.75	8.00	48.00	(1) 1-5/8tx	117	75.00	8.50	305.00	23
Ant4c										
Ant5a										
Ant5b										
Ant5c										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Sector D

Ant1a										
Ant1b										
Ant1c										
Ant2a										
Ant2b										
Ant2c										
Ant3a										
Ant3b										
Ant3c										
Ant4a										
Ant4b										
Ant4c										
Ant5a										
Ant5b										
Ant5c										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping

Issue #	Description of Issue	Photo #

1		
2		
3		
4		
5		
6		
7		
8		

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

Antenna Mount Mapping Form (PATENT PENDING)

FCC #

MASER CONSULTING P.A.

Tower Owner:	Crown Castle	Mapping Date:	2/18/2021
Site Name:	Manchester CT	Tower Type:	Monopole
Site Number or ID:	21777018-VZW	Tower Height (Ft.):	118
Mapping Contractor:	Structural Components	Mount Elevation (Ft.):	119

Please Insert Sketches of the Antenna Mount

Structural Components
51st Ave, Denver, CO 80239
584.8839 Fx: 720.489.3764

Title: _____
Page: _____ of _____
Calc By: _____ Date: _____
Checked By: _____ Date: _____

46" TYP

23¾" O-O TYP

L 3X3X¼ Toe Guards

Expanded Metal Grating TYP

12-Sided 22" Flat to Flat

(3)½" stitch bolts through Toe Guard TYP

84" C_L 84"

—Handrails 48" E-C above deck Surface
—2⅜ X.154X 152" Pipes
—Antenna Mounts act as vertials supports

Structural Components

11611 E 51st Ave, Denver, CO 80239
Ph: 800.584.8839 Fx: 720.489.3764

Job#: _____

Title: _____

Page: _____ of _____

Calc By: _____ Date: _____

Checked By: _____ Date: _____

12" Tall x ½" PL
Main Collar

40" C-C

3-Piece Kicker
Collar (SEE PHOTO NOTES)

EMPTY
Ø 2⅜ x0.200
X 84"L

Ø2⅜"x0.200
X108"L
TYP
BOTH
SIDES
27"

Handrail to Handrail
Corner Bracket
(2) ½" U-Bolts

Ø2⅜ x0.154
Pipe, 152"L

9.5"

34½"

29"

11"

48"
E-C

27"

19.5"

28"

35"

18.5"

27"

TOE
Gaurd

168" Long

HSS 4.5x4.5x
0.203, 23.5"L

Structural Components

11611 E 51st Ave, Denver, CO 80239
Ph: 800.584.8839 Fx: 720.489.3764

Job#: _____

Title: _____

Page: _____ of _____

Calc By: _____ Date: _____

Checked By: _____ Date: _____

TOP Crossover A — On (2) Empty Pipes per face

7½"   3/8" PL

7"

5½" C-L

6" C-L

Handrail Pipe

(4) ½" U-Bolts

Mount Pipe

Top Crossover B — On all other pipes

7x7x 3/8" PL

5½" C-L

(4) ½" U-Bolts
5½" C-L, 5" C-L

Structural Components

11611 E 51st Ave, Denver, CO 80239
Ph: 800.584.8839 Fx: 720.489.3764

Job#: _____
Title: _____
Page: _____ of
Calc By:_____
Checked By: _____

Handrail Corner Brackets

22"

4.5"

(2) ½" U-Bolts
to Handrails
2 ¼" C-C

28"

6½

¼" Plate

Code Check
(Env)
No Calc
> 1.0
.90-1.0
.75-.90
.50-.75
0.-.50

Member Code Checks Displayed (Enveloped)
Envelope Only Solution

SK - 2

Aug 22, 2024 at 9:09 AM

5000381961-VZW_MT_LO_H.r3d

Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Shear Check
(Env)

No Calc
> 1.0
.90-1.0
.75-.90
.50-.75
0.-.50

SK - 3

Aug 22, 2024 at 9:10 AM

5000381961-VZW_MT_LO_H.r3d

Bnl o`mx   9
Cdr hfmdq   9
I na MtI adq   9
L ncdkM`I d   9

@]f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Basic Load Cases

	AKB Cdrbqhoshmm	B`sdfnqx	WFq`uhsx	XFq`uhsx	YFq`uhsx	Inhms	Onhms	Chrsqhatsdc @qd`'Ld—	Rtqè`bd'O—
0	@msdmm`C	Mnmd					006		
1	@msdmm`Ch	Mnmd					006		
2	@msdmm`V n '/ Cdf (	Mnmd					006		
3	@msdmm`V n '2/ Cdf (	Mnmd					006		
4	@msdmm`V n '5/ Cdf (	Mnmd					006		
5	@msdmm`V n '8/ Cdf (	Mnmd					006		
6	@msdmm`V n '01/ Cdf (	Mnmd					006		
7	@msdmm`V n '04/ Cdf (	Mnmd					006		
8	@msdmm`V n '07/ Cdf (	Mnmd					006		
0/	@msdmm`V n '10/ Cdf (	Mnmd					006		
00	@msdmm`V n '13/ Cdf (	Mnmd					006		
01	@msdmm`V n '16/ Cdf (	Mnmd					006		
02	@msdmm`V n '2// Cdf (	Mnmd					006		
03	@msdmm`V n '22/ Cdf (	Mnmd					006		
04	@msdmm`V h'/ Cdf (	Mnmd					006		
05	@msdmm`V h'2/ Cdf (	Mnmd					006		
06	@msdmm`V h'5/ Cdf (	Mnmd					006		
07	@msdmm`V h'8/ Cdf (	Mnmd					006		
08	@msdmm`V h'01/ Cdf (	Mnmd					006		
1/	@msdmm`V h'04/ Cdf (	Mnmd					006		
10	@msdmm`V h'07/ Cdf (	Mnmd					006		
11	@msdmm`V h'10/ Cdf (	Mnmd					006		
12	@msdmm`V h'13/ Cdf (	Mnmd					006		
13	@msdmm`V h'16/ Cdf (	Mnmd					006		
14	@msdmm`V h'2// Cdf (	Mnmd					006		
15	@msdmm`V h'22/ Cdf (	Mnmd					006		
16	@msdmm`V I '/ Cdf (	Mnmd					006		
17	@msdmm`V I '2/ Cdf (	Mnmd					006		
18	@msdmm`V I '5/ Cdf (	Mnmd					006		
2/	@msdmm`V I '8/ Cdf (	Mnmd					006		
20	@msdmm`V I '01/ Cd—	Mnmd					006		
21	@msdmm`V I '04/ Cd—	Mnmd					006		
22	@msdmm`V I '07/ Cd—	Mnmd					006		
23	@msdmm`V I '10/ Cd—	Mnmd					006		
24	@msdmm`V I '13/ Cd—	Mnmd					006		
25	@msdmm`V I '16/ Cd—	Mnmd					006		
26	@msdmm`V I '2// Cd—	Mnmd					006		
27	@msdmm`V I '22/ Cd—	Mnmd					006		
28	Rsqtbstqd C	Mnmd	,0						2
3/	Rsqtbstqd Ch	Mnmd						54	2
30	Rsqtbstqd V n '/ Cdf (	Mnmd						02/	
31	Rsqtbstqd V n '2/ Cdf (	Mnmd						02/	
32	Rsqtbstqd V n '5/ Cdf (	Mnmd						02/	
33	Rsqtbstqd V n '8/ Cdf (	Mnmd						02/	
34	Rsqtbstqd V n '01/ C—	Mnmd						02/	
35	Rsqtbstqd V n '04/ C—	Mnmd						02/	
36	Rsqtbstqd V n '07/ C—	Mnmd						02/	
37	Rsqtbstqd V n '10/ C—	Mnmd						02/	

BnI o`mx   9
Cdr lfimdq   9
I na Mtl adq 9
LncdkM`I d   9

@df 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

IIIRISA®
A NEMETSCHEK COMPANY

Basic Load Cases (Continued)

	AKB Cdr bqoshmm	B`sdf nqx	W F q`uhsx	X F q`uhsx	Y F q`uhsx	I nhms	Onhms	Chrsqhatsdc @qd` 'L d---	Rt qè bd'O---
38	Rsqtbstqd V n '13/ C---	Mnmd						02/	
4/	Rsqtbstqd V n '16/ C---	Mnmd						02/	
40	Rsqtbstqd V n '2// C---	Mnmd						02/	
41	Rsqtbstqd V n '22/ C---	Mnmd						02/	
42	Rsqtbstqd V h '/ Cdf (	Mnmd						02/	
43	Rsqtbstqd V h '2/ Cdf (	Mnmd						02/	
44	Rsqtbstqd V h '5/ Cdf (	Mnmd						02/	
45	Rsqtbstqd V h '8/ Cdf (	Mnmd						02/	
46	Rsqtbstqd V h '01/ Cd---	Mnmd						02/	
47	Rsqtbstqd V h '04/ Cd---	Mnmd						02/	
48	Rsqtbstqd V h '07/ Cd---	Mnmd						02/	
5/	Rsqtbstqd V h '10/ Cd---	Mnmd						02/	
50	Rsqtbstqd V h '13/ Cd---	Mnmd						02/	
51	Rsqtbstqd V h '16/ Cd---	Mnmd						02/	
52	Rsqtbstqd V h '2// Cd---	Mnmd						02/	
53	Rsqtbstqd V h '22/ Cd---	Mnmd						02/	
54	Rsqtbstqd V I '/ Cdf (	Mnmd						02/	
55	Rsqtbstqd V I '2/ C---	Mnmd						02/	
56	Rsqtbstqd V I '5/ C---	Mnmd						02/	
57	Rsqtbstqd V I '8/ C---	Mnmd						02/	
58	Rsqtbstqd V I '01/ ---	Mnmd						02/	
6/	Rsqtbstqd V I '04/ ---	Mnmd						02/	
60	Rsqtbstqd V I '07/ ---	Mnmd						02/	
61	Rsqtbstqd V I '10/ ---	Mnmd						02/	
62	Rsqtbstqd V I '13/ ---	Mnmd						02/	
63	Rsqtbstqd V I '16/ ---	Mnmd						02/	
64	Rsqtbstqd V I '2// ---	Mnmd						02/	
65	Rsqtbstqd V I '22/ ---	Mnmd						02/	
66	KI 0	Mnmd					0		
67	KI 1	Mnmd					0		
68	Ku0	Mnmd					0		
7/	Ku1	Mnmd					0		
70	@msdmm` Du	Mnmd					006		
71	@msdmm` Dg '/ Cdf (	Mnmd					67		
72	@msdmm` Dg '8/ Cdf (	Mnmd					67		
73	Rsqtbstqd Du	DKX		,-/30					2
74	Rsqtbstqd Dg '/ Cdf (	DKY			,-0/ 0				2
75	Rsqtbstqd Dg '8/ Cdf (	DKW	-0/ 0						2
76	AKB 28 Sq`mr hdms @qd---	Mnmd					51		
77	AKB 3/ Sq`mr hdms @qd---	Mnmd					51		
78	AKB 73 Sq`mr hdms @qd---	Mnmd					51		
8/	AKB 74 Sq`mr hdms @qd---	Mnmd					51		
80	AKB 75 Sq`mr hdms @qd---	Mnmd					51		

Load Combinations

	Cdr bqoshmm	Rn---	OCdks	R---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---	AKB E` b---
0	0-1C* 0-/ V n '/ ---Xdr	X		0	0-1	28	0-1	2	0	30	0			
1	0-1C* 0-/ V n '2/ ---Xdr	X		0	0-1	28	0-1	3	0	31	0			
2	0-1C* 0-/ V n '5/ ---Xdr	X		0	0-1	28	0-1	4	0	32	0			
3	0-1C* 0-/ V n '8/ ---Xdr	X		0	0-1	28	0-1	5	0	33	0			

	Bnl o`mx	9	@f 11+1/ 13
RISA	Cdr lfimdq	9	8900 @L
A NEMETSCHEK COMPANY	Ina Mtl adq	9	Bgdbj dc Ax9`^^^^
	Lncdk M`l d	9	

Load Combinations (Continued)

	Cdr bdposhmm	Rn---	OCdks`	R---	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--	AKB	E`b--
4	0-1C* 0-/ V n ' 01--	Xdr	X	0	0-1	28	0-1	6	0	34	0												
5	0-1C* 0-/ V n ' 04--	Xdr	X	0	0-1	28	0-1	7	0	35	0												
6	0-1C* 0-/ V n ' 07--	Xdr	X	0	0-1	28	0-1	8	0	36	0												
7	0-1C* 0-/ V n ' 10--	Xdr	X	0	0-1	28	0-1	0/	0	37	0												
8	0-1C* 0-/ V n ' 13--	Xdr	X	0	0-1	28	0-1	00	0	38	0												
0/	0-1C* 0-/ V n ' 16--	Xdr	X	0	0-1	28	0-1	01	0	4/	0												
00	0-1C* 0-/ V n ' 2/ --	Xdr	X	0	0-1	28	0-1	02	0	40	0												
01	0-1C* 0-/ V n ' 22--	Xdr	X	0	0-1	28	0-1	03	0	41	0												
02	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	04	0	42	0								
03	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	05	0	43	0								
04	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	06	0	44	0								
05	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	07	0	45	0								
06	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	08	0	46	0								
07	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	1/	0	47	0								
08	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	10	0	48	0								
1/	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	11	0	5/	0								
10	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	12	0	50	0								
11	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	13	0	51	0								
12	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	14	0	52	0								
13	0-1C * 0-/ Ch* 0--	Xdr	X	0	0-1	28	0-1	1	0	3/	0	15	0	53	0								
14	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	16	0	54	0										
15	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	17	0	55	0										
16	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	18	0	56	0										
17	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	2/	0	57	0										
18	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	20	0	58	0										
2/	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	21	0	6/	0										
20	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	22	0	60	0										
21	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	23	0	61	0										
22	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	24	0	62	0										
23	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	25	0	63	0										
24	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	26	0	64	0										
25	0-1C * 0-4Kl 0 ---	Xdr	X	0	0-1	28	0-1	66	0-4	27	0	65	0										
26	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	16	0	54	0										
27	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	17	0	55	0										
28	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	18	0	56	0										
3/	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	2/	0	57	0										
30	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	20	0	58	0										
31	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	21	0	6/	0										
32	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	22	0	60	0										
33	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	23	0	61	0										
34	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	24	0	62	0										
35	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	25	0	63	0										
36	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	26	0	64	0										
37	0-1C * 0-4Kl 1 ---	Xdr	X	0	0-1	28	0-1	67	0-4	27	0	65	0										
38	0-1C * 0-4Ku0	Xdr	X	0	0-1	28	0-1	68	0-4														
4/	0-1C * 0-4Ku1	Xdr	X	0	0-1	28	0-1	7/	0-4														
40	0-3C	Xdr	X	0	0-3	28	0-3																
41	0-1C * 0-/ Du * --	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	0	72		DKY	0	DKW					
42	0-1C * 0-/ Du * --	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	-755	72	-4	DKY	-755	DKW	-4				
43	0-1C * 0-/ Du * --	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	-4	72	-755	DKY	-4	DKW	-755				
44	0-1C * 0-/ Du * --	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71		72	0	DKY		DKW	0				
45	0-1C * 0-/ Du * --	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	,-4	72	-755	DKY	,-4	DKW	-755				

Bnl o`mx 9
Cdr hfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

Load Combinations (Continued)

	Cdr bqoshmm	Rn---	OCdks`	R---	AKB E`b												
46	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	,-755	72	-4	DKY -755	DKW -4
47	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	,0	72		DKY ,0	DKW
48	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	,-755	72	,-4	DKY -755	DKW ,-4
5/	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	,-4	72	-755	DKY ,-4	DKW -755
50	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71		72	,0	DKY	DKW ,0
51	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	-4	72	-755	DKY -4	DKW -755
52	0-1C * 0-/ Du * ---	Xdr	X	0	0-1	28	0-1	70	0	DKX	0	71	-755	72	,-4	DKY -755	DKW ,-4
53	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	0	72		DKY 0	DKW
54	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	-755	72	-4	DKY -755	DKW -4
55	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	-4	72	-755	DKY -4	DKW -755
56	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71		72	0	DKY	DKW 0
57	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	,-4	72	-755	DKY ,-4	DKW -755
58	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	,-755	72	-4	DKY ,-755	DKW -4
6/	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	,0	72		DKY ,0	DKW
60	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	,-755	72	,-4	DKY -755	DKW ,-4
61	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	,-4	72	-755	DKY ,-4	DKW -755
62	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71		72	,0	DKY	DKW ,0
63	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	-4	72	,-755	DKY -4	DKW -755
64	/-8C , 0-/ Du * 0---	Xdr	X	0	-8	28	-8	70	,0	DKX	,0	71	-755	72	,-4	DKY -755	DKW ,-4

Hot Rolled Steel Section Sets

	K`adk	Rg`od	Sxod	Cdr hfim Khmr	L`sdqh`k	Cdr hfim Q---	@ Zhm1\	hxx Zhm3\	hyy Zhm3\	I Zhm3\
0	E`bd Gndynms`k	K2W2W3	Ad`l	Rhmf kd @m---	@25 Fq-25	Sxoph`k	0-33	0-12	0-12	-/ 20
1	Nt sdq Rs`mcnee	GRR3-4W3-4W4	Ad`l	Rpt `qdS---	@4// Fq-A 35	Sxoph`k	3-57	02-4	02-4	11-2
2	Hhmdq Rs`mcnee	GRR3W3W4	Ad`l	Rpt `qdS---	@4// Fq-A 35	Sxoph`k	3-0	8-03	8-03	04-2
3	Lntms Ohod	OHOD^1-/	Ad`l	Ohod	@42 Fq-A	Sxoph`k	0-/ 1	-516	-516	0-14
4	Rt oonqs Q`hk	OHOD^1-/	Ad`l	Ohod	@42 Fq-A	Sxoph`k	0-/ 1	-516	-516	0-14
5	Fq`shmf Rt oonqs	KK2w2w3w	Ad`l	Cnt akd @---	@25 Fq-25	Sxoph`k	1-77	3-4	1-35	-/ 52
6	Bnmdq Bnmmdbshmm	K2W1W2	Ad`l	Rhmf kd @m---	@25 Fq-25	Sxoph`k	-806	-2/ 4	-736	-/ 01
7	Jhbj dq	KK1-4w1-4w2w2	Ad`l	Cnt akd @---	@25 Fq-25	Sxoph`k	0-7	1-35	0-/ 6	-/ 12
8	Ok end Ab`hmf	K1-4w1-4w3	Ad`l	Rhmf kd @m---	@25 Fq-25	Sxoph`k	0-08	-581	-581	-/ 15
0/	Sgqd`cdc Qnc	RQ^/ -514	Ad`l	A@Q	@25 Fq-25	Sxoph`k	-2/ 6	-// 6	-// 6	-/ 04

Hot Rolled Steel Properties

	K`adk	D Zrh\	F Zrh\	Mt	Sgdq '[0D---	Cdmrhsx\Z.es---	Xhdkc Zrh\	Qx	Et Zrh\	Qs
0	@25 Fq-25	18/ / /	00043	-2	-54	-38	25	0-4	47	0-1
1	@42 Fq-A	18/ / /	00043	-2	-54	-38	24	0-4	5/	0-1
2	@461 Fq-4/	18/ / /	00043	-2	-54	-38	4/	0-0	54	0-0
3	@881	18/ / /	00043	-2	-54	-38	4/	0-0	54	0-0
4	@4// Fq-A 31	18/ / /	00043	-2	-54	-38	31	0-3	47	0-2
5	@4// Fq-A 35	18/ / /	00043	-2	-54	-38	35	0-3	47	0-2

Member Primary Data

	K`adk	H nhms	I I nhms	J I nhms	Qns`sd'cdf(	Rdbshmm Rg`od	Sxod	Cdr hfim Khmr	L`sdqh`k	Cdr hfim Qtkr
0	L 23@	M76	M75			E`bd Gndynms`k	Ad`l	Rhmf kd @mfkd	@25 Fq-25	Sxoph`k
1	L 24@	M81	M76			E`bd Gndynms`k	Ad`l	Rhmf kd @mfkd	@25 Fq-25	Sxoph`k
2	L 25@	M75	M81			E`bd Gndynms`k	Ad`l	Rhmf kd @mfkd	@25 Fq-25	Sxoph`k

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Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

Member Primary Data (Continued)

	K`adk	H nhms	I nhms	J nhms	Qns`sd'cdf(	Rdbshmm Rg`od	Sxod	Cdr hfim Khms	L`sdfi`k	Cdr hfim Qtkdr
3	L 26	M83	M88		16/	E`bd Ghdynnmsk	Ad`l	Rhmfkd @mfkd	@25 Fq-25	Sxohb`k
4	L 27@	M76	M83		07/	Fq`shmf Rtoonqs	Ad`l	Cntakd @mfkd'--	@25 Fq-25	Sxohb`k
5	L 28@	M81	M85		07/	Fq`shmf Rtoonqs	Ad`l	Cntakd @mfkd'--	@25 Fq-25	Sxohb`k
6	L 3/	M75	M88		07/	Fq`shmf Rtoonqs	Ad`l	Cntakd @mfkd'--	@25 Fq-25	Sxohb`k
7	L 30	M85	M83		16/	E`bd Ghdynnmsk	Ad`l	Rhmfkd @mfkd	@25 Fq-25	Sxohb`k
8	L 31	M88	M85		16/	E`bd Ghdynnmsk	Ad`l	Rhmfkd @mfkd	@25 Fq-25	Sxohb`k
0/	L 32	M74	M77			Ntsdq Rs`mcnee	Ad`l	Rpt`qdStad	@4// Fq---	Sxohb`k
00	L 33	M77	M78			Hmmdq Rs`mcnee	Ad`l	Rpt`qdStad	@4// Fq---	Sxohb`k
01	L 34	M84	M85@			Ntsdq Rs`mcnee	Ad`l	Rpt`qdStad	@4// Fq---	Sxohb`k
02	L 35	M85@	M86			Hmmdq Rs`mcnee	Ad`l	Rpt`qdStad	@4// Fq---	Sxohb`k
03	L 36	M88A	M0//			Ntsdq Rs`mcnee	Ad`l	Rpt`qdStad	@4// Fq---	Sxohb`k
04	L 37	M0//	M0/0			Hmmdq Rs`mcnee	Ad`l	Rpt`qdStad	@4// Fq---	Sxohb`k
05	L 38	M0/4	M0/3		Rtoonqs Q`hk	Ad`l	Ohod	@42 Fq-A	Sxohb`k
06	L 4/	M0/5	M0/4A		Rtoonqs Q`hk	Ad`l	Ohod	@42 Fq-A	Sxohb`k
07	L 40	M0/8@	M0/7@		Rtoonqs Q`hk	Ad`l	Ohod	@42 Fq-A	Sxohb`k
08	L 41	M003B	M0/7A		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
1/	L 42	M004A	M0/8A		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
10	L 43	M008	M000		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
11	L 44	M01/	M001@		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
12	L 45	M013	M003A		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
13	L 46	M014	M004@		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
14	L 47@	M008	M014		07/	Bnmdq Bnmmd--	Ad`l	Rhmfkd @mfkd	@25 Fq-25	Sxohb`k
15	L 48@	M013	M004A		07/	Bnmdq Bnmmd--	Ad`l	Rhmfkd @mfkd	@25 Fq-25	Sxohb`k
16	L 5/@	M003B	M01/		07/	Bnmdq Bnmmd--	Ad`l	Rhmfkd @mfkd	@25 Fq-25	Sxohb`k
17	L 50@	M012	M010		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
18	L 51@	M011	M01/@		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
2/	L OO@	M013@	M014@		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
20	L 53	M018	M016		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
21	L 54	M017	M015		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
22	L O1@	M02/	M020		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
23	L 56	M024	M022		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
24	L 57	M023	M021		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
25	L O2@	M025	M026		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
26	L 6/	M030	M028		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
27	L 60	M03/	M027		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
28	L 61	M031	M032		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
3/	L 62	M036	M034		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
30	L 63	M035	M033		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
31	L O3@	M037	M038		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
32	L 65	M042	M040		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
33	L 66	M041	M04/		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
34	4@	M043	M044		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
35	L 35@	M65	M63		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
36	L 36@	M64	M62		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
37	0B	M66	M67		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
38	L 38@	M71	M7/		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
4/	L 4/@	M70	M68		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
40	L O1B	M72	M73		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
41	L 41@	M77@	M75@		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
42	L 42@	M76@	M74@		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
43	L O2B	M78@	M8/@		Lntms Ohod	Ad`l	Ohod	@42 Fq-A	Sxohb`k
44	L 44@	M83@	M81@		QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k

Bnl o`mx   9
Cdr lfimdq   9   @f 11+1/ 13
Ina Mtl adq   9   8900 @L
LncdkM`l d   9   Bgdbj dc Ax9^^^^

Member Primary Data (Continued)

	K`adk	H nlms	I Inlms	J Inlms	Qns`sd'cdf(	Rdbshmm Rg`od	Sxod	Cdr lfim Klrs	L`sdfik	Cdr lfim Qtkdr
45	L 45@	M82	M80			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
46	L 46@	M84@	M85A			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
47	L 47	M0/ / @	M87			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
48	L 48	M88@	M86@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
5/	L O3B	M0/ 0@	M0/ 1			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
50	L 50	M0/ 5@	M0/ 3@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
51	L 51	M0/ 4@	M0/ 2@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
52	4B	M0/ 6	M0/ 7			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
53	L 53@	M002	M000@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
54	L 54@	M001	M00/			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
55	L OOA	M003	M004			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
56	L 56@	M008@	M006			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
57	L 57@	M007	M005			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
58	L O1A	M01/ A	M010@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
6/	L 6/ @	M014A	M012@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
60	L 60@	M013A	M011@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
61	L O2A	M015@	M016@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
62	L 62@	M020@	M018@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
63	L 63@	M02/ @	M017@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
64	L 64@	M021@	M022@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
65	L 65@	M026@	M024@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
66	L 66@	M025@	M023@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
67	L O3A	M027@	M028@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
68	L 68	M032@	M030@			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
7/	L 7/	M031@	M03/ @			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
70	L O4A	M033@	M034@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
71	L 71	M036@	M035@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
72	L 72	M033A	M034A			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
73	L 73	M037@	M04/ @			J hoj dq	Ad`l	Cnt akd @mf kd '--	@25 Fq-25	Sxohb`k
74	L 74	M040@	M041@			J hoj dq	Ad`l	Cnt akd @mf kd '--	@25 Fq-25	Sxohb`k
75	L 75	M043@	M044@			J hoj dq	Ad`l	Cnt akd @mf kd '--	@25 Fq-25	Sxohb`k
76	L 76	M043A	M052		07/	Ok end Aq`bhmf	Ad`l	Rhmf kd @mf kd	@25 Fq-25	Sxohb`k
77	L 77	M047	M045			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
78	L 78	M046	M045			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
8/	L 8/	M050	M048			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
80	L 80	M05/	M048			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
81	L 81	M053	M044A			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
82	L 82	M052	M044A			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
83	L 83	M053@	M050		8/	OK end Aq`bhmf	Ad`l	Rhmf kd @mf kd	@25 Fq-25	Sxohb`k
84	L 84	M054	M046		07/	OK end Aq`bhmf	Ad`l	Rhmf kd @mf kd	@25 Fq-25	Sxohb`k
85	L 85	M057	M053		8/	OK end Aq`bhmf	Ad`l	Rhmf kd @mf kd	@25 Fq-25	Sxohb`k
86	L 86	M058	M05/		07/	OK end Aq`bhmf	Ad`l	Rhmf kd @mf kd	@25 Fq-25	Sxohb`k
87	L 87	M061	M047		8/	OK end Aq`bhmf	Ad`l	Rhmf kd @mf kd	@25 Fq-25	Sxohb`k
88	L O4@	M060	M061@			L nt ms Ohod	Ad`l	Ohod	@42 Fq A	Sxohb`k
0/ /	L 0/ /	M062	M070			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 0	L 0/ 0	M062	M066			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 1	L 0/ 1	M063	M071			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 2	L 0/ 2	M063	M067			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 3	L 0/ 3	M06/	M07/			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 4	L 0/ 4	M06/	M065			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 5	L 0/ 5	M058@	M068			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k
0/ 6	L 0/ 6	M058@	M064			QHFF HC	Mnmd	Mnmd	QHFF HC	Sxohb`k

Bnl o`mx	9
Cdr hfmdq	9
I na Mtl adq	9
L ncdkM`l d	9

Member Primary Data (Continued)

	K`adk	H nhms	I Inhms	J Inhms	Qns`sd'cdf(	RdbshnmRg`od	Sxod	Cdrhfm Khms	L`sdqi`k	Cdrhfm Qtkdr
0/7	L 0/7	M068	M070			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
0/8	L 0/8	M064	M066			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
00/	L 00/	M07/	M071			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
000	L 000	M065	M067			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
001	L O4B	M075	M076			L nt ms Ohod	Ad`l	Ohod	@42 Fq- A	Sxohb`k
002	L 002	M077	M085			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
003	L 003	M077	M081			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
004	L 004	M078	M086			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
005	L 005	M078	M082			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
006	L 006	M074	M084			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
007	L 007	M074	M080			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
008	L 008	M073	M083			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
01/	L 01/	M073	M08/			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
010	L 010	M083	M085			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
011	L 011	M08/	M081			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
012	L 012	M084	M086			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
013	L 013	M080	M082			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
014	L O0B	M102	M103			L nt ms Ohod	Ad`l	Ohod	@42 Fq- A	Sxohb`k
015	L 028	M104	M112			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
016	L 03/	M104	M108			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
017	L 030	M105	M113			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
018	L 031	M105	M11/			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
02/	L 032	M101@	M111			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
020	L 033	M101@	M107			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
021	L 034	M100@	M110			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
022	L 035	M100@	M106			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k
023	L 036	M110	M112			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
024	L 037	M106	M108			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
025	L 038	M111	M113			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
026	L 04/	M107	M11/			Sgqp`cdc Qnc	Ad`l	A@Q	@25 Fq-25	Sxohb`k
027	N UO	M118	M117			L nt ms Ohod	Ad`l	Ohod	@42 Fq- A	Sxohb`k
028	L 041	M115	M116			QHF HC	Mnmd	Mnmd	QHF HC	Sxohb`k

Member Advanced Data

	K`adk	HQdkd`rd	I Qdkd`rd	HN ee dsZmn\	I N ee dsZmn\	S.B Nmtx	Ogxri`k CdekQ`s-@mikxrhr ---		hin`bshud	Rdhmi`b---
0	L 23@						Xdr			Mnmd
1	L 24@						Xdr			Mnmd
2	L 25@						Xdr			Mnmd
3	L 26						Xdr			Mnmd
4	L 27@						Xdr			Mnmd
5	L 28@						Xdr			Mnmd
6	L 3/						Xdr			Mnmd
7	L 30						Xdr			Mnmd
8	L 31						Xdr			Mnmd
0/	L 32						Xdr			Mnmd
00	L 33						Xdr			Mnmd
01	L 34						Xdr			Mnmd
02	L 35						Xdr			Mnmd
03	L 36						Xdr			Mnmd
04	L 37						Xdr			Mnmd

RISA
A NEMETSCHEK COMPANY

Bnl o`mx	9
Cdr Hi mdq	9
I na Mtl adq	9
L ncdk M`l d	9

Member Advanced Data (Continued)

	K`adk	HQdkl`r d	I Qdkl`r d	HNeerds Zlm\	I Neerds Zlm\	S.B Nmx	Ogxrih`k	CdekQ`s--@mìkxrhr --	hhìbshud	Rdhrl hb--
05	L 38						Xdr			Mnmd
06	L 4/						Xdr			Mnmd
07	L 40						Xdr	Cdè`t ks		Mnmd
08	L 41		NNNNNN				Xdr	)) M@))		Mnmd
1/	L 42		NNNNNN				Xdr	)) M@))		Mnmd
10	L 43		NNNNNN				Xdr	)) M@))		Mnmd
11	L 44		NNNNNN				Xdr	)) M@))		Mnmd
12	L 45		NNNNNN				Xdr	)) M@))		Mnmd
13	L 46		NNNNNN				Xdr	)) M@))		Mnmd
14	L 47@						Xdr			Mnmd
15	L 48@						Xdr			Mnmd
16	L 5/ @						Xdr			Mnmd
17	L 50@						Xdr	)) M@))		Mnmd
18	L 51@						Xdr	)) M@))		Mnmd
2/	L OO@						Xdr			Mnmd
20	L 53						Xdr	)) M@))		Mnmd
21	L 54						Xdr	)) M@))		Mnmd
22	L O1@						Xdr			Mnmd
23	L 56						Xdr	)) M@))		Mnmd
24	L 57						Xdr	)) M@))		Mnmd
25	L O2@						Xdr			Mnmd
26	L 6/						Xdr	)) M@))		Mnmd
27	L 60						Xdr	)) M@))		Mnmd
28	L 61						Xdr			Mnmd
3/	L 62						Xdr	)) M@))		Mnmd
30	L 63						Xdr	)) M@))		Mnmd
31	L O3@						Xdr			Mnmd
32	L 65						Xdr	)) M@))		Mnmd
33	L 66						Xdr	)) M@))		Mnmd
34	4@						Xdr			Mnmd
35	L 35@						Xdr	)) M@))		Mnmd
36	L 36@						Xdr	)) M@))		Mnmd
37	0B						Xdr			Mnmd
38	L 38@						Xdr	)) M@))		Mnmd
4/	L 4/ @						Xdr	)) M@))		Mnmd
40	L O1B						Xdr			Mnmd
41	L 41@						Xdr	)) M@))		Mnmd
42	L 42@						Xdr	)) M@))		Mnmd
43	L O2B						Xdr			Mnmd
44	L 44@						Xdr	)) M@))		Mnmd
45	L 45@						Xdr	)) M@))		Mnmd
46	L 46@						Xdr			Mnmd
47	L 47						Xdr	)) M@))		Mnmd
48	L 48						Xdr	)) M@))		Mnmd
5/	L O3B						Xdr			Mnmd
50	L 50						Xdr	)) M@))		Mnmd
51	L 51						Xdr	)) M@))		Mnmd
52	4B						Xdr			Mnmd
53	L 53@						Xdr	)) M@))		Mnmd
54	L 54@						Xdr	)) M@))		Mnmd
55	L OOA						Xdr			Mnmd
56	L 56@						Xdr	)) M@))		Mnmd

Member Advanced Data (Continued)

	K`adk	HQdkd`rd	IQdkd`rd	HNeerdsZn\	INeerdsZn\	S.BNmx	Ogxrhb`k	CdekQ`s--@mìkxrhr--	hìnbshud	Rdhml b--
57	L 57@						Xdr	)) M@))		Mnmd
58	L O1A						Xdr			Mnmd
6/	L 6/@						Xdr	)) M@))		Mnmd
60	L 60@						Xdr	)) M@))		Mnmd
61	L O2A						Xdr			Mnmd
62	L 62@						Xdr	)) M@))		Mnmd
63	L 63@						Xdr	)) M@))		Mnmd
64	L 64@						Xdr			Mnmd
65	L 65@						Xdr	)) M@))		Mnmd
66	L 66@						Xdr	)) M@))		Mnmd
67	L O3A						Xdr			Mnmd
68	L 68						Xdr	)) M@))		Mnmd
7/	L 7/						Xdr	)) M@))		Mnmd
70	L O4A						Xdr			Mnmd
71	L 71						Xdr			Mnmd
72	L 72						Xdr	)) M@))		Mnmd
73	L 73	NNNNNWNNNNNW					Xdr	Cde`t ks		Mnmd
74	L 74	NNNNNWNNNNNW					Xdr	Cde`t ks		Mnmd
75	L 75	NNNNNWNNNNNW					Xdr	Cde`t ks		Mnmd
76	L 76	AdmOHM	AdmOHM				Xdr			Mnmd
77	L 77						Xdr	)) M@))		Mnmd
78	L 78						Xdr	)) M@))		Mnmd
8/	L 8/						Xdr	)) M@))		Mnmd
80	L 80						Xdr	)) M@))		Mnmd
81	L 81						Xdr	)) M@))		Mnmd
82	L 82						Xdr	)) M@))		Mnmd
83	L 83	AdmOHM	AdmOHM				Xdr			Mnmd
84	L 84	AdmOHM	AdmOHM				Xdr			Mnmd
85	L 85	AdmOHM	AdmOHM				Xdr			Mnmd
86	L 86	AdmOHM	AdmOHM				Xdr			Mnmd
87	L 87	AdmOHM	AdmOHM				Xdr			Mnmd
88	L O4@						Xdr			Mnmd
0//	L 0//	NNNWNW					Xdr	)) M@))		Mnmd
0/0	L 0/0	NNNWNW					Xdr	)) M@))		Mnmd
0/1	L 0/1	NNNWNW					Xdr	)) M@))		Mnmd
0/2	L 0/2	NNNWNW					Xdr	)) M@))		Mnmd
0/3	L 0/3						Xdr	)) M@))		Mnmd
0/4	L 0/4						Xdr	)) M@))		Mnmd
0/5	L 0/5						Xdr	)) M@))		Mnmd
0/6	L 0/6						Xdr	)) M@))		Mnmd
0/7	L 0/7						Xdr			Mnmd
0/8	L 0/8						Xdr			Mnmd
00/	L 00/						Xdr			Mnmd
000	L 000						Xdr			Mnmd
001	L O4B						Xdr			Mnmd
002	L 002	NNNWNW					Xdr	)) M@))		Mnmd
003	L 003	NNNWNW					Xdr	)) M@))		Mnmd
004	L 004	NNNWNW					Xdr	)) M@))		Mnmd
005	L 005	NNNWNW					Xdr	)) M@))		Mnmd
006	L 006						Xdr	)) M@))		Mnmd
007	L 007						Xdr	)) M@))		Mnmd
008	L 008						Xdr	)) M@))		Mnmd

Bnl o`mx 9
Cdr hfmdq 9
Ina Mtl adq 9
LncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Advanced Data (Continued)

	K`adk	HQdkd`rd	IQdkd`rd	HNeerdsZhm\	INeerdsZhm\	S.BNmhx	Ogxrhb`k CdekQ`s--@mhxrhr --		hhìbshud	Rdhml hb--
01/	L 01/						Xdr	)) M@))		Mnmd
010	L 010						Xdr			Mnmd
011	L 011						Xdr			Mnmd
012	L 012						Xdr			Mnmd
013	L 013						Xdr			Mnmd
014	L OOB						Xdr			Mnmd
015	L 028	NNNWWNW					Xdr	)) M@))		Mnmd
016	L 03/	NNNWWNW					Xdr	)) M@))		Mnmd
017	L 030	NNNWWNW					Xdr	)) M@))		Mnmd
018	L 031	NNNWWNW					Xdr	)) M@))		Mnmd
02/	L 032						Xdr	)) M@))		Mnmd
020	L 033						Xdr	)) M@))		Mnmd
021	L 034						Xdr	)) M@))		Mnmd
022	L 035						Xdr	)) M@))		Mnmd
023	L 036						Xdr			Mnmd
024	L 037						Xdr			Mnmd
025	L 038						Xdr			Mnmd
026	L 04/						Xdr			Mnmd
027	N UO						Xdr			Mnmd
028	L 041						Xdr	)) M@))		Mnmd

Member Point Loads (BLC 1 : Antenna D)

	Ldladq K`adk	Chqdbshnm	L`fmhstcdZka-j,es\	Knb`shnmZes$\
0	L O3B	X	,06-5	5-4
1	L O3B	Lx	,-/05	5-4
2	L O3B	Ly	,-//4	5-4
3	L O3B	X	,06-5	5-4
4	L O3B	Lx	,-//4	5-4
5	L O3B	Ly	,-/05	5-4
6	L OO@	X	,32-44	0
7	L OO@	Lx	,-/11	0
8	L OO@	Ly	/	0
0/	L OO@	X	,32-44	2
00	L OO@	Lx	,-/11	2
01	L OO@	Ly	/	2
02	L OOA	X	,32-44	0
03	L OOA	Lx	-//6	0
04	L OOA	Ly	,-/1	0
05	L OOA	X	,32-44	2
06	L OOA	Lx	-//6	2
07	L OOA	Ly	,-/1	2
08	L O1B	X	,32-44	0
1/	L O1B	Lx	-/04	0
10	L O1B	Ly	-/04	0
11	L O1B	X	,32-44	2
12	L O1B	Lx	-/04	2
13	L O1B	Ly	-/04	2
14	L O2@	X	,28-04	1
15	L O2@	Lx	,-/1	1
16	L O2@	Ly	/	1

QHR@2C Udqrhnm06-/-0   Z[--[--[--[--[--[--[--[--[--[--[Qdu-/[Qhr`[4///270850,UYV ^L S^KN^G-q2c\    O`fd 02

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`f mhst cdZa+j,es\	Knb`shmmZs$\
17	L O2@	X	,28-04	4-4
18	L O2@	L x	,-/ 1	4-4
2/	L O2@	L y	/	4-4
20	L O2A	X	,28-04	1
21	L O2A	L x	-/ / 6	1
22	L O2A	L y	,-/ 07	1
23	L O2A	X	,28-04	4-4
24	L O2A	L x	-/ / 6	4-4
25	L O2A	L y	,-/ 07	4-4
26	L O2B	X	,28-04	1
27	L O2B	L x	-/ 03	1
28	L O2B	L y	-/ 03	1
3/	L O2B	X	,28-04	4-4
30	L O2B	L x	-/ 03	4-4
31	L O2B	L y	-/ 03	4-4
32	L O3@	X	,28-04	1
33	L O3@	L x	,-/ 1	1
34	L O3@	L y	/	1
35	L O3@	X	,28-04	4-4
36	L O3@	L x	,-/ 1	4-4
37	L O3@	L y	/	4-4
38	L O3A	X	,28-04	1
4/	L O3A	L x	-/ / 6	1
40	L O3A	L y	,-/ 07	1
41	L O3A	X	,28-04	4-4
42	L O3A	L x	-/ / 6	4-4
43	L O3A	L y	,-/ 07	4-4
44	L O3B	X	,28-04	1
45	L O3B	L x	-/ 03	1
46	L O3B	L y	-/ 03	1
47	L O3B	X	,28-04	4-4
48	L O3B	L x	-/ 03	4-4
5/	L O3B	L y	-/ 03	4-4
50	L O1@	X	,73-3	3
51	L O1@	L x	-/ 31	3
52	L O1@	L y	/	3
53	L O1A	X	,73-3	3
54	L O1A	L x	,-/ 03	3
55	L O1A	L y	-/ 3	3
56	L O1B	X	,73-3	3
57	L O1B	L x	,-/ 2	3
58	L O1B	L y	,-/ 2	3
6/	L O3@	X	,6/ -2	3
60	L O3@	L x	-/ 24	3
61	L O3@	L y	/	3
62	L O3A	X	,6/ -2	3
63	L O3A	L x	,-/ 01	3
64	L O3A	L y	-/ 22	3
65	L O3B	X	,6/ -2	3
66	L O3B	L x	,-/ 14	3
67	L O3B	L y	,-/ 14	3
68	L 71	X	,07-8	0

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Ldl adqK`adk	Clqdbshmm	L`fmhs cdZk`+j, e\	Knb`shmmZs$\
7/	L 71	L x	/	0
70	L 71	L y	/	0
71	L 71	X	,15-8	0
72	L 71	L x	/	0
73	L 71	L y	/	0
74	L OO@	X	,00-5	3-4
75	L OO@	L x	,-//5	3-4
76	L OO@	L y	/	3-4
77	L OO@	X	,00-5	4-4
78	L OO@	L x	,-//5	4-4
8/	L OO@	L y	/	4-4
80	L OOA	X	,00-5	3-4
81	L OOA	L x	-//1	3-4
82	L OOA	L y	,-//4	3-4
83	L OOA	X	,00-5	4-4
84	L OOA	L x	-//1	4-4
85	L OOA	L y	,-//4	4-4
86	L O1B	X	,00-5	3-4
87	L O1B	L x	-//3	3-4
88	L O1B	L y	-//3	3-4
0//	L O1B	X	,00-5	4-4
0/0	L O1B	L x	-//3	4-4
0/1	L O1B	L y	-//3	4-4
0/2	N UO	X	,21	0
0/3	N UO	L x	/	0
0/4	N UO	L y	/	0
0/5	L OOB	X	,41-4	1
0/6	L OOB	L x	-/ 02	1
0/7	L OOB	L y	,-/ 12	1
0/8	L O4@	X	,41-4	1
00/	L O4@	L x	,-/ 02	1
000	L O4@	L y	-/ 12	1
001	L O4A	X	,41-4	1
002	L O4A	L x	,-/ 12	1
003	L O4A	L y	,-/ 02	1
004	L O4B	X	,41-4	1
005	L O4B	L x	-/ 12	1
006	L O4B	L y	-/ 02	1

Member Point Loads (BLC 2 : Antenna Di)

	Ldl adqK`adk	Clqdbshmm	L`fmhs cdZk`+j, e\	Knb`shmmZs$\
0	L O3B	X	,17-118	5-4
1	L O3B	L x	,-/ 14	5-4
2	L O3B	L y	,-//7	5-4
3	L O3B	X	,17-118	5-4
4	L O3B	L x	,-//7	5-4
5	L O3B	L y	,-/ 14	5-4
6	L OO@	X	,44-135	0
7	L OO@	L x	,-/ 17	0
8	L OO@	L y	/	0
0/	L OO@	X	,44-135	2

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

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Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Ldl adqK`adk	Cqdbshmm	L`fmhtcdZa+j,e\	Knb`shmmZst$\
00	L O0@	L x	,-/ 17	2
01	L O0@	L y	/	2
02	L O0A	X	,44-135	0
03	L O0A	L x	-//8	0
04	L O0A	L y	,-/ 15	0
05	L O0A	X	,44-135	2
06	L O0A	L x	-//8	2
07	L O0A	L y	,-/ 15	2
08	L O1B	X	,44-135	0
1/	L O1B	L x	-/ 1	0
10	L O1B	L y	-/ 1	0
11	L O1B	X	,44-135	2
12	L O1B	L x	-/ 1	2
13	L O1B	L y	-/ 1	2
14	L O2@	X	,020-78	1
15	L O2@	L x	,-/ 55	1
16	L O2@	L y	/	1
17	L O2@	X	,020-78	4-4
18	L O2@	L x	,-/ 55	4-4
2/	L O2@	L y	/	4-4
20	L O2A	X	,020-78	1
21	L O2A	L x	-/ 12	1
22	L O2A	L y	,-/ 51	1
23	L O2A	X	,020-78	4-4
24	L O2A	L x	-/ 12	4-4
25	L O2A	L y	,-/ 51	4-4
26	L O2B	X	,020-78	1
27	L O2B	L x	-/ 36	1
28	L O2B	L y	-/ 36	1
3/	L O2B	X	,020-78	4-4
30	L O2B	L x	-/ 36	4-4
31	L O2B	L y	-/ 36	4-4
32	L O3@	X	,020-78	1
33	L O3@	L x	,-/ 55	1
34	L O3@	L y	/	1
35	L O3@	X	,020-78	4-4
36	L O3@	L x	,-/ 55	4-4
37	L O3@	L y	/	4-4
38	L O3A	X	,020-78	1
4/	L O3A	L x	-/ 12	1
40	L O3A	L y	,-/ 51	1
41	L O3A	X	,020-78	4-4
42	L O3A	L x	-/ 12	4-4
43	L O3A	L y	,-/ 51	4-4
44	L O3B	X	,020-78	1
45	L O3B	L x	-/ 36	1
46	L O3B	L y	-/ 36	1
47	L O3B	X	,020-78	4-4
48	L O3B	L x	-/ 36	4-4
5/	L O3B	L y	-/ 36	4-4
50	L O1@	X	,6/-073	3
51	L O1@	L x	-/ 24	3

Bnl o`mx 9
Cdr hfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

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Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhst cdZa-j,e\	Knb`shmmZs$\
52	L O1@	L y	/	3
53	L O1A	X	,6/ -073	3
54	L O1A	L x	,-/ 01	3
55	L O1A	L y	-/ 22	3
56	L O1B	X	,6/ -073	3
57	L O1B	L x	,-/ 14	3
58	L O1B	L y	,-/ 14	3
6/	L O3@	X	,52-242	3
60	L O3@	L x	-/ 21	3
61	L O3@	L y	/	3
62	L O3A	X	,52-242	3
63	L O3A	L x	,-/ 00	3
64	L O3A	L y	-/ 2	3
65	L O3B	X	,52-242	3
66	L O3B	L x	,-/ 11	3
67	L O3B	L y	,-/ 11	3
68	L 71	X	,022-8/ 5	0
7/	L 71	L x	/	0
70	L 71	L y	/	0
71	L 71	X	,74-83	0
72	L 71	L x	/	0
73	L 71	L y	/	0
74	L O0@	X	,12-6/ 5	3-4
75	L O0@	L x	,-/ 01	3-4
76	L O0@	L y	/	3-4
77	L O0@	X	,12-6/ 5	4-4
78	L O0@	L x	,-/ 01	4-4
8/	L O0@	L y	/	4-4
80	L O0A	X	,12-6/ 5	3-4
81	L O0A	L x	-/ / 3	3-4
82	L O0A	L y	,-/ 00	3-4
83	L O0A	X	,12-6/ 5	4-4
84	L O0A	L x	-/ / 3	4-4
85	L O0A	L y	,-/ 00	4-4
86	L O1B	X	,12-6/ 5	3-4
87	L O1B	L x	-/ / 7	3-4
88	L O1B	L y	-/ / 7	3-4
0/ /	L O1B	X	,12-6/ 5	4-4
0/ 0	L O1B	L x	-/ / 7	4-4
0/ 1	L O1B	L y	-/ / 7	4-4
0/ 2	N UO	X	,024-110	0
0/ 3	N UO	L x	/	0
0/ 4	N UO	L y	/	0
0/ 5	L O0B	X	,67-568	1
0/ 6	L O0B	L x	-/ 1	1
0/ 7	L O0B	L y	,-/ 23	1
0/ 8	L O4@	X	,67-568	1
00/	L O4@	L x	,-/ 1	1
000	L O4@	L y	-/ 23	1
001	L O4A	X	,67-568	1
002	L O4A	L x	,-/ 23	1
003	L O4A	L y	,-/ 1	1

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Bnl o`mx   9
Cdr lfimdq   9
I na Mtl adq   9
L ncdkM`l d   9

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Member Point Loads (BLC 2 : Antenna Di) (Continued)

	L dl adqK`adk	Chqdbslmm	L`fmks cdZa+j,es\	Knb`smmZs$\
004	L O4B	X	,67-568	1
005	L O4B	L x	-/ 23	1
006	L O4B	L y	-/ 1	1

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	L dl adqK`adk	Chqdbslmm	L`fmks cdZa+j,es\	Knb`smmZs$\
0	L O3B	W	/	5-4
1	L O3B	Y	,28-035	5-4
2	L O3B	L w	-/ 01	5-4
3	L O3B	W	/	5-4
4	L O3B	Y	,28-035	5-4
5	L O3B	L w	-/ 24	5-4
6	L O0@	W	/	0
7	L O0@	Y	,68-7/ 4	0
8	L O0@	L w	/	0
0/	L O0@	W	/	2
00	L O0@	Y	,68-7/ 4	2
01	L O0@	L w	/	2
02	L O0A	W	/	0
03	L O0A	Y	,22-5/ 3	0
04	L O0A	L w	-/ 05	0
05	L O0A	W	/	2
06	L O0A	Y	,22-5/ 3	2
07	L O0A	L w	-/ 05	2
08	L O1B	W	/	0
1/	L O1B	Y	,42-534	0
10	L O1B	L w	,-/ 08	0
11	L O1B	W	/	2
12	L O1B	Y	,42-534	2
13	L O1B	L w	,-/ 08	2
14	L O2@	W	/	1
15	L O2@	Y	,138-687	1
16	L O2@	L w	/	1
17	L O2@	W	/	4-4
18	L O2@	Y	,138-687	4-4
2/	L O2@	L w	/	4-4
20	L O2A	W	/	1
21	L O2A	Y	,021-477	1
22	L O2A	L w	-/ 51	1
23	L O2A	W	/	4-4
24	L O2A	Y	,021-477	4-4
25	L O2A	L w	-/ 51	4-4
26	L O2B	W	/	1
27	L O2B	Y	,072-32	1
28	L O2B	L w	,-/ 54	1
3/	L O2B	W	/	4-4
30	L O2B	Y	,072-32	4-4
31	L O2B	L w	,-/ 54	4-4
32	L O3@	W	/	1
33	L O3@	Y	,138-687	1
34	L O3@	L w	/	1

Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq 9
LncdkM`l d   9

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Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Ldl adqK`adk	Cnqdbshnm	L`fmhstcdZa+j,e\	Knb`shnmZs$\
35	L O3@	W	/	4-4
36	L O3@	Y	,138-687	4-4
37	L O3@	Lw	/	4-4
38	L O3A	W	/	1
4/	L O3A	Y	,021-477	1
40	L O3A	Lw	-/51	1
41	L O3A	W	/	4-4
42	L O3A	Y	,021-477	4-4
43	L O3A	Lw	-/51	4-4
44	L O3B	W	/	1
45	L O3B	Y	,072-32	1
46	L O3B	Lw	,-/54	1
47	L O3B	W	/	4-4
48	L O3B	Y	,072-32	4-4
5/	L O3B	Lw	,-/54	4-4
50	L O1@	W	/	3
51	L O1@	Y	,52-000	3
52	L O1@	Lw	/	3
53	L O1A	W	/	3
54	L O1A	Y	,33-664	3
55	L O1A	Lw	,-/10	3
56	L O1B	W	/	3
57	L O1B	Y	,41-617	3
58	L O1B	Lw	-/08	3
6/	L O3@	W	/	3
60	L O3@	Y	,52-000	3
61	L O3@	Lw	/	3
62	L O3A	W	/	3
63	L O3A	Y	,26-832	3
64	L O3A	Lw	,-/07	3
65	L O3B	W	/	3
66	L O3B	Y	,37-75	3
67	L O3B	Lw	-/06	3
68	L 71	W	/	0
7/	L 71	Y	,027-326	0
70	L 71	Lw	/	0
71	L 71	W	/	0
72	L 71	Y	,0/0-66	0
73	L 71	Lw	/	0
74	L O0@	W	/	3-4
75	L O0@	Y	,20-037	3-4
76	L O0@	Lw	/	3-4
77	L O0@	W	/	4-4
78	L O0@	Y	,20-037	4-4
8/	L O0@	Lw	/	4-4
80	L O0A	W	/	3-4
81	L O0A	Y	,06-101	3-4
82	L O0A	Lw	-//7	3-4
83	L O0A	W	/	4-4
84	L O0A	Y	,06-101	4-4
85	L O0A	Lw	-//7	4-4
86	L O1B	W	/	3-4

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Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`ld   9

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Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhst cdZka-j,es\	Knb`shmmZes$\
87	L O1B	Y	,12-146	3-4
88	L O1B	Lw	,-//7	3-4
0//	L O1B	W	/	4-4
0/0	L O1B	Y	,12-146	4-4
0/1	L O1B	Lw	,-//7	4-4
0/2	NUO	W	/	0
0/3	NUO	Y	,002-5	0
0/4	NUO	Lw	/	0
0/5	L O0B	W	/	1
0/6	L O0B	Y	,54-316	1
0/7	L O0B	Lw	-/17	1
0/8	L O4@	W	/	1
00/	L O4@	Y	,54-316	1
000	L O4@	Lw	,-/17	1
001	L O4A	W	/	1
002	L O4A	Y	,75-845	1
003	L O4A	Lw	-/11	1
004	L O4B	W	/	1
005	L O4B	Y	,75-845	1
006	L O4B	Lw	,-/11	1

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhst cdZka-j,es\	Knb`shmmZes$\
0	L O3B	W	08-437	5-4
1	L O3B	Y	,22-747	5-4
2	L O3B	Lw	,-//6	5-4
3	L O3B	W	08-437	5-4
4	L O3B	Y	,22-747	5-4
5	L O3B	Lw	-/13	5-4
6	L O0@	W	22-251	0
7	L O0@	Y	,46-674	0
8	L O0@	Lw	,-/06	0
0/	L O0@	W	22-251	2
00	L O0@	Y	,46-674	2
01	L O0@	Lw	,-/06	2
02	L O0A	W	03-420	0
03	L O0A	Y	,14-057	0
04	L O0A	Lw	-/03	0
05	L O0A	W	03-420	2
06	L O0A	Y	,14-057	2
07	L O0A	Lw	-/03	2
08	L O1B	W	27-04	0
1/	L O1B	Y	,55-/67	0
10	L O1B	Lw	,-/0	0
11	L O1B	W	27-04	2
12	L O1B	Y	,55-/67	2
13	L O1B	Lw	,-/0	2
14	L O2@	W	0/7-2/6	1
15	L O2@	Y	,076-482	1
16	L O2@	Lw	,-/43	1
17	L O2@	W	0/7-2/6	4-4

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

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Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	L dl adqK`adk	Clqdbslmm	L`fmltcdZa-j,es	Knb`slmmZs$\
18	L O2@	Y	,076-482	4-4
2/	L O2@	L w	,-/ 43	4-4
20	L O2A	W	5/ -421	1
21	L O2A	Y	,0/ 3-733	1
22	L O2A	L w	-/ 5	1
23	L O2A	W	5/ -421	4-4
24	L O2A	Y	,0/ 3-733	4-4
25	L O2A	L w	-/ 5	4-4
26	L O2B	W	01/ -342	1
27	L O2B	Y	,1/ 7-520	1
28	L O2B	L w	,-/ 20	1
3/	L O2B	W	01/ -342	4-4
30	L O2B	Y	,1/ 7-520	4-4
31	L O2B	L w	,-/ 20	4-4
32	L O3@	W	0/ 7-2/ 6	1
33	L O3@	Y	,076-482	1
34	L O3@	L w	,-/ 43	1
35	L O3@	W	0/ 7-2/ 6	4-4
36	L O3@	Y	,076-482	4-4
37	L O3@	L w	,-/ 43	4-4
38	L O3A	W	5/ -421	1
4/	L O3A	Y	,0/ 3-733	1
40	L O3A	L w	-/ 5	1
41	L O3A	W	5/ -421	4-4
42	L O3A	Y	,0/ 3-733	4-4
43	L O3A	L w	-/ 5	4-4
44	L O3B	W	01/ -342	1
45	L O3B	Y	,1/ 7-520	1
46	L O3B	L w	,-/ 20	1
47	L O3B	W	01/ -342	4-4
48	L O3B	Y	,1/ 7-520	4-4
5/	L O3B	L w	,-/ 20	4-4
50	L O1@	W	17-85	3
51	L O1@	Y	,4/ -05	3
52	L O1@	L w	-/ 03	3
53	L O1A	W	10-375	3
54	L O1A	Y	,26-104	3
55	L O1A	L w	,-/ 10	3
56	L O1B	W	2/ -75	3
57	L O1B	Y	,42-340	3
58	L O1B	L w	-/ / 7	3
6/	L O3@	W	16-882	3
60	L O3@	Y	,37-374	3
61	L O3@	L w	-/ 03	3
62	L O3A	W	06-623	3
63	L O3A	Y	,2/ -606	3
64	L O3A	L w	,-/ 06	3
65	L O3B	W	2/ -5/ 0	3
66	L O3B	Y	,42-/ / 1	3
67	L O3B	L w	-/ / 7	3
68	L 71	W	33-424	0
7/	L 71	Y	,66-027	0

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Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Ldl adqK`adk	Cnqdbshmm	L`fmhst cdZa+j,es	Knb`shmmZs$\
70	L 71	Lw	/	0
71	L 71	W	4/-765	0
72	L 71	Y	,77-008	0
73	L 71	Lw	/	0
74	L O0@	W	02-5/0	3-4
75	L O0@	Y	,12-447	3-4
76	L O0@	Lw	,-//6	3-4
77	L O0@	W	02-5/0	4-4
78	L O0@	Y	,12-447	4-4
8/	L O0@	Lw	,-//6	4-4
80	L O0A	W	6-810	3-4
81	L O0A	Y	,02-608	3-4
82	L O0A	Lw	-//7	3-4
83	L O0A	W	6-810	4-4
84	L O0A	Y	,02-608	4-4
85	L O0A	Lw	-//7	4-4
86	L O1B	W	04-/35	3-4
87	L O1B	Y	,15-/5	3-4
88	L O1B	Lw	,-//3	3-4
0//	L O1B	W	04-/35	4-4
0/0	L O1B	Y	,15-/5	4-4
0/1	L O1B	Lw	,-//3	4-4
0/2	N UO	W	4/-0	0
0/3	N UO	Y	,75-665	0
0/4	N UO	Lw	/	0
0/5	L O0B	W	16-220	1
0/6	L O0B	Y	,36-228	1
0/7	L O0B	Lw	-/16	1
0/8	L O4@	W	16-220	1
00/	L O4@	Y	,36-228	1
000	L O4@	Lw	,-/16	1
001	L O4A	W	37-75	1
002	L O4A	Y	,73-517	1
003	L O4A	Lw	/	1
004	L O4B	W	37-75	1
005	L O4B	Y	,73-517	1
006	L O4B	Lw	/	1

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Ldl adqK`adk	Cnqdbshmm	L`fmhst cdZa+j,es	Knb`shmmZs$\
0	L O3B	W	22-747	5-4
1	L O3B	Y	,08-437	5-4
2	L O3B	Lw	,-/13	5-4
3	L O3B	W	22-747	5-4
4	L O3B	Y	,08-437	5-4
5	L O3B	Lw	-//6	5-4
6	L O0@	W	24-02	0
7	L O0@	Y	,1/-171	0
8	L O0@	Lw	,-/07	0
0/	L O0@	W	24-02	2
00	L O0@	Y	,1/-171	2

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	L dl adqK`adk	Chqdbshmm	L`f mhtcdZa+j,es	Knb`shmmZs$\
01	L O0@	L w	,-/07	2
02	L O0A	W	31-412	0
03	L O0A	Y	,13-440	0
04	L O0A	L w	-/08	0
05	L O0A	W	31-412	2
06	L O0A	Y	,13-440	2
07	L O0A	L w	-/08	2
08	L O1B	W	55-/67	0
1/	L O1B	Y	,27-04	0
10	L O1B	L w	-/0	0
11	L O1B	W	55-/67	2
12	L O1B	Y	,27-04	2
13	L O1B	L w	-/0	2
14	L O2@	W	02/-005	1
15	L O2@	Y	,64-012	1
16	L O2@	L w	,-/54	1
17	L O2@	W	02/-005	4-4
18	L O2@	Y	,64-012	4-4
2/	L O2@	L w	,-/54	4-4
20	L O2A	W	037-763	1
21	L O2A	Y	,74-841	1
22	L O2A	L w	-/55	1
23	L O2A	W	037-763	4-4
24	L O2A	Y	,74-841	4-4
25	L O2A	L w	-/55	4-4
26	L O2B	W	1/7-520	1
27	L O2B	Y	,01/-342	1
28	L O2B	L w	-/20	1
3/	L O2B	W	1/7-520	4-4
30	L O2B	Y	,01/-342	4-4
31	L O2B	L w	-/20	4-4
32	L O3@	W	02/-005	1
33	L O3@	Y	,64-012	1
34	L O3@	L w	,-/54	1
35	L O3@	W	02/-005	4-4
36	L O3@	Y	,64-012	4-4
37	L O3@	L w	,-/54	4-4
38	L O3A	W	037-763	1
4/	L O3A	Y	,74-841	1
40	L O3A	L w	-/55	1
41	L O3A	W	037-763	4-4
42	L O3A	Y	,74-841	4-4
43	L O3A	L w	-/55	4-4
44	L O3B	W	1/7-520	1
45	L O3B	Y	,01/-342	1
46	L O3B	L w	-/20	1
47	L O3B	W	1/7-520	4-4
48	L O3B	Y	,01/-342	4-4
5/	L O3B	L w	-/20	4-4
50	L O1@	W	30-057	3
51	L O1@	Y	,12-657	3
52	L O1@	L w	-/10	3

Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshm	L`fmhstcdZa+j,es\	Knb`shmZs$\
53	L O1A	W	33-0/2	3
54	L O1A	Y	,14-352	3
55	L O1A	L w	,-/1	3
56	L O1B	W	42-340	3
57	L O1B	Y	,2/-75	3
58	L O1B	L w	,-//7	3
6/	L O3@	W	25-032	3
60	L O3@	Y	,1/-756	3
61	L O3@	L w	-/07	3
62	L O3A	W	3/-060	3
63	L O3A	Y	,12-082	3
64	L O3A	L w	,-/07	3
65	L O3B	W	42-//1	3
66	L O3B	Y	,2/-5/0	3
67	L O3B	L w	,-//7	3
68	L 71	W	66-027	0
7/	L 71	Y	,33-424	0
70	L 71	L w	/	0
71	L 71	W	77-008	0
72	L 71	Y	,4/-765	0
73	L 71	L w	/	0
74	L O0@	W	05-613	3-4
75	L O0@	Y	,8-545	3-4
76	L O0@	L w	,-//7	3-4
77	L O0@	W	05-613	4-4
78	L O0@	Y	,8-545	4-4
8/	L O0@	L w	,-//7	4-4
80	L O0A	W	07-843	3-4
81	L O0A	Y	,0/-832	3-4
82	L O0A	L w	-//7	3-4
83	L O0A	W	07-843	4-4
84	L O0A	Y	,0/-832	4-4
85	L O0A	L w	-//7	4-4
86	L O1B	W	15-/5	3-4
87	L O1B	Y	,04-/35	3-4
88	L O1B	L w	-//3	3-4
0//	L O1B	W	15-/5	4-4
0/0	L O1B	Y	,04-/35	4-4
0/1	L O1B	L w	-//3	4-4
0/2	N UO	W	75-665	0
0/3	N UO	Y	,4/-0	0
0/4	N UO	L w	/	0
0/5	L O0B	W	45-550	1
0/6	L O0B	Y	,21-602	1
0/7	L O0B	L w	-/17	1
0/8	L O4@	W	45-550	1
00/	L O4@	Y	,21-602	1
000	L O4@	L w	,-/17	1
001	L O4A	W	64-2/5	1
002	L O4A	Y	,32-367	1
003	L O4A	L w	,-/11	1
004	L O4B	W	64-2/5	1

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Bnl o`mx 9
Cdr lhmdq 9
Ina Mtl adq 9
LncdkM`l d 9

@lf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhst cdZa+j,es\	Knb`shmmZs$\
005	L O4B	Y	,32-367	1
006	L O4B	L w	-/ 11	1

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhst cdZa+j,es\	Knb`shmmZs$\
0	L O3B	W	28-035	5-4
1	L O3B	Y	/	5-4
2	L O3B	L w	,-/ 24	5-4
3	L O3B	W	28-035	5-4
4	L O3B	Y	/	5-4
5	L O3B	L w	,-/ 01	5-4
6	L O0@	W	16-373	0
7	L O0@	Y	/	0
8	L O0@	L w	,-/ 03	0
0/	L O0@	W	16-373	2
00	L O0@	Y	/	2
01	L O0@	L w	,-/ 03	2
02	L O0A	W	62-574	0
03	L O0A	Y	/	0
04	L O0A	L w	-/ 02	0
05	L O0A	W	62-574	2
06	L O0A	Y	/	2
07	L O0A	L w	-/ 02	2
08	L O1B	W	42-534	0
1/	L O1B	Y	/	0
10	L O1B	L w	-/ 08	0
11	L O1B	W	42-534	2
12	L O1B	Y	/	2
13	L O1B	L w	-/ 08	2
14	L O2@	W	006-/ 50	1
15	L O2@	Y	/	1
16	L O2@	L w	,-/ 48	1
17	L O2@	W	006-/ 50	4-4
18	L O2@	Y	/	4-4
2/	L O2@	L w	,-/ 48	4-4
20	L O2A	W	123-160	1
21	L O2A	Y	/	1
22	L O2A	L w	-/ 3	1
23	L O2A	W	123-160	4-4
24	L O2A	Y	/	4-4
25	L O2A	L w	-/ 3	4-4
26	L O2B	W	072-32	1
27	L O2B	Y	/	1
28	L O2B	L w	-/ 54	1
3/	L O2B	W	072-32	4-4
30	L O2B	Y	/	4-4
31	L O2B	L w	-/ 54	4-4
32	L O3@	W	006-/ 50	1
33	L O3@	Y	/	1
34	L O3@	L w	,-/ 48	1
35	L O3@	W	006-/ 50	4-4

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	L dl adqK` adk	Chqdbshmm	L`fmhstcdZa-j,es\	Knb`shmnZs$\
36	L O3@	Y	/	4-4
37	L O3@	L w	,-/ 48	4-4
38	L O3A	W	123-160	1
4/	L O3A	Y	/	1
40	L O3A	L w	-/ 3	1
41	L O3A	W	123-160	4-4
42	L O3A	Y	/	4-4
43	L O3A	L w	-/ 3	4-4
44	L O3B	W	072-32	1
45	L O3B	Y	/	1
46	L O3B	L w	-/ 54	1
47	L O3B	W	072-32	4-4
48	L O3B	Y	/	4-4
5/	L O3B	L w	-/ 54	4-4
50	L O1@	W	31-235	3
51	L O1@	Y	/	3
52	L O1@	L w	-/ 10	3
53	L O1A	W	5/ -571	3
54	L O1A	Y	/	3
55	L O1A	L w	,-/ 0	3
56	L O1B	W	41-617	3
57	L O1B	Y	/	3
58	L O1B	L w	,-/ 08	3
6/	L O3@	W	23-5/ 8	3
60	L O3@	Y	/	3
61	L O3@	L w	-/ 06	3
62	L O3A	W	48-666	3
63	L O3A	Y	/	3
64	L O3A	L w	,-/ 0	3
65	L O3B	W	37-75	3
66	L O3B	Y	/	3
67	L O3B	L w	,-/ 06	3
68	L 71	W	027-326	0
7/	L 71	Y	/	0
70	L 71	L w	/	0
71	L 71	W	0/ 0-66	0
72	L 71	Y	/	0
73	L 71	L w	/	0
74	L O0@	W	04-255	3-4
75	L O0@	Y	/	3-4
76	L O0@	L w	,-/ / 7	3-4
77	L O0@	W	04-255	4-4
78	L O0@	Y	/	4-4
8/	L O0@	L w	,-/ / 7	4-4
80	L O0A	W	18-2/ 1	3-4
81	L O0A	Y	/	3-4
82	L O0A	L w	-/ / 4	3-4
83	L O0A	W	18-2/ 1	4-4
84	L O0A	Y	/	4-4
85	L O0A	L w	-/ / 4	4-4
86	L O1B	W	12-146	3-4
87	L O1B	Y	/	3-4

BnI o`mx 9
Cdr Hfimdq 9
Ina MtI adq 9
LncdkM`I d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	L dl adqK`adk	Chqdbshmm	L`f mhst cdZa+j,e\	Knb`shmmZs+$\
88	L O1B	L w	-//7	3-4
0//	L O1B	W	12-146	4-4
0/0	L O1B	Y	/	4-4
0/1	L O1B	L w	-//7	4-4
0/2	N UO	W	002-5	0
0/3	N UO	Y	/	0
0/4	N UO	L w	/	0
0/5	L O0B	W	75-845	1
0/6	L O0B	Y	/	1
0/7	L O0B	L w	-/11	1
0/8	L O4@	W	75-845	1
00/	L O4@	Y	/	1
000	L O4@	L w	,-/11	1
001	L O4A	W	54-316	1
002	L O4A	Y	/	1
003	L O4A	L w	,-/17	1
004	L O4B	W	54-316	1
005	L O4B	Y	/	1
006	L O4B	L w	-/17	1

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	L dl adqK`adk	Chqdbshmm	L`f mhst cdZa+j,e\	Knb`shmmZs+$\
0	L O3B	W	22-834	5-4
1	L O3B	Y	08-487	5-4
2	L O3B	L w	,-/25	5-4
3	L O3B	W	22-834	5-4
4	L O3B	Y	08-487	5-4
5	L O3B	L w	,-/16	5-4
6	L O0@	W	24-02	0
7	L O0@	Y	1/-171	0
8	L O0@	L w	,-/07	0
0/	L O0@	W	24-02	2
00	L O0@	Y	1/-171	2
01	L O0@	L w	,-/07	2
02	L O0A	W	56-636	0
03	L O0A	Y	28-003	0
04	L O0A	L w	,-//6	0
05	L O0A	W	56-636	2
06	L O0A	Y	28-003	2
07	L O0A	L w	,-//6	2
08	L O1B	W	15-726	0
1/	L O1B	Y	04-383	0
10	L O1B	L w	-/04	0
11	L O1B	W	15-726	2
12	L O1B	Y	04-383	2
13	L O1B	L w	-/04	2
14	L O2@	W	02/-005	1
15	L O2@	Y	64-012	1
16	L O2@	L w	,-/54	1
17	L O2@	W	02/-005	4-4
18	L O2@	Y	64-012	4-4

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq 9
LncdkM`l d   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	L dl adq K adk	Chqdbshnm	L`fmhstcdZa-j,es\	Knb`shmnZs$\
2/	L O2@	L w	,-/ 54	4-4
20	L O2A	W	101-754	1
21	L O2A	Y	011-787	1
22	L O2A	L w	,-/ 10	1
23	L O2A	W	101-754	4-4
24	L O2A	Y	011-787	4-4
25	L O2A	L w	,-/ 10	4-4
26	L O2B	W	0/ 8-/ 67	1
27	L O2B	Y	51-865	1
28	L O2B	L w	-/ 50	1
3/	L O2B	W	0/ 8-/ 67	4-4
30	L O2B	Y	51-865	4-4
31	L O2B	L w	-/ 50	4-4
32	L O3@	W	02/ -005	1
33	L O3@	Y	64-012	1
34	L O3@	L w	,-/ 54	1
35	L O3@	W	02/ -005	4-4
36	L O3@	Y	64-012	4-4
37	L O3@	L w	,-/ 54	4-4
38	L O3A	W	101-754	1
4/	L O3A	Y	011-787	1
40	L O3A	L w	,-/ 10	1
41	L O3A	W	101-754	4-4
42	L O3A	Y	011-787	4-4
43	L O3A	L w	,-/ 10	4-4
44	L O3B	W	0/ 8-/ 67	1
45	L O3B	Y	51-865	1
46	L O3B	L w	-/ 50	1
47	L O3B	W	0/ 8-/ 67	4-4
48	L O3B	Y	51-865	4-4
5/	L O3B	L w	-/ 50	4-4
50	L O1@	W	30-057	3
51	L O1@	Y	12-657	3
52	L O1@	L w	-/ 10	3
53	L O1A	W	43-003	3
54	L O1A	Y	20-132	3
55	L O1A	L w	-/ / 4	3
56	L O1B	W	26-766	3
57	L O1B	Y	10-757	3
58	L O1B	L w	,-/ 10	3
6/	L O3@	W	25-032	3
60	L O3@	Y	1/ -756	3
61	L O3@	L w	-/ 07	3
62	L O3A	W	42-801	3
63	L O3A	Y	20-015	3
64	L O3A	L w	-/ / 4	3
65	L O3B	W	20-515	3
66	L O3B	Y	07-148	3
67	L O3B	L w	,-/ 07	3
68	L 71	W	051-532	0
7/	L 71	Y	82-8/ 1	0
70	L 71	L w	/	0

Bnl o`mx	9	@f 11+1/13
Cdr lfmdq	9	8900 @L
Ina Mtl adq	9	Bgdbj dc Ax9`^^^^
Lncdk M`l d	9	

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcd Zk`+j,e\	Knb`shmm Zes$\
71	L 71	W	77-041	0
72	L 71	Y	4/ -784	0
73	L 71	Lw	/	0
74	L O0@	W	05-613	3-4
75	L O0@	Y	8-545	3-4
76	L O0@	Lw	,-//7	3-4
77	L O0@	W	05-613	4-4
78	L O0@	Y	8-545	4-4
8/	L O0@	Lw	,-//7	4-4
80	L O0A	W	15-452	3-4
81	L O0A	Y	04-225	3-4
82	L O0A	Lw	,-//2	3-4
83	L O0A	W	15-452	4-4
84	L O0A	Y	04-225	4-4
85	L O0A	Lw	,-//2	4-4
86	L O1B	W	03-112	3-4
87	L O1B	Y	7-100	3-4
88	L O1B	Lw	-//7	3-4
0//	L O1B	W	03-112	4-4
0/0	L O1B	Y	7-100	4-4
0/1	L O1B	Lw	-//7	4-4
0/2	N UO	W	0/8-874	0
0/3	N UO	Y	52-4	0
0/4	N UO	Lw	/	0
0/5	L O0B	W	73-517	1
0/6	L O0B	Y	37-75	1
0/7	L O0B	Lw	/	1
0/8	L O4@	W	73-517	1
00/	L O4@	Y	37-75	1
000	L O4@	Lw	/	1
001	L O4A	W	36-228	1
002	L O4A	Y	16-220	1
003	L O4A	Lw	,-/16	1
004	L O4B	W	36-228	1
005	L O4B	Y	16-220	1
006	L O4B	Lw	-/16	1

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhstcd Zk`+j,e\	Knb`shmm Zes$\
0	L O3B	W	08-487	5-4
1	L O3B	Y	22-834	5-4
2	L O3B	Lw	,-/16	5-4
3	L O3B	W	08-487	5-4
4	L O3B	Y	22-834	5-4
5	L O3B	Lw	,-/25	5-4
6	L O0@	W	22-251	0
7	L O0@	Y	46-674	0
8	L O0@	Lw	,-/06	0
0/	L O0@	W	22-251	2
00	L O0@	Y	46-674	2
01	L O0@	Lw	,-/06	2

IIIRISA®
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr lfi mdq   9
I na Mtl adq   9
L ncdkM`l d   9

@f 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	L dl adq K`adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZs$\
02	L O0A	W	18-/ 83	0
03	L O0A	Y	4/ -281	0
04	L O0A	L w	,-/ 08	0
05	L O0A	W	18-/ 83	2
06	L O0A	Y	4/ -281	2
07	L O0A	L w	,-/ 08	2
08	L O1B	W	04-383	0
1/	L O1B	Y	15-726	0
10	L O1B	L w	-/ 04	0
11	L O1B	W	04-383	2
12	L O1B	Y	15-726	2
13	L O1B	L w	-/ 04	2
14	L O2@	W	0/ 7-2/ 6	1
15	L O2@	Y	076-482	1
16	L O2@	L w	,-/ 43	1
17	L O2@	W	0/ 7-2/ 6	4-4
18	L O2@	Y	076-482	4-4
2/	L O2@	L w	,-/ 43	4-4
20	L O2A	W	86-366	1
21	L O2A	Y	057-724	1
22	L O2A	L w	,-/ 52	1
23	L O2A	W	86-366	4-4
24	L O2A	Y	057-724	4-4
25	L O2A	L w	,-/ 52	4-4
26	L O2B	W	51-865	1
27	L O2B	Y	0/ 8-/ 67	1
28	L O2B	L w	-/ 50	1
3/	L O2B	W	51-865	4-4
30	L O2B	Y	0/ 8-/ 67	4-4
31	L O2B	L w	-/ 50	4-4
32	L O3@	W	0/ 7-2/ 6	1
33	L O3@	Y	076-482	1
34	L O3@	L w	,-/ 43	1
35	L O3@	W	0/ 7-2/ 6	4-4
36	L O3@	Y	076-482	4-4
37	L O3@	L w	,-/ 43	4-4
38	L O3A	W	86-366	1
4/	L O3A	Y	057-724	1
40	L O3A	L w	,-/ 52	1
41	L O3A	W	86-366	4-4
42	L O3A	Y	057-724	4-4
43	L O3A	L w	,-/ 52	4-4
44	L O3B	W	51-865	1
45	L O3B	Y	0/ 8-/ 67	1
46	L O3B	L w	-/ 50	1
47	L O3B	W	51-865	4-4
48	L O3B	Y	0/ 8-/ 67	4-4
5/	L O3B	L w	-/ 50	4-4
50	L O1@	W	17-85	3
51	L O1@	Y	4/ -05	3
52	L O1@	L w	-/ 03	3
53	L O1A	W	16-155	3

Bnl o`mx	9		@ f 11+1/13
Cdr hfimdq	9		8900 @L
I na Mtl adq	9		Bgdbj dc Ax9`^^^^
L ncdkM` l d	9		

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Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	L dl adqK` adk	Chqdbshmm	L`fmhst cdZa-j,eS	Knb`shmmZs$ \
54	L O1A	Y	36-115	3
55	L O1A	L w	-/ 07	3
56	L O1B	W	10-757	3
57	L O1B	Y	26-766	3
58	L O1B	L w	,-/ 10	3
6/	L O3@	W	16-882	3
60	L O3@	Y	37-374	3
61	L O3@	L w	-/ 03	3
62	L O3A	W	14-556	3
63	L O3A	Y	33-346	3
64	L O3A	L w	-/ 05	3
65	L O3B	W	07-148	3
66	L O3B	Y	20-515	3
67	L O3B	L w	,-/ 07	3
68	L 71	W	82-8/ 1	0
7/	L 71	Y	051-532	0
70	L 71	L w	/	0
71	L 71	W	4/ -784	0
72	L 71	Y	77-041	0
73	L 71	L w	/	0
74	L O0@	W	02-5/ 0	3-4
75	L O0@	Y	12-447	3-4
76	L O0@	L w	,-/ / 6	3-4
77	L O0@	W	02-5/ 0	4-4
78	L O0@	Y	12-447	4-4
8/	L O0@	L w	,-/ / 6	4-4
80	L O0A	W	01-203	3-4
81	L O0A	Y	10-217	3-4
82	L O0A	L w	,-/ / 7	3-4
83	L O0A	W	01-203	4-4
84	L O0A	Y	10-217	4-4
85	L O0A	L w	,-/ / 7	4-4
86	L O1B	W	7-100	3-4
87	L O1B	Y	03-112	3-4
88	L O1B	L w	-/ / 7	3-4
0/ /	L O1B	W	7-100	4-4
0/ 0	L O1B	Y	03-112	4-4
0/ 1	L O1B	L w	-/ / 7	4-4
0/ 2	N UO	W	52-4	0
0/ 3	N UO	Y	0/ 8-874	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	32-367	1
0/ 6	L O0B	Y	64-2/ 5	1
0/ 7	L O0B	L w	,-/ 11	1
0/ 8	L O4@	W	32-367	1
00/	L O4@	Y	64-2/ 5	1
000	L O4@	L w	-/ 11	1
001	L O4A	W	21-602	1
002	L O4A	Y	45-550	1
003	L O4A	L w	,-/ 17	1
004	L O4B	W	21-602	1
005	L O4B	Y	45-550	1

Bnl o`mx	9		@f 11+1/13
Cdr lfimdq	9		8900 @L
Ina Mtl adq	9		Bgdbj dc Ax9`^^^^
LncdkM`l d	9		

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	L dl adqK`adk	Clqdbslmm	L`fmhst cdZka-j,e\	Knb`slmmZs$\
006	L O4B	L w	-/ 17	1

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	L dl adqK`adk	Clqdbslmm	L`fmhst cdZka-j,e\	Knb`slmmZs$\
0	L O3B	W	/	5-4
1	L O3B	Y	28-035	5-4
2	L O3B	L w	,-/ 01	5-4
3	L O3B	W	/	5-4
4	L O3B	Y	28-035	5-4
5	L O3B	L w	,-/ 24	5-4
6	L O0@	W	/	0
7	L O0@	Y	68-7/ 4	0
8	L O0@	L w	/	0
0/	L O0@	W	/	2
00	L O0@	Y	68-7/ 4	2
01	L O0@	L w	/	2
02	L O0A	W	/	0
03	L O0A	Y	22-5/ 3	0
04	L O0A	L w	,-/ 05	0
05	L O0A	W	/	2
06	L O0A	Y	22-5/ 3	2
07	L O0A	L w	,-/ 05	2
08	L O1B	W	/	0
1/	L O1B	Y	42-534	0
10	L O1B	L w	-/ 08	0
11	L O1B	W	/	2
12	L O1B	Y	42-534	2
13	L O1B	L w	-/ 08	2
14	L O2@	W	/	1
15	L O2@	Y	138-687	1
16	L O2@	L w	/	1
17	L O2@	W	/	4-4
18	L O2@	Y	138-687	4-4
2/	L O2@	L w	/	4-4
20	L O2A	W	/	1
21	L O2A	Y	021-477	1
22	L O2A	L w	,-/ 51	1
23	L O2A	W	/	4-4
24	L O2A	Y	021-477	4-4
25	L O2A	L w	,-/ 51	4-4
26	L O2B	W	/	1
27	L O2B	Y	072-32	1
28	L O2B	L w	-/ 54	1
3/	L O2B	W	/	4-4
30	L O2B	Y	072-32	4-4
31	L O2B	L w	-/ 54	4-4
32	L O3@	W	/	1
33	L O3@	Y	138-687	1
34	L O3@	L w	/	1
35	L O3@	W	/	4-4
36	L O3@	Y	138-687	4-4

Bnl o`mx   9
Cdr Hfmdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	L dl adqK adk	Clqdbshmm	L`fmhstcdZa-j,e\	Knb`shmmZes$\
37	L O3@	L w	/	4-4
38	L O3A	W	/	1
4/	L O3A	Y	021-477	1
40	L O3A	L w	,-/ 51	1
41	L O3A	W	/	4-4
42	L O3A	Y	021-477	4-4
43	L O3A	L w	,-/ 51	4-4
44	L O3B	W	/	1
45	L O3B	Y	072-32	1
46	L O3B	L w	-/ 54	1
47	L O3B	W	/	4-4
48	L O3B	Y	072-32	4-4
5/	L O3B	L w	-/ 54	4-4
50	L O1@	W	/	3
51	L O1@	Y	52-000	3
52	L O1@	L w	/	3
53	L O1A	W	/	3
54	L O1A	Y	33-664	3
55	L O1A	L w	-/ 10	3
56	L O1B	W	/	3
57	L O1B	Y	41-617	3
58	L O1B	L w	,-/ 08	3
6/	L O3@	W	/	3
60	L O3@	Y	52-000	3
61	L O3@	L w	/	3
62	L O3A	W	/	3
63	L O3A	Y	26-832	3
64	L O3A	L w	-/ 07	3
65	L O3B	W	/	3
66	L O3B	Y	37-75	3
67	L O3B	L w	,-/ 06	3
68	L 71	W	/	0
7/	L 71	Y	027-326	0
70	L 71	L w	/	0
71	L 71	W	/	0
72	L 71	Y	0/ 0-66	0
73	L 71	L w	/	0
74	L O0@	W	/	3-4
75	L O0@	Y	20-037	3-4
76	L O0@	L w	/	3-4
77	L O0@	W	/	4-4
78	L O0@	Y	20-037	4-4
8/	L O0@	L w	/	4-4
80	L O0A	W	/	3-4
81	L O0A	Y	06-101	3-4
82	L O0A	L w	,-/ / 7	3-4
83	L O0A	W	/	4-4
84	L O0A	Y	06-101	4-4
85	L O0A	L w	,-/ / 7	4-4
86	L O1B	W	/	3-4
87	L O1B	Y	12-146	3-4
88	L O1B	L w	-/ / 7	3-4

Bnl o`mx	9	@tf 11+1/13
Cdr hfmdq	9	8900 @L
Ina Mtl adq	9	Bgdbj dc Ax9^^^^
LncdkM`l d	9	

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Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Ldl adqK adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
0//	L O1B	W	/	4-4
0/0	L O1B	Y	12-146	4-4
0/1	L O1B	L w	-//7	4-4
0/2	N UO	W	/	0
0/3	N UO	Y	002-5	0
0/4	N UO	L w	/	0
0/5	L O0B	W	/	1
0/6	L O0B	Y	54-316	1
0/7	L O0B	L w	,-/17	1
0/8	L O4@	W	/	1
00/	L O4@	Y	54-316	1
000	L O4@	L w	-/17	1
001	L O4A	W	/	1
002	L O4A	Y	75-845	1
003	L O4A	L w	,-/11	1
004	L O4B	W	/	1
005	L O4B	Y	75-845	1
006	L O4B	L w	-/11	1

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Ldl adqK adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
0	L O3B	W	,08-437	5-4
1	L O3B	Y	22-747	5-4
2	L O3B	L w	-//6	5-4
3	L O3B	W	,08-437	5-4
4	L O3B	Y	22-747	5-4
5	L O3B	L w	,-/13	5-4
6	L O0@	W	,22-251	0
7	L O0@	Y	46-674	0
8	L O0@	L w	-/06	0
0/	L O0@	W	,22-251	2
00	L O0@	Y	46-674	2
01	L O0@	L w	-/06	2
02	L O0A	W	,03-420	0
03	L O0A	Y	14-057	0
04	L O0A	L w	,-/03	0
05	L O0A	W	,03-420	2
06	L O0A	Y	14-057	2
07	L O0A	L w	,-/03	2
08	L O1B	W	,27-04	0
1/	L O1B	Y	55-/67	0
10	L O1B	L w	-/0	0
11	L O1B	W	,27-04	2
12	L O1B	Y	55-/67	2
13	L O1B	L w	-/0	2
14	L O2@	W	,0/7-2/6	1
15	L O2@	Y	076-482	1
16	L O2@	L w	-/43	1
17	L O2@	W	,0/7-2/6	4-4
18	L O2@	Y	076-482	4-4
2/	L O2@	L w	-/43	4-4

	Bnl o`mx	9
	Cdr lfmdq	9
	Ina Mtl adq	9
	LncdkM`ld	9

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Ldladq K`adk	Chqdbshmm	L`fmhsцdlЫa-j,eї	Knb`shmmZs$ \
20	L O2A	W	,5/ -421	1
21	L O2A	Y	0/ 3-733	1
22	L O2A	L w	,-/ 5	1
23	L O2A	W	,5/ -421	4-4
24	L O2A	Y	0/ 3-733	4-4
25	L O2A	L w	,-/ 5	4-4
26	L O2B	W	,01/ -342	1
27	L O2B	Y	1/ 7-520	1
28	L O2B	L w	-/ 20	1
3/	L O2B	W	,01/ -342	4-4
30	L O2B	Y	1/ 7-520	4-4
31	L O2B	L w	-/ 20	4-4
32	L O3@	W	,0/ 7-2/ 6	1
33	L O3@	Y	076-482	1
34	L O3@	L w	-/ 43	1
35	L O3@	W	,0/ 7-2/ 6	4-4
36	L O3@	Y	076-482	4-4
37	L O3@	L w	-/ 43	4-4
38	L O3A	W	,5/ -421	1
4/	L O3A	Y	0/ 3-733	1
40	L O3A	L w	,-/ 5	1
41	L O3A	W	,5/ -421	4-4
42	L O3A	Y	0/ 3-733	4-4
43	L O3A	L w	,-/ 5	4-4
44	L O3B	W	,01/ -342	1
45	L O3B	Y	1/ 7-520	1
46	L O3B	L w	-/ 20	1
47	L O3B	W	,01/ -342	4-4
48	L O3B	Y	1/ 7-520	4-4
5/	L O3B	L w	-/ 20	4-4
50	L O1@	W	,17-85	3
51	L O1@	Y	4/ -05	3
52	L O1@	L w	,-/ 03	3
53	L O1A	W	,10-375	3
54	L O1A	Y	26-104	3
55	L O1A	L w	-/ 10	3
56	L O1B	W	,2/ -75	3
57	L O1B	Y	42-340	3
58	L O1B	L w	,-/ / 7	3
6/	L O3@	W	,16-882	3
60	L O3@	Y	37-374	3
61	L O3@	L w	,-/ 03	3
62	L O3A	W	,06-623	3
63	L O3A	Y	2/ -606	3
64	L O3A	L w	-/ 06	3
65	L O3B	W	,2/ -5/ 0	3
66	L O3B	Y	42-/ / 1	3
67	L O3B	L w	,-/ / 7	3
68	L 71	W	,33-424	0
7/	L 71	Y	66-027	0
70	L 71	L w	/	0
71	L 71	W	,4/ -765	0

Bnl o`mx	9		@f 11+1/13
Cdr lfimdq	9		8900 @L
I na Mtl adq	9		Bgdbj dc Ax9`^^^^
LncdkM`l d	9		

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L `f mhst cdZa+j,es\	Knb`shmmZes$\
72	L 71	Y	77-008	0
73	L 71	L w	/	0
74	L O0@	W	,02-5/ 0	3-4
75	L O0@	Y	12-447	3-4
76	L O0@	L w	-/ / 6	3-4
77	L O0@	W	,02-5/ 0	4-4
78	L O0@	Y	12-447	4-4
8/	L O0@	L w	-/ / 6	4-4
80	L O0A	W	,6-810	3-4
81	L O0A	Y	02-608	3-4
82	L O0A	L w	,-/ / 7	3-4
83	L O0A	W	,6-810	4-4
84	L O0A	Y	02-608	4-4
85	L O0A	L w	,-/ / 7	4-4
86	L O1B	W	,04-/ 35	3-4
87	L O1B	Y	15-/ 5	3-4
88	L O1B	L w	-/ / 3	3-4
0//	L O1B	W	,04-/ 35	4-4
0/ 0	L O1B	Y	15-/ 5	4-4
0/ 1	L O1B	L w	-/ / 3	4-4
0/ 2	N UO	W	,4/ -0	0
0/ 3	N UO	Y	75-665	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	,16-220	1
0/ 6	L O0B	Y	36-228	1
0/ 7	L O0B	L w	,-/ 16	1
0/ 8	L O4@	W	,16-220	1
00/	L O4@	Y	36-228	1
000	L O4@	L w	-/ 16	1
001	L O4A	W	,37-75	1
002	L O4A	Y	73-517	1
003	L O4A	L w	/	1
004	L O4B	W	,37-75	1
005	L O4B	Y	73-517	1
006	L O4B	L w	/	1

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	L dl adqK adk	Chqdbshmm	L `f mhst cdZa+j,es\	Knb`shmmZes$\
0	L O3B	W	,22-747	5-4
1	L O3B	Y	08-437	5-4
2	L O3B	L w	-/ 13	5-4
3	L O3B	W	,22-747	5-4
4	L O3B	Y	08-437	5-4
5	L O3B	L w	,-/ / 6	5-4
6	L O0@	W	,24-02	0
7	L O0@	Y	1/ -171	0
8	L O0@	L w	-/ 07	0
0/	L O0@	W	,24-02	2
00	L O0@	Y	1/ -171	2
01	L O0@	L w	-/ 07	2
02	L O0A	W	,31-412	0

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Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbjdc Ax9^^^^

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Ldladq K`adk	Chqdbshmm	L`fmhstcd Za+j,es\	Knb`shmmZes$\
03	LO0A	Y	13-440	0
04	LO0A	Lw	,-/08	0
05	LO0A	W	,31-412	2
06	LO0A	Y	13-440	2
07	LO0A	Lw	,-/08	2
08	LO1B	W	,55-/67	0
1/	LO1B	Y	27-04	0
10	LO1B	Lw	,-/0	0
11	LO1B	W	,55-/67	2
12	LO1B	Y	27-04	2
13	LO1B	Lw	,-/0	2
14	LO2@	W	,02/-005	1
15	LO2@	Y	64-012	1
16	LO2@	Lw	-/54	1
17	LO2@	W	,02/-005	4-4
18	LO2@	Y	64-012	4-4
2/	LO2@	Lw	-/54	4-4
20	LO2A	W	,037-763	1
21	LO2A	Y	74-841	1
22	LO2A	Lw	,-/55	1
23	LO2A	W	,037-763	4-4
24	LO2A	Y	74-841	4-4
25	LO2A	Lw	,-/55	4-4
26	LO2B	W	,1/7-520	1
27	LO2B	Y	01/-342	1
28	LO2B	Lw	,-/20	1
3/	LO2B	W	,1/7-520	4-4
30	LO2B	Y	01/-342	4-4
31	LO2B	Lw	,-/20	4-4
32	LO3@	W	,02/-005	1
33	LO3@	Y	64-012	1
34	LO3@	Lw	-/54	1
35	LO3@	W	,02/-005	4-4
36	LO3@	Y	64-012	4-4
37	LO3@	Lw	-/54	4-4
38	LO3A	W	,037-763	1
4/	LO3A	Y	74-841	1
40	LO3A	Lw	,-/55	1
41	LO3A	W	,037-763	4-4
42	LO3A	Y	74-841	4-4
43	LO3A	Lw	,-/55	4-4
44	LO3B	W	,1/7-520	1
45	LO3B	Y	01/-342	1
46	LO3B	Lw	,-/20	1
47	LO3B	W	,1/7-520	4-4
48	LO3B	Y	01/-342	4-4
5/	LO3B	Lw	,-/20	4-4
50	LO1@	W	,30-057	3
51	LO1@	Y	12-657	3
52	LO1@	Lw	,-/10	3
53	LO1A	W	,33-0/2	3
54	LO1A	Y	14-352	3

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM` l d 9

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	L dl adq K` adk	Chodbshmm	L` fmhs cdZka-j,es	Knb`shmmZs$\
55	L O1A	L w	-/ 1	3
56	L O1B	W	,42-340	3
57	L O1B	Y	2/ -75	3
58	L O1B	L w	-/ / 7	3
6/	L O3@	W	,25-032	3
60	L O3@	Y	1/ -756	3
61	L O3@	L w	,-/ 07	3
62	L O3A	W	,3/ -060	3
63	L O3A	Y	12-082	3
64	L O3A	L w	-/ 07	3
65	L O3B	W	,42-/ / 1	3
66	L O3B	Y	2/ -5/ 0	3
67	L O3B	L w	-/ / 7	3
68	L 71	W	,66-027	0
7/	L 71	Y	33-424	0
70	L 71	L w	/	0
71	L 71	W	,77-008	0
72	L 71	Y	4/ -765	0
73	L 71	L w	/	0
74	L O0@	W	,05-613	3-4
75	L O0@	Y	8-545	3-4
76	L O0@	L w	-/ / 7	3-4
77	L O0@	W	,05-613	4-4
78	L O0@	Y	8-545	4-4
8/	L O0@	L w	-/ / 7	4-4
80	L O0A	W	,07-843	3-4
81	L O0A	Y	0/ -832	3-4
82	L O0A	L w	,-/ / 7	3-4
83	L O0A	W	,07-843	4-4
84	L O0A	Y	0/ -832	4-4
85	L O0A	L w	,-/ / 7	4-4
86	L O1B	W	,15-/ 5	3-4
87	L O1B	Y	04-/ 35	3-4
88	L O1B	L w	,-/ / 3	3-4
0/ /	L O1B	W	,15-/ 5	4-4
0/ 0	L O1B	Y	04-/ 35	4-4
0/ 1	L O1B	L w	,-/ / 3	4-4
0/ 2	N UO	W	,75-665	0
0/ 3	N UO	Y	4/ -0	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	,45-550	1
0/ 6	L O0B	Y	21-602	1
0/ 7	L O0B	L w	,-/ 17	1
0/ 8	L O4@	W	,45-550	1
00/	L O4@	Y	21-602	1
000	L O4@	L w	-/ 17	1
001	L O4A	W	,64-2/ 5	1
002	L O4A	Y	32-367	1
003	L O4A	L w	-/ 11	1
004	L O4B	W	,64-2/ 5	1
005	L O4B	Y	32-367	1
006	L O4B	L w	,-/ 11	1

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Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

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8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	L dl adqK`adk	Chqdbshmm	L`fmhstcdZa-j,e\	Knb`shmnZs$\
0	L O3B	W	,28-035	5-4
1	L O3B	Y	/	5-4
2	L O3B	L w	-/ 24	5-4
3	L O3B	W	,28-035	5-4
4	L O3B	Y	/	5-4
5	L O3B	L w	-/ 01	5-4
6	L O0@	W	,16-373	0
7	L O0@	Y	/	0
8	L O0@	L w	-/ 03	0
0/	L O0@	W	,16-373	2
00	L O0@	Y	/	2
01	L O0@	L w	-/ 03	2
02	L O0A	W	,62-574	0
03	L O0A	Y	/	0
04	L O0A	L w	,-/ 02	0
05	L O0A	W	,62-574	2
06	L O0A	Y	/	2
07	L O0A	L w	,-/ 02	2
08	L O1B	W	,42-534	0
1/	L O1B	Y	/	0
10	L O1B	L w	,-/ 08	0
11	L O1B	W	,42-534	2
12	L O1B	Y	/	2
13	L O1B	L w	,-/ 08	2
14	L O2@	W	,006-/ 50	1
15	L O2@	Y	/	1
16	L O2@	L w	-/ 48	1
17	L O2@	W	,006-/ 50	4-4
18	L O2@	Y	/	4-4
2/	L O2@	L w	-/ 48	4-4
20	L O2A	W	,123-160	1
21	L O2A	Y	/	1
22	L O2A	L w	,-/ 3	1
23	L O2A	W	,123-160	4-4
24	L O2A	Y	/	4-4
25	L O2A	L w	,-/ 3	4-4
26	L O2B	W	,072-32	1
27	L O2B	Y	/	1
28	L O2B	L w	,-/ 54	1
3/	L O2B	W	,072-32	4-4
30	L O2B	Y	/	4-4
31	L O2B	L w	,-/ 54	4-4
32	L O3@	W	,006-/ 50	1
33	L O3@	Y	/	1
34	L O3@	L w	-/ 48	1
35	L O3@	W	,006-/ 50	4-4
36	L O3@	Y	/	4-4
37	L O3@	L w	-/ 48	4-4
38	L O3A	W	,123-160	1
4/	L O3A	Y	/	1
40	L O3A	L w	,-/ 3	1
41	L O3A	W	,123-160	4-4

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Ldl adqK`adk	Cnqdbshnm	L`fmhstcd(Za-j,es)	Knb`shnmZes$\
42	L O3A	Y	/	4-4
43	L O3A	L w	,-/ 3	4-4
44	L O3B	W	,072-32	1
45	L O3B	Y	/	1
46	L O3B	L w	,-/ 54	1
47	L O3B	W	,072-32	4-4
48	L O3B	Y	/	4-4
5/	L O3B	L w	,-/ 54	4-4
50	L O1@	W	,31-235	3
51	L O1@	Y	/	3
52	L O1@	L w	,-/ 10	3
53	L O1A	W	,5/ -571	3
54	L O1A	Y	/	3
55	L O1A	L w	-/ 0	3
56	L O1B	W	,41-617	3
57	L O1B	Y	/	3
58	L O1B	L w	-/ 08	3
6/	L O3@	W	,23-5/ 8	3
60	L O3@	Y	/	3
61	L O3@	L w	,-/ 06	3
62	L O3A	W	,48-666	3
63	L O3A	Y	/	3
64	L O3A	L w	-/ 0	3
65	L O3B	W	,37-75	3
66	L O3B	Y	/	3
67	L O3B	L w	-/ 06	3
68	L 71	W	,027-326	0
7/	L 71	Y	/	0
70	L 71	L w	/	0
71	L 71	W	,0/ 0-66	0
72	L 71	Y	/	0
73	L 71	L w	/	0
74	L O0@	W	,04-255	3-4
75	L O0@	Y	/	3-4
76	L O0@	L w	-/ / 7	3-4
77	L O0@	W	,04-255	4-4
78	L O0@	Y	/	4-4
8/	L O0@	L w	-/ / 7	4-4
80	L O0A	W	,18-2/ 1	3-4
81	L O0A	Y	/	3-4
82	L O0A	L w	,-/ / 4	3-4
83	L O0A	W	,18-2/ 1	4-4
84	L O0A	Y	/	4-4
85	L O0A	L w	,-/ / 4	4-4
86	L O1B	W	,12-146	3-4
87	L O1B	Y	/	3-4
88	L O1B	L w	,-/ / 7	3-4
0/ /	L O1B	W	,12-146	4-4
0/ 0	L O1B	Y	/	4-4
0/ 1	L O1B	L w	,-/ / 7	4-4
0/ 2	N UO	W	,002-5	0
0/ 3	N UO	Y	/	0

IIIRISA
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Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`ld   9

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8900 @L
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Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Ldl adqK`adk	Chqdbstmm	L`fmhtcdZa+j,es	Knb`shmmZes$\
0/4	NUO	Lw	/	0
0/5	LO0B	W	,75-845	1
0/6	LO0B	Y	/	1
0/7	LO0B	Lw	,-/11	1
0/8	LO4@	W	,75-845	1
00/	LO4@	Y	/	1
000	LO4@	Lw	-/11	1
001	LO4A	W	,54-316	1
002	LO4A	Y	/	1
003	LO4A	Lw	-/17	1
004	LO4B	W	,54-316	1
005	LO4B	Y	/	1
006	LO4B	Lw	,-/17	1

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Ldl adqK`adk	Chqdbstmm	L`fmhtcdZa+j,es	Knb`shmmZes$\
0	LO3B	W	,22-834	5-4
1	LO3B	Y	,08-487	5-4
2	LO3B	Lw	-/25	5-4
3	LO3B	W	,22-834	5-4
4	LO3B	Y	,08-487	5-4
5	LO3B	Lw	-/16	5-4
6	LO0@	W	,24-02	0
7	LO0@	Y	,1/-171	0
8	LO0@	Lw	-/07	0
0/	LO0@	W	,24-02	2
00	LO0@	Y	,1/-171	2
01	LO0@	Lw	-/07	2
02	LO0A	W	,56-636	0
03	LO0A	Y	,28-003	0
04	LO0A	Lw	-//6	0
05	LO0A	W	,56-636	2
06	LO0A	Y	,28-003	2
07	LO0A	Lw	-//6	2
08	LO1B	W	,15-726	0
1/	LO1B	Y	,04-383	0
10	LO1B	Lw	,-/04	0
11	LO1B	W	,15-726	2
12	LO1B	Y	,04-383	2
13	LO1B	Lw	,-/04	2
14	LO2@	W	,02/-005	1
15	LO2@	Y	,64-012	1
16	LO2@	Lw	-/54	1
17	LO2@	W	,02/-005	4-4
18	LO2@	Y	,64-012	4-4
2/	LO2@	Lw	-/54	4-4
20	LO2A	W	,101-754	1
21	LO2A	Y	,011-787	1
22	LO2A	Lw	-/10	1
23	LO2A	W	,101-754	4-4
24	LO2A	Y	,011-787	4-4

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
Lncdk M`l d 9

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8900 @L
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Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Ldl adqK`adk	Clqdbslmm	L`fmhtcdZa+j,es	Knb`slmmZs$ \
25	L O2A	L w	-/10	4-4
26	L O2B	W	,0/8-/67	1
27	L O2B	Y	,51-865	1
28	L O2B	L w	,-/50	1
3/	L O2B	W	,0/8-/67	4-4
30	L O2B	Y	,51-865	4-4
31	L O2B	L w	,-/50	4-4
32	L O3@	W	,02/-005	1
33	L O3@	Y	,64-012	1
34	L O3@	L w	-/54	1
35	L O3@	W	,02/-005	4-4
36	L O3@	Y	,64-012	4-4
37	L O3@	L w	-/54	4-4
38	L O3A	W	,101-754	1
4/	L O3A	Y	,011-787	1
40	L O3A	L w	-/10	1
41	L O3A	W	,101-754	4-4
42	L O3A	Y	,011-787	4-4
43	L O3A	L w	-/10	4-4
44	L O3B	W	,0/8-/67	1
45	L O3B	Y	,51-865	1
46	L O3B	L w	,-/50	1
47	L O3B	W	,0/8-/67	4-4
48	L O3B	Y	,51-865	4-4
5/	L O3B	L w	,-/50	4-4
50	L O1@	W	,30-057	3
51	L O1@	Y	,12-657	3
52	L O1@	L w	,-/10	3
53	L O1A	W	,43-003	3
54	L O1A	Y	,20-132	3
55	L O1A	L w	,-//4	3
56	L O1B	W	,26-766	3
57	L O1B	Y	,10-757	3
58	L O1B	L w	-/10	3
6/	L O3@	W	,25-032	3
60	L O3@	Y	,1/-756	3
61	L O3@	L w	,-/07	3
62	L O3A	W	,42-801	3
63	L O3A	Y	,20-015	3
64	L O3A	L w	,-//4	3
65	L O3B	W	,20-515	3
66	L O3B	Y	,07-148	3
67	L O3B	L w	-/07	3
68	L 71	W	,051-532	0
7/	L 71	Y	,82-8/1	0
70	L 71	L w	/	0
71	L 71	W	,77-041	0
72	L 71	Y	,4/-784	0
73	L 71	L w	/	0
74	L O0@	W	,05-613	3-4
75	L O0@	Y	,8-545	3-4
76	L O0@	L w	-//7	3-4

Bnl o`mx   9
Cdr kfimdq   9
I na Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Ldl adqK adk	Clqdbsmm	L`fmtdcdZa+j,es\	Knb`smmZs$\
77	L O0@	W	,05-613	4-4
78	L O0@	Y	,8-545	4-4
8/	L O0@	L w	-//7	4-4
80	L O0A	W	,15-452	3-4
81	L O0A	Y	,04-225	3-4
82	L O0A	L w	-//2	3-4
83	L O0A	W	,15-452	4-4
84	L O0A	Y	,04-225	4-4
85	L O0A	L w	-//2	4-4
86	L O1B	W	,03-112	3-4
87	L O1B	Y	,7-100	3-4
88	L O1B	L w	,-//7	3-4
0//	L O1B	W	,03-112	4-4
0/0	L O1B	Y	,7-100	4-4
0/1	L O1B	L w	,-//7	4-4
0/2	N UO	W	,0/8-874	0
0/3	N UO	Y	,52-4	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,73-517	1
0/6	L O0B	Y	,37-75	1
0/7	L O0B	L w	/	1
0/8	L O4@	W	,73-517	1
00/	L O4@	Y	,37-75	1
000	L O4@	L w	/	1
001	L O4A	W	,36-228	1
002	L O4A	Y	,16-220	1
003	L O4A	L w	-/16	1
004	L O4B	W	,36-228	1
005	L O4B	Y	,16-220	1
006	L O4B	L w	,-/16	1

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Ldl adqK adk	Clqdbsmm	L`fmtdcdZa+j,es\	Knb`smmZs$\
0	L O3B	W	,08-487	5-4
1	L O3B	Y	,22-834	5-4
2	L O3B	L w	-/16	5-4
3	L O3B	W	,08-487	5-4
4	L O3B	Y	,22-834	5-4
5	L O3B	L w	-/25	5-4
6	L O0@	W	,22-251	0
7	L O0@	Y	,46-674	0
8	L O0@	L w	-/06	0
0/	L O0@	W	,22-251	2
00	L O0@	Y	,46-674	2
01	L O0@	L w	-/06	2
02	L O0A	W	,18-/83	0
03	L O0A	Y	,4/-281	0
04	L O0A	L w	-/08	0
05	L O0A	W	,18-/83	2
06	L O0A	Y	,4/-281	2
07	L O0A	L w	-/08	2

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	L dl adqK`adk	Chqdbsl mm	L`fmhst cdZa+j,es	Knb`slmmZs$\
08	L O1B	W	,04-383	0
1/	L O1B	Y	,15-726	0
10	L O1B	L w	,-/04	0
11	L O1B	W	,04-383	2
12	L O1B	Y	,15-726	2
13	L O1B	L w	,-/04	2
14	L O2@	W	,0/7-2/6	1
15	L O2@	Y	,076-482	1
16	L O2@	L w	-/43	1
17	L O2@	W	,0/7-2/6	4-4
18	L O2@	Y	,076-482	4-4
2/	L O2@	L w	-/43	4-4
20	L O2A	W	,86-366	1
21	L O2A	Y	,057-724	1
22	L O2A	L w	-/52	1
23	L O2A	W	,86-366	4-4
24	L O2A	Y	,057-724	4-4
25	L O2A	L w	-/52	4-4
26	L O2B	W	,51-865	1
27	L O2B	Y	,0/8-/67	1
28	L O2B	L w	,-/50	1
3/	L O2B	W	,51-865	4-4
30	L O2B	Y	,0/8-/67	4-4
31	L O2B	L w	,-/50	4-4
32	L O3@	W	,0/7-2/6	1
33	L O3@	Y	,076-482	1
34	L O3@	L w	-/43	1
35	L O3@	W	,0/7-2/6	4-4
36	L O3@	Y	,076-482	4-4
37	L O3@	L w	-/43	4-4
38	L O3A	W	,86-366	1
4/	L O3A	Y	,057-724	1
40	L O3A	L w	-/52	1
41	L O3A	W	,86-366	4-4
42	L O3A	Y	,057-724	4-4
43	L O3A	L w	-/52	4-4
44	L O3B	W	,51-865	1
45	L O3B	Y	,0/8-/67	1
46	L O3B	L w	,-/50	1
47	L O3B	W	,51-865	4-4
48	L O3B	Y	,0/8-/67	4-4
5/	L O3B	L w	,-/50	4-4
50	L O1@	W	,17-85	3
51	L O1@	Y	,4/-05	3
52	L O1@	L w	,-/03	3
53	L O1A	W	,16-155	3
54	L O1A	Y	,36-115	3
55	L O1A	L w	,-/07	3
56	L O1B	W	,10-757	3
57	L O1B	Y	,26-766	3
58	L O1B	L w	-/10	3
6/	L O3@	W	,16-882	3

Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	L dl adqK adk	Clqdbshmm	L `fmhst cd Zka+j,es\	Knb`shmmZs+$\
60	L O3@	Y	,37-374	3
61	L O3@	L w	,-/ 03	3
62	L O3A	W	,14-556	3
63	L O3A	Y	,33-346	3
64	L O3A	L w	,-/ 05	3
65	L O3B	W	,07-148	3
66	L O3B	Y	,20-515	3
67	L O3B	L w	-/ 07	3
68	L 71	W	,82-8/ 1	0
7/	L 71	Y	,051-532	0
70	L 71	L w	/	0
71	L 71	W	,4/ -784	0
72	L 71	Y	,77-041	0
73	L 71	L w	/	0
74	L O0@	W	,02-5/ 0	3-4
75	L O0@	Y	,12-447	3-4
76	L O0@	L w	-/ / 6	3-4
77	L O0@	W	,02-5/ 0	4-4
78	L O0@	Y	,12-447	4-4
8/	L O0@	L w	-/ / 6	4-4
80	L O0A	W	,01-203	3-4
81	L O0A	Y	,10-217	3-4
82	L O0A	L w	-/ / 7	3-4
83	L O0A	W	,01-203	4-4
84	L O0A	Y	,10-217	4-4
85	L O0A	L w	-/ / 7	4-4
86	L O1B	W	,7-100	3-4
87	L O1B	Y	,03-112	3-4
88	L O1B	L w	,-/ / 7	3-4
0/ /	L O1B	W	,7-100	4-4
0/ 0	L O1B	Y	,03-112	4-4
0/ 1	L O1B	L w	,-/ / 7	4-4
0/ 2	N UO	W	,52-4	0
0/ 3	N UO	Y	,0/ 8-874	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	,32-367	1
0/ 6	L O0B	Y	,64-2/ 5	1
0/ 7	L O0B	L w	,-/ 11	1
0/ 8	L O4@	W	,32-367	1
00/	L O4@	Y	,64-2/ 5	1
000	L O4@	L w	,-/ 11	1
001	L O4A	W	,21-602	1
002	L O4A	Y	,45-550	1
003	L O4A	L w	-/ 17	1
004	L O4B	W	,21-602	1
005	L O4B	Y	,45-550	1
006	L O4B	L w	,-/ 17	1

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	L dl adqK adk	Clqdbshmm	L `fmhst cd Zka+j,es\	Knb`shmmZs+$\
0	L O3B	W	/	5-4

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Ldladq K`adk	Chqdbshnm	L`fmhstcdZa+j,es\	Knb`shnmZes$\
1	L O3B	Y	,5-751	5-4
2	L O3B	L w	-//1	5-4
3	L O3B	W	/	5-4
4	L O3B	Y	,5-751	5-4
5	L O3B	L w	-//5	5-4
6	L O0@	W	/	0
7	L O0@	Y	,08-72	0
8	L O0@	L w	/	0
0/	L O0@	W	/	2
00	L O0@	Y	,08-72	2
01	L O0@	L w	/	2
02	L O0A	W	/	0
03	L O0A	Y	,0/-/68	0
04	L O0A	L w	-//4	0
05	L O0A	W	/	2
06	L O0A	Y	,0/-/68	2
07	L O0A	L w	-//4	2
08	L O1B	W	/	0
1/	L O1B	Y	,03-2/7	0
10	L O1B	L w	,-//4	0
11	L O1B	W	/	2
12	L O1B	Y	,03-2/7	2
13	L O1B	L w	,-//4	2
14	L O2@	W	/	1
15	L O2@	Y	,37-333	1
16	L O2@	L w	/	1
17	L O2@	W	/	4-4
18	L O2@	Y	,37-333	4-4
2/	L O2@	L w	/	4-4
20	L O2A	W	/	1
21	L O2A	Y	,16-315	1
22	L O2A	L w	-/02	1
23	L O2A	W	/	4-4
24	L O2A	Y	,16-315	4-4
25	L O2A	L w	-/02	4-4
26	L O2B	W	/	1
27	L O2B	Y	,25-432	1
28	L O2B	L w	,-/02	1
3/	L O2B	W	/	4-4
30	L O2B	Y	,25-432	4-4
31	L O2B	L w	,-/02	4-4
32	L O3@	W	/	1
33	L O3@	Y	,37-333	1
34	L O3@	L w	/	1
35	L O3@	W	/	4-4
36	L O3@	Y	,37-333	4-4
37	L O3@	L w	/	4-4
38	L O3A	W	/	1
4/	L O3A	Y	,16-315	1
40	L O3A	L w	-/02	1
41	L O3A	W	/	4-4
42	L O3A	Y	,16-315	4-4

Bnl o`mx 9
Cdr Hmdq 9
Ina Mtl adq 9
LncdkM`l d 9

@lf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZs$\
43	L O3A	L w	-/ 02	4-4
44	L O3B	W	/	1
45	L O3B	Y	,25-432	1
46	L O3B	L w	,-/ 02	1
47	L O3B	W	/	4-4
48	L O3B	Y	,25-432	4-4
5/	L O3B	L w	,-/ 02	4-4
50	L O1@	W	/	3
51	L O1@	Y	,06-040	3
52	L O1@	L w	/	3
53	L O1A	W	/	3
54	L O1A	Y	,01-624	3
55	L O1A	L w	,-/ / 5	3
56	L O1B	W	/	3
57	L O1B	Y	,03-540	3
58	L O1B	L w	-/ / 4	3
6/	L O3@	W	/	3
60	L O3@	Y	,06-040	3
61	L O3@	L w	/	3
62	L O3A	W	/	3
63	L O3A	Y	,00-/ 46	3
64	L O3A	L w	,-/ / 4	3
65	L O3B	W	/	3
66	L O3B	Y	,02-6	3
67	L O3B	L w	-/ / 4	3
68	L 71	W	/	0
7/	L 71	Y	,18-104	0
70	L 71	L w	/	0
71	L 71	W	/	0
72	L 71	Y	,07-6/ 6	0
73	L 71	L w	/	0
74	L O0@	W	/	3-4
75	L O0@	Y	,6-137	3-4
76	L O0@	L w	/	3-4
77	L O0@	W	/	4-4
78	L O0@	Y	,6-137	4-4
8/	L O0@	L w	/	4-4
80	L O0A	W	/	3-4
81	L O0A	Y	,3-347	3-4
82	L O0A	L w	-/ / 1	3-4
83	L O0A	W	/	4-4
84	L O0A	Y	,3-347	4-4
85	L O0A	L w	-/ / 1	4-4
86	L O1B	W	/	3-4
87	L O1B	Y	,4-557	3-4
88	L O1B	L w	,-/ / 1	3-4
0/ /	L O1B	W	/	4-4
0/ 0	L O1B	Y	,4-557	4-4
0/ 1	L O1B	L w	,-/ / 1	4-4
0/ 2	N UO	W	/	0
0/ 3	N UO	Y	,2/ -710	0
0/ 4	N UO	L w	/	0

IIRISA®
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	L dl adqK`adk	Chqdbshnm	L`fmhstcdZa+j,es\	Knb`shnmZes$\
0/ 5	L O0B	W	/	1
0/ 6	L O0B	Y	,04-0/ 3	1
0/ 7	L O0B	L w	-/ / 6	1
0/ 8	L O4@	W	/	1
00/	L O4@	Y	,04-0/ 3	1
000	L O4@	L w	,-/ / 6	1
001	L O4A	W	/	1
002	L O4A	Y	,08-151	1
003	L O4A	L w	-/ / 4	1
004	L O4B	W	/	1
005	L O4B	Y	,08-151	1
006	L O4B	L w	,-/ / 4	1

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	L dl adqK`adk	Chqdbshnm	L`fmhstcdZa+j,es\	Knb`shnmZes$\
0	L O3B	W	1-086	5-4
1	L O3B	Y	,2-7/ 4	5-4
2	L O3B	L w	,-/ / /710	5-4
3	L O3B	W	1-086	5-4
4	L O3B	Y	,2-7/ 4	5-4
5	L O3B	L w	-/ / 2	5-4
6	L O0@	W	7-424	0
7	L O0@	Y	,03-671	0
8	L O0@	L w	,-/ / 3	0
0/	L O0@	W	7-424	2
00	L O0@	Y	,03-671	2
01	L O0@	L w	,-/ / 3	2
02	L O0A	W	3-45	0
03	L O0A	Y	,6-787	0
04	L O0A	L w	-/ / 3	0
05	L O0A	W	3-45	2
06	L O0A	Y	,6-787	2
07	L O0A	L w	-/ / 3	2
08	L O1B	W	8-434	0
1/	L O1B	Y	,05-422	0
10	L O1B	L w	,-/ / 1	0
11	L O1B	W	8-434	2
12	L O1B	Y	,05-422	2
13	L O1B	L w	,-/ / 1	2
14	L O2@	W	10-136	1
15	L O2@	Y	,25-7	1
16	L O2@	L w	,-/ 00	1
17	L O2@	W	10-136	4-4
18	L O2@	Y	,25-7	4-4
2/	L O2@	L w	,-/ 00	4-4
20	L O2A	W	01-57	1
21	L O2A	Y	,10-851	1
22	L O2A	L w	-/ 01	1
23	L O2A	W	01-57	4-4
24	L O2A	Y	,10-851	4-4
25	L O2A	L w	-/ 01	4-4

Bnl o`mx	9	@f 11+1/13
Cdr lfimdq	9	8900 @L
Ina Mtl adq	9	Bgdbj dc Ax9^^^^
LncdkM`l d	9	

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
26	L O2B	W	12-314	1
27	L O2B	Y	,3/-462	1
28	L O2B	L w	,-//5	1
3/	L O2B	W	12-314	4-4
30	L O2B	Y	,3/-462	4-4
31	L O2B	L w	,-//5	4-4
32	L O3@	W	10-136	1
33	L O3@	Y	,25-7	1
34	L O3@	L w	,-/00	1
35	L O3@	W	10-136	4-4
36	L O3@	Y	,25-7	4-4
37	L O3@	L w	,-/00	4-4
38	L O3A	W	01-57	1
4/	L O3A	Y	,10-851	1
40	L O3A	L w	-/01	1
41	L O3A	W	01-57	4-4
42	L O3A	Y	,10-851	4-4
43	L O3A	L w	-/01	4-4
44	L O3B	W	12-314	1
45	L O3B	Y	,3/-462	1
46	L O3B	L w	,-//5	1
47	L O3B	W	12-314	4-4
48	L O3B	Y	,3/-462	4-4
5/	L O3B	L w	,-//5	4-4
50	L O1@	W	6-84	3
51	L O1@	Y	,02-660	3
52	L O1@	L w	-//3	3
53	L O1A	W	5-04	3
54	L O1A	Y	,0/-542	3
55	L O1A	L w	,-//5	3
56	L O1B	W	7-3/7	3
57	L O1B	Y	,03-452	3
58	L O1B	L w	-//1	3
6/	L O3@	W	6-602	3
60	L O3@	Y	,02-248	3
61	L O3@	L w	-//3	3
62	L O3A	W	4-118	3
63	L O3A	Y	,8-/45	3
64	L O3A	L w	,-//4	3
65	L O3B	W	7-233	3
66	L O3B	Y	,03-342	3
67	L O3B	L w	-//1	3
68	L 71	W	8-858	0
7/	L 71	Y	,06-155	0
70	L 71	L w	/	0
71	L 71	W	0/-721	0
72	L 71	Y	,07-651	0
73	L 71	L w	/	0
74	L O0@	W	2-118	3-4
75	L O0@	Y	,4-482	3-4
76	L O0@	L w	,-//1	3-4
77	L O0@	W	2-118	4-4

Bnl o`mx 9
Cdr hfmdq 9
Ina Mtl adq 9
L ncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbjdc Ax9`^^^^

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`fmhst cdZa,j es	Knb`shmmZs$ \
78	L OO@	Y	,4-482	4-4
8/	L OO@	L w	,-//1	4-4
80	L OOA	W	1-/81	3-4
81	L OOA	Y	,2-512	3-4
82	L OOA	L w	-//1	3-4
83	L OOA	W	1-/81	4-4
84	L OOA	Y	,2-512	4-4
85	L OOA	L w	-//1	4-4
86	L O1B	W	2-407	3-4
87	L O1B	Y	,5-/83	3-4
88	L O1B	L w	,-///800	3-4
0//	L O1B	W	2-407	4-4
0/0	L O1B	Y	,5-/83	4-4
0/1	L O1B	L w	,-///800	4-4
0/2	N UO	W	02-734	0
0/3	N UO	Y	,12-87	0
0/4	N UO	L w	/	0
0/5	L OOB	W	5-402	1
0/6	L OOB	Y	,00-17	1
0/7	L OOB	L w	-//6	1
0/8	L O4@	W	5-402	1
00/	L O4@	Y	,00-17	1
000	L O4@	L w	,-//6	1
001	L O4A	W	0/-56	1
002	L O4A	Y	,07-370	1
003	L O4A	L w	/	1
004	L O4B	W	0/-56	1
005	L O4B	Y	,07-370	1
006	L O4B	L w	/	1

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	L dl adqK adk	Chqdbshmm	L`fmhst cdZa,j es	Knb`shmmZs$ \
0	L O3B	W	2-7/4	5-4
1	L O3B	Y	,1-086	5-4
2	L O3B	L w	,-//2	5-4
3	L O3B	W	2-7/4	5-4
4	L O3B	Y	,1-086	5-4
5	L O3B	L w	-///710	5-4
6	L OO@	W	0/-//0	0
7	L OO@	Y	,4-663	0
8	L OO@	L w	,-//4	0
0/	L OO@	W	0/-//0	2
00	L OO@	Y	,4-663	2
01	L OO@	L w	,-//4	2
02	L OOA	W	00-450	0
03	L OOA	Y	,5-564	0
04	L OOA	L w	-//4	0
05	L OOA	W	00-450	2
06	L OOA	Y	,5-564	2
07	L OOA	L w	-//4	2
08	L O1B	W	05-422	0

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
1/	L O1B	Y	,8-434	0
10	L O1B	L w	-//1	0
11	L O1B	W	05-422	2
12	L O1B	Y	,8-434	2
13	L O1B	L w	-//1	2
14	L O2@	W	15-383	1
15	L O2@	Y	,04-185	1
16	L O2@	L w	,-/02	1
17	L O2@	W	15-383	4-4
18	L O2@	Y	,04-185	4-4
2/	L O2@	L w	,-/02	4-4
20	L O2A	W	18-746	1
21	L O2A	Y	,06-127	1
22	L O2A	L w	-/02	1
23	L O2A	W	18-746	4-4
24	L O2A	Y	,06-127	4-4
25	L O2A	L w	-/02	4-4
26	L O2B	W	3/-462	1
27	L O2B	Y	,12-314	1
28	L O2B	L w	-//5	1
3/	L O2B	W	3/-462	4-4
30	L O2B	Y	,12-314	4-4
31	L O2B	L w	-//5	4-4
32	L O3@	W	15-383	1
33	L O3@	Y	,04-185	1
34	L O3@	L w	,-/02	1
35	L O3@	W	15-383	4-4
36	L O3@	Y	,04-185	4-4
37	L O3@	L w	,-/02	4-4
38	L O3A	W	18-746	1
4/	L O3A	Y	,06-127	1
40	L O3A	L w	-/02	1
41	L O3A	W	18-746	4-4
42	L O3A	Y	,06-127	4-4
43	L O3A	L w	-/02	4-4
44	L O3B	W	3/-462	1
45	L O3B	Y	,12-314	1
46	L O3B	L w	-//5	1
47	L O3B	W	3/-462	4-4
48	L O3B	Y	,12-314	4-4
5/	L O3B	L w	-//5	4-4
50	L O1@	W	00-5/4	3
51	L O1@	Y	,5-6	3
52	L O1@	L w	-//5	3
53	L O1A	W	01-201	3
54	L O1A	Y	,6-0/7	3
55	L O1A	L w	,-//4	3
56	L O1B	W	03-452	3
57	L O1B	Y	,7-3/7	3
58	L O1B	L w	,-//1	3
6/	L O3@	W	0/-26	3
60	L O3@	Y	,4-876	3

Bnl o`mx 9
Cdr hfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@If 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Ldl adqK adk	Chqdbshmm	L`fmhst cdZa+j,es\	Knb`shmmZes$\
61	L O3@	L w	-//4	3
62	L O3A	W	00-235	3
63	L O3A	Y	,5-44	3
64	L O3A	L w	,-//4	3
65	L O3B	W	03-342	3
66	L O3B	Y	,7-233	3
67	L O3B	L w	,-//1	3
68	L 71	W	06-155	0
7/	L 71	Y	,8-858	0
70	L 71	L w	/	0
71	L 71	W	07-651	0
72	L 71	Y	,0/-721	0
73	L 71	L w	/	0
74	L O0@	W	3-114	3-4
75	L O0@	Y	,1-328	3-4
76	L O0@	L w	,-//1	3-4
77	L O0@	W	3-114	4-4
78	L O0@	Y	,1-328	4-4
8/	L O0@	L w	,-//1	4-4
80	L O0A	W	3-560	3-4
81	L O0A	Y	,1-586	3-4
82	L O0A	L w	-//1	3-4
83	L O0A	W	3-560	4-4
84	L O0A	Y	,1-586	4-4
85	L O0A	L w	-//1	4-4
86	L O1B	W	5-/83	3-4
87	L O1B	Y	,2-407	3-4
88	L O1B	L w	-///800	3-4
0//	L O1B	W	5-/83	4-4
0/0	L O1B	Y	,2-407	4-4
0/1	L O1B	L w	-///800	4-4
0/2	N UO	W	12-87	0
0/3	N UO	Y	,02-734	0
0/4	N UO	L w	/	0
0/5	L O0B	W	02-/70	1
0/6	L O0B	Y	,6-441	1
0/7	L O0B	L w	-//6	1
0/8	L O4@	W	02-/70	1
00/	L O4@	Y	,6-441	1
000	L O4@	L w	,-//6	1
001	L O4A	W	05-570	1
002	L O4A	Y	,8-520	1
003	L O4A	L w	,-//4	1
004	L O4B	W	05-570	1
005	L O4B	Y	,8-520	1
006	L O4B	L w	-//4	1

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Ldl adqK adk	Chqdbshmm	L`fmhst cdZa+j,es\	Knb`shmmZes$\
0	L O3B	W	5-751	5-4
1	L O3B	Y	/	5-4

|||RISA®
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr lhfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	L dl adq K`adk	Chqdbshm	L`f mhscdlZa+j,es\	Knb`shmmZs$\
2	L O3B	L w	,-//5	5-4
3	L O3B	W	5-751	5-4
4	L O3B	Y	/	5-4
5	L O3B	L w	,-//1	5-4
6	L O0@	W	7-676	0
7	L O0@	Y	/	0
8	L O0@	L w	,-//3	0
0/	L O0@	W	7-676	2
00	L O0@	Y	/	2
01	L O0@	L w	,-//3	2
02	L O0A	W	07-427	0
03	L O0A	Y	/	0
04	L O0A	L w	-//2	0
05	L O0A	W	07-427	2
06	L O0A	Y	/	2
07	L O0A	L w	-//2	2
08	L O1B	W	03-2/7	0
1/	L O1B	Y	/	0
10	L O1B	L w	-//4	0
11	L O1B	W	03-2/7	2
12	L O1B	Y	/	2
13	L O1B	L w	-//4	2
14	L O2@	W	13-531	1
15	L O2@	Y	/	1
16	L O2@	L w	,-/01	1
17	L O2@	W	13-531	4-4
18	L O2@	Y	/	4-4
2/	L O2@	L w	,-/01	4-4
20	L O2A	W	34-548	1
21	L O2A	Y	/	1
22	L O2A	L w	-//7	1
23	L O2A	W	34-548	4-4
24	L O2A	Y	/	4-4
25	L O2A	L w	-//7	4-4
26	L O2B	W	25-432	1
27	L O2B	Y	/	1
28	L O2B	L w	-/02	1
3/	L O2B	W	25-432	4-4
30	L O2B	Y	/	4-4
31	L O2B	L w	-/02	4-4
32	L O3@	W	13-531	1
33	L O3@	Y	/	1
34	L O3@	L w	,-/01	1
35	L O3@	W	13-531	4-4
36	L O3@	Y	/	4-4
37	L O3@	L w	,-/01	4-4
38	L O3A	W	34-548	1
4/	L O3A	Y	/	1
40	L O3A	L w	-//7	1
41	L O3A	W	34-548	4-4
42	L O3A	Y	/	4-4
43	L O3A	L w	-//7	4-4

IRISA
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@f 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Ldl adqK`adk	Ch qdbshmm	L`f mhtsc dZa-j,es\	Knb`shmm Zst$ \
44	L O3B	W	25-432	1
45	L O3B	Y	/	1
46	L O3B	L w	-/ 02	1
47	L O3B	W	25-432	4-4
48	L O3B	Y	/	4-4
5/	L O3B	L w	-/ 02	4-4
50	L O1@	W	01-04	3
51	L O1@	Y	/	3
52	L O1@	L w	-/ / 5	3
53	L O1A	W	05-455	3
54	L O1A	Y	/	3
55	L O1A	L w	,-/ / 2	3
56	L O1B	W	03-540	3
57	L O1B	Y	/	3
58	L O1B	L w	,-/ / 4	3
6/	L O3@	W	0/ -138	3
60	L O3@	Y	/	3
61	L O3@	L w	-/ / 4	3
62	L O3A	W	05-233	3
63	L O3A	Y	/	3
64	L O3A	L w	,-/ / 2	3
65	L O3B	W	02-6	3
66	L O3B	Y	/	3
67	L O3B	L w	,-/ / 4	3
68	L 71	W	18-104	0
7/	L 71	Y	/	0
70	L 71	L w	/	0
71	L 71	W	07-6/ 6	0
72	L 71	Y	/	0
73	L 71	L w	/	0
74	L O0@	W	3-/ 78	3-4
75	L O0@	Y	/	3-4
76	L O0@	L w	,-/ / 1	3-4
77	L O0@	W	3-/ 78	4-4
78	L O0@	Y	/	4-4
8/	L O0@	L w	,-/ / 1	4-4
80	L O0A	W	5-767	3-4
81	L O0A	Y	/	3-4
82	L O0A	L w	-/ / 0	3-4
83	L O0A	W	5-767	4-4
84	L O0A	Y	/	4-4
85	L O0A	L w	-/ / 0	4-4
86	L O1B	W	4-557	3-4
87	L O1B	Y	/	3-4
88	L O1B	L w	-/ / 1	3-4
0/ /	L O1B	W	4-557	4-4
0/ 0	L O1B	Y	/	4-4
0/ 1	L O1B	L w	-/ / 1	4-4
0/ 2	N UO	W	2/ -710	0
0/ 3	N UO	Y	/	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	08-151	1

Bnl o`mx 9
Cdr lfimdq 9
I na Mtl adq 9
L ncdkM`l d 9

@If 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	L dl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es	Knb`hmmZes$\
0/6	L O0B	Y	/	1
0/7	L O0B	L w	-//4	1
0/8	L O4@	W	08-151	1
00/	L O4@	Y	/	1
000	L O4@	L w	,-//4	1
001	L O4A	W	04-0/3	1
002	L O4A	Y	/	1
003	L O4A	L w	,-//6	1
004	L O4B	W	04-0/3	1
005	L O4B	Y	/	1
006	L O4B	L w	-//6	1

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	L dl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es	Knb`hmmZes$\
0	L O3B	W	7-/7	5-4
1	L O3B	Y	3-554	5-4
2	L O3B	L w	,-//8	5-4
3	L O3B	W	7-/7	5-4
4	L O3B	Y	3-554	5-4
5	L O3B	L w	,-//6	5-4
6	L O0@	W	0/-//0	0
7	L O0@	Y	4-663	0
8	L O0@	L w	,-//4	0
0/	L O0@	W	0/-//0	2
00	L O0@	Y	4-663	2
01	L O0@	L w	,-//4	2
02	L O0A	W	05-774	0
03	L O0A	Y	8-638	0
04	L O0A	L w	,-//1	0
05	L O0A	W	05-774	2
06	L O0A	Y	8-638	2
07	L O0A	L w	,-//1	2
08	L O1B	W	7-14	0
1/	L O1B	Y	3-652	0
10	L O1B	L w	-//4	0
11	L O1B	W	7-14	2
12	L O1B	Y	3-652	2
13	L O1B	L w	-//4	2
14	L O2@	W	15-383	1
15	L O2@	Y	04-185	1
16	L O2@	L w	,-/02	1
17	L O2@	W	15-383	4-4
18	L O2@	Y	04-185	4-4
2/	L O2@	L w	,-/02	4-4
20	L O2A	W	30-221	1
21	L O2A	Y	12-752	1
22	L O2A	L w	,-//3	1
23	L O2A	W	30-221	4-4
24	L O2A	Y	12-752	4-4
25	L O2A	L w	,-//3	4-4
26	L O2B	W	11-610	1

				@f 11+1/13
Bnl o`mx	9		8900 @L
Cdr lfimdq	9		Bgdbj dc Ax9^^^^
I na Mtl adq	9		
L ncdkM`l d	9		

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	L dl adqK`adk	Clodbslmm	L`fmht cdZa-j,el	Knb`slmmZs$ \
27	L O2B	Y	02-007	1
28	L O2B	L w	-/ 02	1
3/	L O2B	W	11-610	4-4
30	L O2B	Y	02-007	4-4
31	L O2B	L w	-/ 02	4-4
32	L O3@	W	15-383	1
33	L O3@	Y	04-185	1
34	L O3@	L w	,-/ 02	1
35	L O3@	W	15-383	4-4
36	L O3@	Y	04-185	4-4
37	L O3@	L w	,-/ 02	4-4
38	L O3A	W	30-221	1
4/	L O3A	Y	12-752	1
40	L O3A	L w	,-// 3	1
41	L O3A	W	30-221	4-4
42	L O3A	Y	12-752	4-4
43	L O3A	L w	,-// 3	4-4
44	L O3B	W	11-610	1
45	L O3B	Y	02-007	1
46	L O3B	L w	-/ 02	1
47	L O3B	W	11-610	4-4
48	L O3B	Y	02-007	4-4
5/	L O3B	L w	-/ 02	4-4
50	L O1@	W	00-5/ 4	3
51	L O1@	Y	5-6	3
52	L O1@	L w	-// 5	3
53	L O1A	W	03-612	3
54	L O1A	Y	7-4	3
55	L O1A	L w	-// 0	3
56	L O1B	W	0/ -701	3
57	L O1B	Y	5-131	3
58	L O1B	L w	,-// 5	3
6/	L O3@	W	0/ -26	3
60	L O3@	Y	4-876	3
61	L O3@	L w	-// 4	3
62	L O3A	W	03-562	3
63	L O3A	Y	7-361	3
64	L O3A	L w	-// 0	3
65	L O3B	W	8-165	3
66	L O3B	Y	4-245	3
67	L O3B	L w	,-// 4	3
68	L 71	W	22-225	0
7/	L 71	Y	08-136	0
70	L 71	L w	/	0
71	L 71	W	02-528	0
72	L 71	Y	6-764	0
73	L 71	L w	/	0
74	L O0@	W	3-114	3-4
75	L O0@	Y	1-328	3-4
76	L O0@	L w	,-// 1	3-4
77	L O0@	W	3-114	4-4
78	L O0@	Y	1-328	4-4

Bnl o`mx	9		@ìf 11+1/13
Cdr lîmdq	9		8900 @L
Ina Mtl adq	9		Bgdbj dc Ax9^^^^
LncdkM`l d	9		

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Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZest$\
8/	L O0@	L w	,-//1	4-4
80	L O0A	W	5-083	3-4
81	L O0A	Y	2-465	3-4
82	L O0A	L w	,-///510	3-4
83	L O0A	W	5-083	4-4
84	L O0A	Y	2-465	4-4
85	L O0A	L w	,-///510	4-4
86	L O1B	W	2-613	3-4
87	L O1B	Y	1-04	3-4
88	L O1B	L w	-//1	3-4
0//	L O1B	W	2-613	4-4
0/0	L O1B	Y	1-04	4-4
0/1	L O1B	L w	-//1	4-4
0/2	N UO	W	18-3/3	0
0/3	N UO	Y	05-865	0
0/4	N UO	L w	/	0
0/5	L O0B	W	07-370	1
0/6	L O0B	Y	0/-56	1
0/7	L O0B	L w	/	1
0/8	L O4@	W	07-370	1
00/	L O4@	Y	0/-56	1
000	L O4@	L w	/	1
001	L O4A	W	00-17	1
002	L O4A	Y	5-402	1
003	L O4A	L w	,-//6	1
004	L O4B	W	00-17	1
005	L O4B	Y	5-402	1
006	L O4B	L w	-//6	1

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZest$\
0	L O3B	W	3-554	5-4
1	L O3B	Y	7-/7	5-4
2	L O3B	L w	,-//6	5-4
3	L O3B	W	3-554	5-4
4	L O3B	Y	7-/7	5-4
5	L O3B	L w	,-//8	5-4
6	L O0@	W	7-424	0
7	L O0@	Y	03-671	0
8	L O0@	L w	,-//3	0
0/	L O0@	W	7-424	2
00	L O0@	Y	03-671	2
01	L O0@	L w	,-//3	2
02	L O0A	W	6-523	0
03	L O0A	Y	02-111	0
04	L O0A	L w	,-//4	0
05	L O0A	W	6-523	2
06	L O0A	Y	02-111	2
07	L O0A	L w	,-//4	2
08	L O1B	W	3-652	0
1/	L O1B	Y	7-14	0

Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Ldl adq K`adk	Chqdbshmm	L`f mht cdZ`a-j,es\	Knb`shmmZes$\
10	L O1B	L w	-//4	0
11	L O1B	W	3-652	2
12	L O1B	Y	7-14	2
13	L O1B	L w	-//4	2
14	L O2@	W	10-136	1
15	L O2@	Y	25-7	1
16	L O2@	L w	,-/00	1
17	L O2@	W	10-136	4-4
18	L O2@	Y	25-7	4-4
2/	L O2@	L w	,-/00	4-4
20	L O2A	W	08-2/4	1
21	L O2A	Y	22-326	1
22	L O2A	L w	,-/01	1
23	L O2A	W	08-2/4	4-4
24	L O2A	Y	22-326	4-4
25	L O2A	L w	,-/01	4-4
26	L O2B	W	02-007	1
27	L O2B	Y	11-610	1
28	L O2B	L w	-/02	1
3/	L O2B	W	02-007	4-4
30	L O2B	Y	11-610	4-4
31	L O2B	L w	-/02	4-4
32	L O3@	W	10-136	1
33	L O3@	Y	25-7	1
34	L O3@	L w	,-/00	1
35	L O3@	W	10-136	4-4
36	L O3@	Y	25-7	4-4
37	L O3@	L w	,-/00	4-4
38	L O3A	W	08-2/4	1
4/	L O3A	Y	22-326	1
40	L O3A	L w	,-/01	1
41	L O3A	W	08-2/4	4-4
42	L O3A	Y	22-326	4-4
43	L O3A	L w	,-/01	4-4
44	L O3B	W	02-007	1
45	L O3B	Y	11-610	1
46	L O3B	L w	-/02	1
47	L O3B	W	02-007	4-4
48	L O3B	Y	11-610	4-4
5/	L O3B	L w	-/02	4-4
50	L O1@	W	6-84	3
51	L O1@	Y	02-660	3
52	L O1@	L w	-//3	3
53	L O1A	W	6-431	3
54	L O1A	Y	02-/53	3
55	L O1A	L w	-//4	3
56	L O1B	W	5-131	3
57	L O1B	Y	0/-701	3
58	L O1B	L w	,-//5	3
6/	L O3@	W	6-602	3
60	L O3@	Y	02-248	3
61	L O3@`	L w	-//3	3

ⅢRISA
A NEMETSCHEK COMPANY

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
Lncdk M`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	L dl adq K`adk	Chqdbshmm	L`fmhstcd Za+j,e\	Knb`shmmZes$\
62	L O3A	W	6-04	3
63	L O3A	Y	01-273	3
64	L O3A	L w	-//4	3
65	L O3B	W	4-245	3
66	L O3B	Y	8-165	3
67	L O3B	L w	,-//4	3
68	L 71	W	08-136	0
7/	L 71	Y	22-225	0
70	L 71	L w	/	0
71	L 71	W	6-764	0
72	L 71	Y	02-528	0
73	L 71	L w	/	0
74	L O0@	W	2-118	3-4
75	L O0@	Y	4-482	3-4
76	L O0@	L w	,-//1	3-4
77	L O0@	W	2-118	4-4
78	L O0@	Y	4-482	4-4
8/	L O0@	L w	,-//1	4-4
80	L O0A	W	1-860	3-4
81	L O0A	Y	4-035	3-4
82	L O0A	L w	,-//1	3-4
83	L O0A	W	1-860	4-4
84	L O0A	Y	4-035	4-4
85	L O0A	L w	,-//1	4-4
86	L O1B	W	1-04	3-4
87	L O1B	Y	2-613	3-4
88	L O1B	L w	-//1	3-4
0//	L O1B	W	1-04	4-4
0/0	L O1B	Y	2-613	4-4
0/1	L O1B	L w	-//1	4-4
0/2	N UO	W	05-865	0
0/3	N UO	Y	18-3/3	0
0/4	N UO	L w	/	0
0/5	L O0B	W	8-520	1
0/6	L O0B	Y	05-570	1
0/7	L O0B	L w	,-//4	1
0/8	L O4@	W	8-520	1
00/	L O4@	Y	05-570	1
000	L O4@	L w	-//4	1
001	L O4A	W	6-441	1
002	L O4A	Y	02-/70	1
003	L O4A	L w	,-//6	1
004	L O4B	W	6-441	1
005	L O4B	Y	02-/70	1
006	L O4B	L w	-//6	1

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	L dl adq K`adk	Chqdbshmm	L`fmhstcd Za+j,e\	Knb`shmmZes$\
0	L O3B	W	/	5-4
1	L O3B	Y	5-751	5-4
2	L O3B	L w	,-//1	5-4

Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@if 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZs$\
3	L O3B	W	/	5-4
4	L O3B	Y	5-751	5-4
5	L O3B	L w	,-//5	5-4
6	L O0@	W	/	0
7	L O0@	Y	08-72	0
8	L O0@	L w	/	0
0/	L O0@	W	/	2
00	L O0@	Y	08-72	2
01	L O0@	L w	/	2
02	L O0A	W	/	0
03	L O0A	Y	0/-/68	0
04	L O0A	L w	,-//4	0
05	L O0A	W	/	2
06	L O0A	Y	0/-/68	2
07	L O0A	L w	,-//4	2
08	L O1B	W	/	0
1/	L O1B	Y	03-2/7	0
10	L O1B	L w	-//4	0
11	L O1B	W	/	2
12	L O1B	Y	03-2/7	2
13	L O1B	L w	-//4	2
14	L O2@	W	/	1
15	L O2@	Y	37-333	1
16	L O2@	L w	/	1
17	L O2@	W	/	4-4
18	L O2@	Y	37-333	4-4
2/	L O2@	L w	/	4-4
20	L O2A	W	/	1
21	L O2A	Y	16-315	1
22	L O2A	L w	,-/02	1
23	L O2A	W	/	4-4
24	L O2A	Y	16-315	4-4
25	L O2A	L w	,-/02	4-4
26	L O2B	W	/	1
27	L O2B	Y	25-432	1
28	L O2B	L w	-/02	1
3/	L O2B	W	/	4-4
30	L O2B	Y	25-432	4-4
31	L O2B	L w	-/02	4-4
32	L O3@	W	/	1
33	L O3@	Y	37-333	1
34	L O3@	L w	/	1
35	L O3@	W	/	4-4
36	L O3@	Y	37-333	4-4
37	L O3@	L w	/	4-4
38	L O3A	W	/	1
4/	L O3A	Y	16-315	1
40	L O3A	L w	,-/02	1
41	L O3A	W	/	4-4
42	L O3A	Y	16-315	4-4
43	L O3A	L w	,-/02	4-4
44	L O3B	W	/	1

Bnl o`mx 9   @f 11+1/13
Cdr lfimdq 9   8900 @L
Ina Mtl adq 9   Bgdbj dc Ax9^^^^
LncdkM`l d 9

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa·j·e\	Knb`shmmZs$\
45	L O3B	Y	25-432	1
46	L O3B	L w	-/ 02	1
47	L O3B	W	/	4-4
48	L O3B	Y	25-432	4-4
5/	L O3B	L w	-/ 02	4-4
50	L O1@	W	/	3
51	L O1@	Y	06-040	3
52	L O1@	L w	/	3
53	L O1A	W	/	3
54	L O1A	Y	01-624	3
55	L O1A	L w	-/ / 5	3
56	L O1B	W	/	3
57	L O1B	Y	03-540	3
58	L O1B	L w	,-/ / 4	3
6/	L O3@	W	/	3
60	L O3@	Y	06-040	3
61	L O3@	L w	/	3
62	L O3A	W	/	3
63	L O3A	Y	00-/ 46	3
64	L O3A	L w	-/ / 4	3
65	L O3B	W	/	3
66	L O3B	Y	02-6	3
67	L O3B	L w	,-/ / 4	3
68	L 71	W	/	0
7/	L 71	Y	18-104	0
70	L 71	L w	/	0
71	L 71	W	/	0
72	L 71	Y	07-6/ 6	0
73	L 71	L w	/	0
74	L O0@	W	/	3-4
75	L O0@	Y	6-137	3-4
76	L O0@	L w	/	3-4
77	L O0@	W	/	4-4
78	L O0@	Y	6-137	4-4
8/	L O0@	L w	/	4-4
80	L O0A	W	/	3-4
81	L O0A	Y	3-347	3-4
82	L O0A	L w	,-/ / 1	3-4
83	L O0A	W	/	4-4
84	L O0A	Y	3-347	4-4
85	L O0A	L w	,-/ / 1	4-4
86	L O1B	W	/	3-4
87	L O1B	Y	4-557	3-4
88	L O1B	L w	-/ / 1	3-4
0/ /	L O1B	W	/	4-4
0/ 0	L O1B	Y	4-557	4-4
0/ 1	L O1B	L w	-/ / 1	4-4
0/ 2	N UO	W	/	0
0/ 3	N UO	Y	2/ -710	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	/	1
0/ 6	L O0B	Y	04-0/ 3	1

Bnl o`mx   9
Cdr hfmdq   9
Ina Mtl adq 9
Lncdk M`l d 9

@ f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmm Zs$\
0/7	L O0B	L w	,-//6	1
0/8	L O4@	W	/	1
00/	L O4@	Y	04-0/3	1
000	L O4@	L w	-//6	1
001	L O4A	W	/	1
002	L O4A	Y	08-151	1
003	L O4A	L w	,-//4	1
004	L O4B	W	/	1
005	L O4B	Y	08-151	1
006	L O4B	L w	-//4	1

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	L dl adqK adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmm Zs$\
0	L O3B	W	,1-086	5-4
1	L O3B	Y	2-7/4	5-4
2	L O3B	L w	-///710	5-4
3	L O3B	W	,1-086	5-4
4	L O3B	Y	2-7/4	5-4
5	L O3B	L w	,-//2	5-4
6	L O0@	W	,7-424	0
7	L O0@	Y	03-671	0
8	L O0@	L w	-//3	0
0/	L O0@	W	,7-424	2
00	L O0@	Y	03-671	2
01	L O0@	L w	-//3	2
02	L O0A	W	,3-45	0
03	L O0A	Y	6-787	0
04	L O0A	L w	,-//3	0
05	L O0A	W	,3-45	2
06	L O0A	Y	6-787	2
07	L O0A	L w	,-//3	2
08	L O1B	W	,8-434	0
1/	L O1B	Y	05-422	0
10	L O1B	L w	-//1	0
11	L O1B	W	,8-434	2
12	L O1B	Y	05-422	2
13	L O1B	L w	-//1	2
14	L O2@	W	,10-136	1
15	L O2@	Y	25-7	1
16	L O2@	L w	-/00	1
17	L O2@	W	,10-136	4-4
18	L O2@	Y	25-7	4-4
2/	L O2@	L w	-/00	4-4
20	L O2A	W	,01-57	1
21	L O2A	Y	10-851	1
22	L O2A	L w	,-/01	1
23	L O2A	W	,01-57	4-4
24	L O2A	Y	10-851	4-4
25	L O2A	L w	,-/01	4-4
26	L O2B	W	,12-314	1
27	L O2B	Y	3/-462	1

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`fmhst cdZa+j,e\	Knb`shmmZes$\
28	L O2B	L w	-/ / 5	1
3/	L O2B	W	,12-314	4-4
30	L O2B	Y	3/ -462	4-4
31	L O2B	L w	-/ / 5	4-4
32	L O3@	W	,10-136	1
33	L O3@	Y	25-7	1
34	L O3@	L w	-/ 00	1
35	L O3@	W	,10-136	4-4
36	L O3@	Y	25-7	4-4
37	L O3@	L w	-/ 00	4-4
38	L O3A	W	,01-57	1
4/	L O3A	Y	10-851	1
40	L O3A	L w	,-/ 01	1
41	L O3A	W	,01-57	4-4
42	L O3A	Y	10-851	4-4
43	L O3A	L w	,-/ 01	4-4
44	L O3B	W	,12-314	1
45	L O3B	Y	3/ -462	1
46	L O3B	L w	-/ / 5	1
47	L O3B	W	,12-314	4-4
48	L O3B	Y	3/ -462	4-4
5/	L O3B	L w	-/ / 5	4-4
50	L O1@	W	,6-84	3
51	L O1@	Y	02-660	3
52	L O1@	L w	,-/ / 3	3
53	L O1A	W	,5-04	3
54	L O1A	Y	0/ -542	3
55	L O1A	L w	-/ / 5	3
56	L O1B	W	,7-3/ 7	3
57	L O1B	Y	03-452	3
58	L O1B	L w	,-/ / 1	3
6/	L O3@	W	,6-602	3
60	L O3@	Y	02-248	3
61	L O3@	L w	,-/ / 3	3
62	L O3A	W	,4-118	3
63	L O3A	Y	8-/ 45	3
64	L O3A	L w	-/ / 4	3
65	L O3B	W	,7-233	3
66	L O3B	Y	03-342	3
67	L O3B	L w	,-/ / 1	3
68	L 71	W	,8-858	0
7/	L 71	Y	06-155	0
70	L 71	L w	/	0
71	L 71	W	,0/ -721	0
72	L 71	Y	07-651	0
73	L 71	L w	/	0
74	L O0@	W	,2-118	3-4
75	L O0@	Y	4-482	3-4
76	L O0@	L w	-/ / 1	3-4
77	L O0@	W	,2-118	4-4
78	L O0@	Y	4-482	4-4
8/	L O0@	L w	-/ / 1	4-4

Bnl o`mx	9	@f 11+1/13
Cdr lfimdq	9	8900 @L
Ina Mtl adq	9	Bgdbj dc Ax9`^^^^
LncdkM`l d	9	

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Ldl adqK`adk	Cnqdbshmm	L`fmhst cdZa+j,es\	Knb`shmm Zs+$\
80	L O0A	W	,1-/81	3-4
81	L O0A	Y	2-512	3-4
82	L O0A	L w	,-//1	3-4
83	L O0A	W	,1-/81	4-4
84	L O0A	Y	2-512	4-4
85	L O0A	L w	,-//1	4-4
86	L O1B	W	,2-407	3-4
87	L O1B	Y	5-/83	3-4
88	L O1B	L w	-///800	3-4
0//	L O1B	W	,2-407	4-4
0/0	L O1B	Y	5-/83	4-4
0/1	L O1B	L w	-///800	4-4
0/2	N UO	W	,02-734	0
0/3	N UO	Y	12-87	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,5-402	1
0/6	L O0B	Y	00-17	1
0/7	L O0B	L w	,-//6	1
0/8	L O4@	W	,5-402	1
00/	L O4@	Y	00-17	1
000	L O4@	L w	-//6	1
001	L O4A	W	,0/-56	1
002	L O4A	Y	07-370	1
003	L O4A	L w	/	1
004	L O4B	W	,0/-56	1
005	L O4B	Y	07-370	1
006	L O4B	L w	/	1

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Ldl adqK`adk	Cnqdbshmm	L`fmhst cdZa+j,es\	Knb`shmm Zs+$\
0	L O3B	W	,2-7/4	5-4
1	L O3B	Y	1-086	5-4
2	L O3B	L w	-//2	5-4
3	L O3B	W	,2-7/4	5-4
4	L O3B	Y	1-086	5-4
5	L O3B	L w	,-///710	5-4
6	L O0@	W	,0/-//0	0
7	L O0@	Y	4-663	0
8	L O0@	L w	-//4	0
0/	L O0@	W	,0/-//0	2
00	L O0@	Y	4-663	2
01	L O0@	L w	-//4	2
02	L O0A	W	,00-450	0
03	L O0A	Y	5-564	0
04	L O0A	L w	,-//4	0
05	L O0A	W	,00-450	2
06	L O0A	Y	5-564	2
07	L O0A	L w	,-//4	2
08	L O1B	W	,05-422	0
1/	L O1B	Y	8-434	0
10	L O1B	L w	,-//1	0

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	L dl adq K adk	Chqdbshmm	L`fmhst cdZa-j,e\	Knb`shmmZ`$ \
11	L O1B	W	,05-422	2
12	L O1B	Y	8-434	2
13	L O1B	L w	,-//1	2
14	L O2@	W	,15-383	1
15	L O2@	Y	04-185	1
16	L O2@	L w	-/ 02	1
17	L O2@	W	,15-383	4-4
18	L O2@	Y	04-185	4-4
2/	L O2@	L w	-/ 02	4-4
20	L O2A	W	,18-746	1
21	L O2A	Y	06-127	1
22	L O2A	L w	,-/ 02	1
23	L O2A	W	,18-746	4-4
24	L O2A	Y	06-127	4-4
25	L O2A	L w	,-/ 02	4-4
26	L O2B	W	,3/ -462	1
27	L O2B	Y	12-314	1
28	L O2B	L w	,-//5	1
3/	L O2B	W	,3/ -462	4-4
30	L O2B	Y	12-314	4-4
31	L O2B	L w	,-//5	4-4
32	L O3@	W	,15-383	1
33	L O3@	Y	04-185	1
34	L O3@	L w	-/ 02	1
35	L O3@	W	,15-383	4-4
36	L O3@	Y	04-185	4-4
37	L O3@	L w	-/ 02	4-4
38	L O3A	W	,18-746	1
4/	L O3A	Y	06-127	1
40	L O3A	L w	,-/ 02	1
41	L O3A	W	,18-746	4-4
42	L O3A	Y	06-127	4-4
43	L O3A	L w	,-/ 02	4-4
44	L O3B	W	,3/ -462	1
45	L O3B	Y	12-314	1
46	L O3B	L w	,-//5	1
47	L O3B	W	,3/ -462	4-4
48	L O3B	Y	12-314	4-4
5/	L O3B	L w	,-//5	4-4
50	L O1@	W	,00-5/ 4	3
51	L O1@	Y	5-6	3
52	L O1@	L w	,-//5	3
53	L O1A	W	,01-201	3
54	L O1A	Y	6-0/ 7	3
55	L O1A	L w	-//4	3
56	L O1B	W	,03-452	3
57	L O1B	Y	7-3/ 7	3
58	L O1B	L w	-//1	3
6/	L O3@	W	,0/ -26	3
60	L O3@	Y	4-876	3
61	L O3@	L w	,-//4	3
62	L O3A	W	,00-235	3

Bnl o`mx   9
Cdr Hímdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@ì f 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`f mht cdZka+j,e\	Knb`shmmZs$\
63	L O3A	Y	5-44	3
64	L O3A	L w	-//4	3
65	L O3B	W	,03-342	3
66	L O3B	Y	7-233	3
67	L O3B	L w	-//1	3
68	L 71	W	,06-155	0
7/	L 71	Y	8-858	0
70	L 71	L w	/	0
71	L 71	W	,07-651	0
72	L 71	Y	0/ -721	0
73	L 71	L w	/	0
74	L O0@	W	,3-114	3-4
75	L O0@	Y	1-328	3-4
76	L O0@	L w	-//1	3-4
77	L O0@	W	,3-114	4-4
78	L O0@	Y	1-328	4-4
8/	L O0@	L w	-//1	4-4
80	L O0A	W	,3-560	3-4
81	L O0A	Y	1-586	3-4
82	L O0A	L w	,-//1	3-4
83	L O0A	W	,3-560	4-4
84	L O0A	Y	1-586	4-4
85	L O0A	L w	,-//1	4-4
86	L O1B	W	,5-/83	3-4
87	L O1B	Y	2-407	3-4
88	L O1B	L w	,-///800	3-4
0//	L O1B	W	,5-/83	4-4
0/0	L O1B	Y	2-407	4-4
0/1	L O1B	L w	,-///800	4-4
0/2	N UO	W	,12-87	0
0/3	N UO	Y	02-734	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,02-/70	1
0/6	L O0B	Y	6-441	1
0/7	L O0B	L w	,-//6	1
0/8	L O4@	W	,02-/70	1
00/	L O4@	Y	6-441	1
000	L O4@	L w	-//6	1
001	L O4A	W	,05-570	1
002	L O4A	Y	8-520	1
003	L O4A	L w	-//4	1
004	L O4B	W	,05-570	1
005	L O4B	Y	8-520	1
006	L O4B	L w	,-//4	1

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	L dl adqK adk	Chqdbshmm	L`f mht cdZka+j,e\	Knb`shmmZs$\
0	L O3B	W	,5-751	5-4
1	L O3B	Y	/	5-4
2	L O3B	L w	-//5	5-4
3	L O3B	W	,5-751	5-4

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
4	L O3B	Y	/	5-4
5	L O3B	L w	-//1	5-4
6	L O0@	W	,7-676	0
7	L O0@	Y	/	0
8	L O0@	L w	-//3	0
0/	L O0@	W	,7-676	2
00	L O0@	Y	/	2
01	L O0@	L w	-//3	2
02	L O0A	W	,07-427	0
03	L O0A	Y	/	0
04	L O0A	L w	,-//2	0
05	L O0A	W	,07-427	2
06	L O0A	Y	/	2
07	L O0A	L w	,-//2	2
08	L O1B	W	,03-2/7	0
1/	L O1B	Y	/	0
10	L O1B	L w	,-//4	0
11	L O1B	W	,03-2/7	2
12	L O1B	Y	/	2
13	L O1B	L w	,-//4	2
14	L O2@	W	,13-531	1
15	L O2@	Y	/	1
16	L O2@	L w	-/01	1
17	L O2@	W	,13-531	4-4
18	L O2@	Y	/	4-4
2/	L O2@	L w	-/01	4-4
20	L O2A	W	,34-548	1
21	L O2A	Y	/	1
22	L O2A	L w	,-//7	1
23	L O2A	W	,34-548	4-4
24	L O2A	Y	/	4-4
25	L O2A	L w	,-//7	4-4
26	L O2B	W	,25-432	1
27	L O2B	Y	/	1
28	L O2B	L w	,-/02	1
3/	L O2B	W	,25-432	4-4
30	L O2B	Y	/	4-4
31	L O2B	L w	,-/02	4-4
32	L O3@	W	,13-531	1
33	L O3@	Y	/	1
34	L O3@	L w	-/01	1
35	L O3@	W	,13-531	4-4
36	L O3@	Y	/	4-4
37	L O3@	L w	-/01	4-4
38	L O3A	W	,34-548	1
4/	L O3A	Y	/	1
40	L O3A	L w	,-//7	1
41	L O3A	W	,34-548	4-4
42	L O3A	Y	/	4-4
43	L O3A	L w	,-//7	4-4
44	L O3B	W	,25-432	1
45	L O3B	Y	/	1

RISA
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`fmhstcdZk+j,e\	Knb`shmmZs$\
46	L O3B	L w	,-/ 02	1
47	L O3B	W	,25-432	4-4
48	L O3B	Y	/	4-4
5/	L O3B	L w	,-/ 02	4-4
50	L O1@	W	,01-04	3
51	L O1@	Y	/	3
52	L O1@	L w	,-//5	3
53	L O1A	W	,05-455	3
54	L O1A	Y	/	3
55	L O1A	L w	-//2	3
56	L O1B	W	,03-540	3
57	L O1B	Y	/	3
58	L O1B	L w	-//4	3
6/	L O3@	W	,0/-138	3
60	L O3@	Y	/	3
61	L O3@	L w	,-//4	3
62	L O3A	W	,05-233	3
63	L O3A	Y	/	3
64	L O3A	L w	-//2	3
65	L O3B	W	,02-6	3
66	L O3B	Y	/	3
67	L O3B	L w	-//4	3
68	L 71	W	,18-104	0
7/	L 71	Y	/	0
70	L 71	L w	/	0
71	L 71	W	,07-6/ 6	0
72	L 71	Y	/	0
73	L 71	L w	/	0
74	L O0@	W	,3-/ 78	3-4
75	L O0@	Y	/	3-4
76	L O0@	L w	-//1	3-4
77	L O0@	W	,3-/ 78	4-4
78	L O0@	Y	/	4-4
8/	L O0@	L w	-//1	4-4
80	L O0A	W	,5-767	3-4
81	L O0A	Y	/	3-4
82	L O0A	L w	,-//0	3-4
83	L O0A	W	,5-767	4-4
84	L O0A	Y	/	4-4
85	L O0A	L w	,-//0	4-4
86	L O1B	W	,4-557	3-4
87	L O1B	Y	/	3-4
88	L O1B	L w	,-//1	3-4
0//	L O1B	W	,4-557	4-4
0/0	L O1B	Y	/	4-4
0/1	L O1B	L w	,-//1	4-4
0/2	N UO	W	,2/ -710	0
0/3	N UO	Y	/	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,08-151	1
0/6	L O0B	Y	/	1
0/7	L O0B	L w	,-//4	1

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`ld   9

@lf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Ldladq K`adk	Chqdbshmm	L`fmhst cdZka+j,es\	Knb`shmmZs$\
0/8	L O4@	W	,08-151	1
00/	L O4@	Y	/	1
000	L O4@	L w	-//4	1
001	L O4A	W	,04-0/3	1
002	L O4A	Y	/	1
003	L O4A	L w	-//6	1
004	L O4B	W	,04-0/3	1
005	L O4B	Y	/	1
006	L O4B	L w	,-//6	1

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Ldladq K`adk	Chqdbshmm	L`fmhst cdZka+j,es\	Knb`shmmZs$\
0	L O3B	W	,7-/7	5-4
1	L O3B	Y	,3-554	5-4
2	L O3B	L w	-//8	5-4
3	L O3B	W	,7-/7	5-4
4	L O3B	Y	,3-554	5-4
5	L O3B	L w	-//6	5-4
6	L O0@	W	,0/-//0	0
7	L O0@	Y	,4-663	0
8	L O0@	L w	-//4	0
0/	L O0@	W	,0/-//0	2
00	L O0@	Y	,4-663	2
01	L O0@	L w	-//4	2
02	L O0A	W	,05-774	0
03	L O0A	Y	,8-638	0
04	L O0A	L w	-//1	0
05	L O0A	W	,05-774	2
06	L O0A	Y	,8-638	2
07	L O0A	L w	-//1	2
08	L O1B	W	,7-14	0
1/	L O1B	Y	,3-652	0
10	L O1B	L w	,-//4	0
11	L O1B	W	,7-14	2
12	L O1B	Y	,3-652	2
13	L O1B	L w	,-//4	2
14	L O2@	W	,15-383	1
15	L O2@	Y	,04-185	1
16	L O2@	L w	-/02	1
17	L O2@	W	,15-383	4-4
18	L O2@	Y	,04-185	4-4
2/	L O2@	L w	-/02	4-4
20	L O2A	W	,30-221	1
21	L O2A	Y	,12-752	1
22	L O2A	L w	-//3	1
23	L O2A	W	,30-221	4-4
24	L O2A	Y	,12-752	4-4
25	L O2A	L w	-//3	4-4
26	L O2B	W	,11-610	1
27	L O2B	Y	,02-007	1
28	L O2B	L w	,-/02	1

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@jf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Ldl adqK`adk	Chqdbsmm	L`fmhscdZa-j,es	Knb`smmZs$\
3/	L O2B	W	,11-610	4-4
30	L O2B	Y	,02-007	4-4
31	L O2B	L w	,-/02	4-4
32	L O3@	W	,15-383	1
33	L O3@	Y	,04-185	1
34	L O3@	L w	-/02	1
35	L O3@	W	,15-383	4-4
36	L O3@	Y	,04-185	4-4
37	L O3@	L w	-/02	4-4
38	L O3A	W	,30-221	1
4/	L O3A	Y	,12-752	1
40	L O3A	L w	-//3	1
41	L O3A	W	,30-221	4-4
42	L O3A	Y	,12-752	4-4
43	L O3A	L w	-//3	4-4
44	L O3B	W	,11-610	1
45	L O3B	Y	,02-007	1
46	L O3B	L w	,-/02	1
47	L O3B	W	,11-610	4-4
48	L O3B	Y	,02-007	4-4
5/	L O3B	L w	,-/02	4-4
50	L O1@	W	,00-5/4	3
51	L O1@	Y	,5-6	3
52	L O1@	L w	,-//5	3
53	L O1A	W	,03-612	3
54	L O1A	Y	,7-4	3
55	L O1A	L w	,-//0	3
56	L O1B	W	,0/-701	3
57	L O1B	Y	,5-131	3
58	L O1B	L w	-//5	3
6/	L O3@	W	,0/-26	3
60	L O3@	Y	,4-876	3
61	L O3@	L w	,-//4	3
62	L O3A	W	,03-562	3
63	L O3A	Y	,7-361	3
64	L O3A	L w	,-//0	3
65	L O3B	W	,8-165	3
66	L O3B	Y	,4-245	3
67	L O3B	L w	-//4	3
68	L 71	W	,22-225	0
7/	L 71	Y	,08-136	0
70	L 71	L w	/	0
71	L 71	W	,02-528	0
72	L 71	Y	,6-764	0
73	L 71	L w	/	0
74	L O0@	W	,3-114	3-4
75	L O0@	Y	,1-328	3-4
76	L O0@	L w	-//1	3-4
77	L O0@	W	,3-114	4-4
78	L O0@	Y	,1-328	4-4
8/	L O0@	L w	-//1	4-4
80	L O0A	W	,5-083	3-4

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Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@lf 11+1/13
8900 @L
Bgdbjdc Ax9`^^^^

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
81	L O0A	Y	,2-465	3-4
82	L O0A	L w	-/ / 510	3-4
83	L O0A	W	,5-083	4-4
84	L O0A	Y	,2-465	4-4
85	L O0A	L w	-/ / 510	4-4
86	L O1B	W	,2-613	3-4
87	L O1B	Y	,1-04	3-4
88	L O1B	L w	,-/ / 1	3-4
0/ /	L O1B	W	,2-613	4-4
0/ 0	L O1B	Y	,1-04	4-4
0/ 1	L O1B	L w	,-/ / 1	4-4
0/ 2	N UO	W	,18-3/ 3	0
0/ 3	N UO	Y	,05-865	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	,07-370	1
0/ 6	L O0B	Y	,0/ -56	1
0/ 7	L O0B	L w	/	1
0/ 8	L O4@	W	,07-370	1
00/	L O4@	Y	,0/ -56	1
000	L O4@	L w	/	1
001	L O4A	W	,00-17	1
002	L O4A	Y	,5-402	1
003	L O4A	L w	-/ / 6	1
004	L O4B	W	,00-17	1
005	L O4B	Y	,5-402	1
006	L O4B	L w	,-/ / 6	1

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,es\	Knb`shmmZes$\
0	L O3B	W	,3-554	5-4
1	L O3B	Y	,7-/ 7	5-4
2	L O3B	L w	-/ / 6	5-4
3	L O3B	W	,3-554	5-4
4	L O3B	Y	,7-/ 7	5-4
5	L O3B	L w	-/ / 8	5-4
6	L O0@	W	,7-424	0
7	L O0@	Y	,03-671	0
8	L O0@	L w	-/ / 3	0
0/	L O0@	W	,7-424	2
00	L O0@	Y	,03-671	2
01	L O0@	L w	-/ / 3	2
02	L O0A	W	,6-523	0
03	L O0A	Y	,02-111	0
04	L O0A	L w	-/ / 4	0
05	L O0A	W	,6-523	2
06	L O0A	Y	,02-111	2
07	L O0A	L w	-/ / 4	2
08	L O1B	W	,3-652	0
1/	L O1B	Y	,7-14	0
10	L O1B	L w	,-/ / 4	0
11	L O1B	W	,3-652	2

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`ld   9

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Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa-j,es)	Knb`shmmZst$\
12	L O1B	Y	,7-14	2
13	L O1B	Lw	,-//4	2
14	L O2@	W	,10-136	1
15	L O2@	Y	,25-7	1
16	L O2@	Lw	-/00	1
17	L O2@	W	,10-136	4-4
18	L O2@	Y	,25-7	4-4
2/	L O2@	Lw	-/00	4-4
20	L O2A	W	,08-2/4	1
21	L O2A	Y	,22-326	1
22	L O2A	Lw	-/01	1
23	L O2A	W	,08-2/4	4-4
24	L O2A	Y	,22-326	4-4
25	L O2A	Lw	-/01	4-4
26	L O2B	W	,02-007	1
27	L O2B	Y	,11-610	1
28	L O2B	Lw	,-/02	1
3/	L O2B	W	,02-007	4-4
30	L O2B	Y	,11-610	4-4
31	L O2B	Lw	,-/02	4-4
32	L O3@	W	,10-136	1
33	L O3@	Y	,25-7	1
34	L O3@	Lw	-/00	1
35	L O3@	W	,10-136	4-4
36	L O3@	Y	,25-7	4-4
37	L O3@	Lw	-/00	4-4
38	L O3A	W	,08-2/4	1
4/	L O3A	Y	,22-326	1
40	L O3A	Lw	-/01	1
41	L O3A	W	,08-2/4	4-4
42	L O3A	Y	,22-326	4-4
43	L O3A	Lw	-/01	4-4
44	L O3B	W	,02-007	1
45	L O3B	Y	,11-610	1
46	L O3B	Lw	,-/02	1
47	L O3B	W	,02-007	4-4
48	L O3B	Y	,11-610	4-4
5/	L O3B	Lw	,-/02	4-4
50	L O1@	W	,6-84	3
51	L O1@	Y	,02-660	3
52	L O1@	Lw	,-//3	3
53	L O1A	W	,6-431	3
54	L O1A	Y	,02-/53	3
55	L O1A	Lw	,-//4	3
56	L O1B	W	,5-131	3
57	L O1B	Y	,0/-701	3
58	L O1B	Lw	-//5	3
6/	L O3@	W	,6-602	3
60	L O3@	Y	,02-248	3
61	L O3@	Lw	,-//3	3
62	L O3A	W	,6-04	3
63	L O3A	Y	,01-273	3

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Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`ld   9

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Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Ldl adqK`adk	Clqdbslmm	L`fmhst cdZa+j,e\	Knb`shmmZs4$\
64	LO3A	Lw	,-//4	3
65	LO3B	W	,4-245	3
66	LO3B	Y	,8-165	3
67	LO3B	Lw	-//4	3
68	L71	W	,08-136	0
7/	L71	Y	,22-225	0
70	L71	Lw	/	0
71	L71	W	,6-764	0
72	L71	Y	,02-528	0
73	L71	Lw	/	0
74	LO0@	W	,2-118	3-4
75	LO0@	Y	,4-482	3-4
76	LO0@	Lw	-//1	3-4
77	LO0@	W	,2-118	4-4
78	LO0@	Y	,4-482	4-4
8/	LO0@	Lw	-//1	4-4
80	LO0A	W	,1-860	3-4
81	LO0A	Y	,4-035	3-4
82	LO0A	Lw	-//1	3-4
83	LO0A	W	,1-860	4-4
84	LO0A	Y	,4-035	4-4
85	LO0A	Lw	-//1	4-4
86	LO1B	W	,1-04	3-4
87	LO1B	Y	,2-613	3-4
88	LO1B	Lw	,-//1	3-4
0//	LO1B	W	,1-04	4-4
0/0	LO1B	Y	,2-613	4-4
0/1	LO1B	Lw	,-//1	4-4
0/2	NUO	W	,05-865	0
0/3	NUO	Y	,18-3/3	0
0/4	NUO	Lw	/	0
0/5	LO0B	W	,8-520	1
0/6	LO0B	Y	,05-570	1
0/7	LO0B	Lw	-//4	1
0/8	LO4@	W	,8-520	1
00/	LO4@	Y	,05-570	1
000	LO4@	Lw	,-//4	1
001	LO4A	W	,6-441	1
002	LO4A	Y	,02-/70	1
003	LO4A	Lw	-//6	1
004	LO4B	W	,6-441	1
005	LO4B	Y	,02-/70	1
006	LO4B	Lw	,-//6	1

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Ldl adqK`adk	Clqdbslmm	L`fmhst cdZa+j,e\	Knb`shmmZs4$\
0	LO3B	W	/	5-4
1	LO3B	Y	,1-336	5-4
2	LO3B	Lw	-///610	5-4
3	LO3B	W	/	5-4
4	LO3B	Y	,1-336	5-4

Bnl o`mx 9
Cdr hfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@tf 11+1/13
8900 @L
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Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`fmhst cdZa+j,es\	Knb`shmmZs$\
5	L O3B	L w	-//1	5-4
6	L O0@	W	/	0
7	L O0@	Y	,3-877	0
8	L O0@	L w	/	0
0/	L O0@	W	/	2
00	L O0@	Y	,3-877	2
01	L O0@	L w	/	2
02	L O0A	W	/	0
03	L O0A	Y	,1-0	0
04	L O0A	L w	-///876	0
05	L O0A	W	/	2
06	L O0A	Y	,1-0	2
07	L O0A	L w	-///876	2
08	L O1B	W	/	0
1/	L O1B	Y	,2-242	0
10	L O1B	L w	,-//0	0
11	L O1B	W	/	2
12	L O1B	Y	,2-242	2
13	L O1B	L w	,-//0	2
14	L O2@	W	/	1
15	L O2@	Y	,04-501	1
16	L O2@	L w	/	1
17	L O2@	W	/	4-4
18	L O2@	Y	,04-501	4-4
2/	L O2@	L w	/	4-4
20	L O2A	W	/	1
21	L O2A	Y	,7-176	1
22	L O2A	L w	-//3	1
23	L O2A	W	/	4-4
24	L O2A	Y	,7-176	4-4
25	L O2A	L w	-//3	4-4
26	L O2B	W	/	1
27	L O2B	Y	,00-353	1
28	L O2B	L w	,-//3	1
3/	L O2B	W	/	4-4
30	L O2B	Y	,00-353	4-4
31	L O2B	L w	,-//3	4-4
32	L O3@	W	/	1
33	L O3@	Y	,04-501	1
34	L O3@	L w	/	1
35	L O3@	W	/	4-4
36	L O3@	Y	,04-501	4-4
37	L O3@	L w	/	4-4
38	L O3A	W	/	1
4/	L O3A	Y	,7-176	1
40	L O3A	L w	-//3	1
41	L O3A	W	/	4-4
42	L O3A	Y	,7-176	4-4
43	L O3A	L w	-//3	4-4
44	L O3B	W	/	1
45	L O3B	Y	,00-353	1
46	L O3B	L w	,-//3	1

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`f mhst cdZa-j,es\	Knb`shmmZs$\
47	L O3B	W	/	4-4
48	L O3B	Y	,00-353	4-4
5/	L O3B	L w	,-//3	4-4
50	L O1@	W	/	3
51	L O1@	Y	,2-833	3
52	L O1@	L w	/	3
53	L O1A	W	/	3
54	L O1A	Y	,1-687	3
55	L O1A	L w	,-//0	3
56	L O1B	W	/	3
57	L O1B	Y	,2-185	3
58	L O1B	L w	-//0	3
6/	L O3@	W	/	3
60	L O3@	Y	,2-833	3
61	L O3@	L w	/	3
62	L O3A	W	/	3
63	L O3A	Y	,1-260	3
64	L O3A	L w	,-//0	3
65	L O3B	W	/	3
66	L O3B	Y	,2-/43	3
67	L O3B	L w	-//0	3
68	L 71	W	/	0
7/	L 71	Y	,7-541	0
70	L 71	L w	/	0
71	L 71	W	/	0
72	L 71	Y	,5-250	0
73	L 71	L w	/	0
74	L O0@	W	/	3-4
75	L O0@	Y	,0-836	3-4
76	L O0@	L w	/	3-4
77	L O0@	W	/	4-4
78	L O0@	Y	,0-836	4-4
8/	L O0@	L w	/	4-4
80	L O0A	W	/	3-4
81	L O0A	Y	,0-/65	3-4
82	L O0A	L w	-///4/5	3-4
83	L O0A	W	/	4-4
84	L O0A	Y	,0-/65	4-4
85	L O0A	L w	-///4/5	4-4
86	L O1B	W	/	3-4
87	L O1B	Y	,0-343	3-4
88	L O1B	L w	,-///403	3-4
0//	L O1B	W	/	4-4
0/0	L O1B	Y	,0-343	4-4
0/1	L O1B	L w	,-///403	4-4
0/2	N UO	W	/	0
0/3	N UO	Y	,6-0	0
0/4	N UO	L w	/	0
0/5	L O0B	W	/	1
0/6	L O0B	Y	,3-/78	1
0/7	L O0B	L w	-//1	1
0/8	L O4@	W	/	1

The

Bnl o`mx 9
Cdr hfmdq 9
Ina Mtladq 9
LncdkM`ld 9

@f 11+1/13
8900 @L
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Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Ldladq K`adk	Chqdbshnm	L`fmhstcdZa+j,e\	Knb`shmnZs+$\
00/	L O4@	Y	,3-/78	1
000	L O4@	L w	,-//1	1
001	L O4A	W	/	1
002	L O4A	Y	,4-324	1
003	L O4A	L w	-//0	1
004	L O4B	W	/	1
005	L O4B	Y	,4-324	1
006	L O4B	L w	,-//0	1

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Ldladq K`adk	Chqdbshnm	L`fmhstcdZa+j,e\	Knb`shmnZs+$\
0	L O3B	W	0-111	5-4
1	L O3B	Y	,1-005	5-4
2	L O3B	L w	,-///346	5-4
3	L O3B	W	0-111	5-4
4	L O3B	Y	,1-005	5-4
5	L O3B	L w	-//1	5-4
6	L O0@	W	1-/74	0
7	L O0@	Y	,2-501	0
8	L O0@	L w	,-//0	0
0/	L O0@	W	1-/74	2
00	L O0@	Y	,2-501	2
01	L O0@	L w	,-//0	2
02	L O0A	W	-8/7	0
03	L O0A	Y	,0-462	0
04	L O0A	L w	-///783	0
05	L O0A	W	-8/7	2
06	L O0A	Y	,0-462	2
07	L O0A	L w	-///783	2
08	L O1B	W	1-273	0
1/	L O1B	Y	,3-02	0
10	L O1B	L w	,-///506	0
11	L O1B	W	1-273	2
12	L O1B	Y	,3-02	2
13	L O1B	L w	,-///506	2
14	L O2@	W	5-658	1
15	L O2@	Y	,00-614	1
16	L O2@	L w	,-//2	1
17	L O2@	W	5-658	4-4
18	L O2@	Y	,00-614	4-4
2/	L O2@	L w	,-//2	4-4
20	L O2A	W	2-672	1
21	L O2A	Y	,5-442	1
22	L O2A	L w	-//3	1
23	L O2A	W	2-672	4-4
24	L O2A	Y	,5-442	4-4
25	L O2A	L w	-//3	4-4
26	L O2B	W	6-417	1
27	L O2B	Y	,02-/28	1
28	L O2B	L w	,-//1	1
3/	L O2B	W	6-417	4-4

Bnl o`mx 9
Cdr lfimdq 9
I na Mtl adq 9
L ncdkM`l d 9

@if 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	L dl adqK`adk	Cladbslmm	L`fmltcdZa-j,es)	Knb`slmmZs$\
30	L O2B	Y	,02-/28	4-4
31	L O2B	L w	,-//1	4-4
32	L O3@	W	5-658	1
33	L O3@	Y	,00-614	1
34	L O3@	L w	,-//2	1
35	L O3@	W	5-658	4-4
36	L O3@	Y	,00-614	4-4
37	L O3@	L w	,-//2	4-4
38	L O3A	W	2-672	1
4/	L O3A	Y	,5-442	1
40	L O3A	L w	-//3	1
41	L O3A	W	2-672	4-4
42	L O3A	Y	,5-442	4-4
43	L O3A	L w	-//3	4-4
44	L O3B	W	6-417	1
45	L O3B	Y	,02-/28	1
46	L O3B	L w	,-//1	1
47	L O3B	W	6-417	4-4
48	L O3B	Y	,02-/28	4-4
5/	L O3B	L w	,-//1	4-4
50	L O1@	W	0-70	3
51	L O1@	Y	,2-024	3
52	L O1@	L w	-///8/4	3
53	L O1A	W	0-232	3
54	L O1A	Y	,1-215	3
55	L O1A	L w	,-//0	3
56	L O1B	W	0-818	3
57	L O1B	Y	,2-230	3
58	L O1B	L w	-///388	3
6/	L O3@	W	0-64	3
60	L O3@	Y	,2-/2	3
61	L O3@	L w	-///764	3
62	L O3A	W	0-0/7	3
63	L O3A	Y	,0-81	3
64	L O3A	L w	,-//0	3
65	L O3B	W	0-802	3
66	L O3B	Y	,2-202	3
67	L O3B	L w	-///384	3
68	L 71	W	1-672	0
7/	L 71	Y	,3-710	0
70	L 71	L w	/	0
71	L 71	W	2-07	0
72	L 71	Y	,4-4/6	0
73	L 71	L w	/	0
74	L O0@	W	-74	3-4
75	L O0@	Y	,0-361	3-4
76	L O0@	L w	,-///314	3-4
77	L O0@	W	-74	4-4
78	L O0@	Y	,0-361	4-4
8/	L O0@	L w	,-///314	4-4
80	L O0A	W	-384	3-4
81	L O0A	Y	,-746	3-4

Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	L dl adq K`adk	Chqdbshmm	L`fmhts cdZa+j,es	Knb`shmm Zes$ \
82	L O0A	L w	-/ / /376	3-4
83	L O0A	W	-384	4-4
84	L O0A	Y	,-746	4-4
85	L O0A	L w	-/ / /376	4-4
86	L O1B	W	-83	3-4
87	L O1B	Y	,0-518	3-4
88	L O1B	L w	,-/ / /133	3-4
0//	L O1B	W	-83	4-4
0/0	L O1B	Y	,0-518	4-4
0/1	L O1B	L w	,-/ / /133	4-4
0/2	N UO	W	2-020	0
0/3	N UO	Y	,4-313	0
0/4	N UO	L w	/	0
0/5	L O0B	W	0-6/ 7	1
0/6	L O0B	Y	,1-848	1
0/7	L O0B	L w	-/ / 1	1
0/8	L O4@	W	0-6/ 7	1
00/	L O4@	Y	,1-848	1
000	L O4@	L w	,-/ / 1	1
001	L O4A	W	2-/ 43	1
002	L O4A	Y	,4-178	1
003	L O4A	L w	/	1
004	L O4B	W	2-/ 43	1
005	L O4B	Y	,4-178	1
006	L O4B	L w	/	1

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	L dl adq K`adk	Chqdbshmm	L`fmhts cdZa+j,es	Knb`shmm Zes$ \
0	L O3B	W	1-005	5-4
1	L O3B	Y	,0-111	5-4
2	L O3B	L w	,-/ / 1	5-4
3	L O3B	W	1-005	5-4
4	L O3B	Y	,0-111	5-4
5	L O3B	L w	-/ / /346	5-4
6	L O0@	W	1-085	0
7	L O0@	Y	,0-157	0
8	L O0@	L w	,-/ / 0	0
0/	L O0@	W	1-085	2
00	L O0@	Y	,0-157	2
01	L O0@	L w	,-/ / 0	2
02	L O0A	W	1-547	0
03	L O0A	Y	,0-423	0
04	L O0A	L w	-/ / 0	0
05	L O0A	W	1-547	2
06	L O0A	Y	,0-423	2
07	L O0A	L w	-/ / 0	2
08	L O1B	W	3-02	0
1/	L O1B	Y	,1-273	0
10	L O1B	L w	-/ / /506	0
11	L O1B	W	3-02	2
12	L O1B	Y	,1-273	2

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@lf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa-j,es\	Knb`shmmZs$\
13	L O1B	L w	-///506	2
14	L O2@	W	7-021	1
15	L O2@	Y	,3-584	1
16	L O2@	L w	,-//3	1
17	L O2@	W	7-021	4-4
18	L O2@	Y	,3-584	4-4
2/	L O2@	L w	,-//3	4-4
20	L O2A	W	8-2/4	1
21	L O2A	Y	,4-261	1
22	L O2A	L w	-//3	1
23	L O2A	W	8-2/4	4-4
24	L O2A	Y	,4-261	4-4
25	L O2A	L w	-//3	4-4
26	L O2B	W	02-/28	1
27	L O2B	Y	,6-417	1
28	L O2B	L w	-//1	1
3/	L O2B	W	02-/28	4-4
30	L O2B	Y	,6-417	4-4
31	L O2B	L w	-//1	4-4
32	L O3@	W	7-021	1
33	L O3@	Y	,3-584	1
34	L O3@	L w	,-//3	1
35	L O3@	W	7-021	4-4
36	L O3@	Y	,3-584	4-4
37	L O3@	L w	,-//3	4-4
38	L O3A	W	8-2/4	1
4/	L O3A	Y	,4-261	1
40	L O3A	L w	-//3	1
41	L O3A	W	8-2/4	4-4
42	L O3A	Y	,4-261	4-4
43	L O3A	L w	-//3	4-4
44	L O3B	W	02-/28	1
45	L O3B	Y	,6-417	1
46	L O3B	L w	-//1	1
47	L O3B	W	02-/28	4-4
48	L O3B	Y	,6-417	4-4
5/	L O3B	L w	-//1	4-4
50	L O1@	W	1-462	3
51	L O1@	Y	,0-375	3
52	L O1@	L w	-//0	3
53	L O1A	W	1-645	3
54	L O1A	Y	,0-480	3
55	L O1A	L w	,-//0	3
56	L O1B	W	2-230	3
57	L O1B	Y	,0-818	3
58	L O1B	L w	,-///388	3
6/	L O3@	W	1-148	3
60	L O3@	Y	,0-2/3	3
61	L O3@	L w	-//0	3
62	L O3A	W	1-400	3
63	L O3A	Y	,0-34	3
64	L O3A	L w	,-//0	3

Bnl o`mx 9

Cdr Hfimdq 9

Ina Mtl adq 9

LncdkM`l d 9

@1f 11+1/ 13

8900 @L

Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	L dl adqK adk	Chqdbslmm	L`fmhst cdZa+j,e\	Knb`slmmZs$ \
65	L O3B	W	2-202	3
66	L O3B	Y	,0-802	3
67	L O3B	L w	,-///384	3
68	L 71	W	3-710	0
7/	L 71	Y	,1-672	0
70	L 71	L w	/	0
71	L 71	W	4-4/6	0
72	L 71	Y	,2-07	0
73	L 71	L w	/	0
74	L O0@	W	0-/34	3-4
75	L O0@	Y	,-5/2	3-4
76	L O0@	L w	,-///411	3-4
77	L O0@	W	0-/34	4-4
78	L O0@	Y	,-5/2	4-4
8/	L O0@	L w	,-///411	4-4
80	L O0A	W	0-074	3-4
81	L O0A	Y	,-573	3-4
82	L O0A	L w	-///413	3-4
83	L O0A	W	0-074	4-4
84	L O0A	Y	,-573	4-4
85	L O0A	L w	-///413	4-4
86	L O1B	W	0-518	3-4
87	L O1B	Y	,-83	3-4
88	L O1B	L w	-///133	3-4
0//	L O1B	W	0-518	4-4
0/0	L O1B	Y	,-83	4-4
0/1	L O1B	L w	-///133	4-4
0/2	N UO	W	4-313	0
0/3	N UO	Y	,2-020	0
0/4	N UO	L w	/	0
0/5	L O0B	W	2-430	1
0/6	L O0B	Y	,1-/34	1
0/7	L O0B	L w	-//1	1
0/8	L O4@	W	2-430	1
00/	L O4@	Y	,1-/34	1
000	L O4@	L w	,-//1	1
001	L O4A	W	3-6/6	1
002	L O4A	Y	,1-606	1
003	L O4A	L w	,-//0	1
004	L O4B	W	3-6/6	1
005	L O4B	Y	,1-606	1
006	L O4B	L w	-//0	1

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	L dl adqK adk	Chqdbslmm	L`fmhst cdZa+j,e\	Knb`slmmZs$ \
0	L O3B	W	1-336	5-4
1	L O3B	Y	/	5-4
2	L O3B	L w	,-//1	5-4
3	L O3B	W	1-336	5-4
4	L O3B	Y	/	5-4
5	L O3B	L w	,-///610	5-4

Bnl o`mx 9
Cdr Hfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Ldl adqK adk	Clqbslmm	L`fmhtcdZa-j,es	Knb`smmZs-$\
6	L O0@	W	0-607	0
7	L O0@	Y	/	0
8	L O0@	L w	,-///748	0
0/	L O0@	W	0-607	2
00	L O0@	Y	/	2
01	L O0@	L w	,-///748	2
02	L O0A	W	3-5/4	0
03	L O0A	Y	/	0
04	L O0A	L w	-///677	0
05	L O0A	W	3-5/4	2
06	L O0A	Y	/	2
07	L O0A	L w	-///677	2
08	L O1B	W	2-242	0
1/	L O1B	Y	/	0
10	L O1B	L w	-//0	0
11	L O1B	W	2-242	2
12	L O1B	Y	/	2
13	L O1B	L w	-//0	2
14	L O2@	W	6-205	1
15	L O2@	Y	/	1
16	L O2@	L w	,-//3	1
17	L O2@	W	6-205	4-4
18	L O2@	Y	/	4-4
2/	L O2@	L w	,-//3	4-4
20	L O2A	W	03-531	1
21	L O2A	Y	/	1
22	L O2A	L w	-//2	1
23	L O2A	W	03-531	4-4
24	L O2A	Y	/	4-4
25	L O2A	L w	-//2	4-4
26	L O2B	W	00-353	1
27	L O2B	Y	/	1
28	L O2B	L w	-//3	1
3/	L O2B	W	00-353	4-4
30	L O2B	Y	/	4-4
31	L O2B	L w	-//3	4-4
32	L O3@	W	6-205	1
33	L O3@	Y	/	1
34	L O3@	L w	,-//3	1
35	L O3@	W	6-205	4-4
36	L O3@	Y	/	4-4
37	L O3@	L w	,-//3	4-4
38	L O3A	W	03-531	1
4/	L O3A	Y	/	1
40	L O3A	L w	-//2	1
41	L O3A	W	03-531	4-4
42	L O3A	Y	/	4-4
43	L O3A	L w	-//2	4-4
44	L O3B	W	00-353	1
45	L O3B	Y	/	1
46	L O3B	L w	-//3	1
47	L O3B	W	00-353	4-4

Bnl o`mx	9	@f 11+1/13
Cdr hfimdq	9	8900 @L
Ina Mtl adq	9	Bgdbj dc Ax9`^^^^
LncdkM`l d	9	

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	L dl adqK`adk	Chqdbshmm	L`fmhst cdZa-j,es\	Knb`shmmZs$\
48	L O3B	Y	/	4-4
5/	L O3B	L w	-//3	4-4
50	L O1@	W	1-536	3
51	L O1@	Y	/	3
52	L O1@	L w	-//0	3
53	L O1A	W	2-682	3
54	L O1A	Y	/	3
55	L O1A	L w	,-///538	3
56	L O1B	W	2-185	3
57	L O1B	Y	/	3
58	L O1B	L w	,-//0	3
6/	L O3@	W	1-052	3
60	L O3@	Y	/	3
61	L O3@	L w	-//0	3
62	L O3A	W	2-625	3
63	L O3A	Y	/	3
64	L O3A	L w	,-///528	3
65	L O3B	W	2-/43	3
66	L O3B	Y	/	3
67	L O3B	L w	,-//0	3
68	L 71	W	7-541	0
7/	L 71	Y	/	0
70	L 71	L w	/	0
71	L 71	W	5-250	0
72	L 71	Y	/	0
73	L 71	L w	/	0
74	L O0@	W	-85	3-4
75	L O0@	Y	/	3-4
76	L O0@	L w	,-///37	3-4
77	L O0@	W	-85	4-4
78	L O0@	Y	/	4-4
8/	L O0@	L w	,-///37	4-4
80	L O0A	W	0-720	3-4
81	L O0A	Y	/	3-4
82	L O0A	L w	-///202	3-4
83	L O0A	W	0-720	4-4
84	L O0A	Y	/	4-4
85	L O0A	L w	-///202	4-4
86	L O1B	W	0-343	3-4
87	L O1B	Y	/	3-4
88	L O1B	L w	-///403	3-4
0//	L O1B	W	0-343	4-4
0/0	L O1B	Y	/	4-4
0/1	L O1B	L w	-///403	4-4
0/2	N UO	W	6-0	0
0/3	N UO	Y	/	0
0/4	N UO	L w	/	0
0/5	L O0B	W	4-324	1
0/6	L O0B	Y	/	1
0/7	L O0B	L w	-//0	1
0/8	L O4@	W	4-324	1
00/	L O4@	Y	/	1

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	L dl adqK adk	Clqdbshmm	L`fmhst cd Zka-j ,es\	Knb`shmmZes$\
000	L O4@	L w	,-//0	1
001	L O4A	W	3-/78	1
002	L O4A	Y	/	1
003	L O4A	L w	,-//1	1
004	L O4B	W	3-/78	1
005	L O4B	Y	/	1
006	L O4B	L w	-//1	1

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	L dl adqK adk	Clqdbshmm	L`fmhst cd Zka-j ,es\	Knb`shmmZes$\
0	L O3B	W	1-011	5-4
1	L O3B	Y	0-114	5-4
2	L O3B	L w	,-//1	5-4
3	L O3B	W	1-011	5-4
4	L O3B	Y	0-114	5-4
5	L O3B	L w	,-//1	5-4
6	L O0@	W	1-085	0
7	L O0@	Y	0-157	0
8	L O0@	L w	,-//0	0
0/	L O0@	W	1-085	2
00	L O0@	Y	0-157	2
01	L O0@	L w	,-//0	2
02	L O0A	W	3-123	0
03	L O0A	Y	1-334	0
04	L O0A	L w	,-///314	0
05	L O0A	W	3-123	2
06	L O0A	Y	1-334	2
07	L O0A	L w	,-///314	2
08	L O1B	W	0-566	0
1/	L O1B	Y	-857	0
10	L O1B	L w	-///824	0
11	L O1B	W	0-566	2
12	L O1B	Y	-857	2
13	L O1B	L w	-///824	2
14	L O2@	W	7-021	1
15	L O2@	Y	3-584	1
16	L O2@	L w	,-//3	1
17	L O2@	W	7-021	4-4
18	L O2@	Y	3-584	4-4
2/	L O2@	L w	,-//3	4-4
20	L O2A	W	02-2/3	1
21	L O2A	Y	6-570	1
22	L O2A	L w	,-//0	1
23	L O2A	W	02-2/3	4-4
24	L O2A	Y	6-570	4-4
25	L O2A	L w	,-//0	4-4
26	L O2B	W	5-706	1
27	L O2B	Y	2-825	1
28	L O2B	L w	-//3	1
3/	L O2B	W	5-706	4-4
30	L O2B	Y	2-825	4-4

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Ldladq K`adk	Chqdbshmm	L`fmhstcdZa-j,es\	Knb`shmm Zs$\
31	L O2B	L w	-//3	4-4
32	L O3@	W	7-021	1
33	L O3@	Y	3-584	1
34	L O3@	L w	,-//3	1
35	L O3@	W	7-021	4-4
36	L O3@	Y	3-584	4-4
37	L O3@	L w	,-//3	4-4
38	L O3A	W	02-2/3	1
4/	L O3A	Y	6-570	1
40	L O3A	L w	,-//0	1
41	L O3A	W	02-2/3	4-4
42	L O3A	Y	6-570	4-4
43	L O3A	L w	,-//0	4-4
44	L O3B	W	5-706	1
45	L O3B	Y	2-825	1
46	L O3B	L w	-//3	1
47	L O3B	W	5-706	4-4
48	L O3B	Y	2-825	4-4
5/	L O3B	L w	-//3	4-4
50	L O1@	W	1-462	3
51	L O1@	Y	0-375	3
52	L O1@	L w	-//0	3
53	L O1A	W	2-271	3
54	L O1A	Y	0-842	3
55	L O1A	L w	-///228	3
56	L O1B	W	1-256	3
57	L O1B	Y	0-256	3
58	L O1B	L w	,-//0	3
6/	L O3@	W	1-148	3
60	L O3@	Y	0-2/3	3
61	L O3@	L w	-//0	3
62	L O3A	W	2-258	3
63	L O3A	Y	0-834	3
64	L O3A	L w	-///227	3
65	L O3B	W	0-866	3
66	L O3B	Y	0-030	3
67	L O3B	L w	,-//0	3
68	L 71	W	0/-054	0
7/	L 71	Y	4-758	0
70	L 71	L w	/	0
71	L 71	W	4-40	0
72	L 71	Y	2-070	0
73	L 71	L w	/	0
74	L O0@	W	0-/34	3-4
75	L O0@	Y	-5/2	3-4
76	L O0@	L w	,-///411	3-4
77	L O0@	W	0-/34	4-4
78	L O0@	Y	-5/2	4-4
8/	L O0@	L w	,-///411	4-4
80	L O0A	W	0-55	3-4
81	L O0A	Y	-848	3-4
82	L O0A	L w	,-///056	3-4

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

RISA
A NEMETSCHEK COMPANY

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZka+j,es\	Knb`shmmZes$\
83	L O0A	W	0-55	4-4
84	L O0A	Y	-848	4-4
85	L O0A	L w	,-///056	4-4
86	L O1B	W	-778	3-4
87	L O1B	Y	-402	3-4
88	L O1B	L w	-///385	3-4
0//	L O1B	W	-778	4-4
0/0	L O1B	Y	-402	4-4
0/1	L O1B	L w	-///385	4-4
0/2	N UO	W	5-763	0
0/3	N UO	Y	2-858	0
0/4	N UO	L w	/	0
0/5	L O0B	W	4-178	1
0/6	L O0B	Y	2-/43	1
0/7	L O0B	L w	/	1
0/8	L O4@	W	4-178	1
00/	L O4@	Y	2-/43	1
000	L O4@	L w	/	1
001	L O4A	W	1-848	1
002	L O4A	Y	0-6/7	1
003	L O4A	L w	,-//1	1
004	L O4B	W	1-848	1
005	L O4B	Y	0-6/7	1
006	L O4B	L w	-//1	1

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZka+j,es\	Knb`shmmZes$\
0	L O3B	W	0-114	5-4
1	L O3B	Y	1-011	5-4
2	L O3B	L w	,-//1	5-4
3	L O3B	W	0-114	5-4
4	L O3B	Y	1-011	5-4
5	L O3B	L w	,-//1	5-4
6	L O0@	W	1-/74	0
7	L O0@	Y	2-501	0
8	L O0@	L w	,-//0	0
0/	L O0@	W	1-/74	2
00	L O0@	Y	2-501	2
01	L O0@	L w	,-//0	2
02	L O0A	W	0-707	0
03	L O0A	Y	2-038	0
04	L O0A	L w	,-//0	0
05	L O0A	W	0-707	2
06	L O0A	Y	2-038	2
07	L O0A	L w	,-//0	2
08	L O1B	W	-857	0
1/	L O1B	Y	0-566	0
10	L O1B	L w	-///824	0
11	L O1B	W	-857	2
12	L O1B	Y	0-566	2
13	L O1B	L w	-///824	2

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Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@lf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	L dl adq K adk	Chqcbslmm	L `f mhst cdZa+j,es	Knb`slmmZs$ \
14	L O2@	W	5-658	1
15	L O2@	Y	00-614	1
16	L O2@	L w	,-//2	1
17	L O2@	W	5-658	4-4
18	L O2@	Y	00-614	4-4
2/	L O2@	L w	,-//2	4-4
20	L O2A	W	5-/81	1
21	L O2A	Y	0/-441	1
22	L O2A	L w	,-//3	1
23	L O2A	W	5-/81	4-4
24	L O2A	Y	0/-441	4-4
25	L O2A	L w	,-//3	4-4
26	L O2B	W	2-825	1
27	L O2B	Y	5-706	1
28	L O2B	L w	-//3	1
3/	L O2B	W	2-825	4-4
30	L O2B	Y	5-706	4-4
31	L O2B	L w	-//3	4-4
32	L O3@	W	5-658	1
33	L O3@	Y	00-614	1
34	L O3@	L w	,-//2	1
35	L O3@	W	5-658	4-4
36	L O3@	Y	00-614	4-4
37	L O3@	L w	,-//2	4-4
38	L O3A	W	5-/81	1
4/	L O3A	Y	0/-441	1
40	L O3A	L w	,-//3	1
41	L O3A	W	5-/81	4-4
42	L O3A	Y	0/-441	4-4
43	L O3A	L w	,-//3	4-4
44	L O3B	W	2-825	1
45	L O3B	Y	5-706	1
46	L O3B	L w	-//3	1
47	L O3B	W	2-825	4-4
48	L O3B	Y	5-706	4-4
5/	L O3B	L w	-//3	4-4
50	L O1@	W	0-70	3
51	L O1@	Y	2-024	3
52	L O1@	L w	-///8/4	3
53	L O1A	W	0-6/3	3
54	L O1A	Y	1-841	3
55	L O1A	L w	-//0	3
56	L O1B	W	0-256	3
57	L O1B	Y	1-256	3
58	L O1B	L w	,-//0	3
6/	L O3@	W	0-64	3
60	L O3@	Y	2-/2	3
61	L O3@	L w	-///764	3
62	L O3A	W	0-5/3	3
63	L O3A	Y	1-668	3
64	L O3A	L w	-//0	3
65	L O3B	W	0-030	3

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`fmhst cdZk,j,es\	Knb`shmmZes$\
66	L O3B	Y	0-866	3
67	L O3B	L w	,-// 0	3
68	L 71	W	4-758	0
7/	L 71	Y	0/ -054	0
70	L 71	L w	/	0
71	L 71	W	2-070	0
72	L 71	Y	4-40	0
73	L 71	L w	/	0
74	L O0@	W	-74	3-4
75	L O0@	Y	0-361	3-4
76	L O0@	L w	,-/ / / 314	3-4
77	L O0@	W	-74	4-4
78	L O0@	Y	0-361	4-4
8/	L O0@	L w	,-/ / / 314	4-4
80	L O0A	W	-66	3-4
81	L O0A	Y	0-222	3-4
82	L O0A	L w	,-/ / / 384	3-4
83	L O0A	W	-66	4-4
84	L O0A	Y	0-222	4-4
85	L O0A	L w	,-/ / / 384	4-4
86	L O1B	W	-402	3-4
87	L O1B	Y	-778	3-4
88	L O1B	L w	-/ / / 385	3-4
0/ /	L O1B	W	-402	4-4
0/ 0	L O1B	Y	-778	4-4
0/ 1	L O1B	L w	-/ / / 385	4-4
0/ 2	N UO	W	2-858	0
0/ 3	N UO	Y	5-763	0
0/ 4	N UO	L w	/	0
0/ 5	L O0B	W	1-606	1
0/ 6	L O0B	Y	3-6/ 6	1
0/ 7	L O0B	L w	,-// 0	1
0/ 8	L O4@	W	1-606	1
00/	L O4@	Y	3-6/ 6	1
000	L O4@	L w	-/ / 0	1
001	L O4A	W	1-/ 34	1
002	L O4A	Y	2-430	1
003	L O4A	L w	,-/ / 1	1
004	L O4B	W	1-/ 34	1
005	L O4B	Y	2-430	1
006	L O4B	L w	-/ / 1	1

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	L dl adqK adk	Chqdbshmm	L`fmhst cdZk,j,es\	Knb`shmmZes$\
0	L O3B	W	/	5-4
1	L O3B	Y	1-336	5-4
2	L O3B	L w	,-/ / / 610	5-4
3	L O3B	W	/	5-4
4	L O3B	Y	1-336	5-4
5	L O3B	L w	,-/ / 1	5-4
6	L O0@	W	/	0

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Ldl adqK adk	Clqdbslmm	L`fmls cdlZa-j,es\	Knb`slmmZs$\
7	L O0@	Y	3-877	0
8	L O0@	L w	/	0
0/	L O0@	W	/	2
00	L O0@	Y	3-877	2
01	L O0@	L w	/	2
02	L O0A	W	/	0
03	L O0A	Y	1-0	0
04	L O0A	L w	,-///876	0
05	L O0A	W	/	2
06	L O0A	Y	1-0	2
07	L O0A	L w	,-///876	2
08	L O1B	W	/	0
1/	L O1B	Y	2-242	0
10	L O1B	L w	-//0	0
11	L O1B	W	/	2
12	L O1B	Y	2-242	2
13	L O1B	L w	-//0	2
14	L O2@	W	/	1
15	L O2@	Y	04-501	1
16	L O2@	L w	/	1
17	L O2@	W	/	4-4
18	L O2@	Y	04-501	4-4
2/	L O2@	L w	/	4-4
20	L O2A	W	/	1
21	L O2A	Y	7-176	1
22	L O2A	L w	,-//3	1
23	L O2A	W	/	4-4
24	L O2A	Y	7-176	4-4
25	L O2A	L w	,-//3	4-4
26	L O2B	W	/	1
27	L O2B	Y	00-353	1
28	L O2B	L w	-//3	1
3/	L O2B	W	/	4-4
30	L O2B	Y	00-353	4-4
31	L O2B	L w	-//3	4-4
32	L O3@	W	/	1
33	L O3@	Y	04-501	1
34	L O3@	L w	/	1
35	L O3@	W	/	4-4
36	L O3@	Y	04-501	4-4
37	L O3@	L w	/	4-4
38	L O3A	W	/	1
4/	L O3A	Y	7-176	1
40	L O3A	L w	,-//3	1
41	L O3A	W	/	4-4
42	L O3A	Y	7-176	4-4
43	L O3A	L w	,-//3	4-4
44	L O3B	W	/	1
45	L O3B	Y	00-353	1
46	L O3B	L w	-//3	1
47	L O3B	W	/	4-4
48	L O3B	Y	00-353	4-4

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Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbjdc Ax9`^^^^

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	L dl adqK adk	Chqdbshnm	L`fmhstcdZk-i,e\	Knb`shmnZs$\
5/	L O3B	L w	-//3	4-4
50	L O1@	W	/	3
51	L O1@	Y	2-833	3
52	L O1@	L w	/	3
53	L O1A	W	/	3
54	L O1A	Y	1-687	3
55	L O1A	L w	-//0	3
56	L O1B	W	/	3
57	L O1B	Y	2-185	3
58	L O1B	L w	,-//0	3
6/	L O3@	W	/	3
60	L O3@	Y	2-833	3
61	L O3@	L w	/	3
62	L O3A	W	/	3
63	L O3A	Y	1-260	3
64	L O3A	L w	-//0	3
65	L O3B	W	/	3
66	L O3B	Y	2-/43	3
67	L O3B	L w	,-//0	3
68	L 71	W	/	0
7/	L 71	Y	7-541	0
70	L 71	L w	/	0
71	L 71	W	/	0
72	L 71	Y	5-250	0
73	L 71	L w	/	0
74	L O0@	W	/	3-4
75	L O0@	Y	0-836	3-4
76	L O0@	L w	/	3-4
77	L O0@	W	/	4-4
78	L O0@	Y	0-836	4-4
8/	L O0@	L w	/	4-4
80	L O0A	W	/	3-4
81	L O0A	Y	0-/65	3-4
82	L O0A	L w	,-///4/5	3-4
83	L O0A	W	/	4-4
84	L O0A	Y	0-/65	4-4
85	L O0A	L w	,-///4/5	4-4
86	L O1B	W	/	3-4
87	L O1B	Y	0-343	3-4
88	L O1B	L w	-///403	3-4
0//	L O1B	W	/	4-4
0/0	L O1B	Y	0-343	4-4
0/1	L O1B	L w	-///403	4-4
0/2	N UO	W	/	0
0/3	N UO	Y	6-0	0
0/4	N UO	L w	/	0
0/5	L O0B	W	/	1
0/6	L O0B	Y	3-/78	1
0/7	L O0B	L w	,-//1	1
0/8	L O4@	W	/	1
00/	L O4@	Y	3-/78	1
000	L O4@	L w	-//1	1

Bnl o`mx 9
Cdr hfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@ f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa-j,es\	Knb`shmmZs$\
001	L O4A	W	/	1
002	L O4A	Y	4-324	1
003	L O4A	L w	,-//0	1
004	L O4B	W	/	1
005	L O4B	Y	4-324	1
006	L O4B	L w	-//0	1

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa-j,es\	Knb`shmmZs$\
0	L O3B	W	,0-111	5-4
1	L O3B	Y	1-005	5-4
2	L O3B	L w	-///346	5-4
3	L O3B	W	,0-111	5-4
4	L O3B	Y	1-005	5-4
5	L O3B	L w	,-//1	5-4
6	L O0@	W	,1-/74	0
7	L O0@	Y	2-501	0
8	L O0@	L w	-//0	0
0/	L O0@	W	,1-/74	2
00	L O0@	Y	2-501	2
01	L O0@	L w	-//0	2
02	L O0A	W	,-8/7	0
03	L O0A	Y	0-462	0
04	L O0A	L w	,-///783	0
05	L O0A	W	,-8/7	2
06	L O0A	Y	0-462	2
07	L O0A	L w	,-///783	2
08	L O1B	W	,1-273	0
1/	L O1B	Y	3-02	0
10	L O1B	L w	-///506	0
11	L O1B	W	,1-273	2
12	L O1B	Y	3-02	2
13	L O1B	L w	-///506	2
14	L O2@	W	,5-658	1
15	L O2@	Y	00-614	1
16	L O2@	L w	-//2	1
17	L O2@	W	,5-658	4-4
18	L O2@	Y	00-614	4-4
2/	L O2@	L w	-//2	4-4
20	L O2A	W	,2-672	1
21	L O2A	Y	5-442	1
22	L O2A	L w	,-//3	1
23	L O2A	W	,2-672	4-4
24	L O2A	Y	5-442	4-4
25	L O2A	L w	,-//3	4-4
26	L O2B	W	,6-417	1
27	L O2B	Y	02-/28	1
28	L O2B	L w	-//1	1
3/	L O2B	W	,6-417	4-4
30	L O2B	Y	02-/28	4-4
31	L O2B	L w	-//1	4-4

Bnl o`mx   9
Cdr lfimdq 9
Ina Mtl adq 9
Lncdk M`l d 9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Ldl adqK`adk	Clqdbslmm	L`fmhst cdZa+j,es	Knb`smmZs$\
32	L O3@	W	,5-658	1
33	L O3@	Y	00-614	1
34	L O3@	L w	-//2	1
35	L O3@	W	,5-658	4-4
36	L O3@	Y	00-614	4-4
37	L O3@	L w	-//2	4-4
38	L O3A	W	,2-672	1
4/	L O3A	Y	5-442	1
40	L O3A	L w	,-//3	1
41	L O3A	W	,2-672	4-4
42	L O3A	Y	5-442	4-4
43	L O3A	L w	,-//3	4-4
44	L O3B	W	,6-417	1
45	L O3B	Y	02-/28	1
46	L O3B	L w	-//1	1
47	L O3B	W	,6-417	4-4
48	L O3B	Y	02-/28	4-4
5/	L O3B	L w	-//1	4-4
50	L O1@	W	,0-70	3
51	L O1@	Y	2-024	3
52	L O1@	L w	,-///8/4	3
53	L O1A	W	,0-232	3
54	L O1A	Y	1-215	3
55	L O1A	L w	-//0	3
56	L O1B	W	,0-818	3
57	L O1B	Y	2-230	3
58	L O1B	L w	,-///388	3
6/	L O3@	W	,0-64	3
60	L O3@	Y	2-/2	3
61	L O3@	L w	,-///764	3
62	L O3A	W	,0-0/7	3
63	L O3A	Y	0-81	3
64	L O3A	L w	-//0	3
65	L O3B	W	,0-802	3
66	L O3B	Y	2-202	3
67	L O3B	L w	,-///384	3
68	L 71	W	,1-672	0
7/	L 71	Y	3-710	0
70	L 71	L w	/	0
71	L 71	W	,2-07	0
72	L 71	Y	4-4/6	0
73	L 71	L w	/	0
74	L O0@	W	,-74	3-4
75	L O0@	Y	0-361	3-4
76	L O0@	L w	-///314	3-4
77	L O0@	W	,-74	4-4
78	L O0@	Y	0-361	4-4
8/	L O0@	L w	-///314	4-4
80	L O0A	W	,-384	3-4
81	L O0A	Y	-746	3-4
82	L O0A	L w	,-///376	3-4
83	L O0A	W	,-384	4-4

Bnl o`mx 9   @lf 11+1/13
Cdr hfimdq 9   8900 @L
Ina Mtl adq 9   Bgdbj dc Ax9`^^^^
LncdkM`ld 9

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Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`f mhst cdl Za+j,e2	Knb`shmmZes$ \
84	L O0A	Y	-746	4-4
85	L O0A	L w	,-///376	4-4
86	L O1B	W	,,-83	3-4
87	L O1B	Y	0-518	3-4
88	L O1B	L w	-///133	3-4
0//	L O1B	W	,,-83	4-4
0/0	L O1B	Y	0-518	4-4
0/1	L O1B	L w	-///133	4-4
0/2	N UO	W	,2-020	0
0/3	N UO	Y	4-313	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,0-6/7	1
0/6	L O0B	Y	1-848	1
0/7	L O0B	L w	,-//1	1
0/8	L O4@	W	,0-6/7	1
00/	L O4@	Y	1-848	1
000	L O4@	L w	-//1	1
001	L O4A	W	,2-/43	1
002	L O4A	Y	4-178	1
003	L O4A	L w	/	1
004	L O4B	W	,2-/43	1
005	L O4B	Y	4-178	1
006	L O4B	L w	/	1

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	L dl adqK adk	Chqdbshmm	L`f mhst cdl Za+j,e2	Knb`shmmZes$ \
0	L O3B	W	,1-005	5-4
1	L O3B	Y	0-111	5-4
2	L O3B	L w	-//1	5-4
3	L O3B	W	,1-005	5-4
4	L O3B	Y	0-111	5-4
5	L O3B	L w	,-///346	5-4
6	L O0@	W	,1-085	0
7	L O0@	Y	0-157	0
8	L O0@	L w	-//0	0
0/	L O0@	W	,1-085	2
00	L O0@	Y	0-157	2
01	L O0@	L w	-//0	2
02	L O0A	W	,1-547	0
03	L O0A	Y	0-423	0
04	L O0A	L w	,-//0	0
05	L O0A	W	,1-547	2
06	L O0A	Y	0-423	2
07	L O0A	L w	,-//0	2
08	L O1B	W	,3-02	0
1/	L O1B	Y	1-273	0
10	L O1B	L w	,-///506	0
11	L O1B	W	,3-02	2
12	L O1B	Y	1-273	2
13	L O1B	L w	,-///506	2
14	L O2@	W	,7-021	1

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Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
Lncdk M`ld   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Ldladq K`adk	Chqdbshnm	L`fmhstcdZa+j,es\	Knb`shnmZes$\
15	L O2@	Y	3-584	1
16	L O2@	Lw	-//3	1
17	L O2@	W	,7-021	4-4
18	L O2@	Y	3-584	4-4
2/	L O2@	Lw	-//3	4-4
20	L O2A	W	,8-2/4	1
21	L O2A	Y	4-261	1
22	L O2A	Lw	,-//3	1
23	L O2A	W	,8-2/4	4-4
24	L O2A	Y	4-261	4-4
25	L O2A	Lw	,-//3	4-4
26	L O2B	W	,02-/28	1
27	L O2B	Y	6-417	1
28	L O2B	Lw	,-//1	1
3/	L O2B	W	,02-/28	4-4
30	L O2B	Y	6-417	4-4
31	L O2B	Lw	,-//1	4-4
32	L O3@	W	,7-021	1
33	L O3@	Y	3-584	1
34	L O3@	Lw	-//3	1
35	L O3@	W	,7-021	4-4
36	L O3@	Y	3-584	4-4
37	L O3@	Lw	-//3	4-4
38	L O3A	W	,8-2/4	1
4/	L O3A	Y	4-261	1
40	L O3A	Lw	,-//3	1
41	L O3A	W	,8-2/4	4-4
42	L O3A	Y	4-261	4-4
43	L O3A	Lw	,-//3	4-4
44	L O3B	W	,02-/28	1
45	L O3B	Y	6-417	1
46	L O3B	Lw	,-//1	1
47	L O3B	W	,02-/28	4-4
48	L O3B	Y	6-417	4-4
5/	L O3B	Lw	,-//1	4-4
50	L O1@	W	,1-462	3
51	L O1@	Y	0-375	3
52	L O1@	Lw	,-//0	3
53	L O1A	W	,1-645	3
54	L O1A	Y	0-480	3
55	L O1A	Lw	-//0	3
56	L O1B	W	,2-230	3
57	L O1B	Y	0-818	3
58	L O1B	Lw	-///388	3
6/	L O3@	W	,1-148	3
60	L O3@	Y	0-2/3	3
61	L O3@	Lw	,-//0	3
62	L O3A	W	,1-400	3
63	L O3A	Y	0-34	3
64	L O3A	Lw	-//0	3
65	L O3B	W	,2-202	3
66	L O3B	Y	0-802	3

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	L dl adqK adk	Chqdbshmm	L`f mht cdZa-j,e\	Knb`shmnZs$\
67	L O3B	L w	-///384	3
68	L 71	W	,3-710	0
7/	L 71	Y	1-672	0
70	L 71	L w	/	0
71	L 71	W	,4-4/6	0
72	L 71	Y	2-07	0
73	L 71	L w	/	0
74	L O0@	W	,0-/34	3-4
75	L O0@	Y	-5/2	3-4
76	L O0@	L w	-///411	3-4
77	L O0@	W	,0-/34	4-4
78	L O0@	Y	-5/2	4-4
8/	L O0@	L w	-///411	4-4
80	L O0A	W	,0-074	3-4
81	L O0A	Y	-573	3-4
82	L O0A	L w	,-///413	3-4
83	L O0A	W	,0-074	4-4
84	L O0A	Y	-573	4-4
85	L O0A	L w	,-///413	4-4
86	L O1B	W	,0-518	3-4
87	L O1B	Y	-83	3-4
88	L O1B	L w	,-///133	3-4
0//	L O1B	W	,0-518	4-4
0/0	L O1B	Y	-83	4-4
0/1	L O1B	L w	,-///133	4-4
0/2	N UO	W	,4-313	0
0/3	N UO	Y	2-020	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,2-430	1
0/6	L O0B	Y	1-/34	1
0/7	L O0B	L w	,-//1	1
0/8	L O4@	W	,2-430	1
00/	L O4@	Y	1-/34	1
000	L O4@	L w	-//1	1
001	L O4A	W	,3-6/6	1
002	L O4A	Y	1-606	1
003	L O4A	L w	-//0	1
004	L O4B	W	,3-6/6	1
005	L O4B	Y	1-606	1
006	L O4B	L w	,-//0	1

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	L dl adqK adk	Chqdbshmm	L`f mht cdZa-j,e\	Knb`shmnZs$\
0	L O3B	W	,1-336	5-4
1	L O3B	Y	/	5-4
2	L O3B	L w	-//1	5-4
3	L O3B	W	,1-336	5-4
4	L O3B	Y	/	5-4
5	L O3B	L w	-///610	5-4
6	L O0@	W	,0-607	0
7	L O0@	Y	/	0

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`ld   9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Ldladq K`adk	Clrdbshmm	L`fmhst cdZa+j,es\	Knb`shmm Z 0rs$ \
8	L O0@	Lw	-///748	0
0/	L O0@	W	,0-607	2
00	L O0@	Y	/	2
01	L O0@	Lw	-///748	2
02	L O0A	W	,3-5/4	0
03	L O0A	Y	/	0
04	L O0A	Lw	,-///677	0
05	L O0A	W	,3-5/4	2
06	L O0A	Y	/	2
07	L O0A	Lw	,-///677	2
08	L O1B	W	,2-242	0
1/	L O1B	Y	/	0
10	L O1B	Lw	,-//0	0
11	L O1B	W	,2-242	2
12	L O1B	Y	/	2
13	L O1B	Lw	,-//0	2
14	L O2@	W	,6-205	1
15	L O2@	Y	/	1
16	L O2@	Lw	-//3	1
17	L O2@	W	,6-205	4-4
18	L O2@	Y	/	4-4
2/	L O2@	Lw	-//3	4-4
20	L O2A	W	,03-531	1
21	L O2A	Y	/	1
22	L O2A	Lw	,-//2	1
23	L O2A	W	,03-531	4-4
24	L O2A	Y	/	4-4
25	L O2A	Lw	,-//2	4-4
26	L O2B	W	,00-353	1
27	L O2B	Y	/	1
28	L O2B	Lw	,-//3	1
3/	L O2B	W	,00-353	4-4
30	L O2B	Y	/	4-4
31	L O2B	Lw	,-//3	4-4
32	L O3@	W	,6-205	1
33	L O3@	Y	/	1
34	L O3@	Lw	-//3	1
35	L O3@	W	,6-205	4-4
36	L O3@	Y	/	4-4
37	L O3@	Lw	-//3	4-4
38	L O3A	W	,03-531	1
4/	L O3A	Y	/	1
40	L O3A	Lw	,-//2	1
41	L O3A	W	,03-531	4-4
42	L O3A	Y	/	4-4
43	L O3A	Lw	,-//2	4-4
44	L O3B	W	,00-353	1
45	L O3B	Y	/	1
46	L O3B	Lw	,-//3	1
47	L O3B	W	,00-353	4-4
48	L O3B	Y	/	4-4
5/	L O3B	Lw	,-//3	4-4

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@f 11+1/13
8900 @L
Bgdbjdc Ax9^^^^

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Ldl adqK adk	Cfqbsmm	L`fmlst cdZa+j,es	Knb`smmZs$\
50	L O1@	W	,1-536	3
51	L O1@	Y	/	3
52	L O1@	L w	,-//0	3
53	L O1A	W	,2-682	3
54	L O1A	Y	/	3
55	L O1A	L w	-///538	3
56	L O1B	W	,2-185	3
57	L O1B	Y	/	3
58	L O1B	L w	-//0	3
6/	L O3@	W	,1-052	3
60	L O3@	Y	/	3
61	L O3@	L w	,-//0	3
62	L O3A	W	,2-625	3
63	L O3A	Y	/	3
64	L O3A	L w	-///528	3
65	L O3B	W	,2-/43	3
66	L O3B	Y	/	3
67	L O3B	L w	-//0	3
68	L 71	W	,7-541	0
7/	L 71	Y	/	0
70	L 71	L w	/	0
71	L 71	W	,5-250	0
72	L 71	Y	/	0
73	L 71	L w	/	0
74	L O0@	W	,-85	3-4
75	L O0@	Y	/	3-4
76	L O0@	L w	-///37	3-4
77	L O0@	W	,-85	4-4
78	L O0@	Y	/	4-4
8/	L O0@	L w	-///37	4-4
80	L O0A	W	,0-720	3-4
81	L O0A	Y	/	3-4
82	L O0A	L w	,-///202	3-4
83	L O0A	W	,0-720	4-4
84	L O0A	Y	/	4-4
85	L O0A	L w	,-///202	4-4
86	L O1B	W	,0-343	3-4
87	L O1B	Y	/	3-4
88	L O1B	L w	,-///403	3-4
0//	L O1B	W	,0-343	4-4
0/0	L O1B	Y	/	4-4
0/1	L O1B	L w	,-///403	4-4
0/2	N UO	W	,6-0	0
0/3	N UO	Y	/	0
0/4	N UO	L w	/	0
0/5	L O0B	W	,4-324	1
0/6	L O0B	Y	/	1
0/7	L O0B	L w	,-//0	1
0/8	L O4@	W	,4-324	1
00/	L O4@	Y	/	1
000	L O4@	L w	-//0	1
001	L O4A	W	,3-/78	1

BnlÖo`mx   9
CdrÜÖÜÖÜ   9
InaÖMtlÜadq 9
LÖncdkMÖÖld 9

@Öf 11+1/13
8900 @L
BgdbjÖdcÖAx9`^^^^

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Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	LÖdlÖadqKÖadk	CÿqdbsÜmm	LÖ`fÖmÜstÖcdZÖa+jÖeÖ	KnbÖ`smmÖZÖs$Ö\
002	LÖO4A	Y	/	1
003	LÖO4A	LÖw	-//1	1
004	LÖO4B	W	,3-/78	1
005	LÖO4B	Y	/	1
006	LÖO4B	LÖw	,-//1	1

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	LÖdlÖadqKÖadk	CÿqdbsÜmm	LÖ`fÖmÜstÖcdZÖa+jÖeÖ	KnbÖ`smmÖZÖs$Ö\
0	LÖO3B	W	,1-011	5-4
1	LÖO3B	Y	,0-114	5-4
2	LÖO3B	LÖw	-//1	5-4
3	LÖO3B	W	,1-011	5-4
4	LÖO3B	Y	,0-114	5-4
5	LÖO3B	LÖw	-//1	5-4
6	LÖO0@	W	,1-085	0
7	LÖO0@	Y	,0-157	0
8	LÖO0@	LÖw	-//0	0
0/	LÖO0@	W	,1-085	2
00	LÖO0@	Y	,0-157	2
01	LÖO0@	LÖw	-//0	2
02	LÖO0A	W	,3-123	0
03	LÖO0A	Y	,1-334	0
04	LÖO0A	LÖw	-///314	0
05	LÖO0A	W	,3-123	2
06	LÖO0A	Y	,1-334	2
07	LÖO0A	LÖw	-///314	2
08	LÖO1B	W	,0-566	0
1/	LÖO1B	Y	,-857	0
10	LÖO1B	LÖw	,-///824	0
11	LÖO1B	W	,0-566	2
12	LÖO1B	Y	,-857	2
13	LÖO1B	LÖw	,-///824	2
14	LÖO2@	W	,7-021	1
15	LÖO2@	Y	,3-584	1
16	LÖO2@	LÖw	-//3	1
17	LÖO2@	W	,7-021	4-4
18	LÖO2@	Y	,3-584	4-4
2/	LÖO2@	LÖw	-//3	4-4
20	LÖO2A	W	,02-2/3	1
21	LÖO2A	Y	,6-570	1
22	LÖO2A	LÖw	-//0	1
23	LÖO2A	W	,02-2/3	4-4
24	LÖO2A	Y	,6-570	4-4
25	LÖO2A	LÖw	-//0	4-4
26	LÖO2B	W	,5-706	1
27	LÖO2B	Y	,2-825	1
28	LÖO2B	LÖw	,-//3	1
3/	LÖO2B	W	,5-706	4-4
30	LÖO2B	Y	,2-825	4-4
31	LÖO2B	LÖw	,-//3	4-4
32	LÖO3@	W	,7-021	1

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshnm	L`fmhstcdZa-j,es\	Knb`shnmZes$\
33	L O3@	Y	,3-584	1
34	L O3@	L w	-/ / 3	1
35	L O3@	W	,7-021	4-4
36	L O3@	Y	,3-584	4-4
37	L O3@	L w	-/ / 3	4-4
38	L O3A	W	,02-2/ 3	1
4/	L O3A	Y	,6-570	1
40	L O3A	L w	-/ / 0	1
41	L O3A	W	,02-2/ 3	4-4
42	L O3A	Y	,6-570	4-4
43	L O3A	L w	-/ / 0	4-4
44	L O3B	W	,5-706	1
45	L O3B	Y	,2-825	1
46	L O3B	L w	,-/ / 3	1
47	L O3B	W	,5-706	4-4
48	L O3B	Y	,2-825	4-4
5/	L O3B	L w	,-/ / 3	4-4
50	L O1@	W	,1-462	3
51	L O1@	Y	,0-375	3
52	L O1@	L w	,-/ / 0	3
53	L O1A	W	,2-271	3
54	L O1A	Y	,0-842	3
55	L O1A	L w	,-/ / /228	3
56	L O1B	W	,1-256	3
57	L O1B	Y	,0-256	3
58	L O1B	L w	-/ / 0	3
6/	L O3@	W	,1-148	3
60	L O3@	Y	,0-2/ 3	3
61	L O3@	L w	,-/ / 0	3
62	L O3A	W	,2-258	3
63	L O3A	Y	,0-834	3
64	L O3A	L w	,-/ / /227	3
65	L O3B	W	,0-866	3
66	L O3B	Y	,0-030	3
67	L O3B	L w	-/ / 0	3
68	L 71	W	,0/ -054	0
7/	L 71	Y	,4-758	0
70	L 71	L w	/	0
71	L 71	W	,4-40	0
72	L 71	Y	,2-070	0
73	L 71	L w	/	0
74	L O0@	W	,0-/ 34	3-4
75	L O0@	Y	,-5/ 2	3-4
76	L O0@	L w	-/ / /411	3-4
77	L O0@	W	,0-/ 34	4-4
78	L O0@	Y	,-5/ 2	4-4
8/	L O0@	L w	-/ / /411	4-4
80	L O0A	W	,0-55	3-4
81	L O0A	Y	,-848	3-4
82	L O0A	L w	-/ / /056	3-4
83	L O0A	W	,0-55	4-4
84	L O0A	Y	,-848	4-4

Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@jf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Ldl adqK`adk	Cbqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZs$\
85	L O0A	Lw	-///056	4-4
86	L O1B	W	,-778	3-4
87	L O1B	Y	,-402	3-4
88	L O1B	Lw	,-///385	3-4
0//	L O1B	W	,-778	4-4
0/0	L O1B	Y	,-402	4-4
0/1	L O1B	Lw	,-///385	4-4
0/2	NUO	W	,5-763	0
0/3	NUO	Y	,2-858	0
0/4	NUO	Lw	/	0
0/5	L O0B	W	,4-178	1
0/6	L O0B	Y	,2-/43	1
0/7	L O0B	Lw	/	1
0/8	L O4@	W	,4-178	1
00/	L O4@	Y	,2-/43	1
000	L O4@	Lw	/	1
001	L O4A	W	,1-848	1
002	L O4A	Y	,0-6/7	1
003	L O4A	Lw	-//1	1
004	L O4B	W	,1-848	1
005	L O4B	Y	,0-6/7	1
006	L O4B	Lw	,-//1	1

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Ldl adqK`adk	Cbqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZs$\
0	L O3B	W	,0-114	5-4
1	L O3B	Y	,1-011	5-4
2	L O3B	Lw	-//1	5-4
3	L O3B	W	,0-114	5-4
4	L O3B	Y	,1-011	5-4
5	L O3B	Lw	-//1	5-4
6	L O0@	W	,1-/74	0
7	L O0@	Y	,2-501	0
8	L O0@	Lw	-//0	0
0/	L O0@	W	,1-/74	2
00	L O0@	Y	,2-501	2
01	L O0@	Lw	-//0	2
02	L O0A	W	,0-707	0
03	L O0A	Y	,2-038	0
04	L O0A	Lw	-//0	0
05	L O0A	W	,0-707	2
06	L O0A	Y	,2-038	2
07	L O0A	Lw	-//0	2
08	L O1B	W	,-857	0
1/	L O1B	Y	,0-566	0
10	L O1B	Lw	,-///824	0
11	L O1B	W	,-857	2
12	L O1B	Y	,0-566	2
13	L O1B	Lw	,-///824	2
14	L O2@	W	,5-658	1
15	L O2@	Y	,00-614	1

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

@tf 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	L dl adqK`adk	Chqdbshmm	L`fmht cdZa+j,es\	Knb`shmmZs$\
16	L O2@	L w	-//2	1
17	L O2@	W	,5-658	4-4
18	L O2@	Y	,00-614	4-4
2/	L O2@	L w	-//2	4-4
20	L O2A	W	,5-/81	1
21	L O2A	Y	,0/-441	1
22	L O2A	L w	-//3	1
23	L O2A	W	,5-/81	4-4
24	L O2A	Y	,0/-441	4-4
25	L O2A	L w	-//3	4-4
26	L O2B	W	,2-825	1
27	L O2B	Y	,5-706	1
28	L O2B	L w	,-//3	1
3/	L O2B	W	,2-825	4-4
30	L O2B	Y	,5-706	4-4
31	L O2B	L w	,-//3	4-4
32	L O3@	W	,5-658	1
33	L O3@	Y	,00-614	1
34	L O3@	L w	-//2	1
35	L O3@	W	,5-658	4-4
36	L O3@	Y	,00-614	4-4
37	L O3@	L w	-//2	4-4
38	L O3A	W	,5-/81	1
4/	L O3A	Y	,0/-441	1
40	L O3A	L w	-//3	1
41	L O3A	W	,5-/81	4-4
42	L O3A	Y	,0/-441	4-4
43	L O3A	L w	-//3	4-4
44	L O3B	W	,2-825	1
45	L O3B	Y	,5-706	1
46	L O3B	L w	,-//3	1
47	L O3B	W	,2-825	4-4
48	L O3B	Y	,5-706	4-4
5/	L O3B	L w	,-//3	4-4
50	L O1@	W	,0-70	3
51	L O1@	Y	,2-024	3
52	L O1@	L w	,-///8/4	3
53	L O1A	W	,0-6/3	3
54	L O1A	Y	,1-841	3
55	L O1A	L w	,-//0	3
56	L O1B	W	,0-256	3
57	L O1B	Y	,1-256	3
58	L O1B	L w	-//0	3
6/	L O3@	W	,0-64	3
60	L O3@	Y	,2-/2	3
61	L O3@	L w	,-///764	3
62	L O3A	W	,0-5/3	3
63	L O3A	Y	,1-668	3
64	L O3A	L w	,-//0	3
65	L O3B	W	,0-030	3
66	L O3B	Y	,0-866	3
67	L O3B	L w	-//0	3

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Bnl o`mx   9
Cdr himdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	L dl adqK`adk	Chqdbshmm	L`f mhst cdZa`j,es\	Knb`shmmZs$\
68	L 71	W	,4-758	0
7/	L 71	Y	,0/-054	0
70	L 71	L w	/	0
71	L 71	W	,2-070	0
72	L 71	Y	,4-40	0
73	L 71	L w	/	0
74	L OO@	W	,-74	3-4
75	L OO@	Y	,0-361	3-4
76	L OO@	L w	-///314	3-4
77	L OO@	W	,-74	4-4
78	L OO@	Y	,0-361	4-4
8/	L OO@	L w	-///314	4-4
80	L OOA	W	,-66	3-4
81	L OOA	Y	,0-222	3-4
82	L OOA	L w	-///384	3-4
83	L OOA	W	,-66	4-4
84	L OOA	Y	,0-222	4-4
85	L OOA	L w	-///384	4-4
86	L O1B	W	,-402	3-4
87	L O1B	Y	,-778	3-4
88	L O1B	L w	,-///385	3-4
0//	L O1B	W	,-402	4-4
0/0	L O1B	Y	,-778	4-4
0/1	L O1B	L w	,-///385	4-4
0/2	N UO	W	,2-858	0
0/3	N UO	Y	,5-763	0
0/4	N UO	L w	/	0
0/5	L OOB	W	,1-606	1
0/6	L OOB	Y	,3-6/6	1
0/7	L OOB	L w	-//0	1
0/8	L O4@	W	,1-606	1
00/	L O4@	Y	,3-6/6	1
000	L O4@	L w	,-//0	1
001	L O4A	W	,1-/34	1
002	L O4A	Y	,2-430	1
003	L O4A	L w	-//1	1
004	L O4B	W	,1-/34	1
005	L O4B	Y	,2-430	1
006	L O4B	L w	,-//1	1

Member Point Loads (BLC 77 : Lm1)

	L dl adqK`adk	Chqdbshmm	L`f mhst cdZa`j,es\	Knb`shmmZs$\
0	L 51@	X	,4//	$ 0//

Member Point Loads (BLC 78 : Lm2)

	L dl adqK`adk	Chqdbshmm	L`f mhst cdZa`j,es\	Knb`shmmZs$\
0	L 63	X	,4//	$ 0//

Member Point Loads (BLC 79 : Lv1)

	L dl adqK`adk	Chqdbshmm	L`f mhst cdZa`j,es\	Knb`shmmZs$\

Bnl o`mx   9
Cdr lfimdq   9   @f 11+1/13
Ina Mtl adq   9   8900 @L
L ncdkM`l d   9   Bgdbj dc Ax9^^^^

Member Point Loads (BLC 79 : Lv1) (Continued)

	L dl adqK adk	Clqdbslmm	L`fmhscdZ`-j,es	Knb`shmnZes$\
0	L 23@	X	,14/	/

Member Point Loads (BLC 80 : Lv2)

	L dl adqK adk	Clqdbslmm	L`fmhscdZ`-j,es	Knb`shmnZes$\
0	L 23@	X	,14/	$ 4/

Member Point Loads (BLC 81 : Antenna Ev)

	L dl adqK adk	Clqdbslmm	L`fmhscdZ`-j,es	Knb`shmnZes$\
0	L O3B	X	,-602	5-4
1	L O3B	L x	,-///520	5-4
2	L O3B	L y	,-///10	5-4
3	L O3B	X	,-602	5-4
4	L O3B	L x	,-///10	5-4
5	L O3B	L y	,-///520	5-4
6	L O0@	X	,0-654	0
7	L O0@	L x	,-///772	0
8	L O0@	L y	/	0
0/	L O0@	X	,0-654	2
00	L O0@	L x	,-///772	2
01	L O0@	L y	/	2
02	L O0A	X	,0-654	0
03	L O0A	L x	-///2/1	0
04	L O0A	L y	,-///718	0
05	L O0A	X	,0-654	2
06	L O0A	L x	-///2/1	2
07	L O0A	L y	,-///718	2
08	L O1B	X	,0-654	0
1/	L O1B	L x	-///513	0
10	L O1B	L y	-///513	0
11	L O1B	X	,0-654	2
12	L O1B	L x	-///513	2
13	L O1B	L y	-///513	2
14	L O2@	X	,0-476	1
15	L O2@	L x	,-///682	1
16	L O2@	L y	/	1
17	L O2@	X	,0-476	4-4
18	L O2@	L x	,-///682	4-4
2/	L O2@	L y	/	4-4
20	L O2A	X	,0-476	1
21	L O2A	L x	-///160	1
22	L O2A	L y	,-///635	1
23	L O2A	X	,0-476	4-4
24	L O2A	L x	-///160	4-4
25	L O2A	L y	,-///635	4-4
26	L O2B	X	,0-476	1
27	L O2B	L x	-///450	1
28	L O2B	L y	-///450	1
3/	L O2B	X	,0-476	4-4
30	L O2B	L x	-///450	4-4
31	L O2B	L y	-///450	4-4
32	L O3@	X	,0-476	1

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@if 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhst cdZa-j,es\	Knb`shmmZes$\
33	L O3@	L x	,-///682	1
34	L O3@	L y	/	1
35	L O3@	X	,0-476	4-4
36	L O3@	L x	,-///682	4-4
37	L O3@	L y	/	4-4
38	L O3A	X	,0-476	1
4/	L O3A	L x	-///160	1
40	L O3A	L y	,-///635	1
41	L O3A	X	,0-476	4-4
42	L O3A	L x	-///160	4-4
43	L O3A	L y	,-///635	4-4
44	L O3B	X	,0-476	1
45	L O3B	L x	-///450	1
46	L O3B	L y	-///450	1
47	L O3B	X	,0-476	4-4
48	L O3B	L x	-///450	4-4
5/	L O3B	L y	-///450	4-4
50	L O1@	X	,2-310	3
51	L O1@	L x	-//1	3
52	L O1@	L y	/	3
53	L O1A	X	,2-310	3
54	L O1A	L x	,-///474	3
55	L O1A	L y	-//1	3
56	L O1B	X	,2-310	3
57	L O1B	L x	,-//0	3
58	L O1B	L y	,-//0	3
6/	L O3@	X	,1-738	3
60	L O3@	L x	-//0	3
61	L O3@	L y	/	3
62	L O3A	X	,1-738	3
63	L O3A	L x	,-///376	3
64	L O3A	L y	-//0	3
65	L O3B	X	,1-738	3
66	L O3B	L x	,-//0	3
67	L O3B	L y	,-//0	3
68	L 71	X	,-655	0
7/	L 71	L x	/	0
70	L 71	L y	/	0
71	L 71	X	,0-/8	0
72	L 71	L x	/	0
73	L 71	L y	/	0
74	L O0@	X	,-36	3-4
75	L O0@	L x	,-///124	3-4
76	L O0@	L y	/	3-4
77	L O0@	X	,-36	4-4
78	L O0@	L x	,-///124	4-4
8/	L O0@	L y	/	4-4
80	L O0A	X	,-36	3-4
81	L O0A	L x	7d,4	3-4
82	L O0A	L y	,-///110	3-4
83	L O0A	X	,-36	4-4
84	L O0A	L x	7d,4	4-4

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Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@lf 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZka+j,es\	Knb`shmmZes$\
85	L O0A	L y	,-///110	4-4
86	L O1B	X	,-36	3-4
87	L O1B	L x	-///055	3-4
88	L O1B	L y	-///055	3-4
0//	L O1B	X	,-36	4-4
0/0	L O1B	L x	-///055	4-4
0/1	L O1B	L y	-///055	4-4
0/2	N UO	X	,0-186	0
0/3	N UO	L x	/	0
0/4	N UO	L y	/	0
0/5	L O0B	X	,1-017	1
0/6	L O0B	L x	-///421	1
0/7	L O0B	L y	,-///810	1
0/8	L O4@	X	,1-017	1
00/	L O4@	L x	,-///421	1
000	L O4@	L y	-///810	1
001	L O4A	X	,1-017	1
002	L O4A	L x	,-///810	1
003	L O4A	L y	,-///421	1
004	L O4B	X	,1-017	1
005	L O4B	L x	-///810	1
006	L O4B	L y	-///421	1

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZka+j,es\	Knb`shmmZes$\
0	L O3B	Y	,0-672	5-4
1	L O3B	L w	-///414	5-4
2	L O3B	Y	,0-672	5-4
3	L O3B	L w	-/1	5-4
4	L O0@	Y	,3-302	0
5	L O0@	L w	/	0
6	L O0@	Y	,3-302	2
7	L O0@	L w	/	2
8	L O0A	Y	,3-302	0
0/	L O0A	L w	-/1	0
00	L O0A	Y	,3-302	2
01	L O0A	L w	-/1	2
02	L O1B	Y	,3-302	0
03	L O1B	L w	,-/1	0
04	L O1B	Y	,3-302	2
05	L O1B	L w	,-/1	2
06	L O2@	Y	,2-856	1
07	L O2@	L w	/	1
08	L O2@	Y	,2-856	4-4
1/	L O2@	L w	/	4-4
10	L O2A	Y	,2-856	1
11	L O2A	L w	-/1	1
12	L O2A	Y	,2-856	4-4
13	L O2A	L w	-/1	4-4
14	L O2B	Y	,2-856	1
15	L O2B	L w	,-/0	1

Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9`^^^^

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshmm	L`fmhstcdZa+j,e\	Knb`shmmZs$\
16	L O2B	Y	,2-856	4-4
17	L O2B	L w	,-//0	4-4
18	L O3@	Y	,2-856	1
2/	L O3@	L w	/	1
20	L O3@	Y	,2-856	4-4
21	L O3@	L w	/	4-4
22	L O3A	Y	,2-856	1
23	L O3A	L w	-//1	1
24	L O3A	Y	,2-856	4-4
25	L O3A	L w	-//1	4-4
26	L O3B	Y	,2-856	1
27	L O3B	L w	,-//0	1
28	L O3B	Y	,2-856	4-4
3/	L O3B	L w	,-//0	4-4
30	L O1@	Y	,7-442	3
31	L O1@	L w	/	3
32	L O1A	Y	,7-442	3
33	L O1A	L w	,-//3	3
34	L O1B	Y	,7-442	3
35	L O1B	L w	-//2	3
36	L O3@	Y	,6-013	3
37	L O3@	L w	/	3
38	L O3A	Y	,6-013	3
4/	L O3A	L w	,-//2	3
40	L O3B	Y	,6-013	3
41	L O3B	L w	-//2	3
42	L 71	Y	,0-804	0
43	L 71	L w	/	0
44	L 71	Y	,1-615	0
45	L 71	L w	/	0
46	L O0@	Y	,0-064	3-4
47	L O0@	L w	/	3-4
48	L O0@	Y	,0-064	4-4
5/	L O0@	L w	/	4-4
50	L O0A	Y	,0-064	3-4
51	L O0A	L w	-///441	3-4
52	L O0A	Y	,0-064	4-4
53	L O0A	L w	-///441	4-4
54	L O1B	Y	,0-064	3-4
55	L O1B	L w	,-///305	3-4
56	L O1B	Y	,0-064	4-4
57	L O1B	L w	,-///305	4-4
58	N UO	Y	,2-132	0
6/	N UO	L w	/	0
60	L O0B	Y	,4-21	1
61	L O0B	L w	-//1	1
62	L O4@	Y	,4-21	1
63	L O4@	L w	,-//1	1
64	L O4A	Y	,4-21	1
65	L O4A	L w	-//0	1
66	L O4B	Y	,4-21	1
67	L O4B	L w	,-//0	1

Bnl o`mx 9   @f 11+1/13
Cdr lfimdq 9   8900 @L
Ina Mtl adq 9   Bgdbj dc Ax9`^^^^
LncdkM`l d 9

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Ldl adqK`adk	Clqdbshmm	L`f mhst cdZa-j,e\	Knb`smmZs$\
0	L O3B	W	0-672	5-4
1	L O3B	L w	,-//1	5-4
2	L O3B	W	0-672	5-4
3	L O3B	L w	,-///414	5-4
4	L O0@	W	3-302	0
5	L O0@	L w	,-//1	0
6	L O0@	W	3-302	2
7	L O0@	L w	,-//1	2
8	L O0A	W	3-302	0
0/	L O0A	L w	-///644	0
00	L O0A	W	3-302	2
01	L O0A	L w	-///644	2
02	L O1B	W	3-302	0
03	L O1B	L w	-//1	0
04	L O1B	W	3-302	2
05	L O1B	L w	-//1	2
06	L O2@	W	2-856	1
07	L O2@	L w	,-//1	1
08	L O2@	W	2-856	4-4
1/	L O2@	L w	,-//1	4-4
10	L O2A	W	2-856	1
11	L O2A	L w	-///567	1
12	L O2A	W	2-856	4-4
13	L O2A	L w	-///567	4-4
14	L O2B	W	2-856	1
15	L O2B	L w	-//0	1
16	L O2B	W	2-856	4-4
17	L O2B	L w	-//0	4-4
18	L O3@	W	2-856	1
2/	L O3@	L w	,-//1	1
20	L O3@	W	2-856	4-4
21	L O3@	L w	,-//1	4-4
22	L O3A	W	2-856	1
23	L O3A	L w	-///567	1
24	L O3A	W	2-856	4-4
25	L O3A	L w	-///567	4-4
26	L O3B	W	2-856	1
27	L O3B	L w	-//0	1
28	L O3B	W	2-856	4-4
3/	L O3B	L w	-//0	4-4
30	L O1@	W	7-442	3
31	L O1@	L w	-//3	3
32	L O1A	W	7-442	3
33	L O1A	L w	,-//0	3
34	L O1B	W	7-442	3
35	L O1B	L w	,-//2	3
36	L O3@	W	6-013	3
37	L O3@	L w	-//3	3
38	L O3A	W	6-013	3
4/	L O3A	L w	,-//0	3
40	L O3B	W	6-013	3
41	L O3B	L w	,-//2	3

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Bnl o`mx   9
Cdr Hìmdq   9
Ina Mtl adq   9
LncdkM`l d   9

@if 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)

	Ldl adqK`adk	Chqdbshnm	L`fmhscdZa-j,e\	Knb`shnmZs$\
42	L 71	W	0-804	0
43	L 71	L w	/	0
44	L 71	W	1-615	0
45	L 71	L w	/	0
46	L O0@	W	0-064	3-4
47	L O0@	L w	,-///477	3-4
48	L O0@	W	0-064	4-4
5/	L O0@	L w	,-///477	4-4
50	L O0A	W	0-064	3-4
51	L O0A	L w	-///1/0	3-4
52	L O0A	W	0-064	4-4
53	L O0A	L w	-///1/0	4-4
54	L O1B	W	0-064	3-4
55	L O1B	L w	-///305	3-4
56	L O1B	W	0-064	4-4
57	L O1B	L w	-///305	4-4
58	N UO	W	2-132	0
6/	N UO	L w	/	0
60	L O0B	W	4-21	1
61	L O0B	L w	-//0	1
62	L O4@	W	4-21	1
63	L O4@	L w	,-//0	1
64	L O4A	W	4-21	1
65	L O4A	L w	,-//1	1
66	L O4B	W	4-21	1
67	L O4B	L w	-//1	1

Member Area Loads (BLC 39 : Structure D)

	Inhms@	InhmsA	InhmsB	InhmsC	Chqdbshnm	Chrsqhat shnm	L`fmhscdZ}re\
0	M75	M81	M85	M88	X	Svn V`x	,-//4
1	M81	M76	M83	M85	X	Svn V`x	,-//4
2	M76	M75	M88	M83	X	Svn V`x	,-//4

Member Area Loads (BLC 40 : Structure Di)

	Inhms@	InhmsA	InhmsB	InhmsC	Chqdbshnm	Chrsqhat shnm	L`fmhscdZ}re\
0	M75	M81	M85	M88	X	Svn V`x	,-/02
1	M81	M76	M83	M85	X	Svn V`x	,-/02
2	M76	M75	M88	M83	X	Svn V`x	,-/02

Member Area Loads (BLC 84 : Structure Ev)

	Inhms@	InhmsA	InhmsB	InhmsC	Chqdbshnm	Chrsqhat shnm	L`fmhscdZ}re\
0	M75	M81	M85	M88	X	Svn V`x	,-///100
1	M81	M76	M83	M85	X	Svn V`x	,-///100
2	M76	M75	M88	M83	X	Svn V`x	,-///100

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Inhms@	InhmsA	InhmsB	InhmsC	Chqdbshnm	Chrsqhat shnm	L`fmhscdZ}re\
0	M75	M81	M85	M88	Y	Svn V`x	,-///416
1	M81	M76	M83	M85	Y	Svn V`x	,-///416

Bnl o`mx	9	@f 11+1/13
Cdr lfimdq	9	8900 @L
I na Mtl adq	9	Bgdbj dc Ax9^^^^
L ncdkM`l d	9	

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Member Area Loads (BLC 85 : Structure Eh (0 Deg)) (Continued)

	I nhms @	I nhms A	I nhms B	I nhms C	Chqdbshmm	Chr sohat shmm	L`f mhst cd Zj re\
2	M76	M75	M88	M83	Y	Svn V`x	,-///416

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	I nhms @	I nhms A	I nhms B	I nhms C	Chqdbshmm	Chr sohat shmm	L`f mhst cd Zj re\
0	M75	M81	M85	M88	W	Svn V`x	-///416
1	M81	M76	M83	M85	W	Svn V`x	-///416
2	M76	M75	M88	M83	W	Svn V`x	-///416

Envelope Joint Reactions

	I nhms		W Zka\	KB	X Zka\	KB	Y Zka\	KB	L W Zj,es\	KB	L X Zj,es\	KB	L Y Zj,es\	KB
0	M78	l`w	4042-222	0/	0724-122	08	780-888	0	0-556	0	2-563	8	-404	4
1		l hm	,4137-835	3	77-62	0	,0/01-8/2	6	,2-857	08	,2-645	2	,-381	00
2	M86	l`w	1421-0/3	01	0585-1/8	03	3524-488	0	1-/56	04	3-010	6	2-40	04
3		l hm	,1567-515	5	08-036	7	,3513-181	6	,-370	8	,3-/67	0	,-730	7
4	M0/0	l`w	165/-357	8	06/1-07	11	3410-083	1	0-718	12	2-572	2	0-11	4
5		l hm	,1551-656	2	31-608	3	,3287-620	7	,-573	4	,2-538	8	,2-107	12
6	M04/@	l`w	014-072	0/	1542-5/2	02	43/-458	6	/	64	-131	3	-043	3
7		l hm	,012-577	3	,23/-61	6	,3/25-276	02	/	0	,-132	0/	,-044	0/
8	M041@	l`w	4/2-041	2	1482-426	10	0861-2/1	10	-016	01	-120	01	-/63	5
0/		l hm	,2302-407	10	,255-35	2	,178-887	2	,-017	5	,-120	5	,-/63	01
00	M044@	l`w	2441-287	06	1583-5/5	06	1/37-128	06	-034	1	-152	7	-/72	1
01		l hm	,25/-1/3	00	,150-61	00	,10/-6/8	00	,-034	7	,-151	1	,-73	7
02	Sns`kr 9	l`w	6//6-818	0/	00637-348	12	6064-668	0						
03		l hm	,6//6-808	3	188/-02	57	,6064-672	6						

Joint Reactions

	KB	I nhms K`adk	W Zka\	X Zka\	Y Zka\	L W Zj,es\	L X Zj,es\	L Y Zj,es\
0	0	M78	,037-726	77-62	780-888	0-556	,-268	,-//7
1	0	M86	1216-522	820-826	3524-488	0-2	,3-/67	1-215
2	0	M0/0	,1/5/-47	574-766	3172-652	0-/88	2-208	,0-5/1
3	0	M04/@	2-165	1/25-017	,2012-526	/	,-/1	,-/02
4	0	M041@	,184-/55	148-325	163-171	-/72	-04	,-/37
5	0	M044@	062-636	061-683	102-662	-0/4	,-078	-/5
6	0	Sns`kr 9	-062	3063-8/0	6064-668			
7	0	BNF 'es(9	W924-028	X90-77	Y9,6-/08			
8	1	M78	,2408-471	07/-548	548-6/2	0-/70	,2-082	-074
0/	1	M86	0085-867	0/72-764	23/6-/82	0-570	,2-062	1-8/0
00	1	M0/0	,1380-804	301-770	3410-083	-337	2-178	,-376
01	1	M04/@	,25-68	0810-671	,1831-147	/	-/27	-/13
02	1	M041@	2//-725	,1/3-731	,021-/21	-/11	-/28	,-/02
03	1	M044@	850-114	67/-422	6/2-374	-034	,-151	-/72
04	1	Sns`kr 9	,2478-137	3063-777	5106-074			
05	1	BNF 'es(9	W924-028	X90-77	Y9,6-/08			
06	2	M78	,4//5-35	280-4/8	165-047	,-/0	,2-645	-210
07	2	M86	,581-363	0/6/-400	351-382	0-612	,-/28	1-783
08	2	M0/0	,1551-656	050-4	3138-074	,-047	2-572	-454
1/	2	M04/@	,83-068	040/-132	,12/2-/2	/	-06	-0/7
10	2	M041@	4/2-041	,255-35	,178-887	/	/	/

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@lf 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

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Joint Reactions (Continued)

	KB	InlmsK`adk	W Za\	X Za\	Y Za\	L W Z,es	L X Z,es	L Y Z,es
11	2	M044@	07/ 7-248	03/ 6-46	0041-561	-/ 85	,-063	-/ 44
12	2	Sns`kr 9	,5033-26	3063-763	2436-37			
13	2	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
14	3	M78	,4137-835	554-145	,17-521	,0-301	,2-4/ 8	-363
15	3	M86	,1020-/ 63	84/ -/ 51	,1348-/ 12	0-4/ 5	1-67	1-335
16	3	M0/ 0	,11/ 4-013	31-608	1542-885	,-434	1-760	0-08
17	3	M04/ @	,012-577	80/ -808	,0276-886	/	-131	-043
18	3	M041@	182-1/ 2	,115-204	,101-2/ 4	,-/ 15	,-/ 36	-/ 04
2/	3	M044@	13/ 6-60	0721-114	0322-647	-/ 18	,-/ 41	-/ 06
20	3	Sns`kr 9	,6/ / 6-808	3063-754	,-1/ 3			
21	3	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
22	4	M78	,4/ 38-406	78/ -057	,273-380	,1-681	,2-624	-404
23	4	M86	,15/ / -852	635-156	,2801-/ 05	0-000	2-376	0-6/ 1
24	4	M0/ 0	,610-451	51-055	,215-060	,-573	,-/ 01	0-11
25	4	M04/ @	,81-/ 50	2/ 2-881	,351-160	/	-053	-0/ 4
26	4	M041@	,152-03	057-1/ 4	33-501	,-/ 81	,-056	-/ 42
27	4	M044@	155/ -883	1/ / 3-/ 50	0426-615	-/ / 2	,-/ / 5	-/ / 1
28	4	Sns`kr 9	,5/ 55-138	3063-75	,24/ 1-501			
3/	4	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
30	5	M78	,2315-40	0/ / 3-042	,710-587	,2-564	,1-674	-210
31	5	M86	,1567-515	348-3/ 0	,3350-225	-44	2-484	-612
32	5	M0/ 0	0/ 58-442	060-418	,2/ / 3-672	,-440	,1-555	-618
33	5	M04/ @	,27-210	,035-770	125-/ 72	/	-/ 46	-/ 25
34	5	M041@	,0/ 40-233	643-731	356-/ 6	,-017	,-120	-/ 63
35	5	M044@	147/ -801	0820-705	0334-5	,-/ 2	-/ 44	,-/ 06
36	5	Sns`kr 9	,2433-225	3063-75	,5028-/ 52			
37	5	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
38	6	M78	37-532	0/ 05-625	,0/ 01-8/ 2	,2-68	-2	-/ 2
4/	6	M86	,1361-145	062-615	,3513-181	,-/ 38	3-010	,-147
40	6	M0/ 0	1057-543	256-236	,306/ -663	,-0/ 5	,2-187	,-038
41	6	M04/ @	,1-370	,23/ -61	43/ -458	/	-/ 07	-/ 00
42	6	M041@	,076/ -145	0274-4/ 0	865-260	,-/ 72	,-040	-/ 37
43	6	M044@	1016-421	0461-167	0004-135	,-0/ 4	-08	,-/ 50
44	6	Sns`kr 9	,-053	3063-757	,6064-672			
45	6	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
46	7	M78	2300-50	816-/ 50	,673-343	,2-103	2-0/ 7	,-055
47	7	M86	,0221-843	08-036	,2288-783	,-325	2-105	,-730
48	7	M0/ 0	1487-/ 25	53/ -431	,3287-620	-432	,2-150	,0-152
5/	7	M04/ @	26-671	,114-632	248-060	/	,-/ 3	,-/ 15
50	7	M041@	,1355-187	0737-/ 17	0270-7/ 7	,-/ 11	,-/ 3	-/ 02
51	7	M044@	0230-/ 71	854-734	513-800	,-034	-152	,-/ 73
52	7	Sns`kr 9	2478-147	3063-770	,5106-077			
53	7	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
54	8	M78	38/ 0-113	607-284	,3/ 8-436	,1-020	2-563	,-2/ 0
55	8	M86	451-261	20-228	,336-826	,-370	-/ 64	,-725
56	8	M0/ 0	165/ -357	780-200	,3012-450	0-036	,2-538	,1-204
57	8	M04/ @	85-352	076-538	,17/ -447	/	,-061	,-00
58	8	M041@	,1557-861	1/ / 8-171	043/ -216	/	,-/ / 0	/
6/	8	M044@	381-714	225-808	062-682	,-/ 86	-064	,-/ 45
60	8	Sns`kr 9	5033-270	3063-784	,2436-372			
61	8	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
62	0/	M78	4042-222	333-453	,0/ 7-308	,-616	2-324	,-341

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Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

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8900 @L
Bgdbj dc Ax9^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	W Z`a\	X Z`a\	Y Z`a\	L W Z,es\	L X Z,es\	L Y Z,es\
63	0/	M86	0888-227	042-761	1371-627	,-150	,1-64	,-27
64	0/	M0/ 0	1185-670	0/ / 6-616	,1422-625	0-42	,1-726	,1-821
65	0/	M04/ @	014-072	677-125	,0085-112	/	,-132	,-044
66	0/	M041@	,1348-128	076/ -/ 15	0351-7/ 4	-/ 15	-/ 36	,-/ 04
67	0/	M044@	,0/ 6-355	,78-412	,0/ 5-854	,-/ 2	-/ 42	,-/ 06
68	0/	Sns`kr 9	6/ / 6-818	3063-8/ 3	-1			
7/	0/	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
70	00	M78	385/ -/ 55	107-8/ 6	141-160	-544	2-555	,-381
71	00	M86	1350-234	248-582	2827-/ 17	-027	,2-344	-26
72	00	M0/ 0	705-218	875-712	327-565	0-557	-/ 27	,1-846
73	00	M04/ @	81-527	0282-775	,101/ -86	/	,-055	,-0/ 5
74	00	M041@	,08/ 2-804	0366-21	01/ 4-201	-/ 81	-055	,-/ 42
75	00	M044@	,25/ -1/ 3	,150-61	,10/ -6/ 8	,-/ / 3	-/ / 6	,-/ / 1
76	00	Sns`kr 9	5/ 55-147	3063-8/ 8	24/ 1-5/ 7			
77	00	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
78	01	M78	2224-378	0/ 1-553	586-14	0-436	1-604	,-186
8/	01	M86	1421-0/ 3	535-863	3370-82	-6/ 0	,2-446	0-238
80	01	M0/ 0	,856-086	768-4/ 4	2002-22	0-43	1-575	,1-362
81	01	M04/ @	28-354	0731-867	,1707-741	/	,-/ 47	,-/ 26
82	01	M041@	,0004-4/ 2	780-531	672-5/ 7	-016	-120	,-/ 63
83	01	M044@	,17/ -/ 03	,077-743	,007-1/ 5	-/ 2	,-/ 42	-/ 06
84	01	Sns`kr 9	2433-233	3063-8/ 8	5028-/ 5			
85	01	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
86	02	M78	,016-35	0457-5	63-765	,1-405	,-054	-/ 14
87	02	M86	406-216	0542-5/ 6	0247-/ 46	0-838	,0-018	2-238
88	02	M0/ 0	,378-103	05/ 7-536	0276-622	0-555	0-/ 03	,1-712
0/ /	02	M04/ @	-73	1542-5/ 2	,3/ 25-276	/	,-/ / 3	,-/ / 2
0/ 0	02	M041@	,1625-77	1/ 85-/ 20	0500-880	-/ 15	-/ 35	,-/ 04
0/ 1	02	M044@	1724-335	1056-858	0555-265	-/ 17	,-/ 4	-/ 05
0/ 2	02	Sns`kr 9	-/ 5	00637-346	1/ 51-534			
0/ 3	02	BNF 'es(9	W924-002	X90-744	Y9,5-886			
0/ 4	03	M78	,0/ 66-/ 78	0486-727	11-546	,1-555	,-834	-/ 58
0/ 5	03	M86	078-207	0585-1/ 8	861-681	1-/ 43	,-72	2-4/ 7
0/ 6	03	M0/ 0	,512-148	0422-248	0358-062	0-375	0-/ 24	,1-4/ 8
0/ 7	03	M04/ @	,0/ -446	1508-/ 4	,2870-/ 11	/	-/ 03	-/ / 8
0/ 8	03	M041@	,1453-872	0851-785	0383-548	-/ / 7	-/ 04	,-/ / 4
00/	03	M044@	2/ 46-2/ 0	1228-0/ 0	07/ 3-507	-/ 27	,-/ 6	-/ 11
000	03	Sns`kr 9	,0/ 18-158	00637-342	0671-766			
001	03	BNF 'es(9	W924-002	X90-744	Y9,5-886			
002	04	M78	,0433-620	0546-683	,64-207	,1-852	,0-056	-0
003	04	M86	,225-642	0582-676	038-230	1-/ 56	-/ 11	2-40
004	04	M0/ 0	,545-668	0354-072	0255-478	0-205	0-/ 87	,1-108
005	04	M04/ @	,16-/ 23	14/ 0-380	,2686-523	/	-/ 38	-/ 21
006	04	M041@	,14/ 0-5/ 2	0802-/ 2	0335-/ / 6	-/ / 0	-/ / 1	/
007	04	M044@	2186-712	1406-052	0821-3/ 2	-/ 15	,-/ 36	-/ 04
008	04	Sns`kr 9	,0658-/ 65	00637-338	0/ 10-278			
01/	04	BNF 'es(9	W924-002	X90-744	Y9,5-886			
010	05	M78	,054/ -/ 21	0623-322	,046-253	,2-233	,0-033	-014
011	05	M86	,647-512	0547-635	,57/ -467	1-/ / 6	-701	2-272
012	05	M0/ 0	,4/ 3-/ 4	0320-456	781-244	0-1/ 3	-716	,1-/ 35
013	05	M04/ @	,24-433	122/ -7/ 6	,2425-887	/	-/ 58	-/ 33
014	05	M041@	,1447-202	084/ -/ 83	0355-082	,-/ / 7	,-/ 03	-/ / 3

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@jf 11+1/ 13
8900 @L
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Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	L W Z ,es\	L X Z ,es\	L Y Z ,es\
015	05	M044@	2364-6/ 5	1531-688	1/ 05-227	-/ / 6	,-/ 02	-/ / 3
016	05	Sns`kr 9	,1/ 2/ -745	00637-336	,-/ 44			
017	05	BNF 'es(9	W924-002	X90-744	Y9,5-886			
018	06	M78	,0455-/ 32	0688-456	,136-366	,2-6/ 4	,0-056	-016
02/	06	M86	,813-703	0487-507	,0024-3/ 1	0-780	0-/ 64	2-056
020	06	M0/ 0	,67-538	0325-/ 73	36-555	0-052	-/ 2	,1-/ 27
021	06	M04/ @	,15-238	1045-4/ 8	,216/ -700	/	-/ 37	-/ 20
022	06	M041@	,1607-625	1/ 52-/ 50	043/ -2/ 5	,-/ 15	,-/ 36	-/ 04
023	06	M044@	2441-287	1583-5/ 5	1/ 37-128	,-// 0	-/ / 1	/
024	06	Sns`kr 9	,0651-082	00637-334	,0/ 06-368			
025	06	BNF 'es(9	W924-002	X90-744	Y9,5-886			
026	07	M78	,0/ 6/ -460	0722-513	,245-73	,2-822	,-748	-/ 8
027	07	M86	,841-/ 12	0406-666	,02/ 3-526	0-621	0-018	1-78
028	07	M0/ 0	317-716	0357-28	,614-807	0-1/ 1	,-61	,1-07
03/	07	M04/ @	,0/ -475	1/ 15-810	,2/ 57-7/ 0	/	-/ 07	-/ 00
030	07	M041@	,1834-107	1120-2/ 2	0550-268	,-/ 25	,-/ 53	-/ 10
031	07	M044@	2413-107	156/ -32	1/ 07-712	,-/ 01	-/ 10	,-// 6
032	07	Sns`kr 9	,0/ 14-243	00637-334	,0664-884			
033	07	BNF 'es(9	W924-002	X90-744	Y9,5-886			
034	08	M78	,84-3/ 0	0724-122	,30/ -170	,2-857	,-/ 05	-/ 23
035	08	M86	,760-041	0328-557	,02/ 1-165	0-457	0-100	1-510
036	08	M0/ 0	644-/ 34	0414-14	,0/ 83-80	0-216	,-847	,1-323
037	08	M04/ @	-/ 4	0861-867	,1872-083	/	-/ / 3	-/ / 1
038	08	M041@	,2067-153	130/ -651	07/ 5-274	,-/ 13	,-/ 32	-/ 03
04/	08	M044@	2278-572	1453-445	0810-525	,-/ 21	-/ 47	,-/ 07
040	08	Sns`kr 9	,-/ 28	00637-336	,1/ 51-53			
041	08	BNF 'es(9	W924-002	X90-744	Y9,5-886			
042	1/	M78	742-465	07/ 5-023	,247-282	,2-707	-652	,-/ 00
043	1/	M86	,431-361	0285-767	,806-215	0-352	-801	1-350
044	1/	M0/ 0	777-8/ 3	05/ / -477	,0064-472	0-4/ 6	,-867	,1-637
045	1/	M04/ @	00-364	1/ / 6-474	,2/ 27-45	/	,-/ 03	,-// 8
046	1/	M041@	,224/ -011	1432-611	0812-522	,-// 6	,-/ 01	-/ / 3
047	1/	M044@	2056-818	1282-434	0672-246	,-/ 31	-/ 66	,-/ 13
048	1/	Sns`kr 9	0/ 18-18	00637-340	,0671-761			
05/	1/	BNF 'es(9	W924-002	X90-744	Y9,5-886			
050	10	M78	0210-287	0635-235	,150-/ 75	,2-411	-875	,-/ 31
051	10	M86	,04-78	0288-071	,82-173	0-338	-/ 48	1-348
052	10	M0/ 0	810-630	0557-623	,0/ 61-61	0-565	,0-/ 3	,2-/ 27
053	10	M04/ @	17-/ 26	1014-205	,2111-/ 1	/	,-/ 4	,-/ 21
054	10	M041@	,2302-407	1482-426	0861-2/ 1	/	-/ / 0	/
055	10	M044@	1816-217	1104-228	0544-314	,-/ 2	-/ 43	,-/ 06
056	10	Sns`kr 9	0658-/ 86	00637-344	,0/ 10-273			
057	10	BNF 'es(9	W924-002	X90-744	Y9,5-886			
058	11	M78	0316-376	0558-621	,068-214	,2-030	-852	,-/ 56
06/	11	M86	3/ 4-783	0323-235	626-304	0-40	,-620	1-476
060	11	M0/ 0	657-420	06/ 1-07	,487-786	0-677	,-658	,2-100
061	11	M04/ @	25-371	1185-015	,2371-630	/	,-/ 58	,-/ 33
062	11	M041@	,2245-737	1445-443	0841-015	-/ / 8	-/ 06	,-// 4
063	11	M044@	1638-22	1/ 78-408	0460-37	,-/ 00	-/ 1	,-// 5
064	11	Sns`kr 9	1/ 2/ -766	00637-347	-/ 5			
065	11	BNF 'es(9	W924-002	X90-744	Y9,5-886			
066	12	M78	0233-/ 46	05/ 3-433	,77-708	,1-67	-876	,-/ 58

Bnl o`mx 9
Cdr lfimdq 9
Ina Mtl adq 9
LncdkM`l d 9

Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	L W Z,es\	L X Z,es\	L Y Z,es\
067	12	M86	460-335	0383-526	0081-331	0-515	,-884	1-7/2
068	12	M0/0	232-272	0586-427	134-022	0-718	-/16	,2-107
07/	12	M04/@	16-10	136/-214	,2637-748	/	,-/38	,-/20
070	12	M041@	,2085-418	1332-648	0766-881	-/17	-/4	,-/05
071	12	M044@	1561-537	1/26-546	0428-483	,-//2	-//4	,-//1
072	12	Sns`kr 9	0651-103	00637-348	0/06-373			
073	12	BNF 'es(9	W924-002	X90-744	Y9,5-886			
074	13	M78	737-354	046/-206	10-063	,1-440	-567	,-/21
075	13	M86	487-/67	0464-426	0250-081	0-674	,0-/37	2-/7
076	13	M0/0	,052-340	0554-236	0/07-26	0-680	-665	,2-/65
077	13	M04/@	00-374	1488-628	,284/-680	/	,-/07	,-/01
078	13	M041@	,186/-/43	1164-505	0645-884	-/26	-/57	,-/11
08/	13	M044@	16//-740	1/50-8/2	0458-/5	-//7	,-/03	-//3
080	13	Sns`kr 9	0/14-264	00637-348	0665			
081	13	BNF 'es(9	W924-002	X90-744	Y9,5-886			
082	14	M78	,6/5-181	534-/31	,10-/02	,0-1	,-416	-01
083	14	M86	,181-7/5	427-/41	,167-413	-466	-152	-874
084	14	M0/0	,57-206	408-778	185-786	-400	-1/3	,-76
085	14	M04/@	,-335	778-185	,0241-404	/	-//3	-//1
086	14	M041@	,0/0/-725	66/-02	476-6/3	-//0	-//2	/
087	14	M044@	1/67-588	0451-363	0104-823	-/01	,-/10	-//6
088	14	Sns`kr 9	-//1	3813-772	337-371			
1//	14	BNF 'es(9	W924-835	X90-483	Y9,5-3/0			
1/0	15	M78	,805-611	54/-637	,24-3/5	,0-125	,-6/2	-022
1/1	15	M86	,252-624	436-525	,244-051	-5/0	-21	0-/10
1/2	15	M0/0	,84-111	4/1-723	200-33	-36	-1/1	,-7/0
1/3	15	M04/@	,1-846	771-017	,0230-064	/	-//6	-//4
1/4	15	M041@	,862-477	630-05	451-220	,-//1	,-//3	-//0
1/5	15	M044@	1016-78	05//-265	0135-432	-/03	,-/15	-//7
1/6	15	Sns`kr 9	,113-222	3813-771	277-460			
1/7	15	BNF 'es(9	W924-835	X90-483	Y9,5-3/0			
1/8	16	M78	,0//8-611	552-752	,48-021	,0-2/3	,-627	-030
10/	16	M86	,371-//6	435-748	,428-325	-5/2	-405	0-/10
100	16	M0/0	,0/4-536	376-040	183-2/2	-321	-115	,-624
101	16	M04/@	,5-474	745-224	,02/0-075	/	-/04	-/0
102	16	M041@	,85/-834	620-/67	441-338	,-//3	,-//6	-//1
103	16	M044@	107/-762	0528-485	0163-602	-/00	,-/1	-//5
104	16	Sns`kr 9	,273-/23	3813-770	110-60			
105	16	BNF 'es(9	W924-835	X90-483	Y9,5-3/0			
106	17	M78	,0/14-042	57/-845	,67-/83	,0-281	,-612	-040
107	17	M86	,460-764	428-175	,611-211	-48	-582	-882
108	17	M0/0	,65-748	368-688	083-620	-3/7	-065	,-585
11/	17	M04/@	,7-300	707-715	,0132-851	/	-/1	-/02
110	17	M041@	,863-/72	628-717	446-201	,-//4	,-/0	-//2
111	17	M044@	1107-266	0555-075	0181-208	-//6	,-/02	-//3
112	17	Sns`kr 9	,327-//3	3813-77	,-/06			
113	17	BNF 'es(9	W924-835	X90-483	Y9,5-3/0			
114	18	M78	,0/01-773	584-//8	,0//-377	,0-367	,-626	-042
115	18	M86	,5/0-//6	415-4/7	,702-100	-454	-626	-835
116	18	M0/0	04-667	370-/42	7-571	-3	,-//3	,-583
117	18	M04/@	,5-3/7	67/-806	,0075-007	/	-/04	-/0
118	18	M041@	,0//7-734	653-338	462-287	,-//8	,-/06	-//4

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	L W Z,es\	L X Z,es\	L Y Z,es\
12/	18	M044@	1123-11	0565-834	0187-71	-/ / 4	,-/ 0	-/ / 2
120	18	Sns`kr 9	,268-036	3813-77	,107-806			
121	18	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
122	2/	M78	,800-303	6/ 1-053	,017-/ 4	,0-423	,-567	-030
123	2/	M86	,5/ 4-535	4/ 7-480	,736-3/ 1	-42	-632	-774
124	2/	M0/ 0	016-4/ 3	376-713	,047-513	-3/ 7	,-06	,-614
125	2/	M04/ @	,2-/ 56	641-663	,0031-355	/	-/ / 7	-/ / 4
126	2/	M041@	,0/ 47-018	7/ 0-0	488-68	,-/ 01	,-/ 10	-/ / 6
127	2/	M044@	1118-112	0561-315	0182-/ 46	-/ / 2	,-/ / 5	-/ / 1
128	2/	Sns`kr 9	,110-417	3813-77	,272-584			
13/	2/	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
130	20	M78	,582-847	6/ 1-84	,03/ -008	,0-430	,-374	-012
131	20	M86	,481-677	38/ -661	,746-241	-381	-665	-713
132	20	M0/ 0	085-/ 30	388-881	,120-523	-325	,-1/ 8	,-668
133	20	M04/ @	,-707	63/ -558	,0012-301	/	-/ / 5	-/ / 3
134	20	M041@	,00/ 8-253	73/ -462	520-520	,-/ / 8	,-/ 05	-/ / 4
135	20	M044@	11/ / -756	0538-814	0161-284	,-/ / 0	-/ / 2	/
136	20	Sns`kr 9	,-/ 1	3813-77	,337-38			
137	20	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
138	21	M78	,372-447	586-142	,014-631	,0-4/ 4	,-2/ 8	-000
14/	21	M86	,410-714	370-067	,67/ -62	-357	-61	-676
140	21	M0/ 0	111-827	406-/ 37	,135-03	-365	,-1/ 6	,-738
141	21	M04/ @	0-582	636-728	,0023-641	/	-/ / 1	-/ / 0
142	21	M041@	,0035-502	758-425	546	,-/ / 4	,-/ / 8	-/ / 2
143	21	M044@	1040-57	0501-/ 17	0130-673	,-/ / 3	-/ / 6	,-/ / 1
144	21	Sns`kr 9	113-204	3813-770	,277-47			
145	21	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
146	22	M78	,28/ -436	573-035	,0/ 1-/ 38	,0-326	,-163	-0/ 1
147	22	M86	,3/ 2-42	370-840	,485-317	-354	-413	-677
148	22	M0/ 0	122-22	421-618	,117-88	-403	,-121	,-804
15/	22	M04/ @	4-216	662-528	,0063-632	/	,-/ / 5	,-/ / 3
150	22	M041@	,0048-146	768-505	555-775	,-/ / 3	,-/ / 6	-/ / 1
151	22	M044@	1/ 87-581	0461-7	0102-5/ 5	/	-/ / 1	/
152	22	Sns`kr 9	273-/ 05	3813-771	,110-607			
153	22	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
154	23	M78	,264-/ 67	556-/ 42	,72-0/ 1	,0-238	,-178	-/ 82
155	23	M86	,202-557	378-421	,302-4/ 5	-368	-236	-705
156	23	M0/ 0	1/ 3-408	43/ -/ 60	,018-327	-427	,-070	,-842
157	23	M04/ @	6-038	700-042	,0120-86	/	,-/ 0	,-/ / 6
158	23	M041@	,0035-01	76/ -76	551-/ 11	,-/ / 1	,-/ / 3	-/ / 0
16/	23	M044@	1/ 50-073	0435-1/ 2	0085-/ / 0	-/ / 2	,-/ / 5	-/ / 1
160	23	Sns`kr 9	326-875	3813-772	-/ / 8			
161	23	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
162	24	M78	,276-212	541-886	,5/ -577	,0-152	,-164	-/ 8
163	24	M86	,173-456	4/ 1-207	,211-5/ 7	-4/ 3	-2/ 2	-752
164	24	M0/ 0	000-783	427-701	45-47	-436	,-/ / 0	,-844
165	24	M04/ @	4-032	738-/ 47	,0178-70	/	,-/ / 5	,-/ / 3
166	24	M041@	,0000-251	735-145	534-823	-/ / 1	-/ / 3	,-/ / 0
167	24	M044@	1/ 34-233	0424-332	0078-4/ 0	-/ / 4	,-/ / 8	-/ / 2
168	24	Sns`kr 9	268-018	3813-772	107-8/ 8			
17/	24	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
170	25	M78	,377-7	534-722	,22-/ 85	,0-1/ 6	,-223	-0/ 1

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Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
L ncdkM`l d   9

@f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	L W Z,es\	L X Z,es\	L Y Z,es\
171	25	M86	,168-844	41/ -125	,177-327	-428	-185	-813
172	25	M0/ 0	-086	421-/ 37	112-76	-428	-054	,-814
173	25	M04/ @	0-7/ 3	766-082	,0222-35	/	-/ / 0	/
174	25	M041@	,0/ 51-/ 67	7/ 8-5/ 7	508-435	-/ / 3	-/ / 7	,-/ / 1
175	25	M044@	1/ 4/ -231	0428-853	0084-155	-/ / 6	,-/ 02	-/ / 3
176	25	Sns`kr 9	110-40	3813-772	272-576			
177	25	BNF 'es(9	W924-835	X90-483	Y9,5-3/ 0			
178	26	M78	228-661	707-78	,4/ -025	,0-561	-1/ 1	,-087
18/	26	M86	33-726	452-231	128-645	-54	,-1/ 7	0-/ 63
180	26	M0/ 0	056-655	426-715	,3/ -/ / 0	-345	,-0/ 8	,-756
181	26	M04/ @	0-641	771-158	,0230-448	/	,-/ / 5	,-/ / 3
182	26	M041@	,0568-153	0156-374	874-008	-/ 00	-/ 1	-/ / 5
183	26	M044@	0014-04	744-/ 60	544-2/ 7	-/ / 4	,-/ / 8	-/ / 2
184	26	Sns`kr 9	-/ 01	3813-772	337-376			
185	26	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
186	27	M78	018-233	713-410	,53-443	,0-6/ 8	-/ 16	,-075
187	27	M86	,15-/ 70	461-801	052-0/ 4	-563	,-041	0-000
188	27	M0/ 0	03/ -744	41/ -665	,14-353	-304	,-001	,-686
2//	27	M04/ @	,-646	764-0/ 1	,022/ -110	/	,-/ / 2	,-/ / 1
2/ 0	27	M041@	,0531-/ 15	0127-440	848-660	-/ / 6	-/ 02	,-/ / 3
2/ 1	27	M044@	0063-231	782-/ 10	574-827	-/ / 6	,-/ 03	-/ / 3
2/ 2	27	Sns`kr 9	,113-211	3813-771	277-465			
2/ 3	27	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
2/ 4	28	M78	25-250	726-484	,77-2/ 3	,0-666	,-/ / 8	,-066
2/ 5	28	M86	,033-234	461-0/ 5	,10-044	-565	-/ 33	0-00
2/ 6	28	M0/ 0	02/ -283	4/ 4-005	,31-432	-266	,-/ 76	,-621
2/ 7	28	M04/ @	,3-272	738-204	,018/ -13	/	-/ / 5	-/ / 3
2/ 8	28	M041@	,0518-273	0117-362	838-768	-/ / 5	-/ 0	,-/ / 2
20/	28	M044@	0116-223	821-165	603-/ 66	-/ / 3	,-/ / 7	-/ / 2
200	28	Sns`kr 9	,273-/ 12	3813-770	110-604			
201	28	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
202	3/	M78	1/ -84	743-572	,0/ 6-18	,0-753	-/ / 5	,-057
203	3/	M86	,123-1/ 8	453-401	,1/ 3-/ 12	-552	-110	0-/ 71
204	3/	M0/ 0	048-035	386-683	,031-/ 46	-242	,-027	,-582
205	3/	M04/ @	,5-1/ 3	700-7/ 6	,0122-/ 06	/	-/ 0	-/ / 5
206	3/	M041@	,0531-40	0126-1/ 5	843-620	-/ / 3	-/ / 6	,-/ / 1
207	3/	M044@	0153-723	847-768	620-533	/	/	/
208	3/	Sns`kr 9	,326-882	3813-770	,-/ 01			
21/	3/	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
210	30	M78	22-128	757-637	,018-607	,0-84	,-/ / 7	,-054
211	30	M86	,152-244	440-605	,183-82	-527	-154	0-/ 24
212	30	M0/ 0	140-645	388-/ 76	,217-/ 61	-234	-207	,-580
213	30	M04/ @	,3-085	662-781	,0064-052	/	-/ / 4	-/ / 2
214	30	M041@	,0566-135	0150-685	86/ -714	/	/	/
215	30	M044@	017/ -555	858-531	627-034	,-/ / 0	-/ / 1	/
216	30	Sns`kr 9	,268-025	3813-77	,107-802			
217	30	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
218	31	M78	023-620	764-828	,046-2/ 2	,1-/ / 5	-/ 41	,-066
22/	31	M86	,157-/ 11	422-667	,218-04	-5/ 2	-160	-863
220	31	M0/ 0	252-340	4/ 4-788	,384-220	-242	,-373	,-611
221	31	M04/ @	,-74	634-634	,0020-4/ 3	/	,-/ / 0	/
222	31	M041@	,0615-387	0187-3	886-103	,-/ / 1	,-/ / 3	-/ / 0

Cdr hfimdq	9
I na Mtl adq	9
L ncdkM`l d	9

@`f 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

Joint Reactions (Continued)

	KB	I nhms K`adk	W Za\	X Za\	Y Za\	L W Z̧,es\	L X Z̧,es\	L Y Z̧,es\
223	31	M044@	0164-561	854-008	621-272	,-/ / 2	-/ / 5	,-/ / 1
224	31	Sns`kr 9	,110-406	3813-77	,272-580			
225	31	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
226	32	M78	241-1/ 0	765-686	,058-253	,1-/ 02	-134	,-085
227	32	M86	,144-077	404-837	,228-/ 88	-454	-2/ 3	-802
228	32	M0/ 0	320-848	407-/ 77	,457-172	-270	,-412	,-665
23/	32	M04/ @	0-3	622-53	,0001-340	/	,-/ / 3	,-/ / 1
230	32	M041@	,0666-60	0226-708	0/ 18-/ 10	/	/	/
231	32	M044@	0136-218	831-478	600-58	,-/ / 7	-/ 04	,-/ / 4
232	32	Sns`kr 9	,-/ / 8	3813-770	,337-375			
233	32	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
234	33	M78	451-487	760-064	,043-850	,0-866	-31	,-1/ 7
235	33	M86	,073-126	4/ 5-257	,151-353	-430	-137	-766
236	33	M0/ 0	347-751	424-028	,471-673	-310	,-410	,-735
237	33	M04/ @	2-80	63/ -7/ 8	,0012-677	/	,-/ / 7	,-/ / 4
238	33	M041@	,0703-837	0255-635	0/ 43-254	-/ / 3	-/ / 7	,-/ / 1
24/	33	M044@	0087-03	8/ 3-533	570-/ 47	,-/ 00	-/ 08	,-/ / 5
240	33	Sns`kr 9	113-215	3813-771	,277-464			
241	33	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
242	34	M78	544-481	747-0/ 8	,020-134	,0-8/ 8	-345	,-105
243	34	M86	,54-84	4/ 6-057	,67-065	-428	-/ 41	-766
244	34	M0/ 0	358-180	44/ -687	,454-581	-348	,-434	,-800
245	34	M04/ @	6-43	655-5/ 2	,0052-660	/	,-/ 05	,-/ 0
246	34	M041@	,0716-480	0265-711	0/ 53-15	-/ / 5	-/ 0	,-/ / 2
247	34	M044@	0034-033	754-271	541-80	,-/ / 7	-/ 03	,-/ / 3
248	34	Sns`kr 9	273-/ 16	3813-772	,110-603			
25/	34	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
250	35	M78	560-/ 30	730-/ 10	,001-162	,0-711	-330	,-115
251	35	M86	12-8/ 7	403-660	0/ 3-618	-441	,-014	-8/ 4
252	35	M0/ 0	33/ -404	447-00	,355-1	-372	,-384	,-84
253	35	M04/ @	8-247	7/ 3-006	,011/ -886	/	,-/ 1	,-/ 02
254	35	M041@	,0703-355	0257-/ 82	0/ 48-3/ 8	-/ / 6	-/ 02	,-/ / 3
255	35	M044@	00/ 6-53	727-661	524-234	,-/ / 2	-/ / 5	,-/ / 1
256	35	Sns`kr 9	326-886	3813-772	-/ 02			
257	35	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
258	36	M78	547-665	715-842	,78-715	,0-624	-344	,-117
26/	36	M86	42-/ 12	416-464	084-534	-466	,-058	-841
260	36	M0/ 0	236-806	445-700	,17/ -104	-381	,-204	,-841
261	36	M04/ @	6-235	731-/ 16	,0167-736	/	,-/ 04	,-/ 0
262	36	M041@	,0668-623	0232-40	0/ 32-201	-/ 00	-/ 10	,-/ / 6
263	36	M044@	0/ 80-700	717-/ / 6	517-734	,-/ / 1	-/ / 2	,-/ / 0
264	36	Sns`kr 9	268-03	3813-772	107-803			
265	36	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
266	37	M78	446-167	708-642	,51-100	,0-57	-285	,-105
267	37	M86	46-553	434-404	118-732	-501	,-064	0/ 02
268	37	M0/ 0	125-141	44/ -/ / 6	,001-860	-373	,-038	,-810
27/	37	M04/ @	3-/ / 2	76/ -055	,0211-4/ 3	/	,-/ / 8	,-/ / 5
270	37	M041@	,062/ -370	02/ 5-80	0/ 05-816	-/ 03	-/ 14	,-/ / 7
271	37	M044@	0/ 85-7/ 4	721-422	523-5/ 7	/	/	/
272	37	Sns`kr 9	110-410	3813-772	272-581			
273	37	BNF 'es(9	W923-471	X90-483	Y9,5-3/ 0			
274	38	M78	,375-226	425-717	,62-702	,0-/ 25	,-251	-/ / 2

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Bnl o`mx   9
Cdr Hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

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8900 @L
Bgdbj dc Ax9^^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	L W Z,es\	L X Z,es\	L Y Z,es\
275	38	M86	,184-428	417-551	,251-41	-5/ 2	-230	-873
276	38	M0/ 0	38-044	403-076	51-74	-364	-/ 05	,-728
277	38	M04/ @	,-41	72/ -017	,0150-544	/	-/ / 2	-/ / 1
278	38	M041@	,0/ 40-237	688-037	5/ 4-361	,-/ / 1	,-/ / 3	-/ / 0
28/	38	M044@	0673-483	023/ -820	0/ 18-550	/	/	/
280	38	Sns`kr 9	-/ / 4	3438-772	,-/ / 4			
281	38	BNF 'es(9	W924-6/ 5	X90-614	Y9,5-573			
282	4/	M78	,38-374	728-2/ 3	,75-333	,0-8/ 4	,-/ 27	-/ 00
283	4/	M86	,86-418	440-42	,15-284	-503	-/ 4	0-/ 16
284	4/	M0/ 0	67-262	414-518	13-650	-372	,-/ 05	,-755
285	4/	M04/ @	-561	73/ -680	,0167-253	/	/	/
286	4/	M041@	,0036-80	760-183	552-744	/	-/ / 0	/
287	4/	M044@	0104-772	810-224	6/ 1-474	/	,-/ / 0	/
288	4/	Sns`kr 9	-/ / 2	3438-772	,-/ / 0			
3/ /	4/	BNF 'es(9	W924-018	X90-614	Y9,5-573			
3/ 0	40	M78	,45-603	534-544	,68-721	,0-134	,-/ 32	-/ 01
3/ 1	40	M86	,74-0/ 6	532-87`	01-138	-618	-/ 12	0-1/ 6
3/ 2	40	M0/ 0	51-123	501-374	6/ -702	-466	-/ 05	,0-/ 07
3/ 3	40	M04/ @	-681	88/ -548	,04/ 5-586	/	/	/
3/ 4	40	M041@	,0152-2/ 5	848-838	618-152	/	/	/
3/ 5	40	M044@	0231-0/ 5	0/ 06-86	663-1/ 2	/	/	/
3/ 6	40	Sns`kr 9	-/ / 5	376/ -588	,-/ / 1			
3/ 7	40	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
3/ 8	41	M78	,37-520	441-336	,25-858	,0-/ / 5	,-/ 33	-/ 0
30/	41	M86	25-2/ 8	474-785	124-131	-563	,-061	0-011
300	41	M0/ 0	,37-387	436-210	165-/ 61	-42	-075	,-814
301	41	M04/ @	-566	821-44	,0307-634	/	,-/ / 0	/
302	41	M041@	,0/ 74-788	715-558	520-104	-/ / 3	-/ / 6	,-/ / 1
303	41	M044@	0035-/ 43	760-/ 24	554-622	-/ / 3	,-/ / 6	-/ / 1
304	41	Sns`kr 9	-/ 02	3204-806	241-436			
305	41	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
306	42	M78	,078-/ 14	446-658	,3/ -761	,0-/ 17	,-036	-/ 04
307	42	M86	,13-587	480-871	041-665	-577	,-/ 84	0-033
308	42	M0/ 0	,72-/ 32	425-161	2/ 2-32	-4/ 4	-106	,-770
31/	42	M04/ @	,0-524	815-754	,030/ -0/ 4	/	-/ / 2	-/ / 1
310	42	M041@	,0/ 47-555	7/ 4-4/ 8	502-5/ 1	-/ / 1	-/ / 3	,-/ / 0
311	42	M044@	007/ -70	786-408	575-360	-/ / 4	,-/ / 7	-/ / 2
312	42	Sns`kr 9	,065-146	3204-806	2/ 4-2/ 0			
313	42	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
314	43	M78	,181-101	455-83	,41-672	,0-/ 6	,-111	-/ 07
315	43	M86	,88-180	481-241	21-2/ 7	-580	-/ 02	0-036
316	43	M0/ 0	,7/ -448	415-848	155-186	-371	-082	,-731
317	43	M04/ @	,2-211	8/ 7-/ 24	,0270-24	/	-/ / 6	-/ / 3
318	43	M041@	,0/ 36-6/ 3	685-322	5/ 3-608	/	/	/
32/	43	M044@	0106-7	814-085	6/ 6-/ 63	-/ / 3	,-/ / 6	-/ / 1
320	43	Sns`kr 9	,2/ 4-178	3204-805	065-154			
321	43	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
322	44	M78	,22/ -455	466-4/ 2	,58-4/ 8	,0-010	,-136	-/ 1
323	44	M86	,056-4/ 2	475-8/ 6	,82-80	-571	-012	0-017
324	44	M0/ 0	,30-6/ 4	410-763	063-503	-356	-011	,-708
325	44	M04/ @	,2-821	770-0/ 0	,023/ -066	/	-/ / 7	-/ / 4
326	44	M041@	,0/ 44-836	7/ 0-762	5/ 5-834	,-/ / 1	,-/ / 3	-/ / 0

Bnl o`mx   9
Cdr Hfmdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/ 13
8900 @L
Bgdbj dc Ax9^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	W 7a\	X 7a\	Y 7a\	L W 7,es	L X 7,es	L Y 7,es
327	44	M044@	0136-01	835-545	611-/ 16	-/ 1	,-/ 3	-/ / 0
328	44	Sns`kr 9	,241-422	3204-804	,-/ 0			
33/	44	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
330	45	M78	,182-677	475-515	,75-455	,0-057	,-106	-/ 08
331	45	M86	,100-/ 33	466-0/ 4	,081-/ 4	-552	-1/ 4	0-/ 83
332	45	M0/ 0	12-007	411-273	41-834	-352	-/ 10	,-708
333	45	M04/ @	,2-188	742-17	,0186-510	/	-/ / 6	-/ / 3
334	45	M041@	,0/ 70-080	71/ -263	508-577	,-/ / 3	,-/ / 6	-/ / 1
335	45	M044@	015/ -8/ 8	845-036	616-210	/	/	/
336	45	Sns`kr 9	,2/ 4-185	3204-804	,065-172			
337	45	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
338	46	M78	,080-655	480-754	,88-273	,0-086	,-027	-/ 05
34/	46	M86	,107-138	454-462	,124-710	-528	-127	0-/ 43
340	46	M0/ 0	85-415	417-238	,55-/ 77	-362	,-/ 70	,-730
341	46	M04/ @	,0-483	721-/ 17	,0154-/ 74	/	-/ / 3	-/ / 1
342	46	M041@	,0005-554	735-860	528-416	,-/ / 4	,-/ / 7	-/ / 2
343	46	M044@	0144-367	840-018	610-427	,-/ / 2	-/ / 4	,-/ / 1
344	46	Sns`kr 9	,065-16	3204-804	,2/ 4-202			
345	46	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
346	47	M78	,40-705	480-706	,0/ 3-426	,0-1/ 0	,-/ 22	-/ 01
347	47	M86	,076-072	444-287	,102-388	-506	-101	0-/ 07
348	47	M0/ 0	047-748	427-063	,04/ -5/ 7	-381	,-046	,-768
35/	47	M04/ @	-616	712-/ 28	,0140-173	/	/	/
350	47	M041@	,0041-758	763-430	550-040	,-/ / 3	,-/ / 6	-/ / 1
351	47	M044@	0121-17	821-835	6/ 5-117	,-/ / 4	-/ / 7	,-/ / 2
352	47	Sns`kr 9	,-/ / 2	3204-805	,241-44			
353	47	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
354	48	M78	77-452	475-384	,0/ / -532	,0-07	-/ 6	-/ / 6
355	48	M86	,015-053	438-2/ 7	,020-/ 28	-5/ 2	-024	-884
356	48	M0/ 0	082-287	438-114	,066-84	-406	,-077	,-813
357	48	M04/ @	2-/ 31	717-615	,0148-813	/	,-/ / 4	,-/ / 2
358	48	M041@	,007/ -/ 88	784-585	567-651	,-/ / 1	-/ / 3	-/ / 0
36/	48	M044@	0086-416	8/ 5-354	574-378	,-/ / 4	-/ 0	,-/ / 2
360	48	Sns`kr 9	065-156	3204-805	,2/ 4-2/ 4			
361	48	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
362	5/	M78	080-644	466-216	,77-633	,0-026	-034	-/ / 2
363	5/	M86	,40-446	437-825	,0/ -447	-5	-/ 16	-882
364	5/	M0/ 0	08/ -788	447-428	,03/ -70	-43	,-053	-852
365	5/	M04/ @	3-618	736-450	,0177-571	/	,-/ / 7	,-/ / 4
366	5/	M041@	,0080-/ 51	8/ 3-658	576-532	/	/	/
367	5/	M044@	005/ -425	767-674	553-771	,-/ / 4	-/ / 7	,-/ / 2
368	5/	Sns`kr 9	2/ 4-188	3204-806	,065-158			
37/	5/	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
370	50	M78	12/ -015	455-655	,61-/ 12	,0-/ 75	-06	-/ / 1
371	50	M86	05-543	443-270	004-568	-5/ 8	,-/ 72	0-/ 00
372	50	M0/ 0	041-/ 25	452-510	,38-025	-444	,-/ 82	,-874
373	50	M04/ @	4-226	763-388	,0218-746	/	,-/ / 8	,-/ / 5
374	50	M041@	,0071-710	788-221	574-306	-/ / 1	-/ / 3	,-/ / 0
375	50	M044@	0020-101	746-207	538-816	,-/ / 2	-/ / 4	,-/ / 1
376	50	Sns`kr 9	241-432	3204-806	-/ / 6			
377	50	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
378	51	M78	082-252	446-531	,43-847	,0-/ 3	-03	-/ / 2

Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@lf 11+1/ 13
8900 @L
Bgdbj dc Ax9^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	WZa\	X Za\	Y Za\	L WZ,es\	L X Z,es\	L YZ,es\
38/	51	M86	5/ -071	453-075	102-713	-517	,-054	0-/ 34
380	51	M0/ 0	76-108	452-0/ 8	61-406	-448	-/ / 7	,-875
381	51	M04/ @	3-6/ 1	8/ 1-207	,0261-302	/	,-/ / 7	,-/ / 4
382	51	M041@	,0046-47	77/ -726	561-565	-/ / 3	-/ / 6	,-/ / 1
383	51	M044@	0006-31	736-713	533-523	/	/	/
384	51	Sns`kr 9	2/ 4-2/ 6	3204-806	065-17			
385	51	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
386	52	M78	80-227	441-3/ 0	,31-016	,0-/ 0	-/ 50	-/ / 5
387	52	M86	56-263	464-610	146-472	-541	,-087	0-/ 75
388	52	M0/ 0	02-715	446-032	080-431	-438	-00	,-853
4/ /	52	M04/ @	1-886	812-453	,03/ 3-835	/	,-/ / 4	,-/ / 2
4/ 0	52	M041@	,0011-0/ 5	743-132	541-727	-/ / 3	-/ / 7	,-/ / 1
4/ 1	52	M044@	0011-741	741-734	54/ -31	-/ / 1	,-/ / 3	-/ / 0
4/ 2	52	Sns`kr 9	065-170	3204-806	2/ 4-20			
4/ 3	52	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
4/ 4	53	M78	,22-04	265-636	,04-148	,-556	,-/ 21	-/ / 6
4/ 5	53	M86	48-263	30/ -5/ 8	120-738	-365	,-067	-683
4/ 6	53	M0/ 0	,54-22	27/ -516	145-575	-262	-071	,-537
4/ 7	53	M04/ @	-352	551-705	,0/ / 7-317	/	/	/
4/ 8	53	M041@	,631-/ 3	454-287	321-610	-/ / 3	-/ / 6	,-/ / 1
40/	53	M044@	67/ -582	482-824	343-867	-/ / 3	,-/ / 6	-/ / 1
400	53	Sns`kr 9	-/ 00	188/ -021	241-437			
401	53	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
402	54	M78	,062-364	271-/ 53	,08-054	,-578	,-024	-/ 01
403	54	M86	,0-504	305-578	038-315	-38	,-0/ 0	-705
404	54	M0/ 0	,88-758	258-480	173-/ 10	-237	-101	,-5/ 3
405	54	M04/ @	,0-741	546-023	,888-688	/	-/ / 3	-/ / 1
406	54	M041@	,603-736	433-15	304-02	-/ / 1	-/ / 3	,-/ / 0
407	54	M044@	704-3	51/ -283	364-578	-/ / 4	,-/ / 7	-/ / 2
408	54	Sns`kr 9	,065-148	188/ -021	2/ 4-2/ 1			
41/	54	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
410	55	M78	,165-503	280-113	,20-/ 71	,-620	,-10	-/ 04
411	55	M86	,65-066	306-/ 47	18-/ 04	-382	-/ / 6	-707
412	55	M0/ 0	,86-287	25/ -178	135-786	-214	-078	,-454
413	55	M04/ @	,2-430	527-211	,860-/ 70	/	-/ / 6	-/ / 3
414	55	M041@	,6/ 2-8/ 1	424-083	3/ 5-143	/	/	/
415	55	M044@	741-231	537-/ 33	385-152	-/ / 3	,-/ / 6	-/ / 1
416	55	Sns`kr 9	,2/ 4-18	188/ -020	065-155			
417	55	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
418	56	M78	,203-84	3/ 0-664	,36-705	,-671	,-124	-/ 06
42/	56	M86	,033-241	300-508	,86-037	-373	-006	-7
420	56	M0/ 0	,47-461	244-100	044-142	-20	-006	,-431
421	56	M04/ @	,3-041	500-303	,818-853	/	-/ / 7	-/ / 4
422	56	M041@	,601-024	43/ -516	3/ 7-362	,-/ / 1	,-/ / 3	-/ / 0
423	56	M044@	770-515	558-374	400-081	-/ / 1	,-/ / 3	-/ / 0
424	56	Sns`kr 9	,241-423	188/ -020	,-/ 0			
425	56	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
426	57	M78	,167-081	30/ -776	,53-768	,-718	,-1/ 4	-/ 05
427	57	M86	,076-75	3/ 0-716	,084-137	-354	-088	-655
428	57	M0/ 0	5-105	244-61	22-532	-2/ 5	-/ 06	,-431
43/	57	M04/ @	,2-408	472-51	,776-355	/	-/ / 6	-/ / 4
430	57	M041@	,626-233	448-0/ 7	310-082	,-/ / 3	,-/ / 6	-/ / 1

IIIRISA®
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr lfimdq   9
Ina Mtl adq   9
Lncdk M`l d   9

@]f 11+1/ 13
8900 @L
Bgdbj dc Ax9`^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	LW Z ,es\	LX Z ,es\	LY Z ,es\
431	57	M044@	784-3/ 1	567-857	405-363	/	/	/
432	57	Sns`kr 9	,2/ 4-187	188/ -02	,065-172			
433	57	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
434	58	M78	,065-110	305-01	,66-6/ 2	,-747	,-016	-/ 02
435	58	M86	,084-/ 34	28/ -2/ 7	,128-/ / 5	-330	-121	-614
436	58	M0/ 0	68-480	250-57	,74-215	-205	,-/ 74	,-453
437	58	M04/ @	,0-702	451-28	,743-865	/	-/ / 3	-/ / 2
438	58	M041@	,661-656	474-565	330-/ / 2	,-/ / 3	,-/ / 7	-/ / 2
44/	58	M044@	778-872	562-845	40/ -585	,-/ / 2	-/ / 4	,-/ / 1
440	58	Sns`kr 9	,065-161	188/ -02	,2/ 4-202			
441	58	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
442	6/	M78	,25-228	305-/ 61	,71-746	,-751	,-/ 11	-/ / 7
443	6/	M86	,052-867	27/ -034	,105-6	-308	-1/ 5	-578
444	6/	M0/ 0	030-8/ 1	260-383	,058-686	-224	,-051	,-5/ 1
445	6/	M04/ @	-40	442-300	,730-084	/	/	/
446	6/	M041@	,7/ 7-807	502-106	351-486	,-/ / 3	-/ / 6	-/ / 1
447	6/	M044@	755-71	544-680	384-3/ 2	,-/ / 4	-/ / 7	,-/ / 2
448	6/	Sns`kr 9	,-/ / 3	188/ -020	,241-44			
45/	6/	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
450	60	M78	0/ 2-861	30/ -645	,67-848	,-73	-/ 71	-/ / 3
451	60	M86	,0/ 1-865	263-/ 52	,023-172	-3/ 4	-018	-556
452	60	M0/ 0	065-324	271-422	,086-004	-25	,-081	,-536
453	60	M04/ @	1-717	448-/ 84	,738-714	/	,-/ / 4	,-/ / 2
454	60	M041@	,725-0/ 7	523-24	37/ -075	,-/ / 1	,-/ / 3	-/ / 0
455	60	M044@	721-005	518-225	363-580	,-/ / 4	-/ / 8	,-/ / 2
456	60	Sns`kr 9	065-155	188/ -020	,2/ 4-2/ 3			
457	60	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
458	61	M78	1/ 6-003	3/ 0-487	,56-/ 43	,-687	-046	/
46/	61	M86	,17-3/ 0	262-580	,02-748	-3/ 1	-/ 10	-554
460	61	M0/ 0	062-837	280-724	,048-873	-272	,-058	,-575
461	61	M04/ @	3-406	466-801	,767-434	/	,-/ / 7	,-/ / 4
462	61	M041@	,736-/ 42	532-303	378-/ 5	/	/	/
463	61	M044@	684-063	5/ 0-571	343-003	,-/ / 3	-/ / 7	,-/ / 2
464	61	Sns`kr 9	2/ 4-186	188/ -021	,065-157			
465	61	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
466	62	M78	134-357	280-/ 38	,4/ -214	,-636	-071	,-/ / 1
467	62	M86	28-662	268-02	001-211	-300	,-/ 78	-572
468	62	M0/ 0	024-001	285-800	,57-238	-287	,-/ 86	,-6/ 7
47/	62	M04/ @	4-015	5/ 3-713	,808-554	/	,-/ / 8	,-/ / 5
470	62	M041@	,727-712	526-872	375-730	-/ / 1	-/ / 3	,-/ / 0
471	62	M044@	654-774	47/ -124	328-071	,-/ / 2	-/ / 4	,-/ / 0
472	62	Sns`kr 9	241-430	188/ -021	-/ / 6			
473	62	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
474	63	M78	1/ 7-614	270-825	,22-142	,-6/ 0	-041	/
475	63	M86	72-157	277-813	10/ -317	-32	,-060	-606
476	63	M0/ 0	6/ -22	285-288	42-134	-3/ 1	-/ / 2	,-6/ 8
477	63	M04/ @	3-381	521-504	,851-052	/	,-/ / 7	,-/ / 4
478	63	M041@	,702-506	508-4/ 7	363-012	-/ / 3	-/ / 6	,-/ / 1
48/	63	M044@	641-0/ 6	46/ -638	322-8/ 0	/	/	/
480	63	Sns`kr 9	2/ 4-2/ 4	188/ -022	065-17			
481	63	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			
482	64	M78	0/ 5-64	265-6/ 1	,1/ -306	,-560	-/ 62	-/ / 1

RISA
A NEMETSCHEK COMPANY

Bnl o`mx   9
Cdr hfimdq   9
Ina Mtl adq   9
LncdkM`l d   9

@f 11+1/ 13
8900 @L
Bgdbj dc Ax9^^^^

Joint Reactions (Continued)

	KB	Inhms K`adk	W Za\	X Za\	Y Za\	LW Z,es\	LX Z,es\	LY Z,es\
483	64	M86	8/ -330	3// -335	143-062	-343	,-1/ 3	-646
484	64	M0/ 0	,2-/ 18	28/ -328	061-1/ 6	-281	-0/ 4	,-576
485	64	M04/ @	1-674	542-73	,883-54	/	,-// 4	,-// 2
486	64	M041@	,667-083	481-831	343-204	-// 3	-// 7	,-// 1
487	64	M044@	646-416	464-653	328-572	-// 1	,-// 3	-// 0
488	64	Sns`kr 9	065-168	188/ -021	2/ 4-20			
5//	64	BNF 'es(9	W924-028	X90-77	Y9,6-/ 08			

Envelope AISC 15th(360-16): LRFD Steel Code Checks

	L dl adq	Rg`od	Bncd Bgdbj	Knb Z-KB	Rgd`q-Knb Z-Chq	KB	ogh)Om--ogh)Ons--ogh)L m--ogh)L m--	Ba	Dpm
0	L 23@	K2W2W3	-684	03 8	-334 6	x	6	2833-4---	35545	0-577	1-675	0-603	G1,0
1	L 24@	K2W2W3	-715	/ 0	-36/ 5-743	x	2	2833-3---	35545	0-577	1-554	0-416	G1,0
2	L 25@	K2W2W3	-700	03 0	-320 6	x	00	2833-2---	35545	0-577	1-756	0-75	G1,0
3	L 26	K2W2W3	-214	6-106 2	-/ 12 2-422	y	11	03734----	35545	0-577	2-527	1-528	G1,0
4	L 27@	KK2w2w3w/	-2/ /	0-725 06	-463 2-806	y	7	65263-0	82201	5-37	3-250	0-71	G0,0a
5	L 28@	KK2w2w3w/	-186	0-725 0	-438 2-806	y	0/	65263-0	82201	5-37	3-250	1-/ 80	G0,0a
6	L 3/	KK2w2w3w/	-2/ 0	0-725 7	-412 2-806	y	5	65263-0	82201	5-37	3-250	0-285	G0,0a
7	L 30	K2W2W3	-243	/ 6	-/ 13 2-422	y	07	03734----	35545	0-577	2-235	0-580	G1,0
8	L 31	K2W2W3	-221	/ 2	-/ 13 2-5/7	y	08	03734----	35545	0-577	2-248	0-611	G1,0
0/	L 32	GRR3-4W---	-0/ 3	0-847 4	-/ 18 /	y	3	08016---	082641	14-/ 70	14-/ 70	0-537	G0,0a
00	L 33	GRR3W3W4	-23/	0-/ 31 4	-034 0-/ 31	y	3	05783---	05863/	08-174	08-174	0-041	G0,0a
01	L 34	GRR3-4W---	-0/ 4	0-847 0	-/ 17 0-847	x	1	08016---	082641	14-/ 70	14-/ 70	0-533	G0,0a
02	L 35	GRR3W3W4	-24/	0-/ 31 0	-011 0-/ 31	y	5	05783---	05863/	08-174	08-174	0-058	G0,0a
03	L 36	GRR3-4W---	-0/ 6	0-847 8	-/ 18 /	y	1	08016---	082641	14-/ 70	14-/ 70	0-535	G0,0a
04	L 37	GRR3W3W4	-213	0-/ 31 8	-012 0-/ 31	y	1	05783---	05863/	08-174	08-174	0-056	G0,0a
05	L 38	OHOD^1-/	-307	4-7/5 7	-078 0/ -8---		7	502/ -7--	2102/	0-761	0-761	1-360	G0,0a
06	L 4/	OHOD^1-/	-3/ /	4-7/5 3	-082 0-604		1	502/ -7--	2102/	0-761	0-761	1-232	G0,0a
07	L 40	OHOD^1-/	-270	4-7/5 01	-068 0/ -8---		00	502/ -7--	2102/	0-761	0-761	1-355	G0,0a
08	L 47@	K2W1W2	-525	/ 00	-/ 47 /	y	3	130/ 2--	1860/ -7	-530	0-766	1-051	G1,0
1/	L 48@	K2W1W2	-552	/ 6	-/ 44 /	y	5	130/ 2--	1860/ -7	-530	0-766	1-076	G1,0
10	L 5/@	K2W1W2	-547	/ 2	-/ 48 /	y	1	130/ 2--	1860/ -7	-530	0-766	1-081	G1,0
11	L O0@	OHOD^1-/	-166	5-077 5	-/ 85 5-077		5	01032---	2102/	0-761	0-761	2-305	G0,0a
12	L O1@	OHOD^1-/	-248	5-077 2	-047 1-327		6	01032---	2102/	0-761	0-761	3-25	G0,0a
13	L O2@	OHOD^1-/	-340	5-670 2	-030 5-670		4	06744---	2102/	0-761	0-761	1-223	G0,0a
14	L 61	OHOD^1-/	-326	5-306 4	-04/ 5-306		6	06744---	2102/	0-761	0-761	1-120	G0,0a
15	L O3@	OHOD^1-/	-224	5-077 0/	-1/ 6 5-077		7	01032----	2102/	0-761	0-761	3-07	G0,0a
16	4@	OHOD^1-/	-241	5-077 7	-031 5-077		7	01032---	2102/	0-761	0-761	2-58	G0,0a
17	0B	OHOD^1-/	-215	5-077 1	-024 5-077		1	01032---	2102/	0-761	0-761	2-/ 18	G0,0a
18	L O1B	OHOD^1-/	-261	5-077 01	-077 5-077		1	01032---	2102/	0-761	0-761	3-/ 37	G0,0a
2/	L O2B	OHOD^1-/	-374	5-38 5	-034 5-38		0	06744---	2102/	0-761	0-761	1-221	G0,0a
20	L 46@	OHOD^1-/	-355	5-014 0	-050 5-014		2	06744---	2102/	0-761	0-761	1-320	G0,0a
21	L O3B	OHOD^1-/	-250	5-077 6	-086 5-077		3	01032---	2102/	0-761	0-761	2-447	G0,0a
22	4B	OHOD^1-/	-228	5-077 3	-012 5-077		3	01032---	2102/	0-761	0-761	1-662	G0,0a
23	L O0A	OHOD^1-/	-166	5-077 0/	-/ 86 1-327		00	01032---	2102/	0-761	0-761	0-888	G0,0a
24	L O1A	OHOD^1-/	-254	5-077 7	-047 2-827		0/	01032---	2102/	0-761	0-761	2-654	G0,0a
25	L O2A	OHOD^1-/	-36/	5-451 1	-042 5-451		8	06744---	2102/	0-761	0-761	1-22	G0,0a
26	L 64@	OHOD^1-/	-340	5-306 8	-032 5-306		00	06744---	2102/	0-761	0-761	1-08	G0,0a
27	L O3A	OHOD^1-/	-243	5-077 1	-083 5-077		01	01032---	2102/	0-761	0-761	3-161	G0,0a
28	L O4A	OHOD^1-/	-202	5-077 01	-002 1-327		00	01032---	2102/	0-761	0-761	2-251	G0,0a
3/	L 71	OHOD^1-/	-350	2-64 5	-/ 23 2-64		5	15410---	2102/	0-761	0-761	1-/ 31	G0,0a

Bnl o`mx   9
Cdr lfimdq   9
I na Mtl adq   9
L ncdkM`l d   9

@t f 11+1/13
8900 @L
Bgdbj dc Ax9^^^^

Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

	L dl adq	Rg`od	Bncd Bgdbj	KnbZ	KB	Rgd`q	KnbZ-Clt		KB	ogh)Om--	ogh)Ons--	ogh)L m--	ogh)L m--	Ba	Dpm
30	L 73	KK1-4wl-4---	-024	5-072	02	-//8	5-072	y	0/	24703---	4721/	2-843	1-415	0-778	G0,0a)
31	L 74	KK1-4wl-4---	-021	5-072	10	-//7	5-072	y	5	24703---	4721/	2-843	1-415	0-864	G0,0a)
32	L 75	KK1-4wl-4---	-026	5-072	06	-//8	5-072	y	7	24703---	4721/	2-843	1-415	0-844	G0,0a)
33	L 76	K1-4wl-4w8	-/8/	1-007	1	-/28	3-038	x	6	10876---	27445	0-003	1-227	0-025	G1,0
34	L 83	K1-4wl-4w8	-/77	1-007	01	-/31	3-038	y	6	10875---	27445	0-003	1-227	0-025	G1,0
35	L 84	K1-4wl-4w8	-/77	1-007	0/	-/32	3-038	x	2	10876---	27445	0-003	1-227	0-025	G1,0
36	L 85	K1-4wl-4w8	-/83	1-007	7	-/32	3-038	y	2	10875---	27445	0-003	1-227	0-025	G1,0
37	L 86	K1-4wl-4w8	-/76	1-007	6	-/27	3-038	x	00	10876---	27445	0-003	1-227	0-025	G1,0
38	L 87	K1-4wl-4w8	-/81	1-007	2	-/31	3-038	y	00	10875---	27445	0-003	1-227	0-025	G1,0
4/	L O4@	OHODD^1-/	-/24	1-/72	12	-/36	3-64		0	03805---	2102/	0-761	0-761	1-573	G0,0a
40	L 0/7	RQ^/-514	-171	/	05	-081	/		03	8086-6---	883/-0--	-0/3	-0/3	0-568	G0,0a
41	L 0/8	RQ^/-514	-170	/	05	-082	/		03	8086-6---	883/-0--	-0/3	-0/3	0-568	G0,0a
42	L 00/	RQ^/-514	-227	/	10	-121	/		1/	8086-6---	883/-0--	-0/3	-0/3	0-566	G0,0a
43	L 000	RQ^/-514	-226	/	10	-122	/		1/	8086-6---	883/-0--	-0/3	-0/3	0-566	G0,0a
44	L O4B	OHODD^1-/	-/24	1-/72	1/	-/3/	3-64		2	03805---	2102/	0-761	0-761	1-573	G0,0a
45	L 010	RQ^/-514	-161	/	13	-076	/		11	8086-6---	883/-0--	-0/3	-0/3	0-57	G0,0a
46	L 011	RQ^/-514	-161	/	13	-076	/		11	8086-6---	883/-0--	-0/3	-0/3	0-57	G0,0a
47	L 012	RQ^/-514	-233	/	07	-125	/		05	8086-6---	883/-0--	-0/3	-0/3	0-566	G0,0a
48	L 013	RQ^/-514	-231	/	07	-126	/		04	8086-6---	883/-0--	-0/3	-0/3	0-566	G0,0a
5/	L O0B	OHODD^1-/	-/24	1-/72	06	-/47	0-556		2	03805---	2102/	0-761	0-761	1-573	G0,0a
50	L 036	RQ^/-514	-168	/	1/	-082	/		1/	8086-6---	883/-0--	-0/3	-0/3	0-568	G0,0a
51	L 037	RQ^/-514	-168	/	10	-082	/		1/	8086-6---	883/-0--	-0/3	-0/3	0-568	G0,0a
52	L 038	RQ^/-514	-224	/	03	-122	/		03	8086-6---	883/-0--	-0/3	-0/3	0-566	G0,0a
53	L 04/	RQ^/-514	-224	/	03	-120	/		03	8086-6---	883/-0--	-0/3	-0/3	0-566	G0,0a
54	N UO	OHODD^1-/	-110	2-64	00	-/06	2-64		00	15410---	2102/	0-761	0-761	1-/41	G0,0a

Version 2.00

I. Mount-to-Tower Connection Check

Custom Orientation Required | Yes |

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N89	0
N101	240
N97	120

Tower Connection Bolt Checks | No |

Tower Connection Baseplate Checks | No |

Tower Connection Weld Checks | Yes |

Weld Shape:	Rectangle
Weld Stiffener Configuration:	(1) Stiffener on top/bottom
Stiffener Notch Present?	No
Stiffener Length, l (in):	3.75
Stiffener Spacing/Width, s (in):	
Weld Size (1/16 in):	4
W1 (in):	4
W2 (in):	4
Weld Total Length (in):	31.00
Z_x (in^3/in):	63.56
Z_y (in^3/in):	21.33
J_p (in^4/in):	328.15
c_x (in)	5.75
c_y (in)	5.75
Required combined strength (kip/in):	2.08
Weld Capacity (kip/in):	5.57
Weld Utilization:	**37.4%**

FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:

CROWN CASTLE

verizon

Crown Site ID: 806372_HRT 093 943228
Verizon Wireless Site Name: Manchester CT
Verizon Wireless FUZE ID: 17289548

Site Address:

266R Center Street

Manchester, CT 06040

December 13, 2024

Fox Hill Telecom Project Number: 240230

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	11.81 %

Fox Hill Telecom, Inc   Worcester   MA   01609

FOX HILL TELECOM

December 13, 2024

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

<div align="center">

Emissions Analysis for:

Crown Castle Site: 806372 – HRT 093 943228

Verizon Wireless Site: Manchester CT

</div>

Fox Hill Telecom, Inc ("Fox Hill") was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **266R Center Street, Manchester, CT**, for the purpose of determining whether the emissions from the Proposed Verizon Wireless Antenna Installation, in addition to all existing radio systems located on this property, are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of μW/cm^2 calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

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

<div align="center">

Fox Hill Telecom, Inc   Worcester   MA   01609

</div>

General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (μW/cm^2). The general population exposure limits for the 700 MHz band & the 850 MHz cellular band are approximately 497 μW/cm^2 and 586 μW/cm^2 respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS), 3700 MHz (C band) and 39 GHz frequency bands is 1000 μW/cm^2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report the percentage of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were performed for the proposed upgrades to the Crown Castle facility for Verizon Wireless located at **266R Center Street**, **Manchester**, **CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, plane wave power densities in the far field of an antenna are calculated by considering antenna gain and reflective waves that would contribute to exposure.

Since the radiation pattern of an antenna has developed in the **far field** region the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels. To determine a worst-case scenario at each point along the calculation radials, each point was calculated using the antenna gain value at each angle of incident and compared against the result using an isotropic radiator at the antenna height with the greater of the two used to yield the more pessimistic far field value for each point along the calculation radial.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential 1.6 times increase in power density in calculating far field power density values.

With these factors considered, the worst case **far field prediction model** utilized in this analysis is determined by the following equation:

Equation 9 per FCC OET65 for Far Field Modeling

$$S = \frac{33.4 \; ERP}{R^2}$$

S = Power Density (in µw/cm^2)
ERP = Effective Radiated Power from antenna (watts)
R = Distance from the antenna (meters)

Predicted far field power density values for all carriers identified in this report were calculated 6 feet above the ground level and are displayed as a percentage of the applicable FCC standards. All emissions values for other carriers were calculated using the same Far Field model outlined above, using industry standard radio configurations and frequency band selection based upon available licenses in this geographic area for emissions contribution estimates.

FOX HILL TELECOM

For each Verizon Wireless sector, the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*. Note that Sector D only has two (2) 39 GHz channels without the other radios / channels listed for sectors A, B&C.

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	700 MHz	4	40
LTE / 5G	850 MHz	4	40
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	4	40
LTE	3500 MHz (CBRS)	4	1.25
5G	3700 MHz (C Band)	2	120
5G	39 GHz	2	3.25

Table 1: Channel Data Table

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The following **Verizon Wireless** antennas listed in *Table 2 – Antenna Data* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS), 3700 MHz (C Band) and 39 GHz frequency bands. This is based on feedback from Verizon Wireless regarding anticipated antenna selection. Maximum gain values for all antennas are listed in *Table 3 – Verizon Wireless Inventory and Power Data* below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope NNHH-65B-R4	118
A	2	Commscope NNHH-65B-R4	118
A	3	Samsung XXDWMM-12.5-65-8T-CBRS	116
A	4	Samsung MT6407-77A	120
A	5	CBNG 39GHz VectaStar NR gNB	120
B	1	Commscope NNHH-65B-R4	118
B	2	Commscope NNHH-65B-R4	118
B	3	Samsung XXDWMM-12.5-65-8T-CBRS	116
B	4	Samsung MT6407-77A	120
B	5	CBNG 39GHz VectaStar NR gNB	120
C	1	Commscope NNHH-65B-R4	118
C	2	Commscope NNHH-65B-R4	118
C	3	Samsung XXDWMM-12.5-65-8T-CBRS	116
C	4	Samsung MT6407-77A	120
C	5	CBNG 39GHz VectaStar NR gNB	120
D	1	CBNG 39GHz VectaStar NR gNB	120

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.

RESULTS

Per the calculations completed for the proposed Verizon Wireless configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope NNHH-65B-R4	700 MHz / 850 MHz	12.65 / 13.35	8	320	6,405.55	1.79
Antenna A2	Commscope NNHH-65B-R4	1900 MHz (PCS) / 2100 MHz (AWS)	15.45 / 15.85	8	320	11,765.50	0.92
Antenna A3	Samsung XXDWMM-12.5-65-8T-CBRS	3700 MHz (C Band)	16.50	4	5	223.34	0.02
Antenna A4	Samsung MT6407-77A	39 GHz	23.15	2	240	49,569.12	2.82
Antenna A5	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2.678.63	0.20
						Sector A Composite MPE%	**5.75**
Antenna B1	Commscope NNHH-65B-R4	700 MHz / 850 MHz	12.65 / 13.35	8	320	6,405.55	1.79
Antenna B2	Commscope NNHH-65B-R4	1900 MHz (PCS) / 2100 MHz (AWS)	15.45 / 15.85	8	320	11,765.50	0.92
Antenna B3	Samsung XXDWMM-12.5-65-8T-CBRS	3700 MHz (C Band)	16.50	4	5	223.34	0.02
Antenna B4	Samsung MT6407-77A	39 GHz	23.15	2	240	49,569.12	2.82
Antenna B5	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2.678.63	0.20
						Sector B Composite MPE%	**5.75**
Antenna C1	Commscope NNHH-65B-R4	700 MHz / 850 MHz	12.65 / 13.35	8	320	6,405.55	1.79
Antenna C2	Commscope NNHH-65B-R4	1900 MHz (PCS) / 2100 MHz (AWS)	15.45 / 15.85	8	320	11,765.50	0.92
Antenna C3	Samsung XXDWMM-12.5-65-8T-CBRS	3700 MHz (C Band)	16.50	4	5	223.34	0.02
Antenna C4	Samsung MT6407-77A	39 GHz	23.15	2	240	49,569.12	2.82
Antenna C5	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2.678.63	0.20
						Sector C Composite MPE%	**5.75**
Antenna D1	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2.678.63	0.20
						Sector D Composite MPE%	**0.20**

Table 3: Verizon Wireless Inventory and Power Data table

Table 4: All Carrier MPE Contributions shows all additional identified carriers on site and their emissions contribution estimates, along with the newly calculated maximum Verizon Wireless far field emissions contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas the highest recorded sector value be used for composite site emissions values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, the Verizon Wireless sectors with the largest calculated MPE% are sectors A, B & C. *Table 5* below shows a summary for each Verizon Wireless Sector as well as the composite estimated emissions value for the site.

Site Composite MPE%	
Carrier	**MPE%**
Verizon Wireless – Max value Sectors A, B & C	**5.75 %**
Dish Wireless	4.29 %
Clearwire	0.17 %
XM Sat Radio	1.60 %
EYE Tower (RX Only)	0.00 %
Site Total MPE %:	**11.81 %**

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	5.75 %
Verizon Wireless Sector B Total:	5.75 %
Verizon Wireless Sector C Total:	5.75 %
Verizon Wireless Sector D Total:	0.20 %
Site Total:	11.81 %

Table 5: Site MPE Summary

Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated Verizon sector(s). For this site, the Verizon Wireless sectors with the largest calculated MPE% are Sectors A, B & C.

Verizon Wireless _ Frequency Band / Technology Max Power Values (Sectors A, B & C)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm²)	Frequency (MHz)	Allowable MPE (µW/cm²)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	736.31	118	4.87	700 MHz	497	0.98%
Verizon Wireless 850 MHz LTE / 5G	4	865.09	118	4.75	850 MHz	586	0.81%
Verizon Wireless 1900 MHz (PCS) LTE	4	1,403.01	118	4.60	1900 MHz (PCS)	1000	0.46%
Verizon Wireless 2100 MHz (AWS) LTE	4	1,538.37	118	4.60	2100 MHz (AWS)	1000	0.46%
Verizon Wireless 3500 MHz (CBRS) LTE	4	55.84	116	0.20	3500 MHz (CBRS)	1000	0.02%
Verizon Wireless 3700 MHz (C Band) 5G	2	24,784.56	120	28.20	3700 MHz (C Band)	1000	2.82%
Verizon Wireless 39 GHz 5G	2	1,339.32	120	2.00	39 GHz	1000	0.20%
						Total:	**5.75 %**

Table 6: Verizon Wireless Maximum Sector MPE Power Values

FOX HILL TELECOM

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the Verizon Wireless facility as well as the site composite emissions estimates value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Wireless Sector	Power Density Value (%)
Sector A:	5.75 %
Sector B:	5.75 %
Sector C:	5.75 %
Sector D:	0.20 %
Verizon Wireless Maximum Total (Sectors A, B & C):	5.75 %
Site Total:	11.81 %
Site Compliance Status:	**COMPLIANT**

The estimated composite emissions value for this site, assuming all carriers present, is **11.81 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite estimated values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Worcester, MA 01609
(978)660-3998

verizon

VERIZON SITE NUMBER: 5000381961	**BUSINESS UNIT #:** 806372
VERIZON SITE NAME: MANCHESTER CT	**SITE ADDRESS:** 266R CENTER STREET
VERIZON PROJECT: 17289548	MANCHESTER, CT 06040
SITE TYPE: MONOPOLE	**COUNTY:** HARTFORD
TOWER HEIGHT: 115'-0"	**JURISDICTION:** CT - TOWN OF MANCHESTER

verizon

CC CROWN CASTLE

SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME: HRT 093 943228
BU NUMBER: 806372

TOWER OWNER:
CROWN CASTLE
2000 CORPORATE DRIVE
CANONSBURG, PA 15317

CARRIER/APPLICANT:
VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

SITE ADDRESS:
266R CENTER STREET
MANCHESTER, CT 06040

COUNTY: HARTFORD

LATITUDE: 41° 46' 18.96" / 41.771932°
LONGITUDE: -72° 31' 48.81" / -72.530226°
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 197' ± SE

AREA OF CONSTRUCTION: EXISTING
CURRENT ZONING: -
MAP/PARCEL #: MANC-000102-000266

OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND
NOT FOR HUMAN HABITATION

PROPERTY OWNER:
M STEPHENS CO LLC
218 HARTFORD RD
MANCHESTER, CT 06040

JURISDICTION:
CT - TOWN OF MANCHESTER
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051

ELECTRIC PROVIDER:
CONNECTICUT LIGHT & POWER CO
(800) 286-2000

TELCO PROVIDER:
AT&T
866-620-6900

PROJECT TEAM

A&E FIRM:
CROWN CASTLE USA INC.
2000 CORPORATE DRIVE
CANONSBURG, PA 15317

CROWN CASTLE:
2000 CORPORATE DRIVE
CANONSBURG, PA 15317

CONTACTS:
MIKE STEWART - PROJECT MANAGER
MIKE.STEWART@CROWNCASTLE.COM

HEATHER MILLER - AES
HEATHER.MILLER@CROWNCASTLE.COM

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE
CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATIONS
C-3	ANTENNA PLANS
C-4	FINAL EQUIPMENT SCHEDULE
C-5	EQUIPMENT DETAILS & SPECIFICATIONS
C-6	COLOR CODE MATRIX
G-1	GROUNDING DETAILS
ATTACHED	MOUNT ANALYSIS (BY OTHERS)

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17.
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS
AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY
THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE
PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CALL CONNECTICUT ONE CALL
(800) 922-4455 CBYD.COM
CALL 2 WORKING DAYS
BEFORE YOU DIG!
811

CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT: https://pmi.vzwsmart.com
SMART TOOL VENDOR
PROJECT NUMBER: 10260645
VzW LOCATION CODE (PSLC): 468324

*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT
ANALYSIS REPORT

MOUNT MODIFICATION REQUIRED	**Y**

VzW APPROVED SMART KIT VENDORS
REFER TO MOUNT MODIFICATION DRAWINGS
PAGE FOR VzW SMART KIT APPROVED VENDORS

APPROVALS

VERIZON SIGNATURE BLOCK

APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		

CROWN CASTLE USA INC. SINGNATURE BLOCK

APPROVAL		
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND
CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE
WIRELESS FACILITY.

TOWER SCOPE OF WORK:
• REMOVE (3) COMMSCOPE - LNX-6514DS ANTENNAS
• REMOVE (1) ANDREW - LDF7-50A COAXIAL CABLE

• INSTALL (4) CBNG - 39GHZ VECTASTAR NR GNB ANTENNAS
• INSTALL (1) RAYCAP INC - RVZDC-6627-PF-48 OVP
• INSTALL (1) HUBER & SUHNER INC - SD-06X6GA-12SM-180 HYBRID CABLE
• INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS BY COLLIERS
  ENGINEERING & DESIGN, DATED 11/13/24

GROUND SCOPE OF WORK:
• INSTALL (1) RAYCAP INC - RVZDC-4520-RM-48 OVP

LOCATION MAP

DIRECTIONS

NO SCALE

APPLICABLE CODES & REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN
ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING
CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES.
NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK
NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2022 CONNECTICUT SBC/2021 IBC
MECHANICAL	2022 CONNECTICUT SBC/2021 IMC
ELECTRICAL	2022 CONNECTICUT SBC/2020 NEC

REFERENCE DOCUMENTS:
STRUCTURAL ANALYSIS: MORRISON HERSHFIELD
  DATED: 10/04/2024
MOUNT ANALYSIS: COLLIERS ENGINEERING & DESIGN,
  DATED: 11/13/2024
RFDS REVISION: 0
  DATED: 08/07/2024
ORDER ID: 674388
REVISION: 0

INSTALLER NOTE:
NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER MOUNT ANALYSIS BY
COLLIERS ENGINEERING & DESIGN, DATED
11/13/2024.

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
HRT 093 943228

266R CENTER STREET
MANCHESTER, CT 06040

EXISTING 115'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES /QA
0	12/09/24	RWA	CONSTRUCTION	MA

DocuSigned by:
Morteza Ashouri
DCFD84A65E89451...
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CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
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CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED— NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.

2. "LOOK UP" — CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENT OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.

4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.4R (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION).

5. ALL SITE WORK TO COMPLY WITH OAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."

6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.

10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.

11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.

12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.

13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC, AND/OR LOCAL UTILITIES.

14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.

15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.

16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.

17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.

18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES, ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER CES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OFF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.

4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO ITS EQUIPMENT.

6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.

7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.

8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.

11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

12. ALL GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

13. COMPRESSION GROUND CONNECTIONS (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.

14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.

17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.

19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE ROUTED IN CONDUIT (I.E. NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e. NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).

21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: VERIZON
   TOWER OWNER: CROWN CASTLE USA INC.

2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.

3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.

4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.

5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.

6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.

7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.

10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL, BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.

11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.

12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.

13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.

3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°F AT TIME OF PLACEMENT.

4. CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.

5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
   #4 BARS AND SMALLER..40 ksi
   #5 BARS AND LARGER...60 ksi

6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH.......................3"
   CONCRETE EXPOSED TO EARTH OR WEATHER:
     #6 BARS AND LARGER...2"
     #5 BARS AND SMALLER...1-1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
     SLAB AND WALLS..3/4"
     BEAMS AND COLUMNS..1-1/2"

7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

CONDUCTOR COLOR CODE

SYSTEM	CONDUCTOR	COLOR
120/240v, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208v, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480v, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE or PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (−)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.

2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.

3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.

4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
   4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
   4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PFE THE GOVERNING JURISDICTION.

5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.

6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).

7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.

8. ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.

9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.

12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.

13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).

14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.

15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.

16. ELECTRICAL METALLIC TUBING (EMT) OR METAL-CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.

17. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90s. ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC CONDUIT. EMT IS ALLOWED AT STUB UP LOCATIONS AND INDOORS ONLY.

18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.

19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.

20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.

21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).

22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).

23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.

24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.

25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.

27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.

28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.

29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "VERIZON".

30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

APWA UNIFORM COLOR CODE:

Color	Description
WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/09/24	RWA	CONSTRUCTION	MA

DocuSigned by:
Morteza Ashouri
PEN.0037763

12/9/2024 | 2:28:11 PM CST

SHEET NUMBER:	REVISION:
T-2	0

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
HRT 093 943228

266R CENTER STREET
MANCHESTER, CT 06040

EXISTING 115'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES /QA
0	12/09/24	RWA	CONSTRUCTION	MA

DocuSigned by:

Morteza Ashouri

STATE OF CONNECTICUT
MORTEZA ASHOURI
PEN.0037763
LICENSED
PROFESSIONAL ENGINEER

12/9/2024 | 2:28:11 PM CST

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER: **C-1**

REVISION: **0**

Site plan labels:

- (E) PLATFORM (BY OTHERS)
- (E) ICE BRIDGE (TYP)
- (E) CONCRETE PAD (BY OTHERS)
- (E) CONCRETE PAD (BY OTHERS)
- (E) 115'-0" MONOPOLE
- (E) GENERATOR (BY OTHERS)
- (E) VERIZON ICE BRIDGE ±21'-0"
- (E) VERIZON FEEDLINES TO REMAIN
  (2) RFS – HB158-1-08U8-S8U18 HYBRID CABLES
  (5) ANDREW – LDF7-50A COAXIAL CABLES
- (E) VERIZON FEEDLINES TO REMOVE
  (1) ANDREW – LDF7-50A COAXIAL CABLE
- (N) VERIZON FEEDLINES TO INSTALL
  (1) HUBER & SUHNER INC – SD-06X6GA-12SM-180 HYBRID CABLE
  (ROUTE PER STRUCTURAL ANALYSIS)
- (E) VERIZON 40'-6"x15'-0" EQUIPMENT SHELTER
- (E) VERIZON 15'-0"x15'-0" GENERATOR PAD
- (N) VERIZON EQUIPMENT TO INSTALL
  (1) RAYCAP – RVZDC-4520-RM-48 OVP
- (E) VERIZON EQUIPMENT TO REMAIN
  (2) COMMSCOPE TECHNOLOGIES LLC – RCMDC-2260-RM-48
- (E) FENCE

Dimensions: 39'-0", 70'-6", 13'-0" (GATE), 69'-0", 46'-0", 35'-9"

SITE PLAN
SCALE: 3/16"=1'-0" (FULL SIZE)
3/32"=1'-0" (11x17)

CC VERIZON NATIONAL ANTENNA AMENDMENT_2024-11-15

VERIZON_EQUIPMENT
ANTENNA CL: 120'-0"&118'-0"&116'-0"
MOUNT CL: 117'-0"

Existing Tower Elevation (1)

(E) VERIZON EQUIPMENT TO REMOVE
(3) COMMSCOPE – LNX–6514DS ANTENNAS

(E) VERIZON EQUIPMENT TO REMAIN
(3) SAMSUNG – XXDWMM–12.5–65 ANTENNAS
(3) SAMSUNG – MT6407–77A ANTENNAS
(6) COMMSCOPE – NNHH–65B–R4 ANTENNAS
(3) SAMSUNG – RT4401–48A RADIOS
(3) SAMSUNG – RFV01U–D1A RADIOS
(3) SAMSUNG – RFV01U–D2A RADIOS
(2) KAELUS – BSF0020F3V1–1 IN–BANDS
(1) RFS/CELWAVE – DB–T1–6Z–8A8–0Z OVP
(1) RAYCAP – RRFDC–3315–PF–48 OVP

TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 122'-3"

VERIZON ANTENNA CENTERLINE
ELEV. = 120'-0"

VERIZON ANTENNA CENTERLINE
ELEV. = 118'-0"

VERIZON MOUNT CENTERLINE
ELEV. = 117'-0"

VERIZON ANTENNA CENTERLINE
ELEV. = 116'-0"

TOP OF TOWER
ELEV. = 115'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 105'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 94'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 85'-0"

(E) 115'-0" MONOPOLE

(E) VERIZON FEEDLINES TO REMAIN
(2) RFS – HB158–1–08U8–S8J18 HYBRID CABLES
(5) ANDREW – LDF7–50A COAXIAL CABLES

(E) VERIZON FEEDLINES TO REMOVE
(1) ANDREW – LDF7–50A COAXIAL CABLE

BOTTOM OF TOWER
ELEV. = 0"

(1) EXISTING TOWER ELEVATION
SCALE: 1/8"=1'-0" (FULL SIZE)
1/16"=1'-0" (11x17)

Final Tower Elevation (2)

(E) VERIZON EQUIPMENT TO REMAIN
(3) SAMSUNG – XXDWMM–12.5–65 ANTENNAS
(3) SAMSUNG – MT6407–77A ANTENNAS
(6) COMMSCOPE – NNHH–65B–R4 ANTENNAS
(3) SAMSUNG – RT4401–48A RADIOS
(3) SAMSUNG – RFV01U–D1A RADIOS
(3) SAMSUNG – RFV01U–D2A RADIOS
(2) KAELUS – BSF0020F3V1–1 IN–BANDS
(1) RFS/CELWAVE – DB–T1–6Z–8A8–0Z OVP
(1) RAYCAP – RRFDC–3315–PF–48 OVP

(N) VERIZON EQUIPMENT TO INSTALL
(4) CBNG – 39GHZ VECTASTAR NR GNB ANTENNAS
(1) RAYCAP INC – RVZDC–6627–PF–48 OVP

INSTALL MOUNT MODIFICATION BY
COLLIERS ENGINEERING & DESIGN,
DATED 11/13/2024

TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 122'-3"

VERIZON ANTENNA CENTERLINE
ELEV. = 120'-0"

VERIZON ANTENNA CENTERLINE
ELEV. = 118'-0"

VERIZON MOUNT CENTERLINE
ELEV. = 117'-0"

VERIZON ANTENNA CENTERLINE
ELEV. = 116'-0"

TOP OF TOWER
ELEV. = 115'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 105'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 94'-0"

EXISTING EQUIPMENT BY OTHERS
MCL = 85'-0"

(E) 115'-0" MONOPOLE

(E) VERIZON FEEDLINES TO REMAIN
(2) RFS – HB158–1–08U8–S8J18 HYBRID CABLES
(5) ANDREW – LDF7–50A COAXIAL CABLES

(N) VERIZON FEEDLINES TO INSTALL
(1) HUBER & SUHNER INC –
SD–06X6GA–12SM–180 HYBRID CABLE
(ROUTE PER STRUCTURAL ANALYSIS)

BOTTOM OF TOWER
ELEV. = 0"

(2) FINAL TOWER ELEVATION
SCALE: 1/8"=1'-0" (FULL SIZE)
1/16"=1'-0" (11x17)

INSTALLER NOTE:
NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER MOUNT ANALYSIS BY
COLLIERS ENGINEERING & DESIGN, DATED
11/13/2024.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
HRT 093 943228

266R CENTER STREET
MANCHESTER, CT 06040

EXISTING 115'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/09/24	RWA	CONSTRUCTION	MA

DocuSigned by:
Morteza Ashouri

STATE OF CONNECTICUT
MORTEZA ASHOURI
PEN.0037763
LICENSED
PROFESSIONAL ENGINEER

12/9/2024 | 2:28:11 PM CST

SHEET NUMBER:
C-2

REVISION:
0

EXISTING ANTENNA PLAN — (1)
SCALE: 1/2"=1'-0" (FULL SIZE) / 1/4"=1'-0" (11x17)

(E) VERIZON ANTENNAS TO REMOVE
COMMSCOPE — LNX—6514DS
3 TOTAL

(E) VERIZON IN-BANDS TO REMAIN
KAELUS — BSF0020F3V1—1
2 TOTAL, 2 PER SECTOR GAMMA

(E) 115'—0" MONOPOLE

(GAMMA) 270° AZIMUTH

(E) VERIZON OVP TO REMAIN
RFS/CELWAVE — DB—T1—6Z—8AB—0Z
1 TOTAL

(E) VERIZON ANTENNAS TO REMAIN
SAMSUNG — MT6407—77A (ABOVE)
3 TOTAL, 1 PER SECTOR

(E) VERIZON ANTENNAS TO REMAIN
SAMSUNG — XXDWMM—12.5—65 (BELOW)
3 TOTAL, 1 PER SECTOR

(E) VERIZON RADIOS TO REMAIN
SAMSUNG — RT4401—48A
3 TOTAL, 1 PER SECTOR

(ALPHA) 45° AZIMUTH

(E) VERIZON ANTENNAS TO REMAIN
COMMSCOPE — NNHH—65B—R4
6 TOTAL, 2 PER SECTOR

(BETA) 155° AZIMUTH

(E) VERIZON RADIOS TO REMAIN
SAMSUNG — RFV01U—D1A
3 TOTAL, 1 PER SECTOR

(E) VERIZON SURGE SUPPRESSOR TO REMAIN
RAYCAP — RRFDC—3315—PF—48
1 TOTAL

(E) VERIZON RADIOS TO REMAIN
SAMSUNG — RFV01U—D2A
3 TOTAL, 1 PER SECTOR

FINAL ANTENNA PLAN — (2)
SCALE: 1/2"=1'-0" (FULL SIZE) / 1/4"=1'-0" (11x17)

(DELTA) 345° AZIMUTH

(E) VERIZON IN-BANDS TO REMAIN
KAELUS — BSF0020F3V1—1
2 TOTAL, 2 PER SECTOR GAMMA

(N) VERIZON SURGE SUPRESSON TO INSTALL
RAYCAP — RVZDC—6627—PF—48
1 TOTAL

(E) 115'—0" MONOPOLE

(GAMMA) 270° AZIMUTH

(E) VERIZON OVP TO REMAIN
RFS/CELWAVE — DB—T1—6Z—8AB—0Z
1 TOTAL

INSTALL MOUNT MODIFICATION BY
COLLIERS ENGINEERING & DESIGN,
DATED 11/13/2024

(GAMMA) 255° AZIMUTH

(BETA) 165° AZIMUTH

(N) VERIZON ANTENNAS TO INSTALL
CBNG — 39GHZ VECTASTAR NR GNB
4 TOTAL

(E) VERIZON ANTENNAS TO REMAIN
SAMSUNG — MT6407—77A (ABOVE)
3 TOTAL, 1 PER SECTOR

(E) VERIZON ANTENNAS TO REMAIN
SAMSUNG — XXDWMM—12.5—65 (BELOW)
3 TOTAL, 1 PER SECTOR

(E) VERIZON RADIOS TO REMAIN
SAMSUNG — RT4401—48A
3 TOTAL, 1 PER SECTOR

(ALPHA) 45° AZIMUTH

(E) VERIZON ANTENNAS TO REMAIN
COMMSCOPE — NNHH—65B—R4
6 TOTAL, 2 PER SECTOR

(ALPHA) 75° AZIMUTH

(E) VERIZON RADIOS TO REMAIN
SAMSUNG — RFV01U—D1A
3 TOTAL, 1 PER SECTOR

(BETA) 155° AZIMUTH

(E) VERIZON SURGE SUPPRESSOR TO REMAIN
RAYCAP — RRFDC—3315—PF—48
1 TOTAL

(E) VERIZON RADIOS TO REMAIN
SAMSUNG — RFV01U—D2A
3 TOTAL, 1 PER SECTOR

INSTALLER NOTE:
NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER MOUNT ANALYSIS BY
COLLIERS ENGINEERING & DESIGN, DATED
11/13/2024.

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
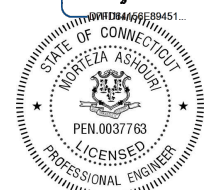**HRT 093 943228**

266R CENTER STREET
MANCHESTER, CT 06040

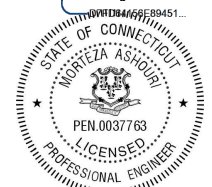EXISTING 115'-0"
MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/09/24	RWA	CONSTRUCTION	MA

SHEET NUMBER:
C-3

REVISION:
0

FINAL EQUIPMENT SCHEDULE
(GC TO VERIFY WITH CURRENT RFDS)

POSITION	TECH	ANTENNA STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	RADIO QTY.	STATUS/MODEL	LOCATION	DIPLEXER QTY.	STATUS	LOCATION	TMA QTY.	STATUS	SURGE PROTECTION QTY.	STATUS/MODEL	CABLES QTY.	STATUS/TYPE	SIZE	LENGTH
A1	L-SUB6 CBRS	(E) SAMSUNG – XXDWMM-12.5-65	45°	116'-0"	1	(E) SAMSUNG – RT4401-48A	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) SAMSUNG – MT6407-77A	45°	120'-0"														
A2	1900 AWS	–	–	–	1	(E) SAMSUNG – RFV01U-D1A	TOWER	–	–	–	–	–	–	–	–	–	–	–
A3	700 850 1900 AWS	(E) COMMSCOPE – NNHH-65B-R4	45°	118'-0"	–	–	–	–	–	–	–	–	1	(N) RAYCAP – RVZDC-6627-PF-48	1	(N) 6X12 HYBRID CABLE	1-5/8"	± 195'-0"
A4	700 850 1900 AWS	(E) COMMSCOPE – NNHH-65B-R4	45°	118'-0"	1	(E) SAMSUNG – RFV01U-D2A	TOWER	–	–	–	–	–	–	–	–	–	–	–
A5	39GHZ	(N) CBNG – 39GHZ VECTASTAR NR GNB	75°	120'-0"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
B1	L-SUB6 CBRS	(E) SAMSUNG – XXDWMM-12.5-65	155°	116'-0"	1	(E) SAMSUNG – RT4401-48A	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) SAMSUNG – MT6407-77A	155°	120'-0"														
B2	1900 AWS	–	–	–	1	(E) SAMSUNG – RFV01U-D1A	TOWER	–	–	–	–	–	–	–	–	–	–	–
B3	700 850 1900 AWS	(E) COMMSCOPE – NNHH-65B-R4	155°	118'-0"	–	–	–	–	–	–	–	–	1	(E) RAYCAP – RRFDC-3315-PF-48	1	(E) 6X12 HYBRID CABLE	1-5/8"	–
B4	700 850 1900 AWS	(E) COMMSCOPE – NNHH-65B-R4	155°	118'-0"	1	(E) SAMSUNG – RFV01U-D2A	TOWER	–	–	–	–	–	–	–	–	–	–	–
B5	39GHZ	(N) CBNG – 39GHZ VECTASTAR NR GNB	165°	120'-0"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
G1	39GHZ	(N) CBNG – 39GHZ VECTASTAR NR GNB	255°	120'-0"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
G2	L-SUB6 CBRS	(E) SAMSUNG – XXDWMM-12.5-65	270°	116'-0"	1	(E) SAMSUNG – RT4401-48A	TOWER	–	–	–	–	–	–	–	–	–	–	–
		(E) SAMSUNG – MT6407-77A	270°	120'-0"														
C3	1900 AWS	–	–	–	1	(E) SAMSUNG – RFV01U-D1A	TOWER	–	–	–	–	–	1	(E) RFS/CELWAVE – DB-T1-6Z-8AB-0Z	1	(E) 6X12 HYBRID CABLE	1-5/8"	–
C4	700 850 1900 AWS	(E) COMMSCOPE – NNHH-65B-R4	270°	118'-0"	–	–	–	–	–	–	–	–	–	–	–	–	–	–
C5	700 850 1900 AWS	(E) COMMSCOPE – NNHH-65B-R4	270°	118'-0"	1	(E) SAMSUNG – RFV01U-D2A	TOWER	1	(E) KAELUS BSF0020F3V1–	TOWER	–	–	–	–	–	–	–	–
								1	(E) KAELUS BSF0020F3V1–	TOWER								
D1	39GHZ	(N) CBNG – 39GHZ VECTASTAR NR GNB	345°	120'-0"	–	–	–	–	–	–	–	–	–	–	–	–	–	–

UNUSED FEEDLINES

5	(E) COAX CABLE	1 5/8"	–
–	–	–	–

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
HRT 093 943228

266R CENTER STREET
MANCHESTER, CT 06040

EXISTING 115'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/09/24	RWA	CONSTRUCTION	MA

SHEET NUMBER: C-4
REVISION: 0

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

INSTALLER NOTE:
1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
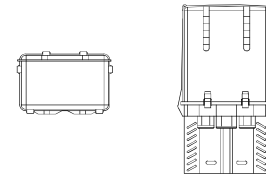

(E) FEEDLINES BY OTHERS

CLIMBING PEGS W/ SAFETY CLIMB

(E) FEEDLINES BY OTHERS

(E) FEEDLINES BY OTHERS

(E) VERIZON FEEDLINES TO REMAIN
(2) RFS – HB158–1–08U6–S8J18 HYBRID CABLES
(5) ANDREW – LDF7–50A COAXIAL CABLES

(N) VERIZON FEEDLINES TO INSTALL
(1) HUBER & SUHNER INC – SD–06X6GA–12SM–180 HYBRID CABLE
(ROUTE PER STRUCTURAL ANALYSIS)

(E) FEEDLINES BY OTHERS

1 — BASE LEVEL DETAIL
SCALE: NOT TO SCALE

N

MOUNTING BRACKET (SUPPLIED W/ ANTENNA)

ANTENNA MOUNTING PIPE

NEW ANTENNA

MOUNTING BRACKET (SUPPLIED W/ ANTENNA)

MOUNTING BRACKET (SUPPLIED W/ ANTENNA)

2 — ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:
1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRUs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRU PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
4. ANTENNA NOT SHOWN FOR CLARITY.

RRU

RRU MOUNTING PLATE

PIPE MOUNT BRACKET

ANTENNA MOUNTING PIPE

3 — RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

ANTENNA SPECS

MANUFACTURER	CBNG
MODEL #	VECTASTAR 600 – 39GHZ
HxWxD	17.91" x 16.10" x 9.02"
WEIGHT	39.69 LBS

4 — CBNG – VECTASTAR 600 – 39GHZ
SCALE: NOT TO SCALE

OVP SPECS

MANUFACTURER	RAYCAP
MODEL #	RVZDC–6627–PF–48
HxWxD	29.5" x 16.5" x 12.6"
WEIGHT	32 LBS

5 — RAYCAP – RVZDC–6627–PF–48
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
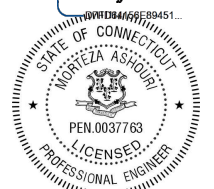**HRT 093 943228**

266R CENTER STREET
MANCHESTER, CT 06040

EXISTING 115'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES /QA
0	12/09/24	RWA	CONSTRUCTION	MA

DocuSigned by:

Morteza Ashouri

DocuSigned by E89451...

STATE OF CONNECTICUT
MORTEZA ASHOURI
PEN.0037763
LICENSED
PROFESSIONAL ENGINEER

12/9/2024 | 2:28:11 PM CST

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
C-5	**0**

Azimuth (1) Alpha

Cell (850 CDMA)	Red				
PCS2 (1900 LTE)	Pink	Red	Pink		
700 LTE	Lt. Green	Red	Lt. Green		
850 LTE	Purple	Red	Purple		
2100 LTE	Orange	Red	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Red	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Red	Lt. Green	Purple
5G 28GHz	Brown	Red	Brown		
5G 39GHz	Blue	Red	Blue		
LAA	Gray	Red	Gray		
CBRS	White	Red	White		
L-Sub6 (C-Band)	Red	Red	Red		

Azimuth (2) Beta

Cell (850 CDMA)	Blue				
PCS2 (1900 LTE)	Pink	Blue	Pink		
700 LTE	Lt. Green	Blue	Lt. Green		
850 LTE	Purple	Blue	Purple		
2100 LTE	Orange	Blue	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Blue	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Blue	Lt. Green	Purple
5G 28GHz	Brown	Blue	Brown		
5G 39GHz	Blue	Blue	Blue		
LAA	Gray	Blue	Gray		
CBRS	White	Blue	White		
L-Sub6 (C-Band)	Red	Blue	Red		

Azimuth (3) Gamma

Cell (850 CDMA)	Yellow				
PCS2 (1900 LTE)	Pink	Yellow	Pink		
700 LTE	Lt. Green	Yellow	Lt. Green		
850 LTE	Purple	Yellow	Purple		
2100 LTE	Orange	Yellow	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Yellow	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Yellow	Lt. Green	Purple
5G 28GHz	Brown	Yellow	Brown		
5G 39GHz	Blue	Yellow	Blue		
LAA	Gray	Yellow	Gray		
CBRS	White	Yellow	White		
L-Sub6 (C-Band)	Red	Yellow	Red		

Azimuth (4) Delta

Cell (850 CDMA)	Orange				
PCS2 (1900 LTE)	Pink	Orange	Pink		
700 LTE	Lt. Green	Orange	Lt. Green		
850 LTE	Purple	Orange	Purple		
2100 LTE	Orange	Orange	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Orange	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Orange	Lt. Green	Purple
5G 28GHz	Brown	Orange	Brown		
5G 39GHz	Blue	Orange	Blue		
LAA	Gray	Orange	Gray		
CBRS	White	Orange	White		
L-Sub6 (C-Band)	Red	Orange	Red		

Azimuth (5) Epsilon

Cell (850 CDMA)	White				
PCS2 (1900 LTE)	Pink	White	Pink		
700 LTE	Lt. Green	White	Lt. Green		
850 LTE	Purple	White	Purple		
2100 LTE	Orange	White	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	White	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	White	Lt. Green	Purple
5G 28GHz	Brown	White	Brown		
5G 39GHz	Blue	White	Blue		
LAA	Gray	White	Gray		
CBRS	White	White	White		
L-Sub6 (C-Band)	Red	White	Red		

Azimuth (6) Zeta

Cell (850 CDMA)	Gray				
PCS2 (1900 LTE)	Pink	Gray	Pink		
700 LTE	Lt. Green	Gray	Lt. Green		
850 LTE	Purple	Gray	Purple		
2100 LTE	Orange	Gray	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Gray	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Gray	Lt. Green	Purple
5G 28GHz	Brown	Gray	Brown		
5G 39GHz	Blue	Gray	Blue		
LAA	Gray	Gray	Gray		
CBRS	White	Gray	White		
L-Sub6 (C-Band)	Red	Gray	Red		

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
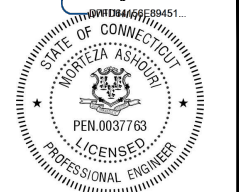**HRT 093 943228**

266R CENTER STREET
MANCHESTER, CT 06040

EXISTING 115'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/09/24	RWA	CONSTRUCTION	MA

DocuSigned by:
Morteza Ashouri
PEN.0037763

STATE OF CONNECTICUT
MORTEZA ASHOURI
LICENSED
PROFESSIONAL ENGINEER

12/9/2024 | 2:28:11 PM CST

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC.0001101
IT IS A VIOLATION OF LAW FOR ANY PERSON,
UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
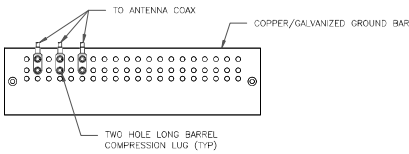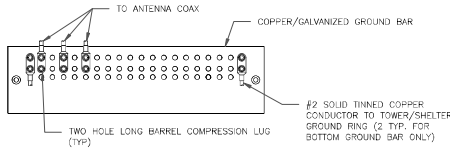TO ALTER THIS DOCUMENT.

① COLOR CODE MATRIX
SCALE: NOT TO SCALE

SHEET NUMBER:
C-6

REVISION:
0

1 — ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

TO ANTENNA COAX
COPPER/GALVANIZED GROUND BAR
TWO HOLE LONG BARREL COMPRESSION LUG (TYP)

NOTES:
1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
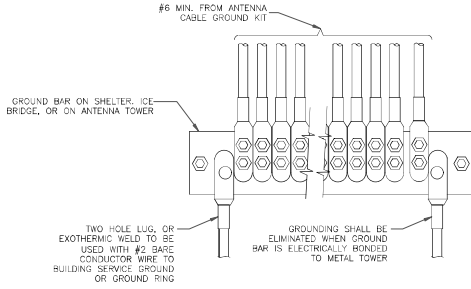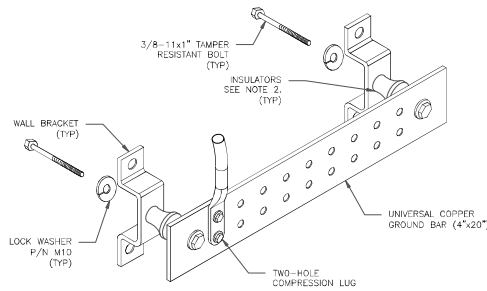3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

2 — TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

TO ANTENNA COAX
COPPER/GALVANIZED GROUND BAR
TWO HOLE LONG BARREL COMPRESSION LUG (TYP)
#2 SOLID TINNED COPPER CONDUCTOR TO TOWER/SHELTER GROUND RING (2 TYP. FOR BOTTOM GROUND BAR ONLY)

NOTES:
1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER, MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.
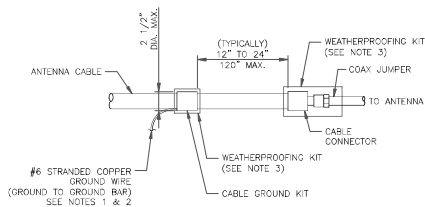
3 — MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT

BURNDY GROUND LUG W/ LONG BARREL (SEE CHART)
NUT (TYP)
LOCK WASHER (TYP)
HEAT SHRINK (CLEAR)
GROUND CONDUCTOR
GROUND BAR
BOLT (SEE CHART) (TYP)
BURNDY TWO HOLE LUG W/ LONG BARREL (SEE CHART)
BARE WIRE TO BE TREATED WITH NO-OX AT BOTH ENDS
STRANDED (SEE CHART)

NOTE:
ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

4 — GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

#6 MIN. FROM ANTENNA CABLE GROUND KIT
GROUND BAR ON SHELTER, ICE-BRIDGE, OR ON ANTENNA TOWER
TWO HOLE LUG, OR EXOTHERMIC WELD TO BE USED WITH #2 BARE CONDUCTOR WIRE TO BUILDING SERVICE GROUND OR GROUND RING
GROUNDING SHALL BE ELIMINATED WHEN GROUND BAR IS ELECTRICALLY BONDED TO METAL TOWER

5 — GROUND BAR DETAIL
SCALE: NOT TO SCALE

3/8-11x1" TAMPER RESISTANT BOLT (TYP)
INSULATORS SEE NOTE 2. (TYP)
WALL BRACKET (TYP)
LOCK WASHER P/N M10 (TYP)
UNIVERSAL COPPER GROUND BAR (4"x20")
TWO-HOLE COMPRESSION LUG

NOTES:
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.
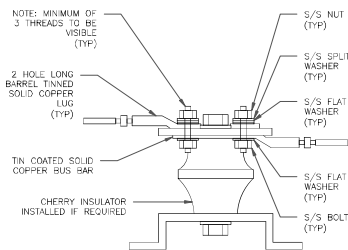
6 — CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE

2 1/2" DIA. MAX.
ANTENNA CABLE
(TYPICALLY) 12" TO 24" 120" MAX.
WEATHERPROOFING KIT (SEE NOTE 3)
COAX JUMPER
TO ANTENNA
CABLE CONNECTOR
WEATHERPROOFING KIT (SEE NOTE 3)
#6 STRANDED COPPER GROUND WIRE (GROUND TO GROUND BAR) SEE NOTES 1 & 2
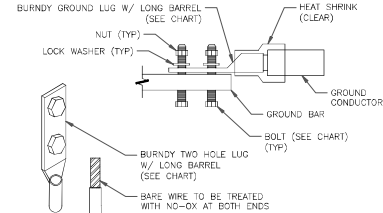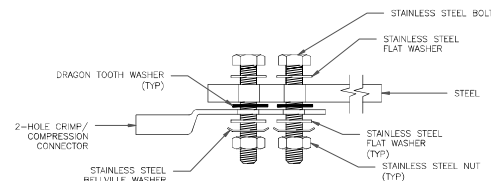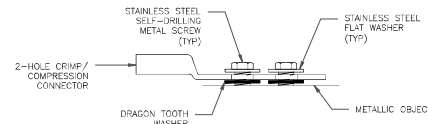CABLE GROUND KIT

NOTES:
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

7 — LUG DETAIL
SCALE: NOT TO SCALE

NOTE: MINIMUM OF 3 THREADS TO BE VISIBLE (TYP)
S/S NUT (TYP)
2 HOLE LONG BARREL TINNED SOLID COPPER LUG (TYP)
S/S SPLIT WASHER (TYP)
S/S FLAT WASHER (TYP)
TIN COATED SOLID COPPER BUS BAR
S/S FLAT WASHER (TYP)
CHERRY INSULATOR INSTALLED IF REQUIRED
S/S BOLT (TYP)

8 — HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE

STAINLESS STEEL BOLT (TYP)
STAINLESS STEEL FLAT WASHER (TYP)
2-HOLE CRIMP/COMPRESSION CONNECTOR
GROUND BAR
STAINLESS STEEL FLAT WASHER (TYP)
STAINLESS STEEL BELLVILLE WASHER (TYP)
STAINLESS STEEL NUT (TYP)
SINGLE CONNECTOR AT GROUND BARS

STAINLESS STEEL BOLT (TYP)
STAINLESS STEEL FLAT WASHER (TYP)
DRAGON TOOTH WASHER (TYP)
STEEL
2-HOLE CRIMP/COMPRESSION CONNECTOR
STAINLESS STEEL FLAT WASHER (TYP)
STAINLESS STEEL BELLVILLE WASHER (TYP)
STAINLESS STEEL NUT (TYP)
SINGLE CONNECTOR AT STEEL OBJECTS

STAINLESS STEEL SELF-DRILLING METAL SCREW (TYP)
STAINLESS STEEL FLAT WASHER (TYP)
2-HOLE CRIMP/COMPRESSION CONNECTOR
DRAGON TOOTH WASHER (TYP)
METALLIC OBJECT
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

Title Block

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000381961

BU #: **806372**

CROWN CASTLE SITE NAME
HRT 093 943228

**266R CENTER STREET
MANCHESTER, CT 06040**

**EXISTING 115'-0"
MONOPOLE**

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	12/09/24	RWA	CONSTRUCTION	MA

ISSUED FOR:

DocuSigned by:
Morteza Ashouri

STATE OF CONNECTICUT
MORTEZA ASHOURI
PEN.0037763
LICENSED
PROFESSIONAL ENGINEER

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G-1	0