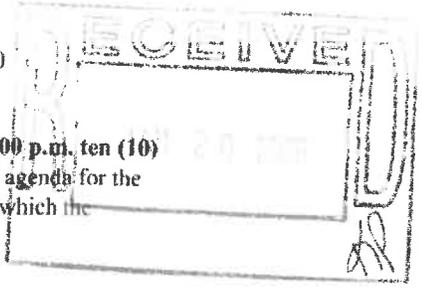


**GENERAL APPLICATION FOR WORK LOCATED WITHIN A HISTORIC DISTRICT**

- Minor Work ( Complete Section A and refer to General Directions)
- New Construction (Complete Section B and refer to General Directions and Item B)
- Demolition (Complete Section B and refer to General Directions and Item C)



**Application Deadline:** Application and materials must be completed and submitted by 4:00 p.m. ten (10) business days before each Commission Meeting. Late applications will be placed on the agenda for the following month. Decision by the Commission will not necessarily occur at the meeting at which the application materials are first received.

**A) MINOR WORK**

**PROPERTY LOCATION:** 7221 Main Street, Mackinac Island 051-550-044-00  
 (Number) (Street) (Property Tax ID #)

**PROPERTY OWNER**

Name: Chippewa Properties Email Address: \_\_\_\_\_  
 Address: 7221 Main Street Mackinac Island MI 49757  
 (Street) (City) (State) (Zip)  
 Telephone: \_\_\_\_\_ (906) 847-3341 \_\_\_\_\_  
 (Home) (Business) (Fax)

**APPLICANT/CONTRACTOR**

Name: Amy Rodriguez, agent for Verizon Email Address: \_\_\_\_\_  
 Address: 1961 Northpoint Blvd, Ste. 130, Hixson, TN 37343  
 (Street) (City) (State) (Zip)  
 Telephone: \_\_\_\_\_ (248) 217-0989 \_\_\_\_\_  
 (Home) (Business) (Fax)

Attach a brief description of the nature of the minor work proposed and the materials to be used.  
 Attach one or more photograph(s) of the whole building including façade and any relevant elevations showing the area, item or feature proposed to be repaired or replaced. The Building Official or Historic District Commission may require additional information necessary to determine the work to be Minor Work.

If the Building Official determines that the proposed work is not Minor Work, the Building Official shall direct the applicant to complete an Application for New Work and/ or Application for Demolition or Moving work which will then be referred to the HDC.

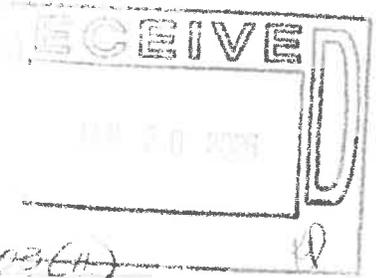
I certify that the information provided in this Application and the documents submitted with this Application are true to the best of my information, knowledge and belief; and that the property where work will be undertaken has, or will have before the proposed project completion date, a fire alarm system or a smoke alarm complying with the requirements of the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MLC 125.1501 to 125.1531

Amy Rodriguez SIGNATURES \_\_\_\_\_  
 Signature No. C-26 044 0036(A)  
Amy Rodriguez \_\_\_\_\_  
 Please Print Name Exhibit A  
 Date 1-20-26

NOTE: All photos, drawings and physical samples, etc., become the property of the HDC/City of Mackinac Island. These may be returned to the applicant upon request after they are no longer needed by the Commission/City.

**RETURN THIS FORM AND SUPPORTING MATERIALS TO:**  
**MACKINAC ISLAND BUILDING OFFICIAL**  
**7358 MARKET STREET, MACKINAC ISLAND, MI 49757**  
**PHONE: (906) 847-4035**

File Number: C-26-044-0036(A) Date Received: 1-20-26 Fee: 1/100  
 Received By: [Signature] Work Completed Date: \_\_\_\_\_



To: Mackinac Island Building Department  
Attn: Katie Pereny  
7358 Market Street  
Mackinac Island, MI 49757  
(906) 847-6190

File No: C36-044-003(A)  
Permit: B  
Date: 1-20-26  
Status: RP

Date: 01/19/2026

Re: Project Description for Verizon Wireless Equipment Upgrade  
Mackinac Chippewa Hotel, 7221 Main Street, Mackinac Island, MI 49757 / Parcel ID: 051-550-044-00

Ms. Pereny,

Verizon is proposing to upgrade their existing equipment on the rooftop of the Chippewa Mackinac Hotel. This upgrade will include adding three (3) Ericsson AIR6419 antennas. These antennas will be located on the existing Verizon mount and will not increase the overall footprint on the rooftop or the overall height. A structural analysis has been performed based on the equipment upgrade and reflects that the building will support this upgrade.

Please let me know if any additional information is needed for the February meeting.

Thank you,

*Amy Rodriguez*

Project Manager  
Phone: (248) 217-0989  
Email: \_\_\_\_\_





# NEPA/Section 106 SmartForm & Exclusion Review

Powered by Verizon Wireless NRC

*If project is small cell, start with appropriate Stipform, and revert to SmartForm if no exclusion found*

\* Mandatory Fields

Final - 12/28/21 V2

Form Completion Date :  
01/14/2026

Latitude :  
45° 51' 0.87"

Longitude :  
84° 37' 0.99"

Site Name :  
MACKINAC\_CHIPPEWA\_HOTEL  
-A

Build To  
Suit(BTS)? :

\*Certified By:

No

Is Temporary:

ENVIROBUSINESS INC

\*Project Description:

Verizon proposes to add cband to this Mackinac hotel

\*VZW Responsible Employee:

Hillary Staniszewski

\*Date Structure Built :

01/01/1902

\*Project Type:

Non-Tower Collocation/Mod

\*Structure Type:

Roof-Top

\*Structure Owner:

Third Party

TurnBack Reason :

Comments

200

SAVE Turnback

Please respond to each question presented below. Your Exclusion Review Result will appear at the bottom of the form when your Exclusion Review is complete. If you are uncertain of any responses, please consult with your Real Estate or Engineering Teams to make sure you are responding correctly.

Is the site on tribal land?

Yes  No

Is the site on federal land?

Yes  No

Is this an exact antenna replacement (same location, and same OR smaller height and width) for an existing antenna?

Yes  No

Will the added or replaced antennas or cabinets be visible from adjacent streets or public areas?

Yes  No

Is the building or structure within 250' of an historic district?

Yes  No

Will the structure be located within the boundaries of a historic property?

Yes  No

**\*EXCLUSION REVIEW RESULT**

Order a Section 106 Report. No cultural resource exclusions apply. If your project is a small cell, please fill out the appropriate small cell stipulation form to determine if another exclusion can apply.

By completing this form on behalf of **ENVIROBUSINESS INC**, I hereby certify that **ENVIROBUSINESS INC** has assessed **MACKINAC\_CHIPPEWA\_HOTEL - A, 17534810** ) and completed review of the relevant documentation including the Final Construction Drawings/Final Plan of Record, prior to construction, for purposes of compliance with the relevant statutes and Federal Communications Commission ("FCC") rules implementing the National Environmental Policy Act ("NEPA"), including sections 1.1301- 1.1320 and 17.4 of the FCC rules, and other environmental statutes and FCC Rules implementing the National Historic Preservation Act ("NHPA"), including part 1, Appx. C, Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communications Commission, 12 and part 1, Appx. B, Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (collectively, the "Environmental Rules").

I certify that, in providing this letter as supplemental documentation to the project, **ENVIROBUSINESS INC** has: (i) utilized the Verizon Compliance Manual in completing the assessment for this facility or project; and (ii) reviewed each such facility or project to ensure that it fully complies with the Environmental Rules, excluding the FCC rules and regulations regarding human exposure to radiofrequency emissions ("RFE") (sections 1.1307(b) and 1.1310), which are not a part of this assessment.

*Confidential and proprietary for authorized Verizon personnel and authorized Verizon contractors only. Use, disclosure, and distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement.*

PREPARED FOR:



PREPARED BY:

**TeleCAD** Wireless  
1991 NORTHPOINT BLVD, SUITE 100  
HUNTSVILLE, TN 37343  
PH: 423-840-9500  
FAX: 423-840-9559

SITE NAME:  
**MACKINAC CHIPPEWA  
HOTEL**

ADDRESS:  
7221 MAIN ST  
MACKINAC ISLAND, MI 49757

COUNTY:  
MACKINAC

LATITUDE:  
45° 51' 0.87" N N

LONGITUDE:  
84° 37' 0.95" W W

SHEET TITLE:

DRAWING NO.

**AFTER**

REVISION:

**A**



1 | BUILDING ELEVATION - AFTER

N.T.S.

File No. C26-044-003(H)

Exhibit 7

Date 1.20.26

Initials KP

RECEIVED  
JAN 20 2026



PREPARED BY:  
**TeleCAD Wireless**  
1861 NORTH WATKINS BLVD, SUITE 130  
ANN ARBOR, MI 48106  
PH: 423-843-9500  
FAX: 423-843-9509

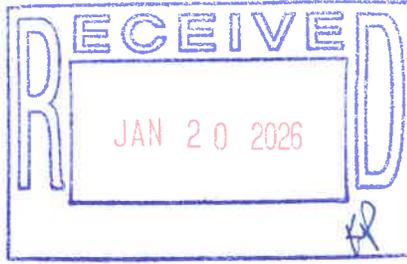


SITE NAME:  
**MACKINAC CHIPPEWA HOTEL**  
ADDRESS: 7221 MAIN ST  
MACKINAC ISLAND, MI 49757  
COUNTY: MACKINAC  
LATITUDE: 45° 51' 0.87" N N  
LONGITUDE: 84° 37' 0.89" W W  
SHEET TITLE:

DRAWING NO. **BEFORE**  
REVISION: **A**



File No. C26-044-003(H)  
Exhibit F  
Date 1-20-26  
Initials HP



1961 Northpoint Blvd.  
Suite 130  
Hixson, TN 37343

Date: October 3, 2025

**Subject:** Structural Analysis Report

**Verizon Designation:** Verizon Equipment Change-Out  
Verizon Site ID: 616463539  
Verizon FUZE ID: 17534810  
Verizon Site Name: Mackinac Chippewa Hotel-A

**Engineering Firm Designation:** SMW Engineering Group, Inc. 17534810-7031 Mackinac

**Site Data:** 7221 Main St., Mackinac Island, MI 49757, Mackinac County  
Latitude N 45°51'0.87" Longitude W 84 °37'0.99"

**Structure Information:** Tower Type: Building-Rooftop

To Whom it Concerns,

TeleCAD is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above-mentioned building to support the proposed, existing and reserved loads as shown in Tables 1 and 2.

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

Existing + Proposed Equipment

Sufficient Capacity

The analysis has been performed in accordance with the TIA-222-H Standard. This analysis utilizes an ultimate 3-second gust wind speed of 105 mph from the 2018 International Building Code. Exposure Category D with a maximum topographic factor, Kzt, of 1.00 and Risk Category II were used in this analysis.

Respectfully Submitted by:

Stephen Hunt Professional Engineer  
MI License #: 6201054169



## TABLE OF CONTENTS

### 1) INTRODUCTION

### 2) ANALYSIS CRITERIA

Table 1 - Proposed Equipment Configuration Information

### 3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

3.1) Analysis Method

3.2) Assumptions

### 4) ANALYSIS RESULTS

Table 5 – Tower Components vs. Capacity

4.1) Recommendations

### 5) APPENDIX A

Software Input Calculations

### 6) APPENDIX B

Additional Calculations

**1) INTRODUCTION**

TeleCAD Wireless Site Design, Inc. (TeleCAD) has completed a mount analysis of the non-penetrating SitePro1 TRPD-HD sled on a 58-foot building. (N 45°51'0.87"; W 84 °37'0.99").

**2) ANALYSIS CRITERIA**

<b>Building Code:</b>	2018 International Building Code
<b>TIA-222 Revision:</b>	TIA-222-H
<b>Risk Category:</b>	II
<b>Ultimate Wind Speed:</b>	105 mph
<b>Exposure Category:</b>	D
<b>Topography Category:</b>	1
<b>Ice Thickness:</b>	1.5 in
<b>Wind Speed with Ice:</b>	50 mph

**Table 1 - Final Equipment Configuration**

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Feedlines
65.0	65.0	3	Ericsson	AIR6419	(48) Coax (2) Hybrid (6) Y-Cable
		3	Amphenol	2C4U3MX065X06F	
		3	Ericsson	4408 B48	
		3	Ericsson	4449	
		3	Ericsson	8843	
		1	Raycap	6627	

**3) ANALYSIS PROCEDURE**

**Table 3 - Documents Provided**

Document	Source
RFDS	Verizon
Structural Letter	Tilson
Construction Drawings	Tilson

**3.1) Analysis Method**

Selected output from the analysis is included in Appendix A.

**3.2) Assumptions**

- 1) Tower and structures were built in accordance with the manufacturer's specifications.
- 2) The tower and structures have been maintained in accordance with the manufacturer's specification.
- 3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 4) When applicable, transmission cables are considered as structural components for calculating wind loads as allowed by TIA-222-H.
- 5) Mount areas and weights are assumed based on photographs provided.

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

**4) ANALYSIS RESULTS**

**Table 5 - Component Stresses vs. Capacity**

Notes	Component	Proposed Rooftop Live Load	Allowable Rooftop Live Load	% Capacity	Pass / Fail
1,2,3	Rooftop	19.6psf	20.0psf	98.0%	Pass

<b>Structure Rating (max from all components) =</b>	<b>98.0%</b>
---	--------------

Notes:

- 1) See additional documentation in "Appendix A – Software Input Calculations" for calculations supporting the % capacity consumed.
- 2) See additional documentation in "Appendix B - Additional Calculations" for calculations supporting the % capacity consumed.
- 3) Capacities up to 105% are considered acceptable based on analysis methods used.

**4.1) Recommendations**

The antenna equipment is mounted to the non-penetrating rooftop sled mount and pose an insignificant increase to lateral and dead load to the overall structure. Therefore, the analysis of the roof pressure will control. Proposed loading configuration induces a roof pressure of 19.6psf which effectively replaces the existing rooftop live load of 20psf. Per the 2018 International Existing Building Code Section 806.2 and 806.3, any existing load carrying structural element whose lateral demand-capacity ratio is increased no more than 10% and any existing gravity load carrying structural element whose loads increase no more than 5% shall be permitted to remain unaltered. Therefore, we conclude that the building structure is adequate under the proposed carrier equipment.

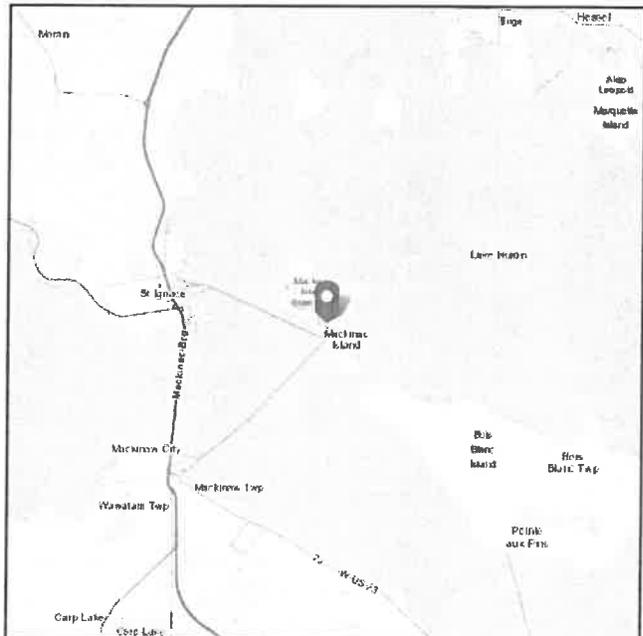
**APPENDIX A**  
**SOFTWARE INPUT CALCULATIONS**

# 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:** 45.850242  
**Longitude:** -84.616942  
**Elevation:** 589.4836354087513 ft (NAVD 88)



## Wind

### Results:

Wind Speed	105 Vmph
10-year MRI	73 Vmph
25-year MRI	79 Vmph
50-year MRI	84 Vmph
100-year MRI	89 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: Fri Aug 08 2025

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).

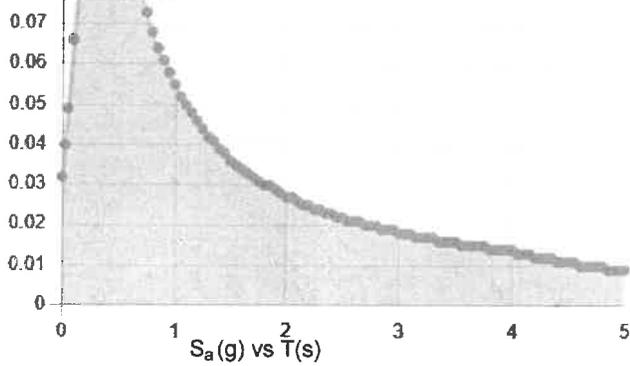
Site is not in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2.

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

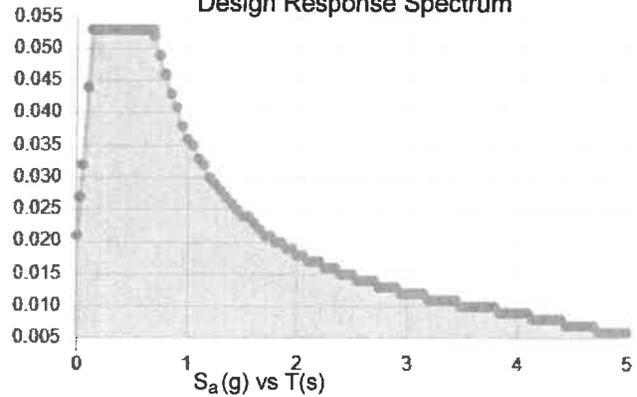
**Results:**

$S_S$ :	0.049	$S_{D1}$ :	0.036
$S_1$ :	0.023	$T_L$ :	4
$F_a$ :	1.6	$PGA$ :	0.023
$F_v$ :	2.4	$PGA_M$ :	0.036
$S_{MS}$ :	0.079	$F_{PGA}$ :	1.6
$S_{M1}$ :	0.055	$I_e$ :	1
$S_{DS}$ :	0.053	$C_v$ :	0.7

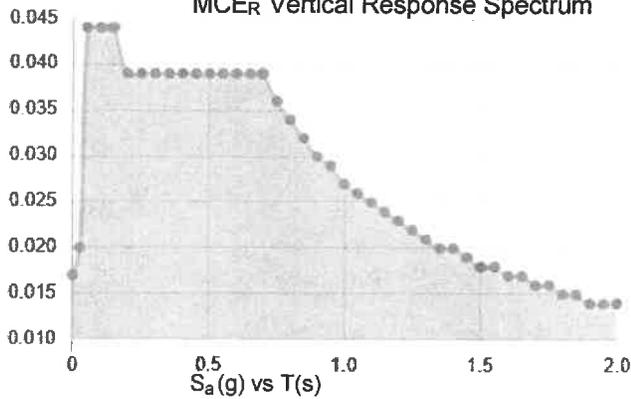
**Seismic Design Category: A**  
**MCE<sub>R</sub> Response Spectrum**



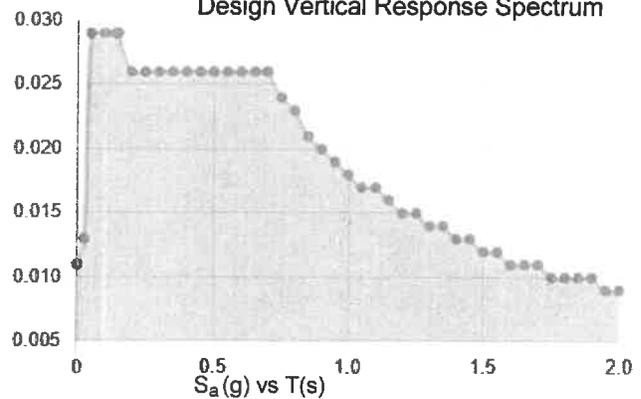
**Design Response Spectrum**



**MCE<sub>R</sub> Vertical Response Spectrum**



**Design Vertical Response Spectrum**



**Data Accessed:** Fri Aug 08 2025

**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:** Fri Aug 08 2025

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.

---

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE Hazard Tool.



DATE:	October 3, 2025
CARRIER:	Verizon
SITE ID:	17534810
TYPE:	Ballast

PROJECT INFORMATION	
Client:	Verizon
Site Number:	17534810
Engineer:	CTR

CODE STANDARDS	
Building Code:	2018 IBC
Antenna Standard:	TIA-222-H
Structure Standard:	TIA-222-H

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	D	
Topographic Category:	1	
Site Class:	D-Stiff Soil	
Ground Elevation:	589	ft

WIND AND ICE DATA		
Ultimate Wind ( $V_{ult}$ ):	105	mph
Design Wind ( $V$ ):	N/A	mph
Ice Wind ( $V_{ice}$ ):	50	mph
Base Ice Thickness ( $t_i$ ):	1.50	in
Flat Pressure:	69.79	psf
Round Pressure:	41.87	psf
Ice Wind Pressure:	20.26	psf

MOUNT INFORMATION		
Mount Type:	Ballast	
Num Sectors:	3	
Mount Centerline AGL:	65.0	ft
Antenna Centerline AGL:	65.0	ft
Roof Height AGL:	58.0	ft

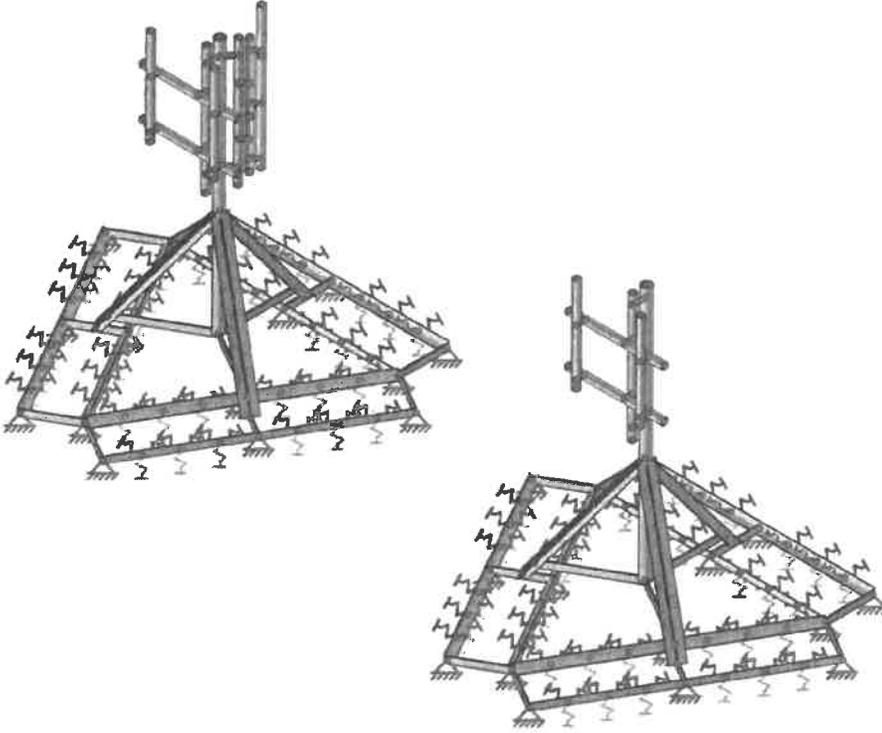
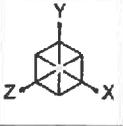
SEISMIC DATA		
Short-Period Accel. ( $S_s$ ):	0.05	g
1-Second Accel. ( $S_1$ ):	0.02	g
Short-Period Design ( $S_{DS}$ ):	0.05	
1-Second Design ( $S_{D1}$ ):	0.04	
Short-Period Coeff. ( $F_a$ ):	1.60	
1-Second Coeff. ( $F_v$ ):	2.40	
Amplification Factor ( $a_p$ ):	1.00	
Response Mod. ( $R_p$ ):	2.00	
Overstrength ( $\Omega_o$ ):	1.00	

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. ( $K_d$ ):	0.95	
Ground Ele. Factor ( $K_e$ ):	0.98	
Rooftop Speed-Up ( $K_s$ ):	1.00	
Topographic Factor ( $K_{zt}$ ):	1.00	
Gust Effect Factor ( $G_h$ ):	1.00	



**APPENDIX B**  
**ADDITIONAL CALCULATIONS**



Verizon  
TeleCAD Wireless  
17534810

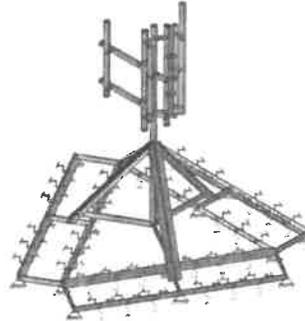
Mackinac Chippewa Hotel-A

SK-1  
17534810.r3d

# TeleCAD Wireless

## OVERTURNING & ROOF CHECK

Date:	10/3/2025
Site ID:	17534810
TIA Code:	TIA-222-H



Overturning Calculations:		
Ballast Mount Length	85.75	in
Ballast Mount Width	85.75	in
Ballast Mount Weight	450	lbs
CMU Weight per Block	32	lbs
Distance from Toe:		
Mount Weight	42.9	in

Tray 1	9	in	# of Blocks	4	Total Weight	128	lbs
Tray 2	60	in	# of Blocks	4	Total Weight	128	lbs
Tray 3	60	in	# of Blocks	4	Total Weight	128	lbs
Tray 4		in	# of Blocks		Total Weight	0	lbs

Equipment	Force	Centerline Distance	Weight	Distance from Toe
AIR6419	115.4 lbs	84 in	66.2 lbs	42.9 in
AIR6419	115.4 lbs	84 in	66.2 lbs	42.9 in
2C4U3MX065X06F	88.0 lbs	84 in	16 lbs	42.9 in
2C4U3MX065X06F	88.0 lbs	84 in	16 lbs	42.9 in
	lbs	in	lbs	in
	lbs	in	lbs	in
	lbs	in	lbs	in
	lbs	in	lbs	in
	lbs	in	lbs	in
	lbs	in	lbs	in
	lbs	in	lbs	in
	lbs	in	lbs	in

Acting Moment (kip-ft)	1.78	<b>Roof Check</b>	
Wind From Back			
Resisting Moment (kip-ft)	3.57	Total Weight (lb)	998.4
Wind From Front		Mount Area (ft <sup>2</sup> )	51.1
Resisting Moment (kip-ft)	3.56	Allowable Pressure (psf)	20
Allowable Safety Factor	1.5	Acting Pressure (psf)	19.6
Controlling Ratio	2.00	Capacity	<b>ADEQUATE</b>
Capacity	<b>74.9%</b>		