

Bid Results

- Engineer's Estimated Bid Value
 - \$7,689,182
- Bids
 - Staab Construction Corporation
 - \$14,883,000
 - C.D. Smith Corporation
 - \$15,716,165
 - J.H. Hassinger, Inc.
 - \$16,525,785

Evaluation of Bids and Coordination

Summary of WDNR staff meeting with design team

- Recent bids are higher than estimated, many are 1.5 times engineer's estimate
 - EX: Edgar, WI – Engineer's estimate about \$3.5 M, actual low bid \$6.9 M
- Discussed options to award and adjust WWTP design without WDNR Facility Plan Resubmittal and Review
 - Material changes, moving UV, moving control building
- Discussed options to revise design that will require WDNR review
 - Consider eliminating 1 of the 3 aeration basins
 - Consider RBC replacement
 - Potential expedited review process?

Memo

To: Village of Random Lake

From: Kapur

Subject: Details of Edgar WWTF modifications based on discussion with Village Administrator Jennifer Lopez in Edgar, WI

Village of Edgar (population 1,450) wastewater treatment facility was originally built in the late 1930s. Upgrades have occurred at the plant in 1970, 1982, and 2008. The reissued WPDES permit for the facility included new limits for ammonia nitrogen and new lower limits for phosphorus. Some features of the plant need replacement and some of the processes are no longer appropriate to current needs.

The facility has capacity of 500,000 MGD. Currently, dry weather flows at the plant are generally less than 200,000 MGD. The facility has ability to accept waste from private haulers.

The existing treatment plant is to be changed to an activated sludge process by converting RBC basins to aeration basins. One new final clarifier is added. A pump station was added to feed the aeration basins and to circulate return sludge. This allows a biological phosphorus removal step, and enhanced chemical phosphorus removal. New facility will have ability to remove ammonia nitrogen and a total nitrogen removal step could be added in the future. Also included was a SCADA system, a generator replacement, a new lab, electrical room and office.

In 2021 the total construction cost of upgrading Edgar's wastewater treatment facility was estimated to cost \$3,578,300.

The Village of Edgar opened bids on January 4, 2023. The lowest bid was from Staab Construction Corporation in amount of \$6,643,000. It included an allowance of \$500,000 for system integration, and a contingency of \$306,800. It included \$190,000 alternate bid item for primary clarifier covers, and \$730,000 alternate bid item for a heated storage building. The engineer recommended the Village award the project to the low bidder.

The Village is undertaking other development projects including purchase of WWTF equipment, sewage lift station upgrades, and four street and sewer projects. The development projects total \$12,655,000. Various funding sources were evaluated, and the lowest cost financing option was with a 40-year loan with USDA Rural Development at 1.5% interest.

The project was to receive a USDA Rural Utilities Service Grant in the amount of \$1,493,000. This was approximately 23% of the original project budget (\$6,600,000). The Village is seeking to obtain additional Grant funding through the USDA.

The Village of Edgar has a population of 1,450. It's median household income (MHI) is \$57,750 per WDNR, SFY 2023. [Wisconsin 2019 MHI = \$61,747 80% of WI MHI = \$49,397]

The Village Administrator offered to discuss Edgar's WWTF project with the Village officials of Random Lake. She views the sharing and comparing of experiences as a benefit to all. Kapur would be happy to set that meeting up with Random Lake staff.

Option 1-4 are based upon \$958,697 potential yearly loan payment

Option 1 - increase rate 10.5% every month for the next 2 years to get to the 252% increase to pay loan payments

Mar-23	12.55		
Apr-23	13.87	Apr-24	29.68
May-23	15.19	May-24	31.00
Jun-23	16.50	Jun-24	32.32
Jul-23	17.82	Jul-24	33.63
Aug-23	19.14	Aug-24	34.95
Sep-23	20.46	Sep-24	36.27
Oct-23	21.77	Oct-24	37.59
Nov-23	23.09	Nov-24	38.91
Dec-23	24.41	Dec-24	40.22
Jan-24	25.73	Jan-25	41.54
Feb-24	27.05	Feb-25	42.86
Mar-24	28.36	Mar-25	44.18

Option 2 - no increase to rate, charge monthly service charge for the next 20 years until loan is paid off then remove service charge

meter size	quantity	fee	total	
5/8 & 3/4 i	650	\$ 100.00	\$780,000	
1 inch	26	\$ 200.00	\$ 62,400	
1.5 inch	2	\$ 375.00	\$ 9,000	
2 inch	11	\$ 575.00	\$ 75,900	
3 inch	1	\$ 750.00	\$ 9,000	
4 inch	2	\$ 900.00	\$ 21,600	
			\$957,900	

Option 3 - special assessment for the next 20 years

661 taxable parcels
 35 no service or value below
 11 PILOT
 637 parcels \$ 1,505.02 per year

Random Lake Historical Society	1
Our Lady of the Lakes Catholic Congregation	2
Trustees of the Random Lake Fire Department	1
St Johns United Church of Christ	1
Evangelical Lutheran St Pauls Church	1
Random Lake School District	5

Option 4 - increase rate 10.5% every other month for the next 2 years (126%) + charge monthly service charge for the next 20 years

Mar-23	12.55	meter size	quantity	fee	total
May-23	13.87	5/8 & 3/4 inch	650	\$ 50.00	\$ 390,000
Jul-23	15.19	1 inch	26	\$ 100.00	\$ 31,200
Sep-23	16.50	1.5 inch	2	\$ 187.50	\$ 4,500
Nov-23	17.82	2 inch	11	\$ 287.50	\$ 37,950
Jan-24	19.14	3 inch	1	\$ 375.00	\$ 4,500
Mar-24	20.46	4 inch	2	\$ 450.00	\$ 10,800
May-24	21.77				\$ 478,950
Jul-24	23.09				
Sep-24	24.41				
Nov-24	25.73				
Jan-25	27.05				
Mar-25	28.36				

Option 5-9 are generic scenarios available

Option 5 - increase rate 10.5% every other month for the next 2 years (126%) + charge a special assessment to all properties when project loan is established

Mar-23	12.55		
May-23	13.87	May-24	21.77
Jul-23	15.19	Jul-24	23.09
Sep-23	16.50	Sep-24	24.41
Nov-23	17.82	Nov-24	25.73
Jan-24	19.14	Jan-25	27.05
Mar-24	20.46	Mar-25	28.36

661 taxable parcels
 35 no service or value below
 11 PILOT
 637 parcels \$ 752.51 per year

Random Lake Historical Society	1
Our Lady of the Lakes Catholic Congregation	2
Trustees of the Random Lake Fire Department	1
St Johns United Church of Christ	1
Evangelical Lutheran St Pauls Church	1
Random Lake School District	5

Option 6 - increase rate 3% every month over the next year and re-evaluate at that time.

Mar-23	12.55		
Apr-23	12.93	Oct-23	15.19
May-23	13.30	Nov-23	15.56
Jun-23	13.68	Dec-23	15.94
Jul-23	14.06	Jan-24	16.32
Aug-23	14.43	Feb-24	16.69
Sep-23	14.81	Mar-24	17.07

Option 7 - charge monthly service charge for sewer that matches the water service charge and fire protection charge

5/8 & 3/4 inch	650	\$ 20.73	\$161,694
1 inch	26	\$ 43.83	\$ 13,675
1.5 inch	2	\$ 80.66	\$ 1,936
2 inch	11	\$ 126.00	\$ 16,632
3 inch	1	\$ 236.00	\$ 2,832
4 inch	2	\$ 395.00	\$ 9,480
			\$206,249

Option 8 - hire an engineer firm that can calculate a reasonable ramp up based on the amount the village wishes to spend for improvements

Option 9 - increase rate 5% each year for the next 10 years

Mar-23	12.55	Apr-29	16.94
Apr-23	13.18	Apr-30	17.57
Apr-24	13.81	Apr-31	18.20
Apr-25	14.43	Apr-32	18.83
Apr-26	15.06	Apr-33	19.45
Apr-27	15.69	Apr-34	20.08
Apr-28	16.32		

ORDINANCE NO. 2023-02

AN ORDINANCE TO REPEAL AND RECREATE SECTION 30-5(c) AND CREATE SECTION 30-5(d), RELATED TO SNOW AND ICE REMOVAL IN THE MUNICIPAL CODE OF THE VILLAGE OF RANDOM LAKE, SHEBOYGAN COUNTY, WISCONSIN

WHEREAS, the Village of Random Lake adopted the Snow and Ice Removal Code of Ordinances 1994, followed by several amendments that have been enacted, and

WHEREAS, the Village Board of the Village of Random Lake believes it is in the best interest of the Village to regulate snow and ice removal under Wisconsin Statutes Section 66.0907(5) to allow the Village to clear sidewalks of snow and ice when abutting property owners fail to do so, and charge the abutting property owners for the work completed; and

WHEREAS, the Village Board finds that it is in the best interest of the health, safety, and welfare of the Village of Random Lake to require all properties that abut any sidewalk to be kept clear from snow and ice, and allow the Village to clear said sidewalks when property owners fail to do so; and

NOW, THEREFORE, the Village Board of the Village of Random Lake, Sheboygan County, Wisconsin DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1: Chapter 30 of the Village of Random Lake Municipal Code entitled “Streets, Sidewalks and Other Public Places,” Article I entitled “In General” Section 30-5 “Snow and Ice Removal,” Subsection (c) entitled “Removal by Village” is hereby repealed and recreated as follows:

(c) *Removal by village.* The deposit of any snow or ice upon any sidewalk, alley or street of the village contrary to the provisions of this section shall be and is declared to be a nuisance and, in addition to the penalty provided for violation of this section, the village may summarily remove any snow so deposited and cause the cost of said removal to be charged to the owner of the property from which said snow or ice has been removed. ~~If not paid within 30 days, such charge shall be extended upon the current or next tax roll as a charge for current services, as provided in Wis. Stats 66.0703~~

SECTION 2: Chapter 30 of the Village of Random Lake Municipal Code entitled “Streets, Sidewalks, and Other Public Places,” Article I entitled “In General,” Section 30-5 “Snow and Ice Removal,” Subsection (d) entitled “Violation and Penalty” is hereby created as follows:

(d) *Violation and Penalty.* If any person shall violate this chapter, he or she shall be subject to a forfeiture pursuant to Section 1-13 of the Village Code. In addition, any person shall be subject to such amount as set forth in the schedule of fees adopted by the village board from time to time. If the fee and/or forfeiture are not paid within 10 days, such fees and/or forfeiture shall be doubled and the person shall be granted an additional

10 days to make payment. Any unpaid fee owed to the village by any person in violation of this section that is not paid by November 1st shall be delinquent and placed upon the tax roll, pursuant to Wis Stats 66.0627.

SECTION 3: SEVERABILITY

The several sections of this ordinance are declared to be severable. If any section or portion thereof shall be declared by a court of competent jurisdiction to be invalid, unlawful or unenforceable, such decision shall apply only to the specific section or portion thereof directly specified in the decision, and shall not affect the validity of any other provisions, sections or portions thereof of the ordinance. The remainder of the ordinance shall remain in full force and effect. Any other ordinances whose terms are in conflict with the provisions of this ordinance are hereby repealed as to those terms that conflict.

SECTION 4: EFFECTIVE DATE

This Ordinance shall take effect immediately upon passage and posting or publication as provided by law.

Dated this 20th day of February 2023.

VILLAGE OF RANDOM LAKE

By: _____
Michael San Felippo, President

ATTESTED:

Stephanie Waala
Village Clerk/Treasurer

Date Adopted: _____

Date Published: _____

Effective Date: _____



P.O. Box 344 • 96 Russell Drive • Random Lake, WI 53075
 Phone: (920) 994-4852 • Fax: (920) 994-2390

Commercial & Industrial Permit Application

Job Location (Identify exact address) W 5009 hwy 144 , Random Lake, WI 53075		Date 02/06/23	Permit#		
Owner's Name Global Signal Acquisition	Phone Number 301-283-2828	Contact's Name (When Relevant) Christina Wilburn on behalf of Crown Castle (Tower Owner) 3025 Highland Parkway, 4th Floor Downers Grove, IL 60515	Phone Number 773-628-4388		
Owner's Address (if different from above) PO Box 277455 Atlanta		City Atlanta	State GA		
Contractor's Name VOX COMMUNICATIONS, LLC		License Number	Zip Code 30384		
Contractor's Address 10871 Bustleton Avenue, Unit 114,		Contractor's Contact Name Vasile Dorojan, Sr. Project Manager vd@vox-line.com	Phone Number 215-385-2738		
		City Philadelphia	State PA		
Zip Code 19116					
It is the responsibility of the permit holder to arrange for appointment times when entry is available for the required inspections. If the inspector cannot access the work site or if the work is not visible, a re-inspection fee will be charged.					
Use of Building	Type of Work	Item	Qty.	Fee	Amount
<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> New				
<input type="checkbox"/> Industrial	<input type="checkbox"/> Addition				
	<input checked="" type="checkbox"/> Alteration/Repair	Decks & Porches		20/sq. ft.	
		Fences		\$50.00	
		Accessory Buildings		.20/sq. ft. or \$30 minimum	
		Re-Roof		\$ 100.00	
		Pools		\$ 100.00	
		Erosion Control – Plan Review		\$ 150.00	
		Erosion Control – Inspection		\$ 150.00	
		Additional Inspection – Call Back - Erosion		\$ 475.00	
Required for exterior design, appearance and location		Architectural Review Board	1	\$ 45.00	45.00
Required for fences, accessory buildings, decks & porches, pools, etc.		Plan Commission Review		\$ 45.00	
Required for new construction, additions, fences, pools, accessory buildings, etc.		Zoning Permit		\$ 45.00	
Refer to current connection rate schedule w/DPW		Sewer Connection Fee		Refer to DPW	
		Re-inspection Fee		\$ 75.00	
		Construction & HVAC permit fees shall be 75% of the most recent State of WI fee schedule.			
		Plumbing permit fees shall be 75% of the most current State of WI fee schedule.			
Note: If any work is commenced before the permit has been obtained, the fees shall be doubled with no exceptions.					
I attest that the above information accurately describes the property and proposed work to be performed on it. I agree to comply with all Village of Random Lake and State of Wisconsin codes applicable to the occupancy and work stated above. I understand that any false misinformation may result in penalties prescribed in the Village of Random Lake ordinances.					Sub Total:
Base Fee:				(Add to Subtotal)	\$40.00
Total:					
Applicant Signature		Print Name	Date		
Office use only Permit Paid By:			Date		

christina.wilburn@crowncastle.com



3025 Highland Pkwy Suite 510
Downers Grove, IL 60515

Phone: (773) 628-4388
www.crowncastle.com

February 6, 2023

WI - VILLAGE OF RANDOM LAKE
BUILDING DEPT
96 RUSSELL DRIVE
RANDOM LAKE, WI 53075

Via Mail

*******NOTICE OF ELIGIBLE FACILITIES REQUEST*******

RE: Request for Minor Modification to Existing Wireless Facility – Section 6409

Site Address: W 5009 Hwy 144, Random Lake, WI 53075

Crown Site Number: 878349 / Crown Site Name: JUNG BEER

Customer Site Number: ML81125A / Application Number: 620275

Attention BUILDING DEPT:

On behalf of Sprint Spectrum LLC, f/k/a Sprint Spectrum L.P. (“Sprint PCS” or “Applicant”), Crown Castle USA Inc. (“Crown Castle”) is pleased to submit this request to modify the existing wireless facility noted above through the collocation, replacement and/or removal of the Applicant’s equipment as an eligible facilities request for a minor modification under Section 6409¹ and the rules of the Federal Communications Commission (“FCC”).²

Section 6409 mandates that state and local governments must approve any eligible facilities request for the modification of an existing wireless tower or base station that does not substantially change the physical dimensions of such tower or base station. Under Section 6409, to toll the review period, if the reviewing authority determines that the application is incomplete, it must provide written notice to the applicant within 30 days, which clearly and specifically delineates all missing documents or information reasonably related to whether the request meets the federal requirements.³ Additionally, if a state or local government, fails to issue any approvals required for this request within 60 days, these approvals are deemed granted. The FCC has clarified that the 30-day and 60-day deadlines begins when an applicant: (1) takes the first step required under state or local law; and (2) submits information sufficient to inform the jurisdiction that this modification qualifies under the federal law⁴. Please note that with the submission of this letter and enclosed items, the thirty and sixty-day review periods have started. Based on this filing, the deadline for written notice of incomplete application is March 8, 2023, and the deadline for issuance of approval is April 7, 2023.

¹ Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96, § 6409 (2012) (codified at 47 U.S.C. § 1455).

² *Acceleration of Broadband Deployment by Improving Wireless Facility Siting Policies*, 29 FCC Rcd. 12865 (2014) (codified at 47 CFR § 1.6100); and *Implementation of State & Local Governments’ Obligation to Approve Certain Wireless Facility Modification Requests Under Section 6409(a) of the Spectrum Act of 2012*, WT Docket No. 19-250 (June 10, 2020).

³ See 47 CFR § 1.6100 (c)(3). ⁴ See 2020 Upgrade Order at paragraph 16.

The Foundation for a Wireless World

CrownCastle.com



3025 Highland Pkwy Suite 510
Downers Grove, IL 60515

Phone: (773) 628-4388
www.crowncastle.com

The proposed scope of work for this project includes:

Add or replace antennas and ancillary equipment as per plans for an existing carrier on an existing wireless communication facility.

At the end of this letter is a checklist of the applicable substantial change criteria under Section 6409. Additionally, please find enclosed the following information in support of this request:

- (1) Permit Application;
- (2) Construction Drawings;
- (3) Structural Analysis; and
- (4) Section 6409 Substantial Change Checklist.

As these documents indicate, (i) the modification involves the collocation, removal or replacement of transmission equipment; and (ii) such modification will not substantially change the physical dimensions of such tower or base station. As such, it is an "eligible facilities request" as defined in the FCC's rules to which the 60-day deadline for approval applies. Accordingly, Applicant requests all authorization necessary for this proposed minor modification under Section 6409.

Our goal is to work with you to obtain approvals earlier than the deadline. We will respond promptly to any request for related information you may have in connection with this request. Please let us know how we can work with you to expedite the approval process. We look forward to working with you on this important project, which will improve wireless telecommunication services in your community using collocation on existing infrastructure. If you have any questions, please do not hesitate to contact me.

Regards,

Christina Wilburn

Christina Wilburn
Site Acquisition Specialist
Crown Castle, Agent for Applicant
(773) 628-4388
Christina.Wilburn@crowncastle.com



3025 Highland Pkwy Suite 510
Downers Grove, IL 60515

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**Section 6409 Substantial Change Checklist
Towers Outside of the Public Right of Way**

The Federal Communications Commission has determined that a modification substantially changes the physical dimension of a wireless tower or base station under 47 U.S.C. § 1455(a) if it meets one of six enumerated criteria under 47 C.F.R. § 1.6100.

Criteria for Towers Outside the Public Rights of Way

YES/NO NO	Does the modification increase the height of the tower by more than the greater of: (a) 10% (b) or, the height of an additional antenna array plus separation of up to 20 feet from the top of the nearest existing antenna?
YES/NO NO	Does the modification add an appurtenance to the body of the tower that would protrude from the edge of the tower more than 20 feet or more than the width of the tower structure at the level of the appurtenance, whichever is greater?
YES/NO NO	Does the modification involve the installation of more than the standard number of new equipment cabinets for the technology involved or add more than four new equipment cabinets?
YES/NO NO	Does the modification entail any excavation or deployment outside the current site by more than 30 feet in any direction, not including any access or utility easements?
YES/NO NO	Does the modification defeat the concealment elements of the eligible support structure?
YES/NO NO	Does the modification violate conditions associated with the siting approval with the prior approval the tower or base station other than as specified in 47 C.F.R. § 1.6100(c)(7)(i) – (iv)?

If all questions in the above section are answered "NO," then the modification does not constitute a substantial change to the existing tower under 47 C.F.R. § 1.6100.

Date: January 13, 2023



Subject: Structural Analysis Report

Carrier Designation:

Site Number: ML81125A
Site Name: ML33XR049

Crown Castle Designation:

BU Number: 878349
Site Name: JUNG BEER
JDE Job Number: 720045
Work Order Number: 2193158
Order Number: 620275 Rev. 0

Engineering Firm Designation:

Black & Veatch Corp. Project Number: 406642

Site Data:

W 5009 hwy 144, Random Lake, Sheboygan County, WI 53075
Latitude 43° 33' 52", Longitude -87° 56' 34.81"
145 Foot - Self Support Tower

Black & Veatch Corp. 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

This analysis utilizes an ultimate 3-second gust wind speed of 115 mph as required by the 2015 International Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Vinaykumar P. / Khushal Patel

Respectfully submitted by:

Ping Jiang, P.E.
Professional Engineer

Digitally signed
by Ping Jiang
Date:
2023.01.13
13:15:02-06'00'



Jan 13, 2023

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1) INTRODUCTION

This tower is a 145 ft Self Support tower designed by Sabre Communications Corporation.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	115 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	40 mph
Seismic Ss:	0.071
Seismic S1:	0.041
Service Wind Speed:	60 mph
Seismic Loading:	Does not control per engineering judgement

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)
151.0	153.0	2	commscope	HCS 2.0 Part 1	2	1 1/2
		3	nokia	AHFIG_TMO		
		3	nokia	AHLOA_T-MOBILE		
		3	samsung telecommunications	RRH-P4		
	151.0	3	commscope	FFV4-65C-R3-V1_TMO w/ Mount Pipe		
		3	nokia	AEHC w/ Mount Pipe		
		1	cci tower mounts (v2.1)	Platform Mount [14.4' LP 603-1]		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	1557593	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	2054437	CCISITES
4-TOWER MANUFACTURER DRAWINGS	2054439	CCISITES

3.1) Analysis Method

tnxTower (version 8.1.1.0), 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. Black & Veatch Corp. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 3 - Section Capacity (Summary) (Self Support Tower)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	145 - 140	Leg	P2x.154	3	-9.08	33.20	27.4	Pass
T2	140 - 120	Leg	P2.5x.203	15	-34.36	60.05	57.2	Pass
T3	120 - 100	Leg	P3x.3	45	-50.35	116.14	43.4	Pass
T4	100 - 80	Leg	P3.5x.318	75	-62.80	148.90	42.2	Pass
T5	80 - 60	Leg	P4x.337	102	-74.28	167.91	44.2	Pass
T6	60 - 40	Leg	P5x.375	123	-86.68	251.36	34.5	Pass
T7	40 - 20	Leg	P6x.28	144	-99.27	240.27	41.3	Pass
T8	20 - 0	Leg	P6x.432	165	-111.06	318.94	34.8	Pass
T1	145 - 140	Diagonal	L1 3/4x1 3/4x3/16	12	-2.67	13.69	19.5	Pass
T2	140 - 120	Diagonal	L1 3/4x1 3/4x3/16	21	-2.95	13.82	21.3	Pass
T3	120 - 100	Diagonal	L1 3/4x1 3/4x3/16	51	-1.53	9.42	16.3	Pass
T4	100 - 80	Diagonal	L1 3/4x1 3/4x3/16	78	-1.70	6.51	26.1	Pass
T5	80 - 60	Diagonal	L2x2x3/16	105	-2.13	6.19	34.5	Pass
T6	60 - 40	Diagonal	L2 1/2x2 1/2x3/16	126	-2.43	9.58	25.3	Pass
T7	40 - 20	Diagonal	L2 1/2x2 1/2x3/16	147	-2.80	7.60	36.8	Pass
T8	20 - 0	Diagonal	L3x3x3/16	168	-3.54	9.01	39.3	Pass
T1	145 - 140	Top Girt	C7x9.8	6	0.54	92.92	0.6	Pass
T2	140 - 120	Top Girt	L1 3/4x1 3/4x3/16	17	-0.60	7.66	7.8	Pass
T3	120 - 100	Top Girt	L1 3/4x1 3/4x3/16	47	-0.87	7.84	11.1	Pass
							Summary	
							Leg (T2)	57.2 Pass
							Diagonal (T8)	39.3 Pass
							Top Girt (T3)	11.1 Pass
							Bolt Checks	29.1 Pass
							Rating =	57.2 Pass

Table 4 - Tower Component Stresses vs. Capacity (Self Support Tower) - LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	32.8	Pass
1	Base Foundation (Structure)	0	24.5	Pass
1	Base Foundation (Soil Interaction)		56.4	Pass
Structure Rating (max from all components) =				57.2%

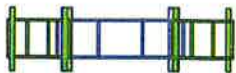
Note:

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

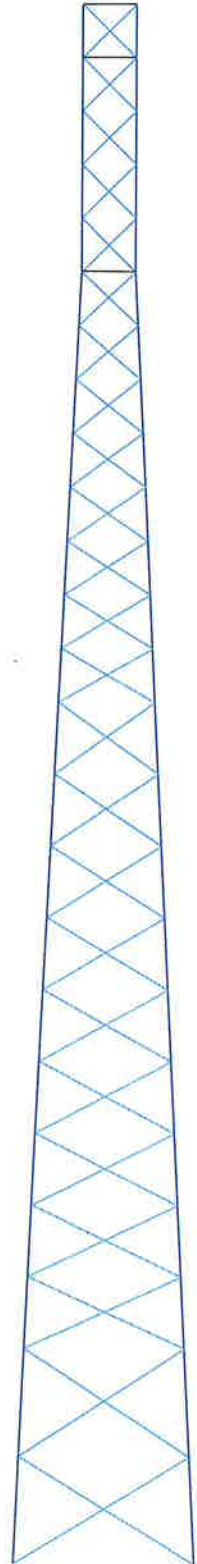
4.1) Recommendations

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



Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	T8	T9
Legs	P2X154	P2.5X203	P3X3	P3.5X318	P4X337	P5X375	P6X28	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432	P6X432
Leg Grade																			
Diagonals																			
Diagonal Grade																			
Top Girts																			
Face Width (ft)	17																		
# Panels @ (ft)																			
Weight (K)	11.5	0.8	5.1	1.3	1.5	2.1	2.1	2.7	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

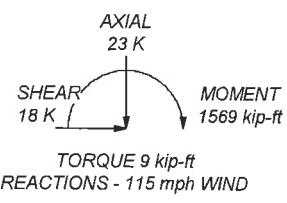
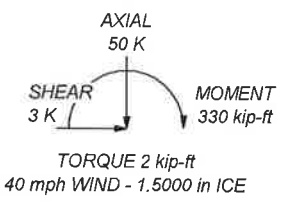
TOWER DESIGN NOTES

1. Tower is located in Sheboygan County, Wisconsin.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 115 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 40 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: 57.2%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 114 K
SHEAR: 11 K

UPLIFT: -95 K
SHEAR: 9 K



<p>BLACK & VEATCH Building a world of difference.</p>	<p>Black & Veatch Corp. 11401 Lamar Avenue Overland Park, KS 66211 Phone: (913) 458-6909 FAX: (913) 458-8136</p>		<p>Job: JUNG BEER (BU#878349)</p>		
	<p>Project: 406642 (878349.2193158)</p>				
	<p>Client: Crown Castle</p>		<p>Drawn by: Khushal Patel</p>		<p>App'd:</p>
	<p>Code: TIA-222-H</p>		<p>Date: 01/13/23</p>		<p>Scale: NTS</p>
	<p>Path:</p>		<p>Dwg No. E-1</p>		

Tower Input Data

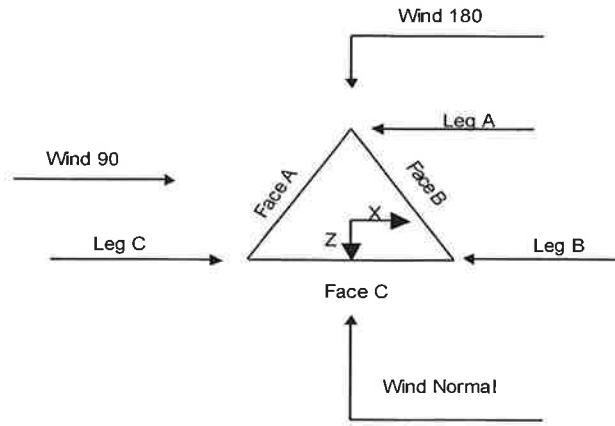
The main tower is a 3x free standing tower with an overall height of 145.00 ft above the ground line.
 The base of the tower is set at an elevation of 0.00 ft above the ground line.
 The face width of the tower is 5.00 ft at the top and 17.00 ft at the base.
 This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower is located in Sheboygan County, Wisconsin.
- Tower base elevation above sea level: 898.00 ft.
- Basic wind speed of 115 mph.
- Risk Category II.
- Exposure Category C.
- 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 40 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- 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 Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification ✓ Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section ✓ Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area ✓ Use Clear Spans For KL/r Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination ✓ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules ✓ Calculate Redundant Bracing Forces Ignore Redundant Members in FEA ✓ SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <div style="background-color: #e0e0e0; padding: 2px; text-align: center;">Poles</div> Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
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Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	145.00-140.00			5.00	1	5.00
T2	140.00-120.00			5.00	1	20.00
T3	120.00-100.00			5.00	1	20.00
T4	100.00-80.00			7.00	1	20.00
T5	80.00-60.00			9.00	1	20.00
T6	60.00-40.00			11.00	1	20.00
T7	40.00-20.00			13.00	1	20.00
T8	20.00-0.00			15.00	1	20.00

Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	145.00-140.00	5.00	X Brace	No	No	0.0000	0.0000
T2	140.00-120.00	5.00	X Brace	No	No	0.0000	0.0000
T3	120.00-100.00	5.00	X Brace	No	No	0.0000	0.0000
T4	100.00-80.00	5.00	X Brace	No	No	0.0000	0.0000
T5	80.00-60.00	6.67	X Brace	No	No	0.0000	0.0000
T6	60.00-40.00	6.67	X Brace	No	No	0.0000	0.0000
T7	40.00-20.00	6.67	X Brace	No	No	0.0000	0.0000
T8	20.00-0.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 145.00-140.00	Pipe	P2x.154	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T2 140.00-120.00	Pipe	P2.5x.203	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T3 120.00-100.00	Pipe	P3x.3	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T4 100.00-80.00	Pipe	P3.5x.318	A572-50 (50 ksi)	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T5 80.00-60.00	Pipe	P4x.337	A572-50 (50 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T6 60.00-40.00	Pipe	P5x.375	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T7 40.00-20.00	Pipe	P6x.28	A572-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T8 20.00-0.00	Pipe	P6x.432	A572-50 (50 ksi)	Equal Angle	L3x3x3/16	A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 145.00-140.00	Channel	C7x9.8	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T2 140.00-120.00	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)	Equal Angle		A36 (36 ksi)
T3 120.00-100.00	Equal Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)	Equal Angle		A36 (36 ksi)

Tower Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft ²	Gusset Thickness in	Gusset Grade	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	
T1 145.00-140.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T2 140.00-120.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T3 120.00-100.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T4 100.00-80.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T5 80.00-60.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T6 60.00-40.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T7 40.00-20.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000
T8 20.00-0.00	0.00	0.3750	A36 (36 ksi)	1.05	1	1.05	0.0000	0.0000	0.0000

Tower Section Geometry (cont'd)

K Factors¹

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 145.00-140.00	Yes	Yes	1	1	1	1	1	1	1	1
T2 140.00-120.00	Yes	Yes	1	1	1	1	1	1	1	1
T3 120.00-100.00	Yes	Yes	1	1	1	1	1	1	1	1
T4 100.00-80.00	Yes	Yes	1	1	1	1	1	1	1	1
T5 80.00-60.00	Yes	Yes	1	1	1	1	1	1	1	1
T6 60.00-40.00	Yes	Yes	1	1	1	1	1	1	1	1
T7 40.00-20.00	Yes	Yes	1	1	1	1	1	1	1	1
T8 20.00-0.00	Yes	Yes	1	1	1	1	1	1	1	1

¹Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 145.00-140.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 140.00-120.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 120.00-100.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 100.00-80.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 80.00-60.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 60.00-40.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 40.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 20.00-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 145.00-140.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 140.00-120.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3 120.00-100.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 100.00-80.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 80.00-60.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T6 60.00-40.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 40.00-20.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 20.00-0.00	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg Bolt Size in	Leg No.	Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
				Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 145.00-140.00	Flange	0.7500	4	A325X	4	0.6250	1	A325X	3	0.6250	0	A325N	0	0.6250	0
T2 140.00-120.00	Flange	0.7500	4	A325X	4	0.6250	1	A325X	1	0.6250	0	A325N	0	0.6250	0
T3 120.00-100.00	Flange	1.0000	4	A325X	4	0.6250	1	A325X	1	0.7500	0	A325N	0	0.6250	0
T4 100.00-80.00	Flange	1.0000	4	A325X	4	0.6250	1	A325X	0	0.7500	0	A325N	0	0.6250	0
T5 80.00-60.00	Flange	1.2500	4	A325X	4	0.6250	1	A325X	0	0.7500	0	A325N	0	0.6250	1
T6 60.00-40.00	Flange	1.2500	4	A325X	4	0.6250	1	A325X	0	0.7500	0	A325N	0	0.6250	1
T7 40.00-20.00	Flange	1.2500	6	A325X	6	0.7500	1	A325X	0	0.7500	0	A325N	0	0.6250	1
T8 20.00-0.00	Flange	1.5000	0	A325X	0	0.7500	1	A325X	0	0.7500	0	A325N	0	0.6250	1

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Shield Leg	Allow	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Climbing Ladder (Af)	B	No	No	Af (CaAa)	145.00 - 0.00	0.0000	0	1	1	3.0000	3.0000		8.40
Safety Line 3/8	B	No	No	Ar (CaAa)	145.00 - 0.00	0.0000	0.01	1	1	0.3750	0.3750		0.22
Feedline Ladder (Af)	B	No	No	Af (CaAa)	145.00 - 0.00	0.0000	-0.45	1	1	3.0000	3.0000		8.40
HCS 2.0 Part 3(1-1/2)	B	No	No	Ar (CaAa)	145.00 - 0.00	0.0000	-0.431	2	2	0.5000	1.5500		1.71

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Shield Leg	Allow	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C _A A _A ft ² /ft	Weight plf
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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Componen t Type	Placement ft	Total Number	C _{AA} A _A ft ² /ft	Weight plf

Feed Line/Linear Appurtenances Section Areas

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} A _A In Face ft ²	C _{AA} A _A Out Face ft ²	Weight K
T1	145.00-140.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	6.738	0.000	0.10
		C	0.000	0.000	0.000	0.000	0.00
T2	140.00-120.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00
T3	120.00-100.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00
T4	100.00-80.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00
T5	80.00-60.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00
T6	60.00-40.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00
T7	40.00-20.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00
T8	20.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	26.950	0.000	0.41
		C	0.000	0.000	0.000	0.000	0.00

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Sectio n	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _{AA} A _A In Face ft ²	C _{AA} A _A Out Face ft ²	Weight K
T1	145.00-140.00	A	1.476	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	14.583	0.000	0.26
		C		0.000	0.000	0.000	0.000	0.00
T2	140.00-120.00	A	1.462	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	58.078	0.000	1.04
		C		0.000	0.000	0.000	0.000	0.00
T3	120.00-100.00	A	1.438	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	57.618	0.000	1.02
		C		0.000	0.000	0.000	0.000	0.00
T4	100.00-80.00	A	1.410	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	57.077	0.000	1.01
		C		0.000	0.000	0.000	0.000	0.00
T5	80.00-60.00	A	1.375	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	56.414	0.000	0.99
		C		0.000	0.000	0.000	0.000	0.00
T6	60.00-40.00	A	1.329	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	55.553	0.000	0.96
		C		0.000	0.000	0.000	0.000	0.00
T7	40.00-20.00	A	1.263	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	54.299	0.000	0.93
		C		0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		in	ft ²	ft ²	ft ²	ft ²	K
T8	20.00-0.00	A	1.132	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	51.813	0.000	0.86
		C		0.000	0.000	0.000	0.000	0.00

Feed Line Center of Pressure

Section	Elevation	CP _X	CP _Z	CP _X	CP _Z
	ft	in	in	Ice in	Ice in
T1	145.00-140.00	1.4183	-4.7832	1.8914	-5.4162
T2	140.00-120.00	1.9810	-6.4433	2.7257	-7.5976
T3	120.00-100.00	2.0855	-6.9153	2.9575	-8.4053
T4	100.00-80.00	2.4025	-8.1921	3.4577	-10.0833
T5	80.00-60.00	2.6965	-9.3571	3.9629	-11.7748
T6	60.00-40.00	2.5688	-9.1120	3.9565	-12.0187
T7	40.00-20.00	2.6754	-9.5819	4.0733	-12.5496
T8	20.00-0.00	2.9861	-10.7412	4.5216	-14.1918

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
T1	1	Climbing Ladder (Af)	140.00 - 145.00	0.6000	0.4863
T1	2	Safety Line 3/8	140.00 - 145.00	0.6000	0.4863
T1	3	Feedline Ladder (Af)	140.00 - 145.00	0.6000	0.4863
T1	5	HCS 2.0 Part 3(1-1/2)	140.00 - 145.00	0.6000	0.4863
T2	1	Climbing Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T2	2	Safety Line 3/8	120.00 - 140.00	0.6000	0.6000
T2	3	Feedline Ladder (Af)	120.00 - 140.00	0.6000	0.6000
T2	5	HCS 2.0 Part 3(1-1/2)	120.00 - 140.00	0.6000	0.6000
T3	1	Climbing Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T3	2	Safety Line 3/8	100.00 - 120.00	0.6000	0.6000
T3	3	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T3	5	HCS 2.0 Part 3(1-1/2)	100.00 - 120.00	0.6000	0.6000
T4	1	Climbing Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T4	2	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T4	3	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T4	5	HCS 2.0 Part 3(1-1/2)	80.00 - 100.00	0.6000	0.6000
T5	1	Climbing Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T5	2	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	3	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T5	5	HCS 2.0 Part 3(1-1/2)	60.00 - 80.00	0.6000	0.6000
T6	1	Climbing Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T6	2	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T6	3	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T6	5	HCS 2.0 Part 3(1-1/2)	40.00 - 60.00	0.6000	0.6000
T7	1	Climbing Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T7	2	Safety Line 3/8	20.00 - 40.00	0.6000	0.6000
T7	3	Feedline Ladder (Af)	20.00 - 40.00	0.6000	0.6000
T7	5	HCS 2.0 Part 3(1-1/2)	20.00 - 40.00	0.6000	0.6000
T8	1	Climbing Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T8	2	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T8	3	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T8	5	HCS 2.0 Part 3(1-1/2)	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustmen t	Placement ft	$C_A A_A$ Front ft ²	$C_A A_A$ Side ft ²	Weight K
Lightning Rod 5/8"x4'	A	From Leg	0.00	0.0000	150.00	No Ice	0.25	0.00
						1/2"	0.66	0.01
						Ice	0.97	0.01
						1" Ice	1.49	0.03
						2" Ice	1.49	0.03
6'x3" Mount Pipe	A	From Leg	0.00	0.0000	150.00	No Ice	1.93	0.05
						1/2"	2.29	0.06
						Ice	2.67	0.08
						1" Ice	3.44	0.13
						2" Ice	3.44	0.13
Sabre 5' Rotatable Section	C	None		0.0000	145.00	No Ice	5.00	0.30
						1/2"	7.80	0.39
						Ice	10.61	0.48
						1" Ice	16.21	0.66
						2" Ice	16.21	0.66
Platform Mount [14.4' LP 603-1]	C	None		0.0000	151.00	No Ice	41.78	2.12
						1/2"	48.63	2.87
						Ice	56.16	3.76
						1" Ice	73.94	5.93
						2" Ice	73.94	5.93
(2) 6'x2" Mount Pipe	A	From Face	4.00	0.0000	151.00	No Ice	1.43	0.02
						1/2"	1.92	0.03
						Ice	2.29	0.05
						1" Ice	3.06	0.09
						2" Ice	3.06	0.09
(2) 6'x2" Mount Pipe	B	From Face	4.00	0.0000	151.00	No Ice	1.43	0.02
						1/2"	1.92	0.03
						Ice	2.29	0.05

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight	
			Horz	Lateral						Vert
(2) 6'x2" Mount Pipe	C	From Face	4.00	0.00	0.0000	151.00	1" Ice	3.06	3.06	0.09
							2" Ice			
							No Ice	1.43	1.43	0.02
							1/2"	1.92	1.92	0.03
							Ice	2.29	2.29	0.05
10'x2" Mount Pipe	A	From Face	4.00	0.00	0.0000	151.00	1" Ice	3.06	3.06	0.09
							2" Ice			
							No Ice	2.38	2.38	0.04
							1/2"	3.40	3.40	0.05
							Ice	4.45	4.45	0.08
10'x2" Mount Pipe	B	From Face	4.00	0.00	0.0000	151.00	1" Ice	5.91	5.91	0.15
							2" Ice			
							No Ice	2.38	2.38	0.04
							1/2"	3.40	3.40	0.05
							Ice	4.45	4.45	0.08
10'x2" Mount Pipe	C	From Face	4.00	0.00	0.0000	151.00	1" Ice	5.91	5.91	0.15
							2" Ice			
							No Ice	2.38	2.38	0.04
							1/2"	3.40	3.40	0.05
							Ice	4.45	4.45	0.08
FFV4-65C-R3-V1_TMO w/ Mount Pipe	A	From Face	4.00	0.00	0.0000	151.00	1" Ice	5.91	5.91	0.15
							2" Ice			
							No Ice	12.97	6.20	0.18
							1/2"	13.62	6.77	0.31
							Ice	14.27	7.36	0.46
FFV4-65C-R3-V1_TMO w/ Mount Pipe	B	From Face	4.00	0.00	0.0000	151.00	1" Ice	15.62	8.57	0.81
							2" Ice			
							No Ice	12.97	6.20	0.18
							1/2"	13.62	6.77	0.31
							Ice	14.27	7.36	0.46
FFV4-65C-R3-V1_TMO w/ Mount Pipe	C	From Face	4.00	0.00	0.0000	151.00	1" Ice	15.62	8.57	0.81
							2" Ice			
							No Ice	12.97	6.20	0.18
							1/2"	13.62	6.77	0.31
							Ice	14.27	7.36	0.46
AEHC w/ Mount Pipe	A	From Face	4.00	0.00	0.0000	151.00	1" Ice	8.99	4.39	0.36
							2" Ice			
							No Ice	6.91	2.77	0.11
							1/2"	7.40	3.15	0.16
							Ice	7.91	3.55	0.22
AEHC w/ Mount Pipe	B	From Face	4.00	0.00	0.0000	151.00	1" Ice	8.99	4.39	0.36
							2" Ice			
							No Ice	6.91	2.77	0.11
							1/2"	7.40	3.15	0.16
							Ice	7.91	3.55	0.22
AEHC w/ Mount Pipe	C	From Face	4.00	0.00	0.0000	151.00	1" Ice	8.99	4.39	0.36
							2" Ice			
							No Ice	6.91	2.77	0.11
							1/2"	7.40	3.15	0.16
							Ice	7.91	3.55	0.22
RRH-P4	A	From Face	4.00	0.00	0.0000	151.00	1" Ice	8.99	4.39	0.36
							2" Ice			
							No Ice	2.74	1.79	0.06
							1/2"	2.95	1.97	0.08
							Ice	3.17	2.16	0.11
RRH-P4	B	From Face	4.00	0.00	0.0000	151.00	1" Ice	3.63	2.57	0.17
							2" Ice			
							No Ice	2.74	1.79	0.06
							1/2"	2.95	1.97	0.08
							Ice	3.17	2.16	0.11
RRH-P4	C	From Face	4.00	0.00	0.0000	151.00	1" Ice	3.63	2.57	0.17
							2" Ice			
							No Ice	2.74	1.79	0.06
							1/2"	2.95	1.97	0.08
							Ice	3.17	2.16	0.11

Description	Face or Leg	Offset Type	Offsets:			Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight	
			Horz	Lateral	Vert						ft
AHFIG_TMO	A	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	3.63	2.57	0.17
								2" Ice			
								No Ice	3.08	1.47	0.07
								1/2" Ice	3.32	1.66	0.09
								Ice	3.56	1.85	0.12
AHFIG_TMO	B	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	4.07	2.27	0.18
								2" Ice			
								No Ice	3.08	1.47	0.07
								1/2" Ice	3.32	1.66	0.09
								Ice	3.56	1.85	0.12
AHFIG_TMO	C	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	4.07	2.27	0.18
								2" Ice			
								No Ice	3.08	1.47	0.07
								1/2" Ice	3.32	1.66	0.09
								Ice	3.56	1.85	0.12
AHLOA_T-MOBILE	A	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	3.80	2.65	0.20
								2" Ice			
								No Ice	2.86	1.85	0.08
								1/2" Ice	3.08	2.04	0.11
								Ice	3.31	2.23	0.13
AHLOA_T-MOBILE	B	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	3.80	2.65	0.20
								2" Ice			
								No Ice	2.86	1.85	0.08
								1/2" Ice	3.08	2.04	0.11
								Ice	3.31	2.23	0.13
AHLOA_T-MOBILE	C	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	3.80	2.65	0.20
								2" Ice			
								No Ice	2.86	1.85	0.08
								1/2" Ice	3.08	2.04	0.11
								Ice	3.31	2.23	0.13
(2) HCS 2.0 Part 1	A	From Face	4.00	0.00	2.00	0.0000	151.00	1" Ice	2.59	1.48	0.11
								2" Ice			
								No Ice	1.87	0.93	0.02
								1/2" Ice	2.04	1.06	0.04
								Ice	2.21	1.19	0.06

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

Comb. No.	Description
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
T1	145 - 140	Leg	Max Tension	23	6.71	0.03	0.03
			Max. Compression	2	-9.08	0.00	0.05
			Max. Mx	18	-8.93	0.04	-0.03
			Max. My	2	-9.08	0.00	0.05
			Max. Vy	8	-1.43	0.00	0.00
		Diagonal	Max. Vx	2	1.40	0.00	0.00
			Max Tension	7	2.07	0.00	0.00
			Max. Compression	18	-2.67	0.00	0.00
			Max. Mx	38	-0.34	0.01	-0.00
			Max. My	6	-1.66	-0.00	0.00
		Top Girt	Max. Vy	38	-0.02	0.01	-0.00
			Max. Vx	6	0.00	0.00	0.00
			Max Tension	31	0.54	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	26	0.49	0.09	0.00
T2	140 - 120	Leg	Max. Vy	26	-0.07	0.00	0.00
			Max Tension	23	29.91	0.02	0.02
			Max. Compression	2	-34.36	0.00	0.21
			Max. Mx	8	-2.32	-0.22	-0.02
			Max. My	2	-34.36	0.00	0.21
		Diagonal	Max. Vy	8	0.08	-0.22	-0.02
			Max. Vx	2	-0.07	0.00	0.21
			Max Tension	5	2.83	0.00	0.00
			Max. Compression	10	-2.95	0.00	0.00
			Max. Mx	2	2.13	0.03	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T3	120 - 100	Top Girt	Max. My	8	2.54	0.02	0.01
			Max. Vy	27	-0.02	0.02	-0.00
			Max. Vx	8	0.00	0.02	0.01
			Max Tension	22	0.80	0.00	0.00
			Max. Compression	3	-0.39	0.00	0.00
			Max. Mx	26	0.50	-0.03	0.00
		Leg	Max. Vy	26	0.02	0.00	0.00
			Max Tension	23	43.94	-0.11	-0.01
			Max. Compression	2	-50.35	0.15	-0.00
			Max. Mx	2	-39.67	0.21	-0.00
			Max. My	8	-2.72	-0.02	0.29
			Max. Vy	18	0.06	0.21	-0.01
		Diagonal	Max. Vx	8	-0.10	-0.02	0.29
			Max Tension	10	1.59	0.00	0.00
			Max. Compression	10	-1.74	0.00	0.00
			Max. Mx	27	0.25	0.02	-0.00
			Max. My	24	-1.50	-0.01	-0.00
			Max. Vy	29	0.02	0.02	-0.00
Top Girt	Max. Vx	24	0.00	0.00	0.00		
	Max Tension	23	0.18	0.00	0.00		
	Max. Compression	2	-0.20	0.00	0.00		
	Max. Mx	26	-0.02	-0.03	0.00		
	Max. My	26	-0.03	0.00	0.00		
	Max. Vy	26	-0.02	0.00	0.00		
T4	100 - 80	Leg	Max. Vx	26	-0.00	0.00	0.00
			Max Tension	7	54.34	-0.16	0.00
			Max. Compression	2	-62.80	0.19	-0.00
			Max. Mx	22	53.42	-0.19	-0.01
			Max. My	8	-3.89	-0.01	0.23
			Max. Vy	14	0.04	-0.19	0.00
		Diagonal	Max. Vx	8	-0.06	-0.01	0.23
			Max Tension	12	1.71	0.00	0.00
			Max. Compression	12	-1.70	0.00	0.00
			Max. Mx	29	0.19	0.03	0.00
			Max. My	37	-0.25	0.02	-0.00
			Max. Vy	29	0.03	0.03	0.00
T5	80 - 60	Leg	Max. Vx	37	0.00	0.00	0.00
			Max Tension	7	63.77	-0.19	0.01
			Max. Compression	2	-74.28	0.26	-0.01
			Max. Mx	19	-72.54	0.27	-0.01
			Max. My	8	-4.70	-0.00	0.28
			Max. Vy	19	-0.06	0.27	-0.01
		Diagonal	Max. Vx	20	0.06	-0.00	-0.28
			Max Tension	12	2.06	0.00	0.00
			Max. Compression	10	-2.13	0.00	0.00
			Max. Mx	29	0.28	0.05	-0.01
			Max. My	30	0.23	0.05	0.01
			Max. Vy	29	0.03	0.05	-0.01
T6	60 - 40	Leg	Max. Vx	30	-0.00	0.00	0.00
			Max Tension	7	73.51	-0.27	0.01
			Max. Compression	2	-86.68	0.36	-0.00
			Max. Mx	11	-84.93	0.36	0.01
			Max. My	8	-5.80	-0.01	0.33
			Max. Vy	14	0.06	-0.34	0.00
		Diagonal	Max. Vx	8	-0.06	-0.01	0.31
			Max Tension	12	2.41	0.00	0.00
			Max. Compression	12	-2.43	0.00	0.00
			Max. Mx	29	0.16	0.07	0.01
			Max. My	30	-0.41	0.07	0.01
			Max. Vy	29	0.05	0.07	0.01
T7	40 - 20	Leg	Max. Vx	37	0.00	0.00	0.00
			Max Tension	7	83.33	-0.36	0.00
			Max. Compression	2	-99.27	0.61	-0.01
			Max. Mx	29	4.38	-1.28	0.01
			Max. My	8	-6.29	-0.00	0.44
			Max. Vy	33	0.32	-1.28	0.00
		Diagonal	Max. Vx	8	0.08	-0.01	0.43
			Max Tension	12	2.74	0.00	0.00
			Max. Compression	10	-2.80	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T8	20 - 0	Leg	Max. Mx	29	-0.01	0.08	-0.01
			Max. My	30	0.23	0.08	0.01
			Max. Vy	29	0.05	0.08	0.01
			Max. Vx	30	-0.00	0.00	0.00
			Max Tension	7	92.20	-0.44	0.02
			Max. Compression	2	-111.06	0.00	0.00
			Max. Mx	29	6.23	-1.28	0.01
			Max. My	8	-7.54	-0.07	0.92
		Diagonal	Max. Vy	33	-0.27	-1.28	0.00
			Max. Vx	8	0.17	-0.07	0.92
			Max Tension	12	3.29	0.00	0.00
			Max. Compression	10	-3.54	0.00	0.00
			Max. Mx	29	-0.69	0.13	0.01
			Max. My	30	1.51	0.10	0.02
			Max. Vy	29	0.06	0.13	0.01
			Max. Vx	30	-0.00	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	113.18	9.61	-5.83
	Max. H _x	18	113.18	9.61	-5.83
	Max. H _z	7	-94.58	-8.05	4.91
	Min. Vert	7	-94.58	-8.05	4.91
	Min. H _x	7	-94.58	-8.05	4.91
Leg B	Min. H _z	18	113.18	9.61	-5.83
	Max. Vert	10	113.53	-9.55	-5.88
	Max. H _x	23	-94.02	7.98	4.94
	Max. H _z	23	-94.02	7.98	4.94
	Min. Vert	23	-94.02	7.98	4.94
Leg A	Min. H _x	10	113.53	-9.55	-5.88
	Min. H _z	10	113.53	-9.55	-5.88
	Max. Vert	2	114.20	0.09	11.20
	Max. H _x	20	8.82	1.38	0.61
	Max. H _z	2	114.20	0.09	11.20
	Min. Vert	15	-92.73	-0.08	-9.34
	Min. H _x	9	6.15	-1.37	0.43
	Min. H _z	15	-92.73	-0.08	-9.34

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	19.09	0.00	0.00	-11.27	-3.69	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	22.91	-0.03	-17.61	-1568.86	-0.58	2.51
0.9 Dead+1.0 Wind 0 deg - No Ice	17.18	-0.03	-17.61	-1565.48	0.53	2.51
1.2 Dead+1.0 Wind 30 deg - No Ice	22.91	8.33	-14.42	-1304.37	-749.70	-2.46
0.9 Dead+1.0 Wind 30 deg - No Ice	17.18	8.33	-14.42	-1300.98	-748.59	-2.46
1.2 Dead+1.0 Wind 60 deg - No Ice	22.91	14.14	-8.13	-744.61	-1278.41	-6.82
0.9 Dead+1.0 Wind 60 deg - No Ice	17.18	14.14	-8.13	-741.23	-1277.31	-6.82
1.2 Dead+1.0 Wind 90 deg - No Ice	22.91	16.69	0.03	-9.67	-1501.64	-9.35

Load Combination	Vertical	Shear _x	Shear _z	Overturing Moment, M _x	Overturing Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 90 deg - No Ice	17.18	16.69	0.03	-6.29	-1500.53	-9.35
1.2 Dead+1.0 Wind 120 deg - No Ice	22.91	15.29	8.83	767.48	-1357.17	-8.86
0.9 Dead+1.0 Wind 120 deg - No Ice	17.18	15.29	8.83	770.86	-1356.06	-8.86
1.2 Dead+1.0 Wind 150 deg - No Ice	22.91	8.24	14.22	1263.49	-746.16	-6.16
0.9 Dead+1.0 Wind 150 deg - No Ice	17.18	8.24	14.22	1266.87	-745.05	-6.16
1.2 Dead+1.0 Wind 180 deg - No Ice	22.91	0.03	16.19	1446.16	-8.28	-2.51
0.9 Dead+1.0 Wind 180 deg - No Ice	17.18	0.03	16.19	1449.54	-7.17	-2.51
1.2 Dead+1.0 Wind 210 deg - No Ice	22.91	-8.33	14.42	1277.32	740.84	2.46
0.9 Dead+1.0 Wind 210 deg - No Ice	17.18	-8.33	14.42	1280.70	741.94	2.46
1.2 Dead+1.0 Wind 240 deg - No Ice	22.91	-15.36	8.84	765.39	1352.39	6.82
0.9 Dead+1.0 Wind 240 deg - No Ice	17.18	-15.36	8.84	768.77	1353.50	6.82
1.2 Dead+1.0 Wind 270 deg - No Ice	22.91	-16.69	-0.03	-17.37	1492.77	9.35
0.9 Dead+1.0 Wind 270 deg - No Ice	17.18	-16.69	-0.03	-13.99	1493.88	9.35
1.2 Dead+1.0 Wind 300 deg - No Ice	22.91	-14.06	-8.12	-746.70	1265.46	8.86
0.9 Dead+1.0 Wind 300 deg - No Ice	17.18	-14.06	-8.12	-743.32	1266.57	8.86
1.2 Dead+1.0 Wind 330 deg - No Ice	22.91	-8.24	-14.22	-1290.53	737.30	6.16
0.9 Dead+1.0 Wind 330 deg - No Ice	17.18	-8.24	-14.22	-1287.15	738.40	6.16
1.2 Dead+1.0 Ice+1.0 Temp	49.54	0.00	0.00	-28.64	-8.99	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	49.54	-0.00	-3.38	-330.15	-8.46	0.75
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	49.54	1.65	-2.86	-285.60	-157.34	-0.53
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	49.54	2.85	-1.64	-176.16	-265.57	-1.75
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	49.54	3.31	0.00	-28.11	-306.62	-2.37
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	49.54	2.93	1.69	122.57	-270.90	-2.28
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	49.54	1.63	2.82	225.36	-156.25	-1.70
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	49.54	0.00	3.23	263.30	-9.52	-0.75
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	49.54	-1.65	2.86	228.31	139.36	0.53
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	49.54	-2.97	1.71	123.67	255.87	1.75
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	49.54	-3.31	-0.00	-29.17	288.64	2.37
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	49.54	-2.80	-1.62	-175.07	244.63	2.28
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	49.54	-1.63	-2.82	-282.64	138.27	1.70
Dead+Wind 0 deg - Service	19.09	-0.01	-5.14	-460.31	-2.59	0.72
Dead+Wind 30 deg - Service	19.09	2.43	-4.22	-384.07	-218.93	-0.71
Dead+Wind 60 deg - Service	19.09	4.13	-2.38	-222.44	-371.66	-1.96
Dead+Wind 90 deg - Service	19.09	4.88	0.01	-10.17	-436.07	-2.68
Dead+Wind 120 deg - Service	19.09	4.46	2.58	214.20	-394.23	-2.54
Dead+Wind 150 deg - Service	19.09	2.41	4.16	357.56	-217.91	-1.77
Dead+Wind 180 deg - Service	19.09	0.01	4.74	410.36	-4.80	-0.72

Load Combination	Vertical	Shear _x	Shear _z	Overturing Moment, M _x	Overturing Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 210 deg - Service	19.09	-2.43	4.22	361.53	211.54	0.71
Dead+Wind 240 deg - Service	19.09	-4.49	2.58	213.61	388.01	1.96
Dead+Wind 270 deg - Service	19.09	-4.88	-0.01	-12.37	428.69	2.68
Dead+Wind 300 deg - Service	19.09	-4.11	-2.37	-223.04	363.10	2.54
Dead+Wind 330 deg - Service	19.09	-2.41	-4.16	-380.10	210.53	1.77

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	-19.09	0.00	0.00	19.09	-0.00	0.000%
2	-0.03	-22.91	-17.61	0.03	22.91	17.61	0.000%
3	-0.03	-17.18	-17.61	0.03	17.18	17.61	0.000%
4	8.33	-22.91	-14.42	-8.33	22.91	14.42	0.000%
5	8.33	-17.18	-14.42	-8.33	17.18	14.42	0.000%
6	14.14	-22.91	-8.13	-14.14	22.91	8.13	0.000%
7	14.14	-17.18	-8.13	-14.14	17.18	8.13	0.000%
8	16.69	-22.91	0.03	-16.69	22.91	-0.03	0.000%
9	16.69	-17.18	0.03	-16.69	17.18	-0.03	0.000%
10	15.29	-22.91	8.83	-15.29	22.91	-8.83	0.000%
11	15.29	-17.18	8.83	-15.29	17.18	-8.83	0.000%
12	8.24	-22.91	14.22	-8.24	22.91	-14.22	0.000%
13	8.24	-17.18	14.22	-8.24	17.18	-14.22	0.000%
14	0.03	-22.91	16.19	-0.03	22.91	-16.19	0.000%
15	0.03	-17.18	16.19	-0.03	17.18	-16.19	0.000%
16	-8.33	-22.91	14.42	8.33	22.91	-14.42	0.000%
17	-8.33	-17.18	14.42	8.33	17.18	-14.42	0.000%
18	-15.36	-22.91	8.84	15.36	22.91	-8.84	0.000%
19	-15.36	-17.18	8.84	15.36	17.18	-8.84	0.000%
20	-16.69	-22.91	-0.03	16.69	22.91	0.03	0.000%
21	-16.69	-17.18	-0.03	16.69	17.18	0.03	0.000%
22	-14.06	-22.91	-8.12	14.06	22.91	8.12	0.000%
23	-14.06	-17.18	-8.12	14.06	17.18	8.12	0.000%
24	-8.24	-22.91	-14.22	8.24	22.91	14.22	0.000%
25	-8.24	-17.18	-14.22	8.24	17.18	14.22	0.000%
26	0.00	-49.54	0.00	0.00	49.54	-0.00	0.000%
27	-0.00	-49.54	-3.38	0.00	49.54	3.38	0.000%
28	1.65	-49.54	-2.86	-1.65	49.54	2.86	0.000%
29	2.85	-49.54	-1.64	-2.85	49.54	1.64	0.000%
30	3.31	-49.54	0.00	-3.31	49.54	-0.00	0.000%
31	2.93	-49.54	1.69	-2.93	49.54	-1.69	0.000%
32	1.63	-49.54	2.82	-1.63	49.54	-2.82	0.000%
33	0.00	-49.54	3.23	-0.00	49.54	-3.23	0.000%
34	-1.65	-49.54	2.86	1.65	49.54	-2.86	0.000%
35	-2.97	-49.54	1.71	2.97	49.54	-1.71	0.000%
36	-3.31	-49.54	-0.00	3.31	49.54	0.00	0.000%
37	-2.80	-49.54	-1.62	2.80	49.54	1.62	0.000%
38	-1.63	-49.54	-2.82	1.63	49.54	2.82	0.000%
39	-0.01	-19.09	-5.14	0.01	19.09	5.14	0.000%
40	2.43	-19.09	-4.22	-2.43	19.09	4.22	0.000%
41	4.13	-19.09	-2.38	-4.13	19.09	2.38	0.000%
42	4.88	-19.09	0.01	-4.88	19.09	-0.01	0.000%
43	4.46	-19.09	2.58	-4.46	19.09	-2.58	0.000%
44	2.41	-19.09	4.16	-2.41	19.09	-4.16	0.000%
45	0.01	-19.09	4.74	-0.01	19.09	-4.74	0.000%
46	-2.43	-19.09	4.22	2.43	19.09	-4.22	0.000%
47	-4.49	-19.09	2.58	4.49	19.09	-2.58	0.000%
48	-4.88	-19.09	-0.01	4.88	19.09	0.01	0.000%
49	-4.11	-19.09	-2.37	4.11	19.09	2.37	0.000%
50	-2.41	-19.09	-4.16	2.41	19.09	4.16	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	145 - 140	2.877	39	0.2305	0.0235
T2	140 - 120	2.635	39	0.2233	0.0230
T3	120 - 100	1.774	39	0.1698	0.0192
T4	100 - 80	1.149	39	0.1235	0.0144
T5	80 - 60	0.696	39	0.0870	0.0103
T6	60 - 40	0.381	39	0.0575	0.0069
T7	40 - 20	0.170	39	0.0369	0.0044
T8	20 - 0	0.045	39	0.0146	0.0018

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
151.00	Platform Mount [14.4' LP 603-1]	39	2.877	0.2305	0.0235	39020
150.00	Lightning Rod 5/8"x4'	39	2.877	0.2305	0.0235	39020
145.00	Sabre 5' Rotatable Section	39	2.877	0.2305	0.0235	39020

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	145 - 140	9.860	2	0.7893	0.0819
T2	140 - 120	9.032	2	0.7648	0.0804
T3	120 - 100	6.079	2	0.5819	0.0669
T4	100 - 80	3.937	2	0.4229	0.0503
T5	80 - 60	2.384	2	0.2976	0.0358
T6	60 - 40	1.303	2	0.1967	0.0242
T7	40 - 20	0.581	2	0.1260	0.0153
T8	20 - 0	0.154	19	0.0498	0.0064

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
151.00	Platform Mount [14.4' LP 603-1]	2	9.860	0.7893	0.0819	11425
150.00	Lightning Rod 5/8"x4'	2	9.860	0.7893	0.0819	11425
145.00	Sabre 5' Rotatable Section	2	9.860	0.7893	0.0819	11425

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load	Allowable Ratio	Criteria
								Allowable		
T1	145	Leg	A325X	0.7500	4	1.68	30.10	0.056	1.05	Bolt Tension
		Diagonal	A325X	0.6250	1	2.67	13.05	0.205		
		Top Girt	A325X	0.6250	3	0.18	13.89	0.013		
T2	140	Leg	A325X	0.7500	4	7.48	30.10	0.248	1.05	Bolt Tension
		Diagonal	A325X	0.6250	1	2.83	11.09	0.255		
		Top Girt	A325X	0.6250	1	0.80	11.09	0.072		
T3	120	Leg	A325X	1.0000	4	10.99	54.52	0.202	1.05	Bolt Tension
		Diagonal	A325X	0.6250	1	1.59	11.09	0.144		
		Top Girt	A325X	0.6250	1	0.87	11.09	0.079		
T4	100	Leg	A325X	1.0000	4	13.58	54.52	0.249	1.05	Bolt Tension
		Diagonal	A325X	0.6250	1	1.71	11.09	0.154		
T5	80	Leg	A325X	1.2500	4	15.94	87.22	0.183	1.05	Bolt Tension
		Diagonal	A325X	0.6250	1	2.06	11.09	0.186		
T6	60	Leg	A325X	1.2500	4	18.38	87.22	0.211	1.05	Bolt Tension
		Diagonal	A325X	0.6250	1	2.41	11.09	0.218		
T7	40	Leg	A325X	1.2500	6	13.89	87.22	0.159	1.05	Bolt Tension
		Diagonal	A325X	0.7500	1	2.74	10.77	0.255		
T8	20	Diagonal	A325X	0.7500	1	3.29	10.77	0.306	1.05	Member Bearing

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in ²	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	145 - 140	P2x.154	5.00	5.00	76.2 K=1.00	1.0745	-9.08	31.62	0.287 ¹
T2	140 - 120	P2.5x.203	20.00	5.00	63.3 K=1.00	1.7040	-34.36	57.19	0.601 ¹
T3	120 - 100	P3x.3	20.03	5.01	52.9 K=1.00	3.0159	-50.35	110.61	0.455 ¹
T4	100 - 80	P3.5x.318	20.03	5.01	46.0 K=1.00	3.6784	-62.80	141.81	0.443 ¹
T5	80 - 60	P4x.337	20.03	6.68	54.3 K=1.00	4.4074	-74.28	159.91	0.465 ¹
T6	60 - 40	P5x.375	20.03	6.68	43.6 K=1.00	6.1120	-86.68	239.39	0.362 ¹
T7	40 - 20	P6x.28	20.03	6.68	35.7 K=1.00	5.5813	-99.27	228.83	0.434 ¹
T8	20 - 0	P6x.432	20.03	10.02	54.8 K=1.00	8.4049	-111.06	303.75	0.366 ¹

¹ $P_u / \phi P_n$ controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	145 - 140	L1 3/4x1 3/4x3/16	7.07	3.25	115.2	0.6211	-2.67	13.04	0.205 ¹
					K=1.01				
T2	140 - 120	L1 3/4x1 3/4x3/16	7.07	3.22	114.4	0.6211	-2.95	13.16	0.224 ¹
					K=1.02				
T3	120 - 100	L1 3/4x1 3/4x3/16	8.40	4.03	140.8	0.6211	-1.53	8.97	0.171 ¹
					K=1.00				
T4	100 - 80	L1 3/4x1 3/4x3/16	10.08	4.85	169.3	0.6211	-1.70	6.20	0.274 ¹
					K=1.00				
T5	80 - 60	L2x2x3/16	12.58	6.12	186.4	0.7150	-2.13	5.89	0.362 ¹
					K=1.00				
T6	60 - 40	L2 1/2x2 1/2x3/16	14.32	6.94	168.2	0.9020	-2.43	9.13	0.266 ¹
					K=1.00				
T7	40 - 20	L2 1/2x2 1/2x3/16	16.11	7.79	188.8	0.9020	-2.80	7.24	0.386 ¹
					K=1.00				
T8	20 - 0	L3x3x3/16	19.30	9.47	190.7	1.0900	-3.54	8.58	0.413 ¹
					K=1.00				

¹ P_u / φP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T2	140 - 120	L1 3/4x1 3/4x3/16	5.00	4.47	156.1	0.6211	-0.60	7.29	0.082 ¹
					K=1.00				
T3	120 - 100	L1 3/4x1 3/4x3/16	5.00	4.42	154.3	0.6211	-0.87	7.46	0.117 ¹
					K=1.00				

¹ P_u / φP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
T1	145 - 140	P2x.154	5.00	5.00	76.2	1.0745	6.71	48.35	0.139 ¹
T2	140 - 120	P2.5x.203	20.00	5.00	63.3	1.7040	29.91	76.68	0.390 ¹
T3	120 - 100	P3x.3	20.03	5.01	52.9	3.0159	43.94	135.72	0.324 ¹
T4	100 - 80	P3.5x.318	20.03	5.01	46.0	3.6784	54.34	165.53	0.328 ¹
T5	80 - 60	P4x.337	20.03	6.68	54.3	4.4074	63.77	198.34	0.322 ¹
T6	60 - 40	P5x.375	20.03	6.68	43.6	6.1120	73.51	275.04	0.267 ¹
T7	40 - 20	P6x.28	20.03	6.68	35.7	5.5813	83.33	251.16	0.332 ¹
T8	20 - 0	P6x.432	20.03	10.02	54.8	8.4049	92.20	378.22	0.244 ¹

¹ P_u / φP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	145 - 140	L1 3/4x1 3/4x3/16	7.07	3.25	75.9	0.3604	2.07	15.68	0.132 ¹
T2	140 - 120	L1 3/4x1 3/4x3/16	7.07	3.22	75.2	0.3604	2.83	15.68	0.180 ¹
T3	120 - 100	L1 3/4x1 3/4x3/16	7.62	3.65	84.8	0.3604	1.59	15.68	0.102 ¹
T4	100 - 80	L1 3/4x1 3/4x3/16	10.08	4.85	111.6	0.3604	1.71	15.68	0.109 ¹
T5	80 - 60	L2x2x3/16	12.58	6.12	121.9	0.4308	2.06	18.74	0.110 ¹
T6	60 - 40	L2 1/2x2 1/2x3/16	14.32	6.94	109.3	0.5710	2.41	24.84	0.097 ¹
T7	40 - 20	L2 1/2x2 1/2x3/16	16.11	7.79	122.4	0.5535	2.74	24.08	0.114 ¹
T8	20 - 0	L3x3x3/16	19.30	9.47	122.9	0.6945	3.29	30.21	0.109 ¹

¹ P_u / φP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
T1	145 - 140	C7x9.8	5.00	4.80	99.2	2.0344	0.54	88.50	0.006 ¹
T2	140 - 120	L1 3/4x1 3/4x3/16	5.00	4.47	106.4	0.3604	0.80	15.68	0.051 ¹
T3	120 - 100	L1 3/4x1 3/4x3/16	5.00	4.42	105.2	0.3604	0.87	15.68	0.056 ¹

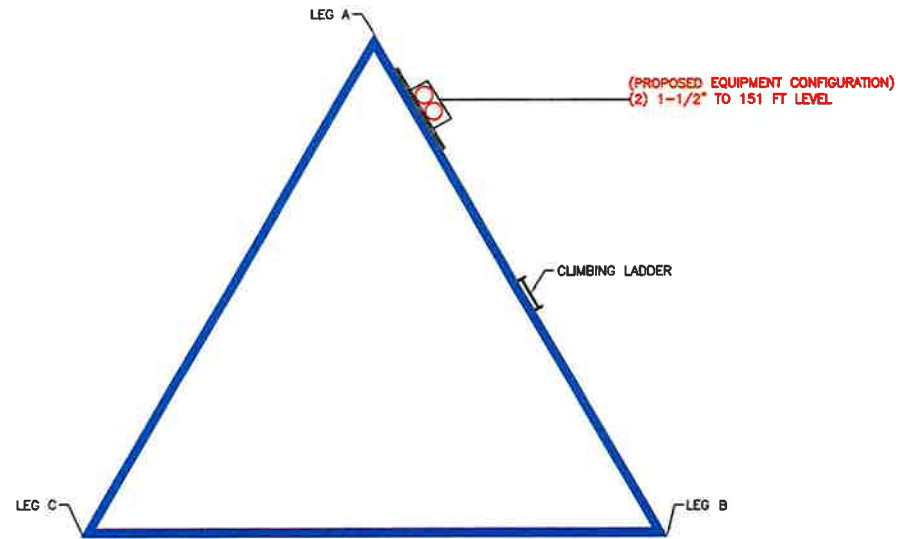
¹ P_u / φP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	φP _{allow} K	% Capacity	Pass Fail	
T1	145 - 140	Leg	P2x.154	3	-9.08	33.20	27.4	Pass	
T2	140 - 120	Leg	P2.5x.203	15	-34.36	60.05	57.2	Pass	
T3	120 - 100	Leg	P3x.3	45	-50.35	116.14	43.4	Pass	
T4	100 - 80	Leg	P3.5x.318	75	-62.80	148.90	42.2	Pass	
T5	80 - 60	Leg	P4x.337	102	-74.28	167.91	44.2	Pass	
T6	60 - 40	Leg	P5x.375	123	-86.68	251.36	34.5	Pass	
T7	40 - 20	Leg	P6x.28	144	-99.27	240.27	41.3	Pass	
T8	20 - 0	Leg	P6x.432	165	-111.06	318.94	34.8	Pass	
T1	145 - 140	Diagonal	L1 3/4x1 3/4x3/16	12	-2.67	13.69	19.5	Pass	
T2	140 - 120	Diagonal	L1 3/4x1 3/4x3/16	21	-2.95	13.82	21.3	Pass	
T3	120 - 100	Diagonal	L1 3/4x1 3/4x3/16	51	-1.53	9.42	16.3	Pass	
T4	100 - 80	Diagonal	L1 3/4x1 3/4x3/16	78	-1.70	6.51	26.1	Pass	
T5	80 - 60	Diagonal	L2x2x3/16	105	-2.13	6.19	34.5	Pass	
T6	60 - 40	Diagonal	L2 1/2x2 1/2x3/16	126	-2.43	9.58	25.3	Pass	
T7	40 - 20	Diagonal	L2 1/2x2 1/2x3/16	147	-2.80	7.60	36.8	Pass	
T8	20 - 0	Diagonal	L3x3x3/16	168	-3.54	9.01	39.3	Pass	
T1	145 - 140	Top Girt	C7x9.8	6	0.54	92.92	0.6	Pass	
T2	140 - 120	Top Girt	L1 3/4x1 3/4x3/16	17	-0.60	7.66	7.8	Pass	
T3	120 - 100	Top Girt	L1 3/4x1 3/4x3/16	47	-0.87	7.84	11.1	Pass	
							Summary		
							Leg (T2)	57.2	Pass
							Diagonal (T8)	39.3	Pass
							Top Girt (T3)	11.1	Pass
							Bolt	29.1	Pass
							Checks		
							RATING =	57.2	Pass

APPENDIX B
BASE LEVEL DRAWING

APPENDIX C
ADDITIONAL CALCULATIONS



BUSINESS UNIT: 878349 TOWER ID: C_BASELEVEL

APPENDIX C
ADDITIONAL CALCULATIONS

Self Support Anchor Rod Capacity



Site Info	
BU #	878349
Site Name	JUNG BEER
Order #	620275 Rev. 0

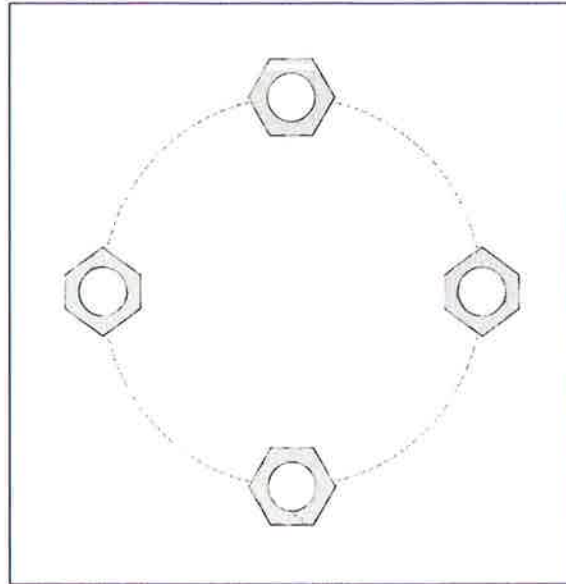
Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	Yes
l_{ar} (in)	2

Applied Loads		
	Comp.	Uplift
Axial Force (kips)	114.20	94.58
Shear Force (kips)	11.20	9.43

*TIA-222-H Section 15.5 Applied

Considered Eccentricity	
Leg Mod Eccentricity (in)	0.000
Anchor Rod N.A Shift (in)	0.000
Total Eccentricity (in)	0.000

*Anchor Rod Eccentricity Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data	
(4) 1-1/2" ϕ bolts (A572-50 N; Fy=50 ksi, Fu=65 ksi)	
l_{ar} (in):	2

Anchor Rod Summary		<i>(units of kips, kip-in)</i>
$P_{u,t}$ = 23.65	$\phi P_{n,t}$ = 68.74	Stress Rating
V_u = 2.36	ϕV_n = 43.07	32.8%
M_u = n/a	ϕM_n = n/a	Pass

Pier and Pad Foundation



BU #: 878349
 Site Name: JUNG BEER
 App. Number: 620275 Rev. 0

TIA-222 Revision: H
 Tower Type: Self Support

Top & Bot. Pad Rein. Different?:	<input type="checkbox"/>
Block Foundation?:	<input type="checkbox"/>
Rectangular Pad?:	<input type="checkbox"/>

Superstructure Analysis Reactions		
Compression, P_{comp} :	114.2	kips
Compression Shear, V_{u_comp} :	11.2	kips
Uplift, P_{uplift} :	94.58	kips
Uplift Shear, V_{u_uplift} :	9.43	kips
Tower Height, H:	145	ft
Base Face Width, BW:	17	ft
BP Dist. Above Fdn, bp_{dist} :	3.5	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
Uplift (kips)	173.90	94.58	51.8%	Pass
Lateral (Sliding) (kips)	49.22	9.43	18.2%	Pass
Bearing Pressure (ksf)	4.58	2.71	56.4%	Pass
Pier Flexure (Comp.) (kip*ft)	670.13	100.80	14.3%	Pass
Pier Flexure (Tension) (kip*ft)	440.08	84.87	18.4%	Pass
Pier Compression (kip)	5847.66	134.05	2.2%	Pass
Pad Flexure (kip*ft)	352.84	57.09	15.4%	Pass
Pad Shear - 1-way (kips)	128.20	23.59	17.5%	Pass
Pad Shear - 2-way (Comp) (ksi)	0.164	0.040	23.2%	Pass
Flexural 2-way (Comp) (kip*ft)	570.30	60.48	10.1%	Pass
Pad Shear - 2-way (Uplift) (ksi)	0.164	0.042	24.5%	Pass
Flexural 2-way (Tension) (kip*ft)	570.30	50.92	8.5%	Pass

*Rating per TIA-222-H Section 15.5

Structural Rating*:	24.5%
Soil Rating*:	56.4%

Pier Properties		
Pier Shape:	Square	
Pier Diameter, d_{pier} :	3.5	ft
Ext. Above Grade, E:	1.33	ft
Pier Rebar Size, S_c :	7	
Pier Rebar Quantity, mc :	12	
Pier Tie/Spiral Size, S_t :	3	
Pier Tie/Spiral Quantity, mt :	9	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Pad Properties		
Depth, D:	9.17	ft
Pad Width, W_1 :	9.5	ft
Pad Thickness, T:	1.5	ft
Pad Rebar Size (Bottom dir. 2), Sp_2 :	7	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	10	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	3	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	120	pcf
Ultimate Net Bearing, Q_{net} :	5.000	ksf
Cohesion, C_u :	0.000	ksf
Friction Angle, ϕ :	30	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.35	
Neglected Depth, N:	5.00	ft
Foundation Bearing on Rock?:	No	
Groundwater Depth, gw:	11	ft

<--Toggle between Gross and Net

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Latitude: 43.564444
Longitude: -87.943003
Elevation: 897.74 ft (NAVD 88)



Wind

Results:

Wind Speed	115 Vmph
10-year MRI	76 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	96 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2,
Date Accessed: incorporating errata of March 12, 2014
Thu Jan 12 2023

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 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

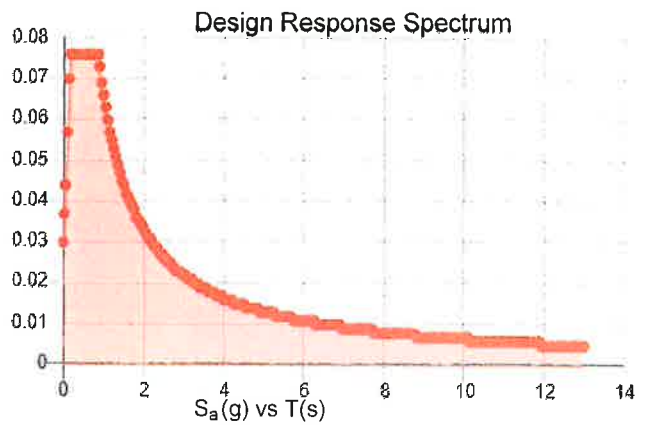
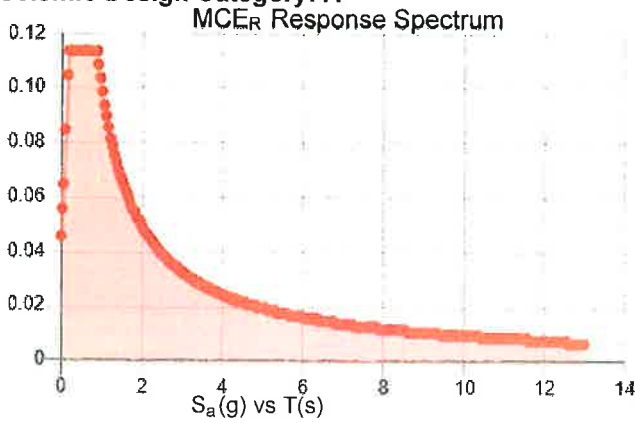
Site is not in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2.

Site Soil Class:

Results:

S_s :	0.071	S_{D1} :	0.066
S_1 :	0.041	T_L :	12
F_a :	1.6	PGA :	0.034
F_v :	2.4	PGA _M :	0.054
S_{MS} :	0.114	F_{PGA} :	1.6
S_{M1} :	0.099	I_e :	1
S_{DS} :	0.076		

Seismic Design Category: A



Data Accessed: Thu Jan 12 2023

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness: 0.75 in.

Concurrent Temperature: -5 F

Gust Speed 40 mph

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

Date Accessed: Thu Jan 12 2023

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 50-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 7 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 7 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 7 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 7 Hazard Tool.



T-MOBILE SITE NUMBER: ML81125A
T-MOBILE SITE NAME: CROWN BU - 878349
T-MOBILE PROJECT: ANCHOR

BUSINESS UNIT #: 878349
SITE ADDRESS: W 5009 HWY 144
 RANDOM LAKE, WI 53075
COUNTY: SHEBOYGAN
SITE TYPE: SELF SUPPORT
TOWER HEIGHT: 150'-0"

T-Mobile
 1 RAVINIA DRIVE, SUITE 1000
 ATLANTA, GA 30346

CROWN CASTLE
 1505 WESTLAKE AVENUE NORTH, SUITE 800
 SEATTLE, WA 98109

POD
 POWER OF DESIGN
 11490 BLUEGRASS PKWY
 LOUISVILLE, KY 40299
 502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: 878349
JUNG BEER

 W 5009 HWY 144
 RANDOM LAKE, WI 53075

 EXISTING 150'-0" SELF
 SUPPORT

SITE INFORMATION

CROWN CASTLE USA INC.
 SITE NAME: JUNG BEER
 BU NUMBER: 878349

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

 CARRIER/APPLICANT: T-MOBILE
 312 ELM STREET, 10TH FLOOR
 CINCINNATI, OH 45202

 SITE ADDRESS: W 5009 HWY 144
 RANDOM LAKE, WI 53075

 COUNTY: SHEBOYGAN
 LATITUDE: 43° 33' 52.00"
 LONGITUDE: -87° 56' 34.81"
 LAT/LONG TYPE: NAD83
 GROUND ELEVATION: 897 FT.

 AREA OF CONSTRUCTION: EXISTING
 CURRENT ZONING: NOT AVAILABLE
 MAP/PARCEL #: 59176-744620

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

 PROPERTY OWNER: GLOBAL SIGNAL ACQUISITION
 P.O. BOX 277455
 ATLANTA, GA 30389-7455

 JURISDICTION: VILLAGE OF RANDOM LAKE

 ELECTRIC PROVIDER: WE ENERGIES
 (800) 242-9137
 TELCO PROVIDER: NOT AVAILABLE

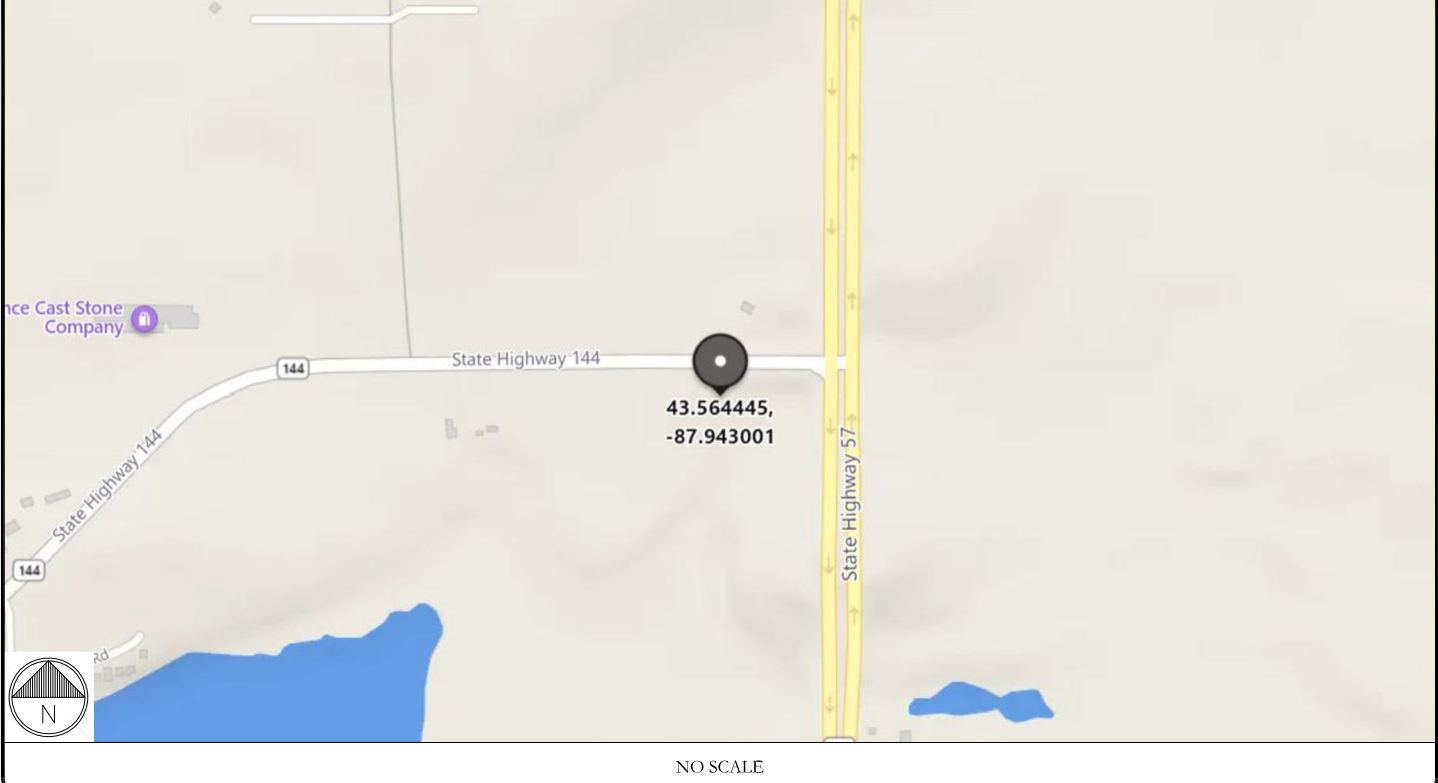
DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EXISTING & FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	EQUIPMENT DETAILS & COAX COLOR CODING
C-4	EQUIPMENT SPECIFICATIONS
C-5	ICE BRIDGE DETAIL
E-1	PANEL SCHEDULES & ONE-LINE DIAGRAM
E-2	ELECTRICAL DETAILS
G-1	TYPICAL FINAL GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS

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 WISCONSIN ONE CALL
 (800) 242-8511
 CALL 3 WORKING DAYS
 BEFORE YOU DIG!

LOCATION MAP



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) HYBRID CABLES (1")
- RELOCATE (6) RRHs
- RELOCATE (3) ANTENNAS
- INSTALL (3) ANTENNAS
- INSTALL (1) HCS 2.0 BREAKOUT PENDANT
- INSTALL (1) HCS 2.0 HYBRID CABLE (1-1/2")

GROUND SCOPE OF WORK:

- REMOVE (1) ASIB, (1) ASIK, (1) FSMF, (1) ABIA, (1) ABIL, (1) AMIA
- INSTALL (2) ASUL, (4) ABIO
- INSTALL (1) HCS 2.0 JUNCTION BOX
- INSTALL ICE BRIDGE 15'-0"±

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	WISCONSIN CBC/2015 IBC W/ WI AMENDMENTS
MECHANICAL	WISCONSIN CBC/2015 IMC W/ WI AMENDMENTS
ELECTRICAL	WISCONSIN ELECTRICAL CODE/2017 NEC W/ WI AMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: BLACK & VEATCH CORP.
 DATED: JANUARY 13, 2023

MOUNT ANALYSIS: INFINIGY
 DATED: JANUARY 05, 2023

RFDS REVISION: 2
 DATED: 04/04/2022

ORDER ID: 620275
 REVISION: 0

PROJECT TEAM

A&E FIRM: POWER OF DESIGN
 11490 BLUEGRASS PARKWAY
 LOUISVILLE, KY 40299
 (502) 437-5252

CROWN CASTLE USA INC. DISTRICT CONTACTS:

PAUL SLIFER - PROJECT MANAGER
 PAUL.SLIFER@CROWNCastle.COM

COREY BESL - CONSTRUCTION MANAGER
 COREY.BESL@CROWNCastle.COM

DALE GRAY - A&E SPECIALIST
 DALE.GRAY@CROWNCastle.COM
 (312) 585-9560

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	01/27/2023	NM/NH	CONSTRUCTION	AH
1	02/01/2023	NM	CONSTRUCTION	AH

PROFESSIONAL ENGINEER

AARON HERKENHOFF
 E-49355
 LOUISVILLE
 KY

02/01/2023

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: T-1
REVISION: 1

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

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 COMPONENTS 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 A10.48 (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 QAS-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." 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 GES'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-OF-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 GROUNDING 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 BTS 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 ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
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 HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. 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: T-MOBILE 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 AND 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. 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 (fc) 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.

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 PRE 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. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
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 BOND FITTINGS ARE NOT ALLOWABLE.
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 "T-MOBILE".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

Table with 3 columns: SYSTEM, CONDUCTOR, COLOR. Rows include 120/240V, 1Ø; 120/208V, 3Ø; 277/480V, 3Ø; and DC VOLTAGE.

APWA UNIFORM COLOR CODE:

- 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

T-Mobile logo and address: 1 RAVINIA DRIVE, SUITE 1000 ATLANTA, GA 30346

CROWN CASTLE logo and address: 1505 WESTLAKE AVENUE NORTH, SUITE 800 SEATTLE, WA 98109

POD logo and address: 11490 BLUEGRASS PKWY LOUISVILLE, KY 40299 502-437-5252

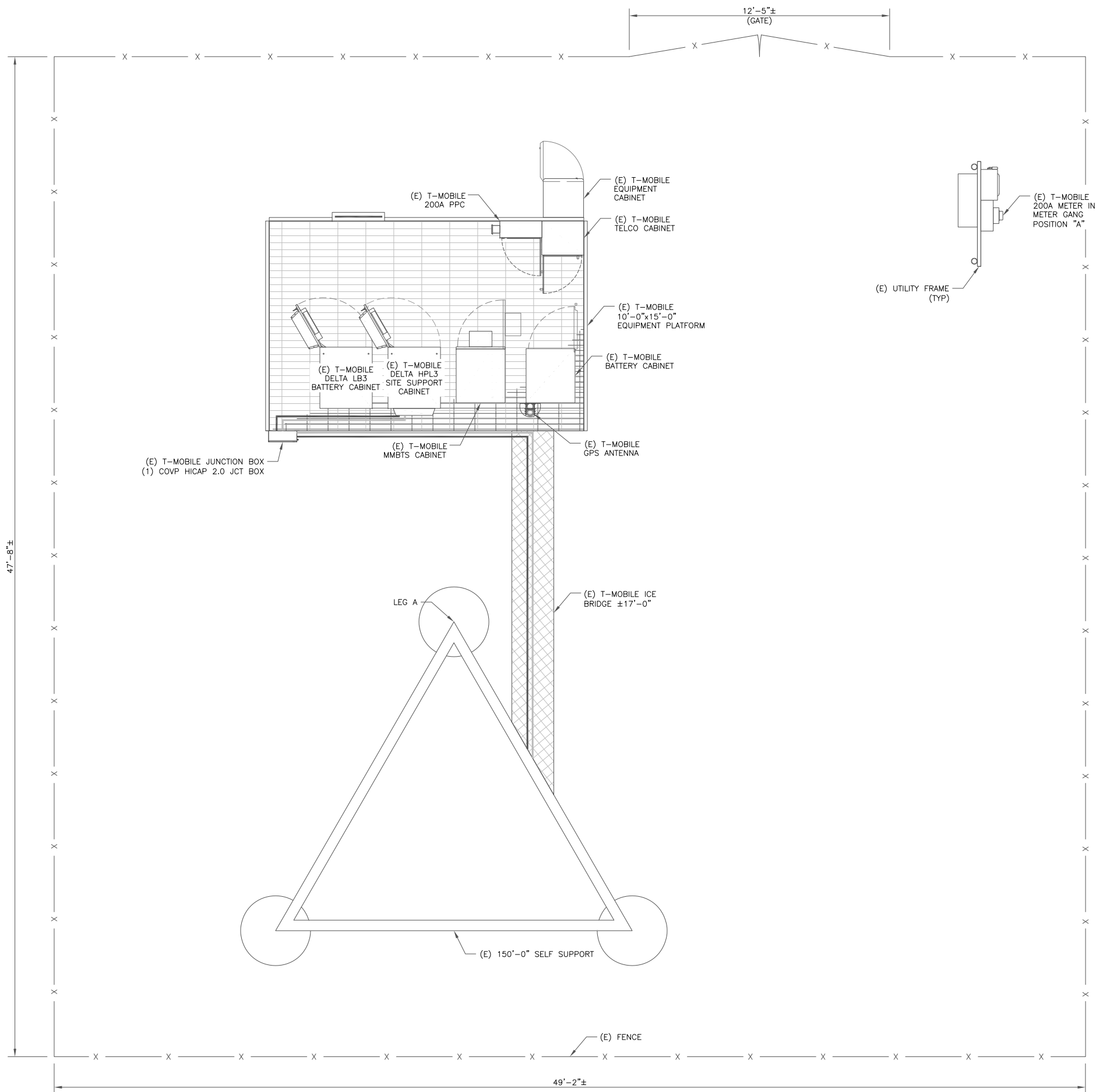
T-MOBILE SITE NUMBER: ML81125A BU #: 878349 JUNG BEER W 5009 HWY 144 RANDOM LAKE, WI 53075 EXISTING 150'-0" SELF SUPPORT

Table with 5 columns: REV, DATE, DRWN, DESCRIPTION, DES./QA. Shows revision 0 on 01/27/2023 and revision 1 on 02/01/2023.

Professional Engineer seal for Aaron Herkenhoff, E-49355 Louisville KY, dated 02/01/2023. Includes text: 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: T-2 REVISION: 1

T-MOBILE_CENTRAL_REGION_ANCHOR_06/16/2022_V2



T-Mobile
 1 RAVINIA DRIVE, SUITE 1000
 ATLANTA, GA 30346

CROWN CASTLE
 1505 WESTLAKE AVENUE NORTH, SUITE 800
 SEATTLE, WA 98109

POD
 POWER OF DESIGN
 11490 BLUEGRASS PKWY
 LOUISVILLE, KY 40299
 502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: 878349
JUNG BEER

W 5009 HWY 144
 RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF SUPPORT

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	01/27/2023	NM/NH	CONSTRUCTION	AH
1	02/01/2023	NM	CONSTRUCTION	AH

PROFESSIONAL ENGINEER
 WISCONSIN
 AARON HERKENHOFF
 E-49355
 LOUISVILLE KY

02/01/2023

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1 SITE PLAN
 SCALE: 3/8"=1'-0" (FULL SIZE)
 3/16"=1'-0" (11x17)

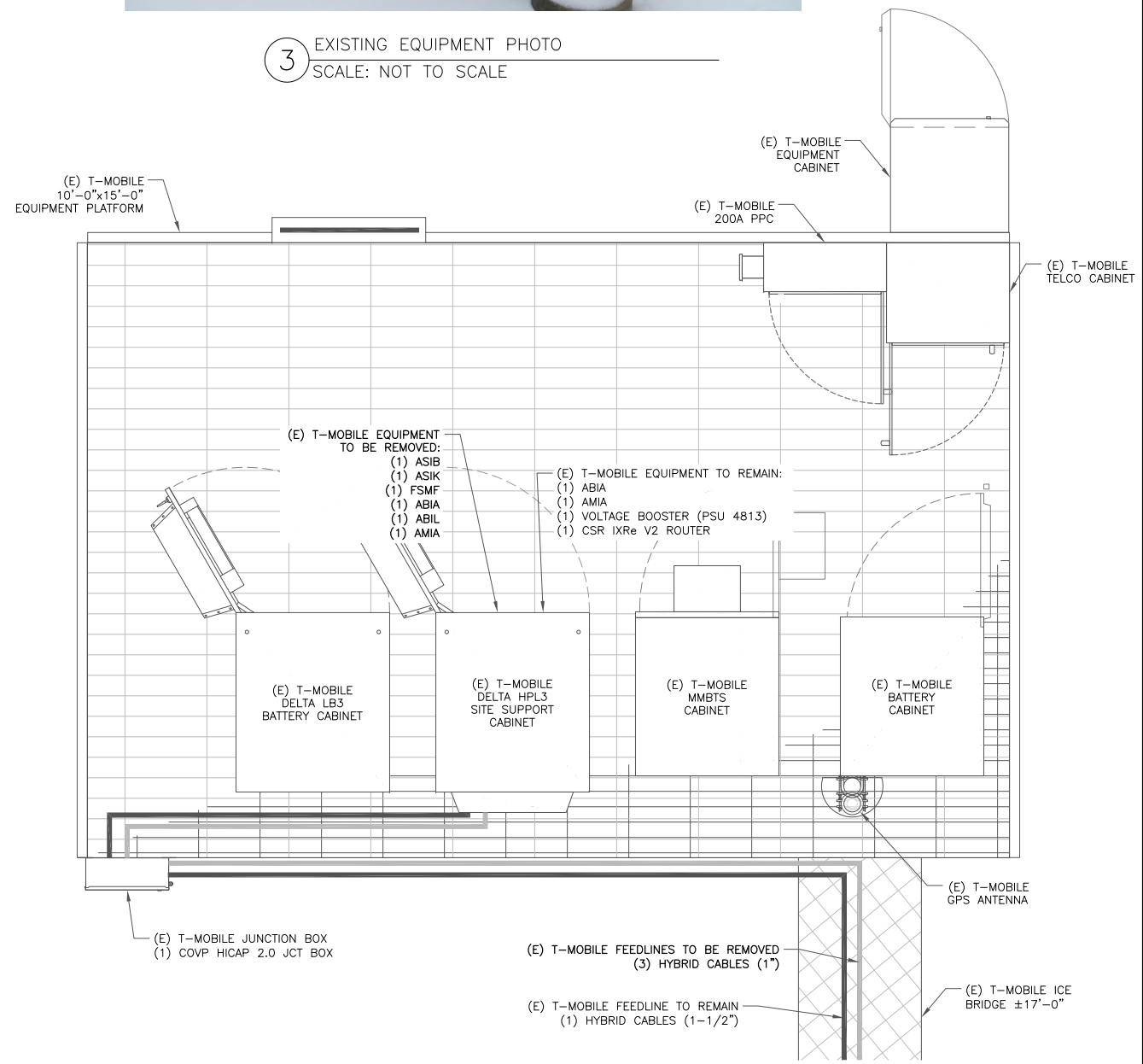
T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2



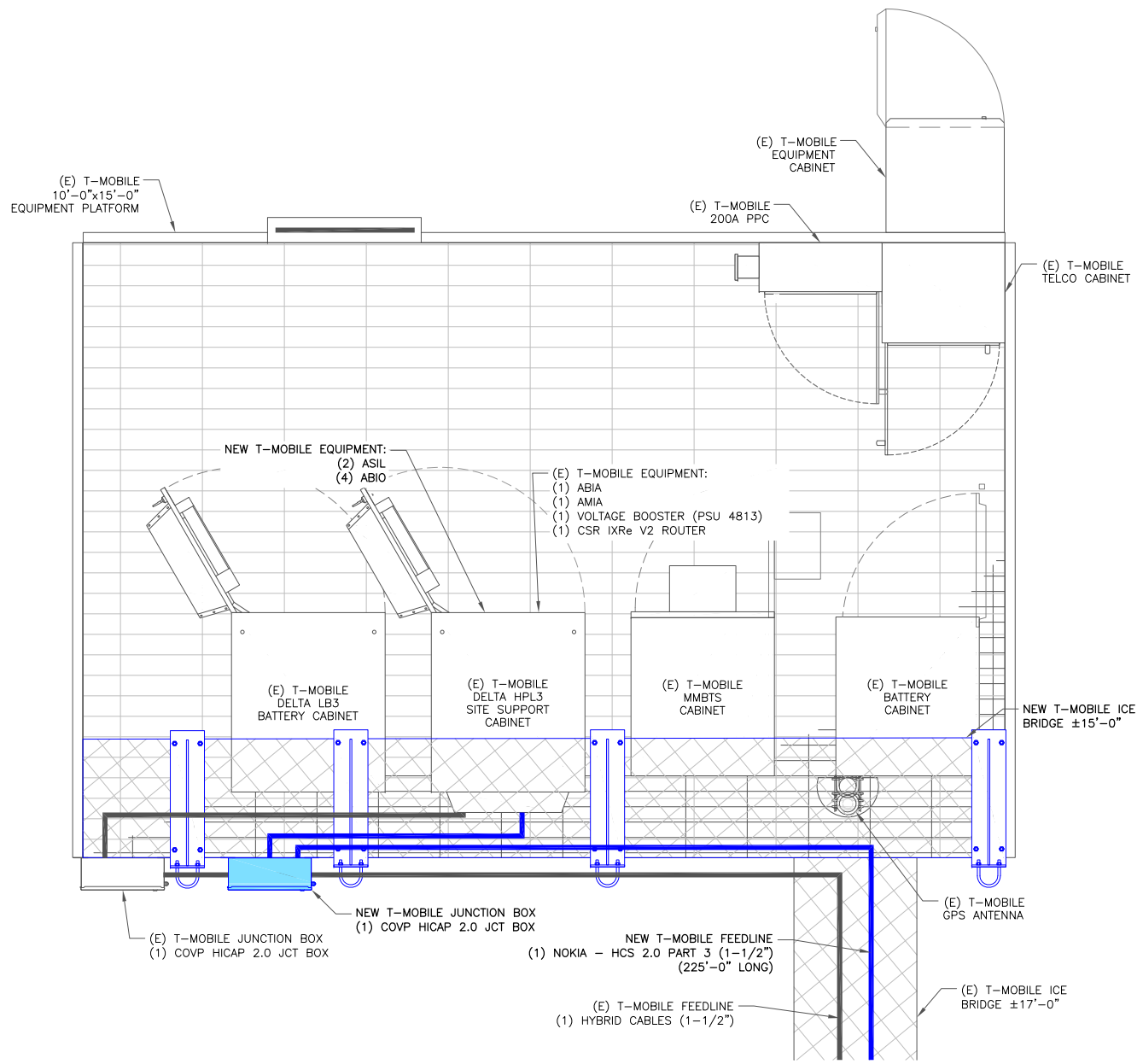
EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW

3 EXISTING EQUIPMENT PHOTO
SCALE: NOT TO SCALE



1 EXISTING EQUIPMENT PLAN
SCALE: $\frac{3}{4}''=1'-0''$ (FULL SIZE)
 $\frac{3}{8}''=1'-0''$ (11x17)



2 FINAL EQUIPMENT PLAN
SCALE: $\frac{3}{4}''=1'-0''$ (FULL SIZE)
 $\frac{3}{8}''=1'-0''$ (11x17)

T-Mobile

1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346

CROWN CASTLE

1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: 878349
JUNG BEER

W 5009 HWY 144
RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF SUPPORT

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	01/27/2023	NM/NH	CONSTRUCTION	AH
1	02/01/2023	NM	CONSTRUCTION	AH

PROFESSIONAL ENGINEER

AARON HERKENHOFF
E-49355
LOUISVILLE KY

02/01/2023

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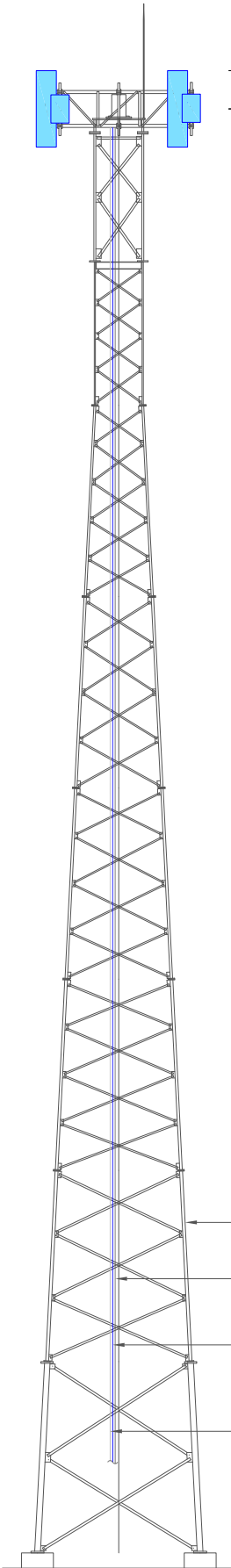
SHEET NUMBER:
C-1.2

REVISION:
1

T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2

STRUCTURE W/ APPURTENANCE
ELEV. = 162'-0"

HEIGHT OF STRUCTURE
ELEV. = 150'-0"



TIP OF PANEL ANTENNA
ELEV. = 155'-0"

EXISTING T-MOBILE ANTENNA CENTERLINE
ELEV. = 151'-0"

EXISTING T-MOBILE MOUNT CENTERLINE
ELEV. = 151'-0"

(E) 150'-0" SELF SUPPORT

(E) T-MOBILE FEEDLINE
(1) HYBRID CABLES (1-1/2")

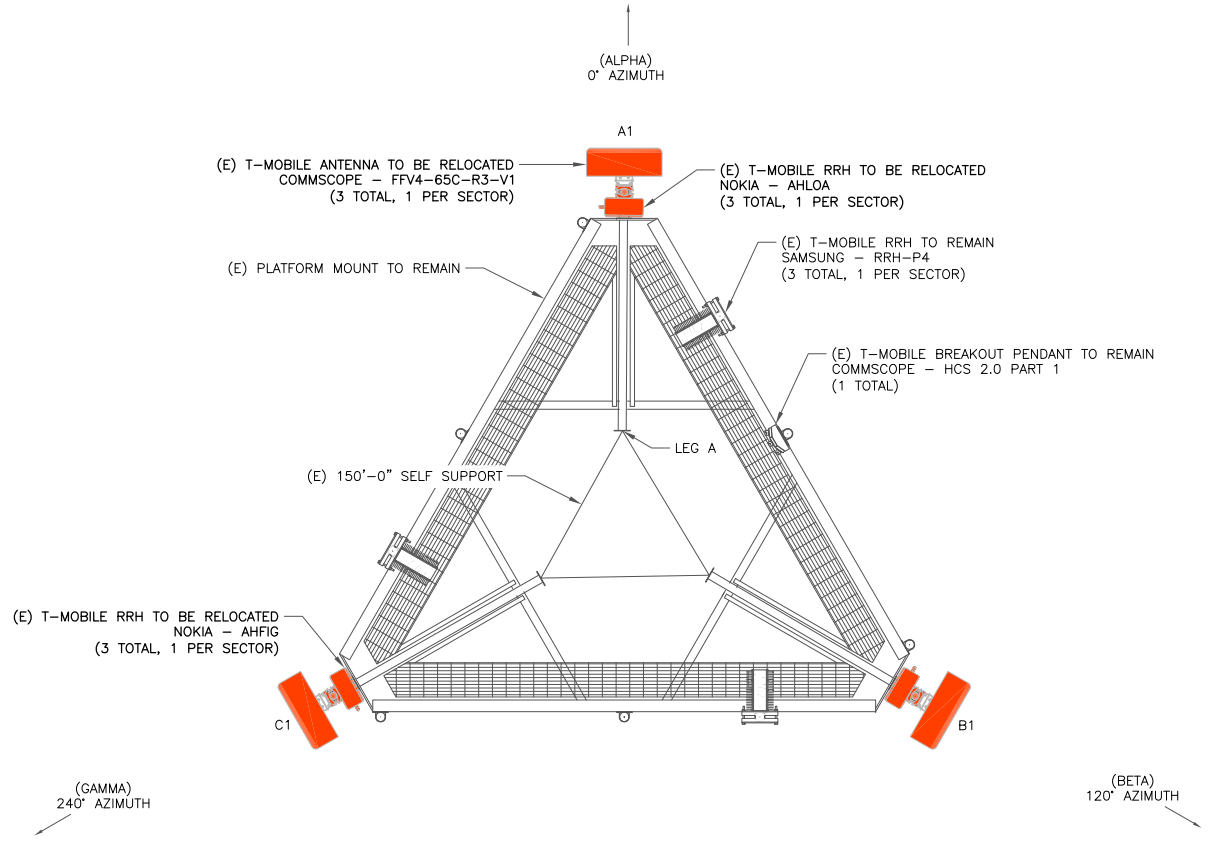
NEW T-MOBILE FEEDLINE
(1) NOKIA - HCS 2.0 PART 3 (1-1/2")
(225'-0" LONG)
(ROUTED PER STRUCTURAL ANALYSIS)

(E) T-MOBILE FEEDLINES TO BE REMOVED
(3) HYBRID CABLES (1")

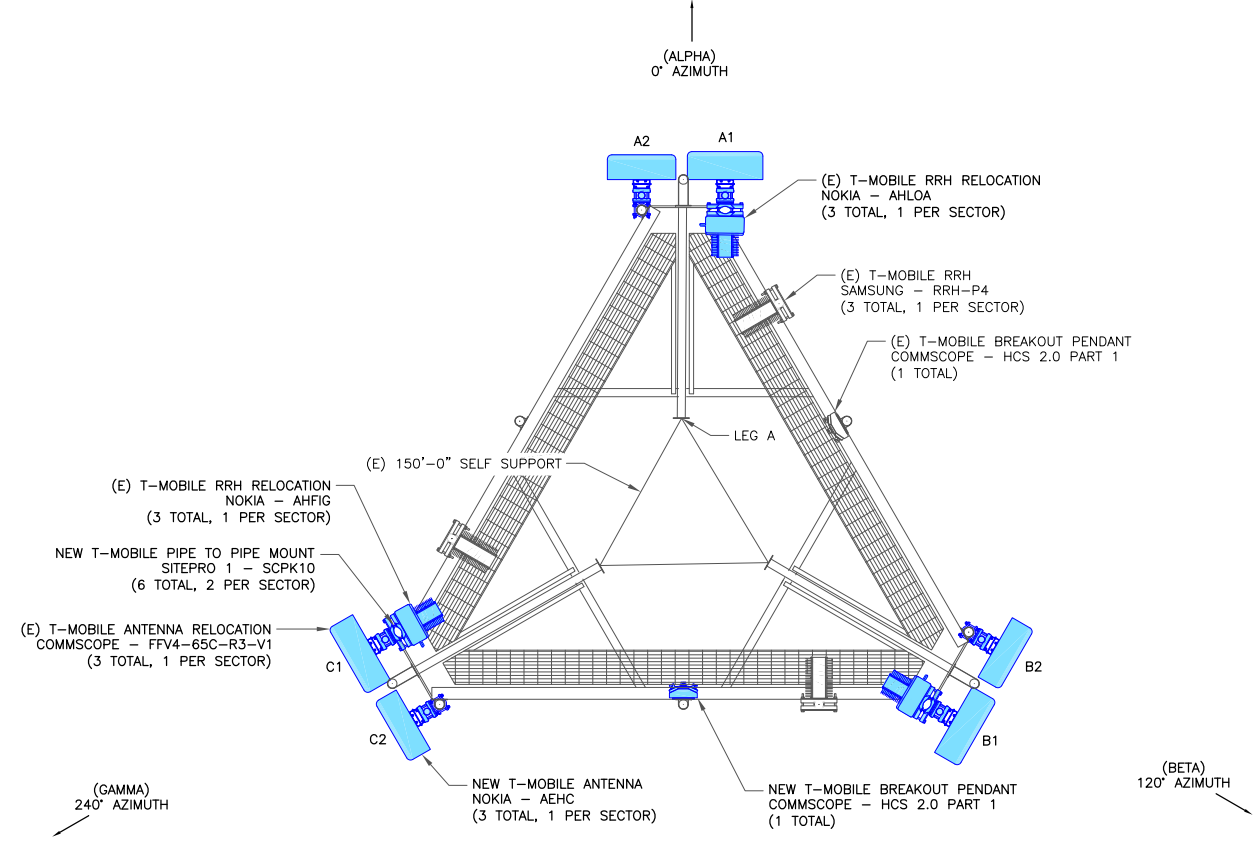
1 FINAL ELEVATION
SCALE: NOT TO SCALE

EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW/RELOCATED



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE



3 FINAL ANTENNA PLAN
SCALE: NOT TO SCALE

T-Mobile

1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346

CROWN CASTLE

1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: **878349**
JUNG BEER

W 5009 HWY 144
RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF SUPPORT

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	01/27/2023	NM/NH	CONSTRUCTION	AH
1	02/01/2023	NM	CONSTRUCTION	AH

PROFESSIONAL ENGINEER

AARON HERKENHOFF
E-49355
LOUISVILLE
KY

02/01/2023

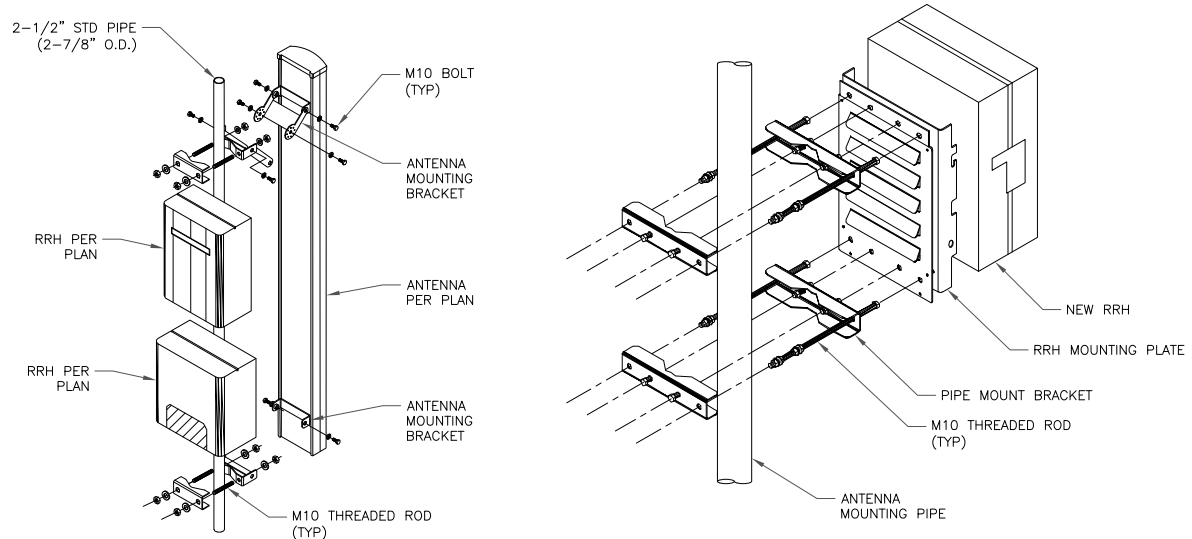
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SHEET NUMBER: **C-2** REVISION: **1**

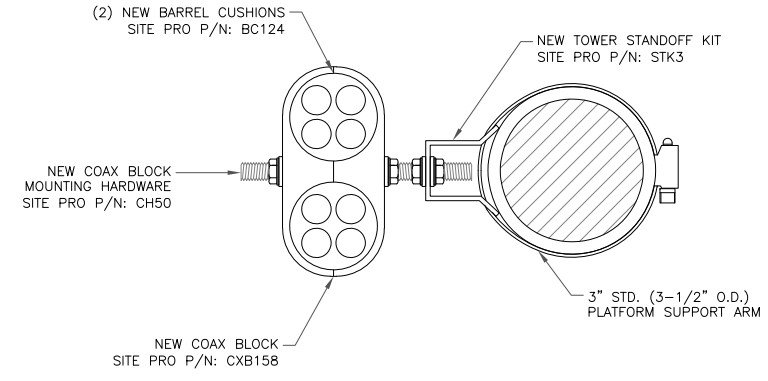
T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



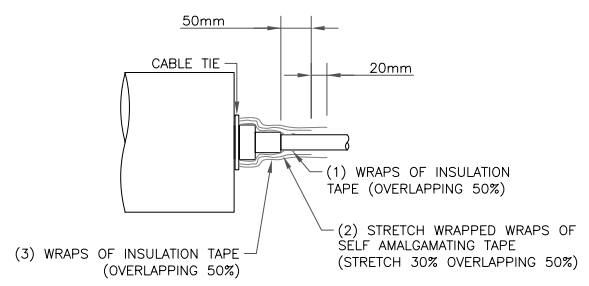
1 ANTENNA WITH RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE



2 RF JUMPER DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTE:

JUMPERS TO BE TORQUED TO 221.27 IN/LBS



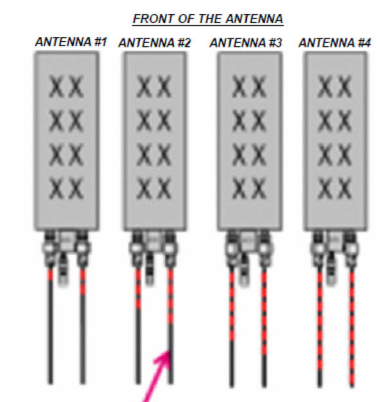
3 RF JUMPER CONNECTION
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE

Coax Color Coding

- Antennas will be labeled (back of antenna view) right to left 1 - X ports
- Coax/jumper lines will be identified by sector color and by number of bands around the coax/jumper

SECTOR A	RED
SECTOR B	GREEN
SECTOR C	BLUE
SECTOR D	YELLOW
SECTOR E	WHITE
SECTOR F	PURPLE
LMU	BROWN + SECTOR COLOR BANDS (1 & 2)
FIBER ID	GRAY
UNUSED COAX	PINK
MICROWAVE	ORANGE
DWE T-1'S + GPS DOWNLINK CABLE	ID W LABEL MAKER



COLOR CODING NOTES:

color	GSM
color	UMTS 1900
color	UMTS AWS
color	LTE
color	FIBER CABLE

METALLIC TAG NOTES:

- TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET
- CABLE LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE
- TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER
- STANDARDIZED METALLIC TAG KIT WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMMODATE ALL CONFIGURATIONS.

ANTENNA AND COAXIAL CABLE SCHEDULE

- ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND VERIFIED BY A SMART LEVEL.
- CONTRACTOR SHALL INSTALL COLOR CODE RINGS ON EACH OF THE HYBRID CABLES AND JUMPER CABLES WITH UV RESISTANT TAPE. ALL CABLE SHALL BE MARKED AT TOP AND BOTTOM WITH 2" COLOR TAPE OR STENCIL TAG. COLOR TAPE MAY BE OBTAINED FROM GRAYBAR ELECTRONICS.

5 COAX COLOR CODING
SCALE: NOT TO SCALE

T-Mobile

1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346

CROWN CASTLE

1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

POD
POWER OF DESIGN

11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: 878349
JUNG BEER

W 5009 HWY 144
RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF SUPPORT

ISSUED FOR:

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1	02/01/2023	NM	CONSTRUCTION	AH

PROFESSIONAL ENGINEER

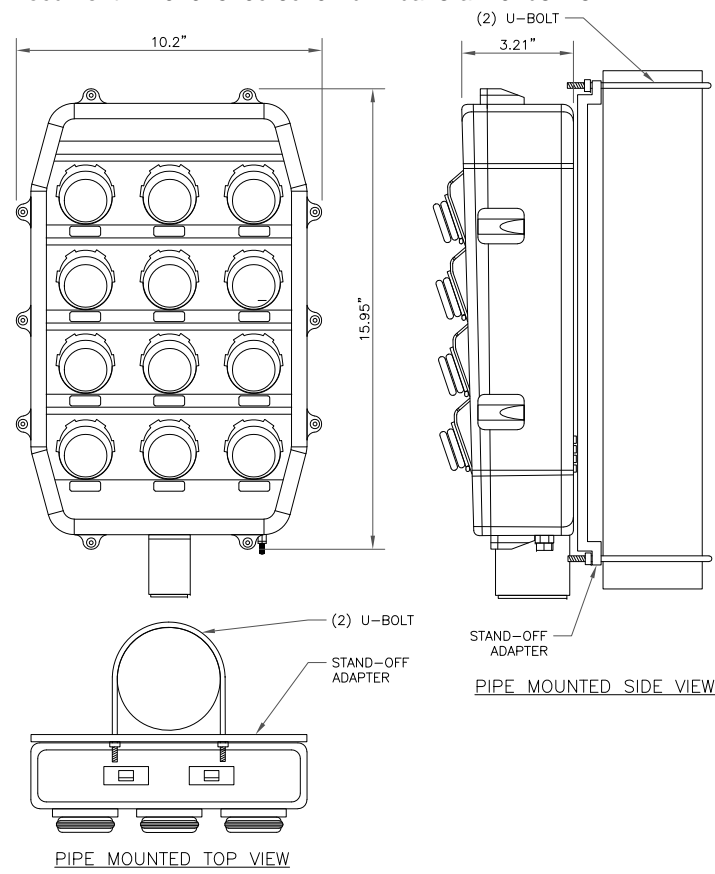
AARON HERKENHOFF
E-49355
LOUISVILLE
KY

02/01/2023

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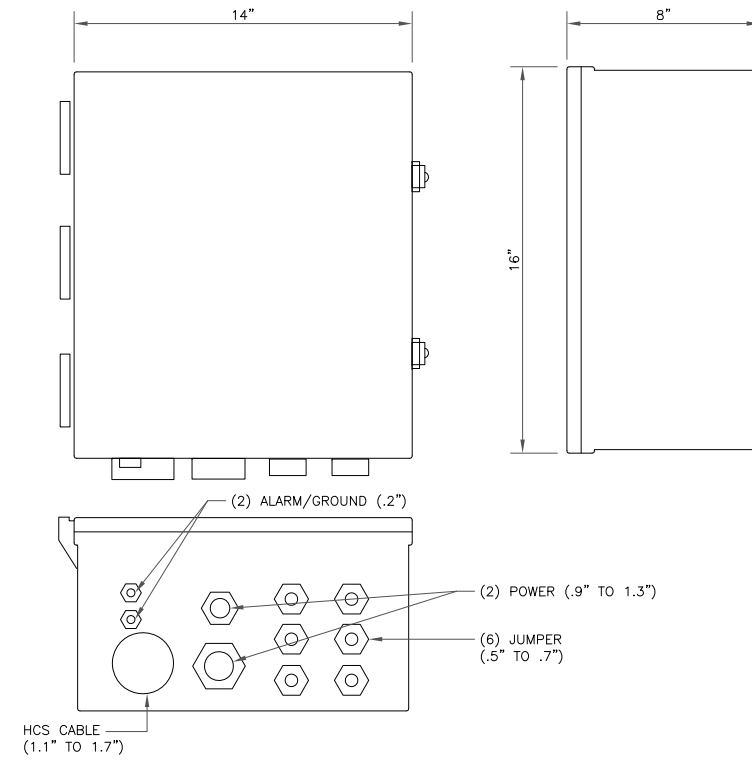
SHEET NUMBER: **C-3** REVISION: **1**

T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2



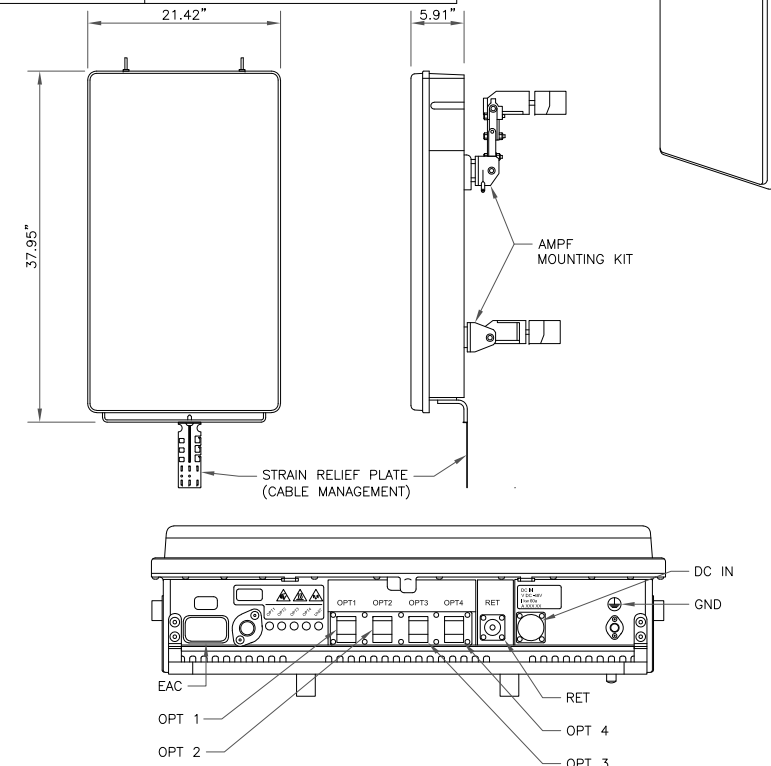
1 HCS 2.0 PENDANT DETAIL
SCALE: NOT TO SCALE

MANUFACTURER:	COMMSCOPE
MODEL:	FE-16148-OVP-B12
DIMENSIONS (HxWxD):	14"x16"x8"
WEIGHT:	15.2 LBS



2 HI-CAP JUNCTION BOX DETAIL
SCALE: NOT TO SCALE

MANUFACTURER:	NOKIA
MODEL:	AEHC
DIMENSIONS (HxWxD):	37.95"x21.42"x5.91"
WEIGHT:	108 LBS
BAND:	B41/n41
MOUNTING KIT:	AMPF (475188A) (NOT INCLUDED)



3 NOKIA AEHC ANTENNA SPEC
SCALE: NOT TO SCALE



1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346



1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109



11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: **878349**
JUNG BEER

W 5009 HWY 144
RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF
SUPPORT

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02/01/2023

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SHEET NUMBER:

C-4

REVISION:

1

4 NOT USED
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

T-Mobile
 1 RAVINIA DRIVE, SUITE 1000
 ATLANTA, GA 30346

CROWN CASTLE
 1505 WESTLAKE AVENUE NORTH, SUITE 800
 SEATTLE, WA 98109

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 POWER OF DESIGN
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 502-437-5252

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JUNG BEER

W 5009 HWY 144
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EXISTING 150'-0" SELF
 SUPPORT

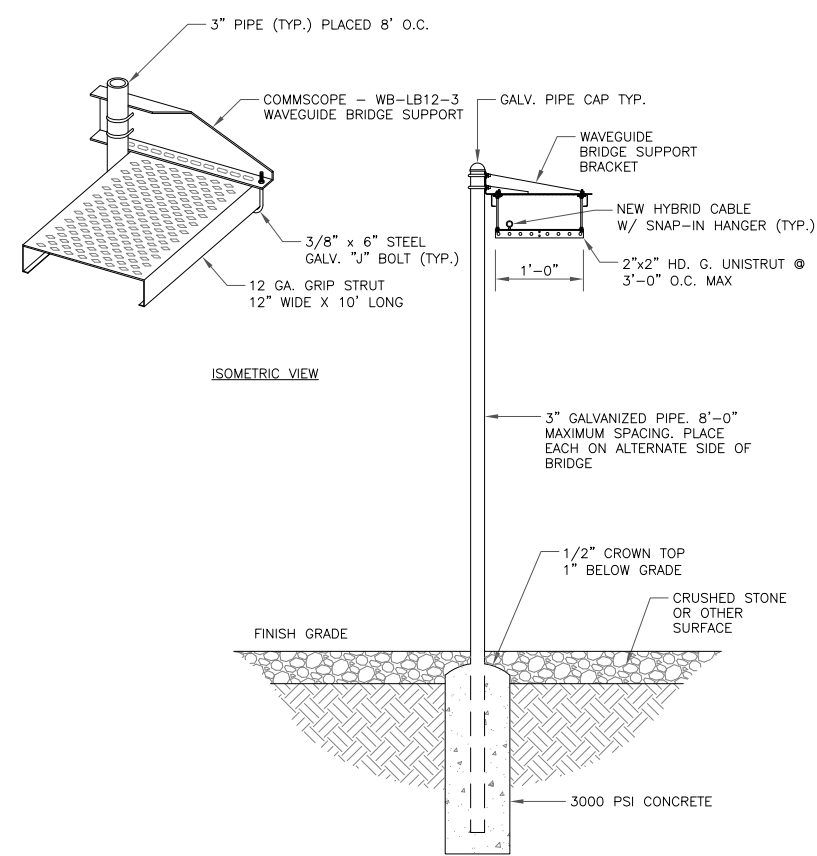
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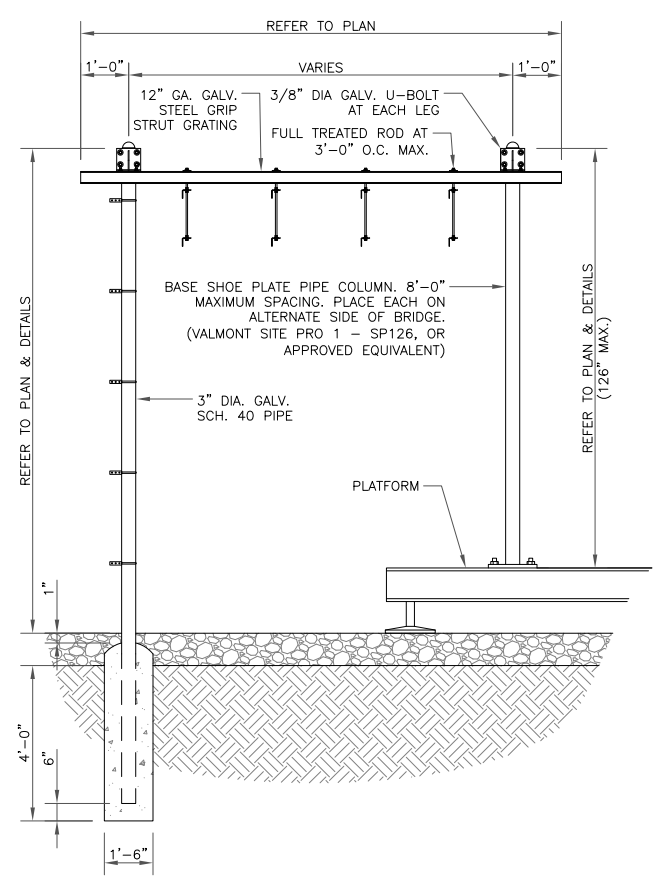
PROFESSIONAL ENGINEER
 AARON HERKENHOFF
 E-49355
 LOUISVILLE
 KY

02/01/2023

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1 ICE BRIDGE DETAIL
 SCALE: NOT TO SCALE



2 NOT USED
 SCALE: NOT TO SCALE

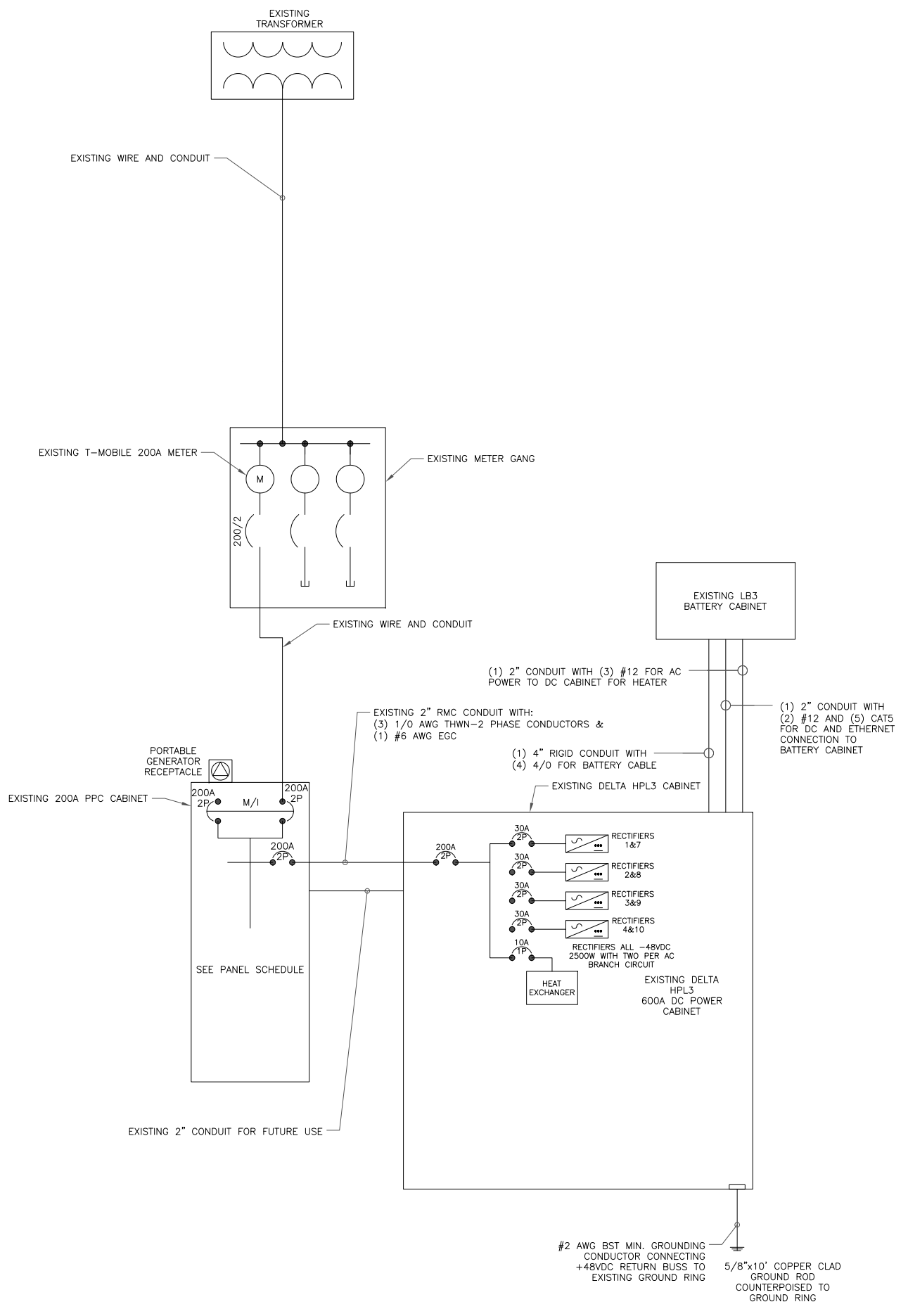
T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2

T-MOBILE PANEL SCHEDULE											
MAIN: 200 AMP MAIN BREAKER			VOLTAGE/PHASE: 120/240V, 1-PHASE, 3-WIRE				SHORT CIRCUIT CURRENT RATING: N/A				
MOUNTING: INSIDE PPC ENCLOSURE			ENCLOSURE: NEMA 3R				SURGE PROTECTION DEVICE: YES				
DESCRIPTION	LOAD (VA)	C or NC	C/B	CIR No.	LOAD (VA)		CIR No.	C/B	C or NC	LOAD (VA)	DESCRIPTION
					A-PHASE	B-PHASE					
SURGE PROTECTION DEVICE	0	NC	20	1	4800		2	100	C	4800	MMBS
	0	NC		3		4800	4		C	4800	
BBU	1200	C	25	5	12200		6	200	C	11000	DELTA SSC MAIN FEEDER OCPD
	1200	C		7		12380	8		C	11180	
				9	0		10		C		
				11	0		12		C		
				13	0		14		C		
				15	0		16		C		
				17	0		18		C		
				19	0		20		C		
				21	0		22		C		
				23	0		24		C		
BASE LOAD (VA) =					17000	17180					
25% OF CONTINUOUS LOAD (VA) =					4250	4295	C = CONTINUOUS LOAD; NC = NON-CONTINUOUS LOAD				
TOTAL LOAD (VA) =					21250	21475	** INDICATES NEW LOAD. ALL OTHER LOADS ARE EXISTING. NEW BREAKER TO BE SAME TYPE AND HAVE SAME AIC RATING AS EXISTING. CUSTOMER HAS NOT PROVIDED LOADS SHOWN ARE ESTIMATED VALUES				
TOTAL LOAD (A) =					178	179					

1 EXISTING PANEL SCHEDULE
SCALE: NOT TO SCALE

T-MOBILE PANEL SCHEDULE											
MAIN: 200 AMP MAIN BREAKER			VOLTAGE/PHASE: 120/240V, 1-PHASE, 3-WIRE				SHORT CIRCUIT CURRENT RATING: N/A				
MOUNTING: INSIDE PPC ENCLOSURE			ENCLOSURE: NEMA 3R				SURGE PROTECTION DEVICE: YES				
DESCRIPTION	LOAD (VA)	C or NC	C/B	CIR No.	LOAD (VA)		CIR No.	C/B	C or NC	LOAD (VA)	DESCRIPTION
					A-PHASE	B-PHASE					
SURGE PROTECTION DEVICE	0	NC	20	1	4800		2	100	C	4800	MMBS
	0	NC		3		4800	4		C	4800	
BBU	1200	C	25	5	12200		6	200	C	11000	DELTA SSC MAIN FEEDER OCPD
	1200	C		7		12380	8		C	11180	
				9	0		10		C		
				11	0		12		C		
				13	0		14		C		
				15	0		16		C		
				17	0		18		C		
				19	0		20		C		
				21	0		22		C		
				23	0		24		C		
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TOTAL LOAD (VA) =					21250	21475	** INDICATES NEW LOAD. ALL OTHER LOADS ARE EXISTING. NEW BREAKER TO BE SAME TYPE AND HAVE SAME AIC RATING AS EXISTING. CUSTOMER HAS NOT PROVIDED LOADS SHOWN ARE ESTIMATED VALUES				
TOTAL LOAD (A) =					178	179					

2 FINAL PANEL SCHEDULE
SCALE: NOT TO SCALE



3 ONE-LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346

CROWN CASTLE
1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: **878349**
JUNG BEER

W 5009 HWY 144
RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF SUPPORT

ISSUED FOR:

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WISCONSIN
AARON HERKENHOFF
E-49355
LOUISVILLE KY
PROFESSIONAL ENGINEER

02/01/2023

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SHEET NUMBER: **E-1** REVISION: **1**

T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2



1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346



1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109



11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

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RANDOM LAKE, WI 53075

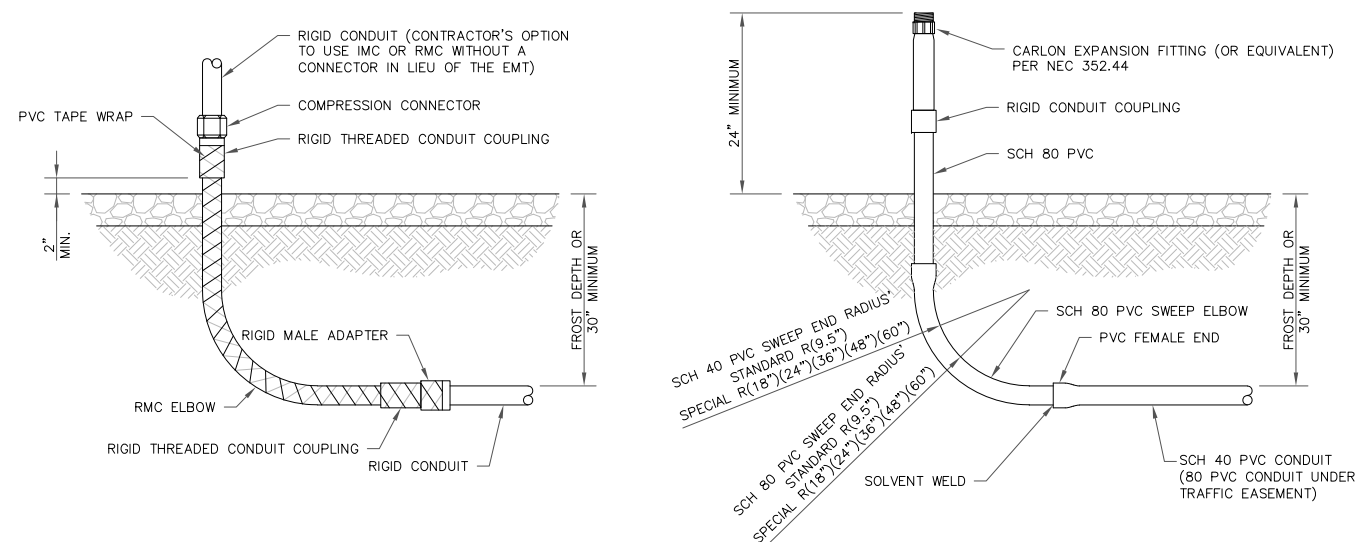
EXISTING 150'-0" SELF
SUPPORT

INSTALLER NOTES:

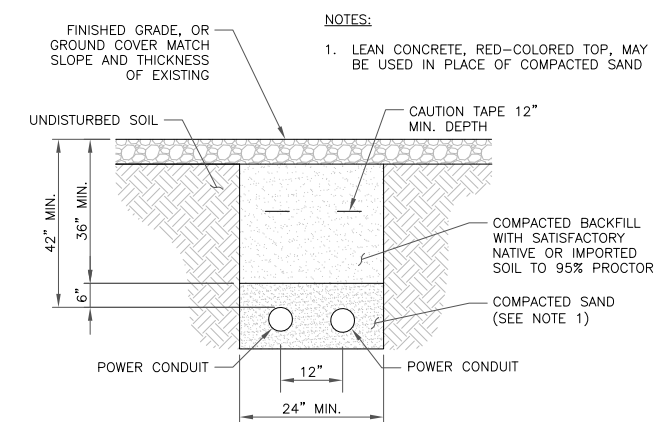
ALL METAL CONDUIT INSTALLED IN DIRECT CONTACT WITH THE EARTH SHALL BE CONSIDERED TO BE INSTALLED IN A SEVERELY CORROSIVE ENVIRONMENT AND IS REQUIRED TO HAVE SUPPLEMENTAL PROTECTION AGAINST CORROSION (NEC ARTICLE 342.10(B) & 344.10(B)(1)). THIS PROTECTION SHALL EITHER BE AN APPROVED MANUFACTURER INSTALLED PROTECTIVE COATING ON THE CONDUIT OR SHALL BE (2) LAYERS OF 10 MIL PVC PIPE WRAP TAPE INSTALLED USING OPPOSING SPIRAL WRAPS. ON VERTICAL PIPE THE OUTSIDE LAYER OF TAPE SHALL BE WRAPPED SO AS TO PROVIDE SHEDDING OF WATER (i.e. TAPE SHOULD WRAP IN AN UPWARD DIRECTION WITH LOWER WRAP BEING BENEATH THE WRAP ABOVE). SPIRAL WRAPS SHALL HAVE A MINIMUM OF 1/4" OVERLAP WITH THE PRECEDING TAPE WRAP. ANY OTHER METHODS OF CORROSION PROTECTION SHALL REQUIRE APPROVAL BY THE ENGINEER OF RECORD PRIOR TO BEING USED.

ISSUED FOR:

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1 CONDUIT STUB UP DETAILS
SCALE: NOT TO SCALE



2 TRENCH DETAIL
SCALE: NOT TO SCALE



02/01/2023

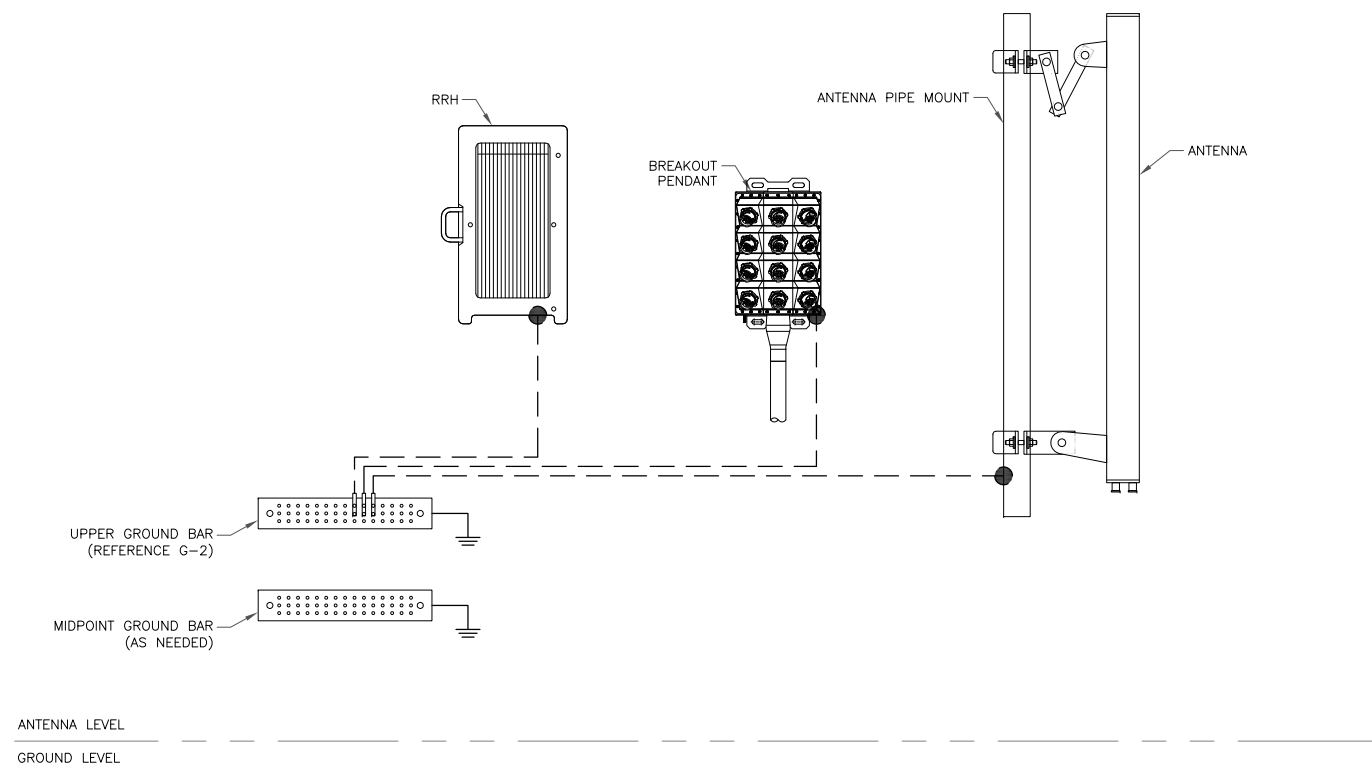
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SHEET NUMBER:

E-2

REVISION:

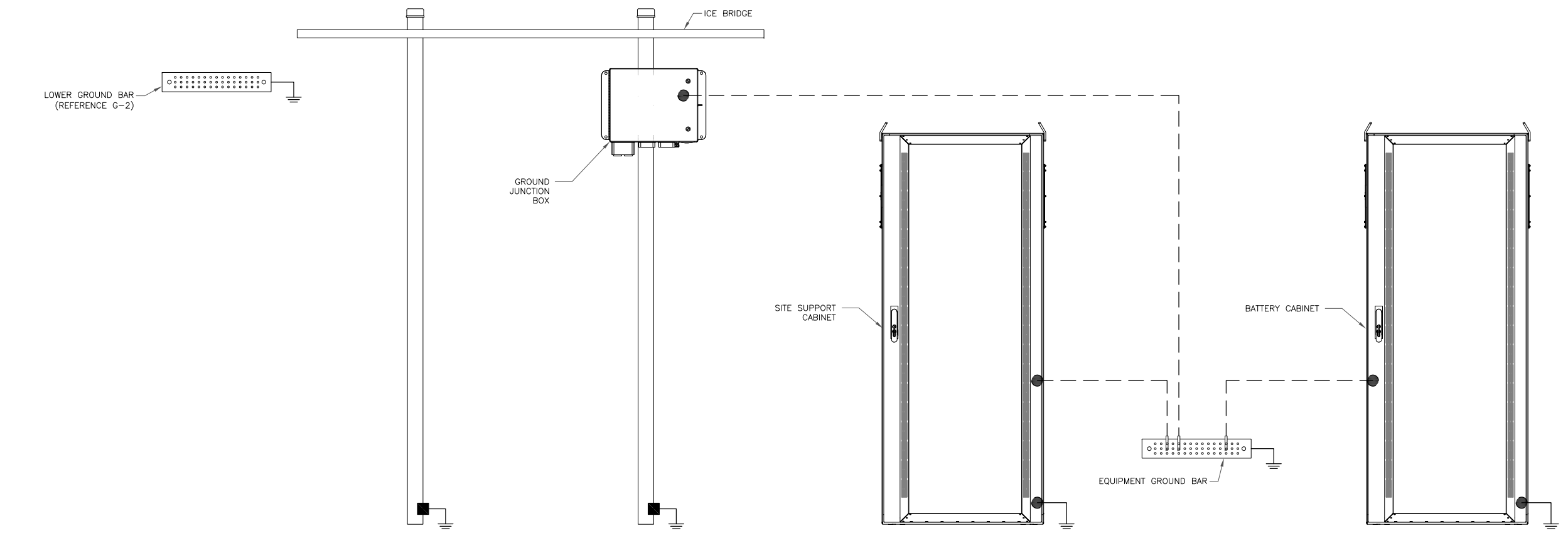
1



GROUNDING PLAN LEGEND:

- #6 STRANDED COPPER WITH GREEN INSULATION GROUND WIRE
- #2 STRANDED COPPER WITH GREEN INSULATION GROUND WIRE
- #2 BARE, SOLID, TINNED COPPER GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- ⊙ COPPER GROUND ROD
- ⊗ GROUND ROD W/ TEST WELL

NOTE:
SEE FINAL EQUIPMENT PLAN FOR NEW EQUIPMENT REQUIRING GROUNDING. CONTRACTOR TO VERIFY EXISTING EQUIPMENT GROUNDING IN FIELD. CONTRACTOR TO VERIFY IN FIELD AND INSTALL ANY MISSING T-MOBILE GROUND BARS ON SITE.



T-Mobile

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PROFESSIONAL ENGINEER

AARON HERKENHOFF
E-49355
LOUISVILLE KY

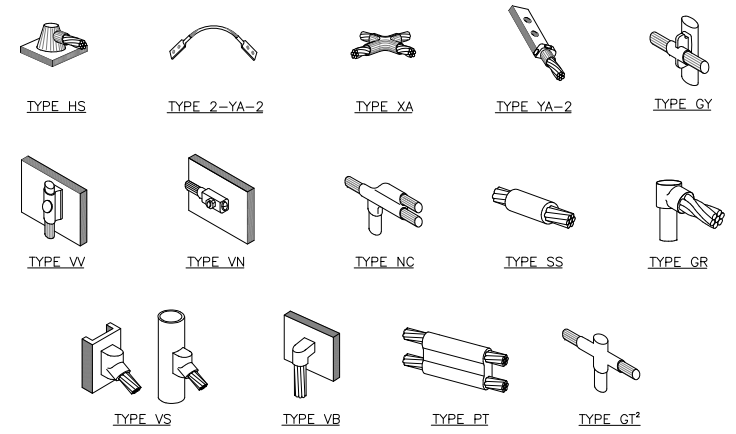
02/01/2023

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SHEET NUMBER: **G-1** **REVISION:** **1**

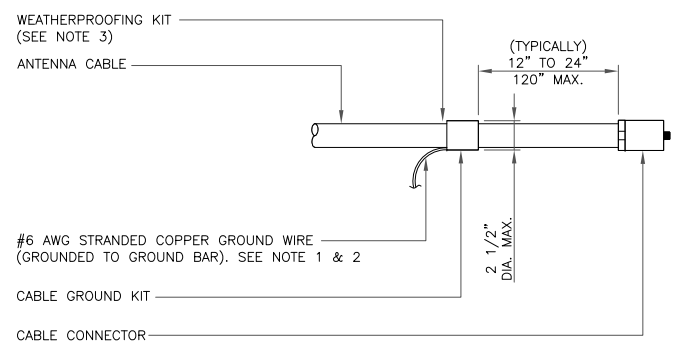
1 TYPICAL FINAL GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

T-MOBILE-CENTRAL REGION-ANCHOR_06/16/2022_V2



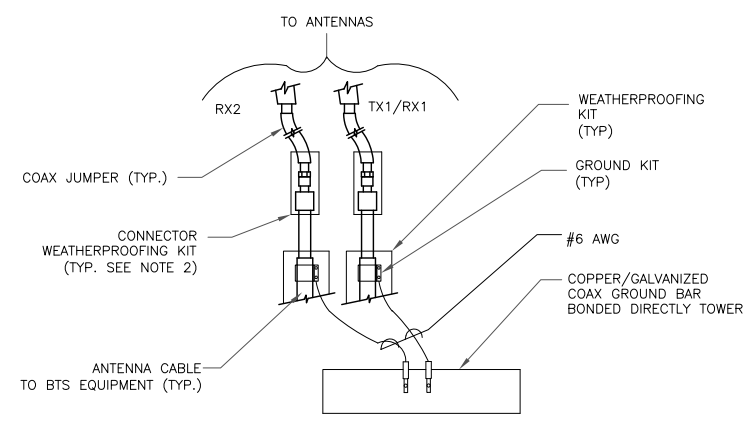
- NOTE:**
1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
 2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE



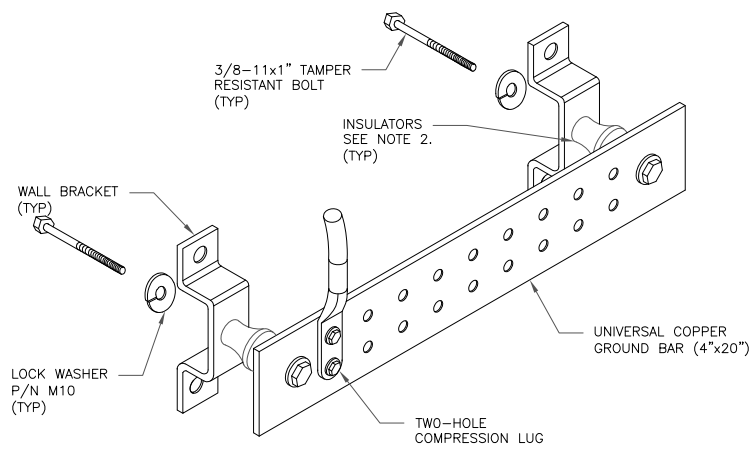
- NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
 3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



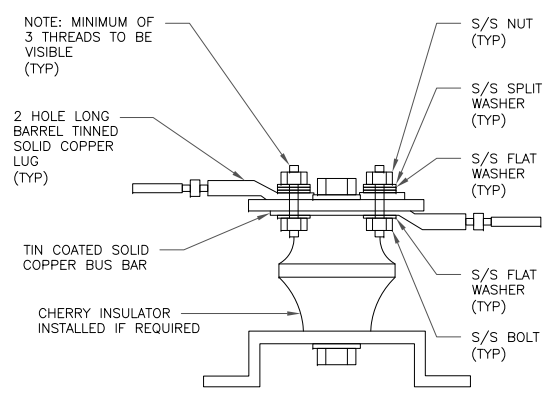
- NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
 2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



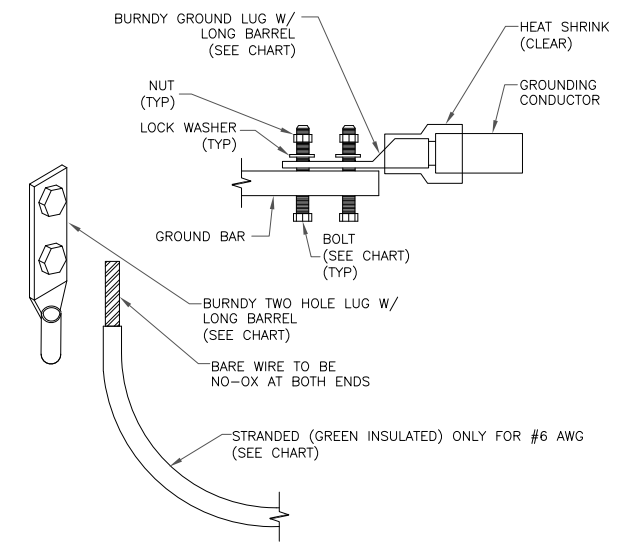
- NOTES:**
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
 2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL. USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



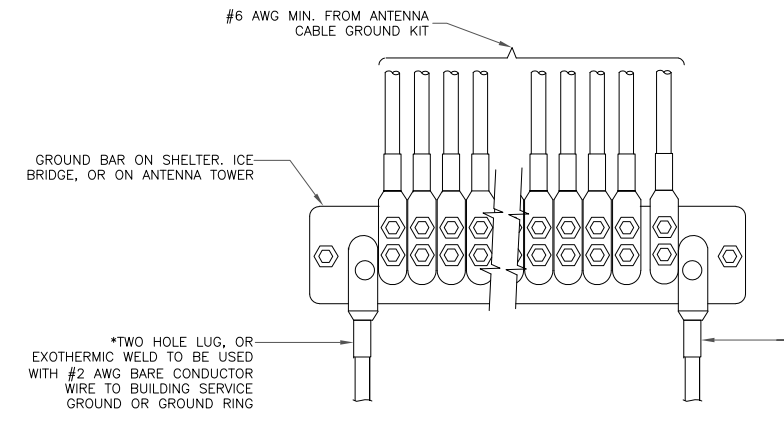
7 LUG DETAIL
SCALE: NOT TO SCALE

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT

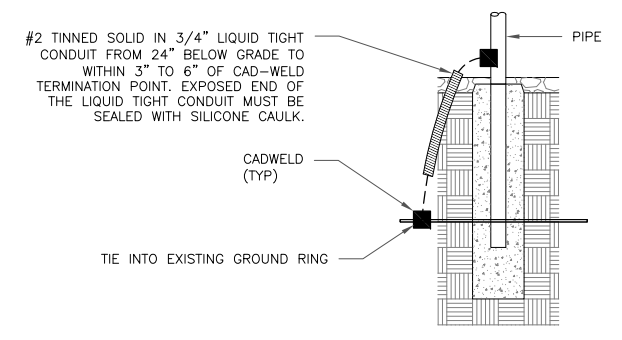


- NOTES:**
1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

T-Mobile
1 RAVINIA DRIVE, SUITE 1000
ATLANTA, GA 30346

CROWN CASTLE
1505 WESTLAKE AVENUE NORTH, SUITE 800
SEATTLE, WA 98109

POD
POWER OF DESIGN
11490 BLUEGRASS PKWY
LOUISVILLE, KY 40299
502-437-5252

T-MOBILE SITE NUMBER:
ML81125A

BU #: 878349
JUNG BEER

W 5009 HWY 144
RANDOM LAKE, WI 53075

EXISTING 150'-0" SELF SUPPORT

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
0	01/27/2023	NM/NH	CONSTRUCTION	AH
1	02/01/2023	NM	CONSTRUCTION	AH

WISCONSIN
AARON HERKENHOFF
E-49355
LOUISVILLE KY
PROFESSIONAL ENGINEER

02/01/2023

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: **G-2** **REVISION:** **1**

2/15/2023 10:54 AM

Reprint Payroll Register Quick
All Employees

Page: 1
PAYRL

Check Date From: 2/09/2023
Thru: 2/09/2023

From Dept:
Thru Dept:

Name / Chk	Beg	End Dates	Check Nbr	Hours	Earnings	Deductions	Net Pay
DAHM, JERIOD N			V1511	92.00	2,205.00	623.14	1,581.86
2/09/2023	1/22/2023	2/04/2023					
GOEMER, ARIANA			V1512	4.00	36.04	2.75	33.29
2/09/2023	1/22/2023	2/04/2023					
HORNING, ELISABETH			V1513	30.00	477.00	40.49	436.51
2/09/2023	1/22/2023	2/04/2023					
JAYCOX, CARISSA M			V1514	80.00	1,812.80	373.81	1,438.99
2/09/2023	1/22/2023	2/04/2023					
KOLB, CHRISTOPHER J			V1515	80.00	1,806.40	610.61	1,195.79
2/09/2023	1/22/2023	2/04/2023					
LEDERER, PETER			V1516	80.00	3,024.81	936.15	2,088.66
2/09/2023	1/22/2023	2/04/2023					
LOCKLAIR, DANIEL R			V1517	29.00	353.51	29.89	323.62
2/09/2023	1/22/2023	2/04/2023					
MARTIN, SUZANNE			V1518	16.25	214.99	16.45	198.54
2/09/2023	1/22/2023	2/04/2023					
MORLEY, CHRISTOPHER B			V1519	30.00	450.00	65.25	384.75
2/09/2023	1/22/2023	2/04/2023					
SIEGEL, TYLER C			V1520	86.00	2,380.79	796.14	1,584.65
2/09/2023	1/22/2023	2/04/2023					
SULLIVAN, CAMRIN R			V1521	80.00	2,052.55	525.16	1,527.39
2/09/2023	1/22/2023	2/04/2023					
TRAAS, TODD M			V1522	46.12	943.15	141.08	802.07
2/09/2023	1/22/2023	2/04/2023					
VIDEKOVICH COENEN, LYNN			V1523	3.50	38.96	5.63	33.33
2/09/2023	1/22/2023	2/04/2023					
WAALA, STEPHANIE S			V1524	80.00	2,798.46	832.78	1,965.68
2/09/2023	1/22/2023	2/04/2023					
WEGNER, MILES C			V1525	87.00	1,810.00	728.97	1,081.03
2/09/2023	1/22/2023	2/04/2023					
WILL, KATRINA A			V1526	29.00	357.57	27.35	330.22
2/09/2023	1/22/2023	2/04/2023					
WILLIAMSON, JACOB N			V1527	95.75	2,259.59	668.89	1,590.70
2/09/2023	1/22/2023	2/04/2023					
WROBLEWSKI, ELIZABETH			V1528	52.00	826.80	198.13	628.67
2/09/2023	1/22/2023	2/04/2023					

Totals: 1,000.62 23,848.42 6,622.67 17,225.75

Total Checks: 18 (Male: 9 Female: 9)

11,227.00

4807.42

4611.26

3202.74

Auto pays

2/16/2023 12:48 PM

Reprint Check Register - Full Report - ALL

Page: 1
ACCT

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023 From Account:
Thru: 1/31/2023 Thru Account:

Check Nbr	Check Date	Payee	Amount
32489	1/31/2023	WMCA - WI Municipal Clerks Association Account: 920-994-9952-102915-5	
100-00-51420-321-000		DUES/MEMBERSHIPS MEMBERSHIP	65.00
		JAYCOX 2023	
		Total	65.00
ACH013123-1	1/31/2023	GREAT WEST CASUALTY 01/03/2023	
		Manual Check	
100-00-21515-000-000		DEFERRED COMP PAYABLE DEFERRED COMP	50.00
		1053931905	
100-00-21515-000-000		DEFERRED COMP PAYABLE DEFERRED COMP	50.00
		1053932353	
100-00-21515-000-000		DEFERRED COMP PAYABLE DEFERRED COMP	50.00
		1053932585	
		Total	150.00
ACH013123-2	1/31/2023	Lincoln National Life Insurance Co. 01/01/2023	
		Manual Check	
100-00-21527-000-000		LIFE/DISABILITY INSURANCE Life/Disability - Village - 01/2023	589.43
		4492260419	
100-00-21527-000-000		LIFE/DISABILITY INSURANCE LIBRARY JAN 23	94.45
		4492260419	
		Total	683.88
ACH013123-3	1/31/2023	ETF HEALTH 01/06/2023	
		Manual Check	
100-00-21525-000-000		HEALTH INS VILLAGE	14,633.54
		FEB 23	
100-00-21525-000-000		HEALTH INS LIBRARY	2,506.80
		FEB 23	
		Total	17,140.34
ACH013123-4	1/31/2023	Home Depot Credit Services 12/28/22	
		Manual Check	
100-00-16500-000-000		PREPAYMENTS DRILL	209.95
		5695848	
100-00-16500-000-000		PREPAYMENTS LIGHT BULBS	113.81
		5614628	
100-00-16500-000-000		PREPAYMENTS HOOKS, CLAMPS, ROPE	104.15
		5626193	

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023

From Account:

Thru: 1/31/2023

Thru Account:

Check Nbr	Check Date	Payee	Amount
100-00-16500-000-000		PREPAYMENTS	20.00
		SERVICE CHARGE	
		FCH-007804393	
100-00-16500-000-000		PREPAYMENTS	77.82
		ANGLE STEEL AND ANCHORS	
		6610173	
100-00-16500-000-000		PREPAYMENTS	104.45
		BATTERY	
		6610174	
100-00-16500-000-000		PREPAYMENTS	100.20
		EXTENSION CORDS	
		4612465	
100-00-16500-000-000		PREPAYMENTS	499.55
		SEWAGE PUMP	
		613033	
100-00-16500-000-000		PREPAYMENTS	-0.40
		CREDIT DIFFERENCE	
		01102023	
		Total	1,229.53

ACH013123-5 1/31/2023 WEX BANK
01/11/2023

Manual Check

100-00-16500-000-000		PREPAYMENTS	64.74
		SWEeper	
		54597	
100-00-16500-000-000		PREPAYMENTS	21.58
		SWEeper	
		54597	
100-00-16500-000-000		PREPAYMENTS	21.58
		SWEeper	
		54597	
100-00-16500-000-000		PREPAYMENTS	41.73
		FORD PICKUP	
		54773	
100-00-16500-000-000		PREPAYMENTS	13.91
		FORD PICKUP	
		54773	
100-00-16500-000-000		PREPAYMENTS	13.91
		FORD PICKUP	
		54773	
100-00-16500-000-000		PREPAYMENTS	61.51
		TANDOM	
		54895	
100-00-16500-000-000		PREPAYMENTS	20.51
		TANDOM	
		54895	
100-00-16500-000-000		PREPAYMENTS	20.51
		TANDOM	
		54895	
100-00-16500-000-000		PREPAYMENTS	43.87
		GREEN PICKUP	
		54920	
100-00-16500-000-000		PREPAYMENTS	14.63
		GREEN PICKUP	
		54920	

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023

From Account:

Thru: 1/31/2023

Thru Account:

Check Nbr	Check Date	Payee	Amount
100-00-16500-000-000		PREPAYMENTS	14.63
		GREEN PICKUP	54920
100-00-16500-000-000		PREPAYMENTS	99.24
		TANDOM	55070
100-00-16500-000-000		PREPAYMENTS	33.08
		TANDOM	55070
100-00-16500-000-000		PREPAYMENTS	33.08
		TANDOM	55070
100-00-16500-000-000		PREPAYMENTS	26.17
		SKID LOADER	55863
100-00-16500-000-000		PREPAYMENTS	8.73
		SKID LOADER	55863
100-00-16500-000-000		PREPAYMENTS	8.73
		SKID LOADER	55863
100-00-16500-000-000		PREPAYMENTS	14.29
		SEWER PUMP	56205
100-00-16500-000-000		PREPAYMENTS	4.77
		SEWER PUMP	56205
100-00-16500-000-000		PREPAYMENTS	4.77
		SEWER PUMP	56205
100-00-16500-000-000		PREPAYMENTS	80.84
		TANDOM	56229
100-00-16500-000-000		PREPAYMENTS	26.94
		TANDOM	56229
100-00-16500-000-000		PREPAYMENTS	26.94
		TANDOM	56229
100-00-16500-000-000		PREPAYMENTS	32.53
		RED PICKUP	56874
100-00-16500-000-000		PREPAYMENTS	10.84
		RED PICKUP	56874
100-00-16500-000-000		PREPAYMENTS	10.84
		RED PICKUP	56874
100-00-16500-000-000		PREPAYMENTS	51.76
		TANDOM	57363
100-00-16500-000-000		PREPAYMENTS	17.26
		TANDOM	57363
100-00-16500-000-000		PREPAYMENTS	17.26
		TANDOM	57363

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023

From Account:

Thru: 1/31/2023

Thru Account:

Check Nbr	Check Date	Payee	Amount
100-00-16500-000-000		PREPAYMENTS	37.19
		FORD PICKUP	57549
100-00-16500-000-000		PREPAYMENTS	12.40
		FORD PICKUP	57549
100-00-16500-000-000		PREPAYMENTS	12.40
		FORD PICKUP	57549
100-00-16500-000-000		PREPAYMENTS	55.72
		TANDOM	58209
100-00-16500-000-000		PREPAYMENTS	18.58
		TANDOM	58209
100-00-16500-000-000		PREPAYMENTS	18.58
		TANDOM	58209
100-00-16500-000-000		PREPAYMENTS	139.18
		PLOW TRUCK	58628
100-00-16500-000-000		PREPAYMENTS	46.39
		PLOW TRUCK	58628
100-00-16500-000-000		PREPAYMENTS	46.39
		PLOW TRUCK	58628
100-00-16500-000-000		PREPAYMENTS	41.15
		FORD PICKUP	58714
100-00-16500-000-000		PREPAYMENTS	13.71
		FORD PICKUP	58714
100-00-16500-000-000		PREPAYMENTS	13.71
		FORD PICKUP	28714
100-00-16500-000-000		PREPAYMENTS	6.00
		SERVICE FEE	2
100-00-16500-000-000		PREPAYMENTS	2.00
		SERVICE FEE	2
100-00-16500-000-000		PREPAYMENTS	2.00
		SERVICE FEE	2
Total			1,326.58
<hr/>			
ACH013123-6	1/31/2023	EMPLOYEE BENEFITS CORPORATION	
	01/9/2023		Manual Check
100-00-16500-000-000		PREPAYMENTS	1,989.53
		EMPLOYEE REIMBURSEMENT	3884255
Total			1,989.53

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023 From Account:
Thru: 1/31/2023 Thru Account:

Check Nbr	Check Date	Payee	Amount
ACH013123-7	1/31/2023	EFTPS - ACH	
	01/12/2023		Manual Check
100-00-21511-000-000		FICA	2,684.72
		SOCIAL SECURITY	011223
100-00-21511-000-000		FICA	627.84
		MEDICARE	011223
100-00-21512-000-000		FEDERAL W/H	1,104.04
		FEDERAL	011223
		Total	4,416.60
ACH013123-8	1/31/2023	CARDMEMBER SERVICES	
	01/06/2023		Manual Check
100-00-16500-000-000		PREPAYMENTS	39.99
		MEMBERSHIP RENEWAL	74753087
100-00-16500-000-000		PREPAYMENTS	15.81
		LIBRARY ZOOM	3613
100-00-16500-000-000		PREPAYMENTS	142.05
		SPECTRUM TV AND VOICE	0017618120322
100-00-16500-000-000		PREPAYMENTS	67.46
		CLEANER	114-6926583-1325853
100-00-16500-000-000		PREPAYMENTS	102.99
		GPS	112-201477727291459
100-00-16500-000-000		PREPAYMENTS	69.99
		TABLE	112-3646119-7874653
100-00-16500-000-000		PREPAYMENTS	91.99
		BACKPACKS	112-8995360-6271430
100-00-16500-000-000		PREPAYMENTS	24.95
		GEOLOGY KIT	112-1713096-3645038
100-00-16500-000-000		PREPAYMENTS	12.95
		MUSIC SHEET	112-7805383-4206612
100-00-16500-000-000		PREPAYMENTS	19.74
		BATTERIES	112-0348888-8857008
500-00-55110-350-000		Endowment Fund - Programming	79.56
		GAMES	112-0247741-3875423
100-00-16500-000-000		PREPAYMENTS	20.28
		PLUSH DOLL	112-2059203-6377066
500-00-55110-350-000		Endowment Fund - Programming	1,052.55
		GAMES	112-7774325-6385010

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023

From Account:

Thru: 1/31/2023

Thru Account:

Check Nbr	Check Date	Payee	Amount
100-00-16500-000-000		PREPAYMENTS	158.22
		ICE RINK	2255
100-00-16500-000-000		PREPAYMENTS	2,417.40
		ICE RINK	1185
100-00-16500-000-000		PREPAYMENTS	1,058.86
		BINDERS, LABELS, CHAIRS	278195047-001
100-00-16500-000-000		PREPAYMENTS	61.56
		BINDERS AND INSERTS	118093
100-00-16500-000-000		PREPAYMENTS	9.58
		LABELS	112-7384294-3390668
100-00-16500-000-000		PREPAYMENTS	129.50
		BINDERS AND INSERTS	112-9304833-2922617
100-00-16500-000-000		PREPAYMENTS	24.19
		BINDERS AND INSERTS	112-9304833-2922617
100-00-16500-000-000		PREPAYMENTS	34.92
		ICE RINK	112-2531834-7293840
100-00-16500-000-000		PREPAYMENTS	7.00
		BACKGROUND CHECK	WINWOR021552221
100-00-16500-000-000		PREPAYMENTS	25.24
		MICROSOFT	E0500LHP04
100-00-16500-000-000		PREPAYMENTS	15.81
		ADOBE	2336936763
100-00-16500-000-000		PREPAYMENTS	189.66
		PIZZA OVEN AND GIFT CARD	0392
100-00-16500-000-000		PREPAYMENTS	124.98
		CHAIR	112-4668209-7584266
100-00-16500-000-000		PREPAYMENTS	19.80
		POSTAGE	111262
100-00-16500-000-000		PREPAYMENTS	14.77
		GOTOMEETING	343714349
100-00-16500-000-000		PREPAYMENTS	7.00
		BACKGROUND CHECK	WINWOR021639490
100-00-51420-211-000		SUPPORT-SOFTWARE	68.00
		GOOGLE	2841-6424-7750
600-00-51422-390-000		COMPUTERS . SOFTWARE	68.00
		GOOGLE	2841-6424-7750
660-00-51422-390-000		COMPUTER/SOFTWARE-S,M,R,E	68.00
		GOOGLE	2841-6424-7750

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023

From Account:

Thru: 1/31/2023

Thru Account:

Check Nbr	Check Date	Payee	Amount
100-00-51420-810-000		CLERKS OFFICE-EQUIPMENT	625.38
		FILING CABINETS	
		010323-134903-360263	
100-00-16500-000-000		PREPAYMENTS	50.60
		WIRE ROPE	
		020352	
100-00-16500-000-000		PREPAYMENTS	64.66
		EXTENSION CORDS, CLOTH BACK AIR	
		020353	
100-00-16500-000-000		PREPAYMENTS	131.96
		ICE RINK	
		114-8885989-3687400	
100-00-16500-000-000		PREPAYMENTS	43.96
		ICE RINK	
		114-2076053-7995440	
100-00-16500-000-000		PREPAYMENTS	107.77
		BATTERIES AND CHARGERS	
		114-8049324-4677022	
100-00-16500-000-000		PREPAYMENTS	133.10
		KIT WATER	
		IM07092	
100-00-16500-000-000		PREPAYMENTS	239.77
		BATTERIES AND CHARGERS	
		114-8049324-4677022	
100-00-16500-000-000		PREPAYMENTS	43.93
		SKID LOADER FUEL	
		904211	
100-00-16500-000-000		PREPAYMENTS	150.00
		LOADER FUEL	
		904271	
100-00-48875-000-000		REFUND OF EXPENDITURES	-130.25
		COSTCO CREDIT	
		193587	
100-00-16500-000-000		PREPAYMENTS	118.08
		POSTAGE	
		416075	
100-00-16500-000-000		PREPAYMENTS	7.00
		BACKGROUND CHECKS	
		WINWOR021551787	
100-00-16500-000-000		PREPAYMENTS	317.20
		MPTC EXCEL COURSE	
		64024	
100-00-16500-000-000		PREPAYMENTS	8.72
		MPTC SERVICE CHARGE	
		64024	
100-00-16500-000-000		PREPAYMENTS	7.00
		BACKGROUND CHECK	
		WINWOR021568637	
100-00-51420-311-000		POSTAGE	88.60
		POSTAGE	
		514090	
600-00-51421-311-000		C/T - postage UPS, etc.	88.60
		POSTAGE	
		514090	
660-00-51421-311-000		POSTAGE	88.60
		POSTAGE	
		514090	

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023 From Account:
Thru: 1/31/2023 Thru Account:

Check Nbr	Check Date	Payee	Amount
			Total
			8,427.48
<hr/>			
ACH013123-9	1/31/2023	COLLINS STATE BANK	
	01/17/2023		Manual Check
100-00-51130-000-000		BANK FEE	49.36
		DEPOSIT SLIPS	
		011723	
			Total
			49.36
<hr/>			
ACH013123-10	1/31/2023	EMPLOYEE BENEFITS CORPORATION	
	01/13/2023		Manual Check
100-00-51420-133-001		CLERKS OFFICE-HEALTH SAVINGS	36.80
		EMPLOYEE BENEFIT	
		3889607	
600-00-51975-000-000		HEALTH SAVINGS ACCOUNT	73.60
		EMPLOYEE BENEFIT	
		3889607	
660-00-51975-000-000		HEALTH SAVINGS ACCOUNT	73.60
		EMPLOYEE BENEFIT	
		3889607	
			Total
			184.00
<hr/>			
ACH013123-11	1/31/2023	AFLAC	
	01/15/2023		Manual Check
100-00-16500-000-000		PREPAYMENTS	128.78
		EMPLOYEE CONTRIBUTIONS	
		241912	
100-00-16500-000-000		PREPAYMENTS	128.78
		EMPLOYEE CONTRIBUTIONS	
		241912	
			Total
			257.56
<hr/>			
ACH013123-12	1/31/2023	MY TAX ACCT-WDOR	
	01/26/2023		Manual Check
100-00-21513-000-000		STATE W/H	768.01
		STATE TAXES	
		JAN 23	
100-00-21513-000-000		STATE W/H	774.60
		STATE TAXES	
		JAN 23	
			Total
			1,542.61
<hr/>			
ACH013123-13	1/31/2023	EFTPS - ACH	
	01/26/2023		Manual Check
100-00-21511-000-000		FICA	2,699.86
		SOCIAL SECURITY	
		012623	
100-00-21511-000-000		FICA	631.44
		MEDICARE	
		012623	

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023 From Account:
Thru: 1/31/2023 Thru Account:

Check Nbr	Check Date	Payee	Amount
100-00-21512-000-000		FEDERAL W/H	1,027.61
		FEDERAL	
		012623	
Total			4,358.91
<hr/>			
ACH013123-14	1/31/2023	EMPLOYEE BENEFITS CORPORATION	
	01/15/2023		
			Manual Check
100-00-51420-136-000		HRA SERVICE FEES	20.00
		FEES	
		3897067	
600-00-51421-136-000		HRA SERVICE FEES	20.00
		FEES	
		3897067	
660-00-51421-136-000		HRA SERVICE FEES	20.00
		FEES	
		3897067	
Total			60.00
<hr/>			
ACH013123-15	1/31/2023	WRS - ACH	
	01/31/2023		
			Manual Check
100-00-16500-000-000		PREPAYMENTS	6,565.53
		VILLAGE	
		DEC 22	
100-00-16500-000-000		PREPAYMENTS	1,063.21
		LIBRARY	
		DEC 22	
Total			7,628.74
Grand Total			49,510.12

POOLED CHECKING (COLLINS)

ALL Checks

Posted From: 1/31/2023 From Account:
Thru: 1/31/2023 Thru Account:

Amount

Total Expenditure from Fund # 100 - GENERAL FUND	47,877.61
Total Expenditure from Fund # 500 - LIBRARY	1,132.11
Total Expenditure from Fund # 600 - WATER FUND	250.20
Total Expenditure from Fund # 660 - WASTEWATER FUND	250.20
Total Expenditure from all Funds	49,510.12

Due date before 2/20

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ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/15/2023

From Account:

Thru: 2/15/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
	2/15/2023	BEAR GRAPHICS	
01/24/2023			
700-00-52640-001-000		MISCELLANEOUS	172.59
CHECKS		0910600	
		Total	172.59
	2/15/2023	Casey's Business Mastercard	
01/18/2023			
700-00-52690-003-000		FUEL-TRUCKS	96.02
UNIT 29		4073448	
700-00-52690-003-000		FUEL-TRUCKS	116.78
UNIT 29		4059054	
700-00-52690-003-000		FUEL-TRUCKS	89.74
UNIT 32		4063347	
700-00-52690-003-000		FUEL-TRUCKS	-0.48
CUSTOMER REBATES		30044551	
		Total	302.06
	2/15/2023	CHARTER COMMUNICATIONS	
02/06/2023			
700-00-52640-002-000		INTERNET	149.99
INTERNET		0018129020623	
		Total	149.99
	2/15/2023	VERIZON WIRELESS	
02/01/2023			
700-00-52640-010-000		AMBULANCE	76.02
CELL PHONES		9926712972	
		Total	76.02
	2/15/2023	WE ENERGIES	
01/30/2023			
700-00-52610-005-000		ELECTRIC/GAS	1,003.85
718 N SPRING ST		4453842141	
		Total	1,003.85
	2/15/2023	WE ENERGIES	
01/27/2023			
700-00-52610-005-000		ELECTRIC/GAS	20.18
718 N SPRING ST		4450731352	

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ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/15/2023

From Account:

Thru: 2/15/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
		Total	20.18
	2/15/2023	WE ENERGIES	
	01/27/2023		
700-00-52610-005-000		ELECTRIC/GAS	14.83
		PICNIC GROUNDS	
		4452225338	
		Total	14.83
		Grand Total	1,739.52

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ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/15/2023

From Account:

Thru: 2/15/2023

Thru Account:

Amount

Total Expenditure from Fund # 700 - AMBULANCE FUND

1,739.52

Total Expenditure from all Funds

1,739.52

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ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
2/21/2023 AFLAC			
1/23/23 INVOICE			
100-00-21526-000-000		DENTAL INS	1,105.52
		VILLAGE DENTAL	212569
100-00-21526-000-000		DENTAL INS	161.95
		LIBRARY DENTAL	212569
100-00-21525-000-000		HEALTH INS	109.29
		VILLAGE VISION	212569
100-00-21525-000-000		HEALTH INS	23.23
		LIBRARY VISION	212569
Total			1,399.99
2/21/2023 AGSOURCE			
01/30/2023 INVOICE			
660-00-54610-397-000		TEST LAB-OUTSIDE SERVICES	1,010.00
		WWTP	MAS000005805
Total			1,010.00
2/21/2023 ARCHER MAT RENTAL & SALES LLC			
2/14/23 INVOICE			
100-00-51600-230-000		VILLAGE HALL - S.M.R.E	4.70
		1-3'X5' BLACK MINK VILLAGE HALL MAT	37004
100-00-51600-230-000		VILLAGE HALL - S.M.R.E	18.74
		2-3'X10'BACK MINK VILLAGE HALL MATS	37004
Total			23.44
2/21/2023 BEAR GRAPHICS			
1/31/23 INVOICE			
100-00-51420-212-000		PRINTING	91.00
		#10 STD WINDOW ENVELOPES	0911057
600-00-51421-390-000		C/T - supplies, expenses	91.00
		#10 STD WINDOW ENVELOPES	0911057
660-00-51421-390-000		OFFICE SUPPLIES/EXP	91.00
		#10 STD WINDOW ENVELOPES	0911057
100-00-51420-212-000		PRINTING	5.00
		COMPOSITION CHARGES	0911057
600-00-51421-390-000		C/T - supplies, expenses	5.00
		COMPOSITION CHARGES	0911057

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ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
660-00-51421-390-000		OFFICE SUPPLIES/EXP	5.00
		COMPOSITION CHARGES	
		0911057	
100-00-51420-212-000		PRINTING	10.38
		FREIGHT CHARGE	
		0911057	
600-00-51421-390-000		C/T - supplies, expenses	10.38
		FREIGHT CHARGE	
		0911057	
660-00-51421-390-000		OFFICE SUPPLIES/EXP	10.38
		FREIGHT CHARGE	
		0911057	
Total			319.14

2/21/2023 BUELOW VETTER BUIKEMA OLSON & VLIET LLC

2/7/23 STATEMENT

100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	687.50
		DRAFT ANALYSIS FOR FD PERSONNAL ISSUE 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	220.00
		REVISE & FINALIZE FD PERSONNAL ANALYSIS 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	585.00
		REVIEW & REVISE DRAFT OF OPINON LETTER 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	422.50
		FINALIZE DRAFT OF OPINION LETTER 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	715.00
		REVISE LETTER TO CHIEF DEPIES 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	325.00
		CONFERENCE, FINALIZE LETTER TO CHIEF DEP 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	195.00
		CONFERENCE RE: FD PERSONNAL ISSUE 27	
100-00-52101-210-000		LEGAL-PROFESSIONAL SERVICES	422.50
		REVIEW DOCUMENTS; CONFERENCE WITH CHIEF 27	
Total			3,572.50

2/21/2023 CivicPlus

1/27/23 INVOICE

100-00-51420-210-000		SUPPORT-WEBSITE	426.27
		ORDINANCE UPDATES	
		253666	
600-00-51422-390-000		COMPUTERS.SOFTWARE	426.27
		ORDINANCE UPDATES	
		253666	
660-00-51422-390-000		COMPUTER/SOFTWARE-S,M,R,E	426.27
		ORDINANCE UPDATES	
		253666	

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POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
Total			1,278.81

2/21/2023 Computer Service Specialists, Inc.

2/1/23 INVOICE

100-00-51422-390-000	TECHNOLOGY - S, M, R, E		100.00
	SERVER FEB 2023	202338	
600-00-51422-391-000	TECHNOLOGY		100.00
	SERVER FEB 2023	202338	
660-00-51422-391-000	TECHNOLOGY		100.00
	SERVER FEB 2023	202338	
100-00-51422-390-000	TECHNOLOGY - S, M, R, E		140.00
	WORKSTATION FEB 2023	202338	
600-00-51422-391-000	TECHNOLOGY		140.00
	WORKSTATION FEB 2023	202338	
660-00-51422-391-000	TECHNOLOGY		140.00
	WORKSTATION FEB 2023	202338	
100-00-51422-390-000	TECHNOLOGY - S, M, R, E		16.67
	NETWORK EQUIPMENT FEB 2023	202338	
600-00-51422-391-000	TECHNOLOGY		16.67
	NETWORK EQUIPMENT FEB 2023	202338	
660-00-51422-391-000	TECHNOLOGY		16.66
	NETWORK EQUIPMENT FEB 2023	202338	
Total			770.00

2/21/2023 CORE & MAIN LP

02/03/23 INVOICE

660-00-54630-390-000	METERS-S,M,R,E		180.00
	74620 3/4x3/4x2-1/2 MTR CPLG	S103690	
660-00-54630-390-000	METERS-S,M,R,E		3,465.00
	510M S/POINT M2 TC SP HR & LD	S103690	
660-00-54630-390-000	METERS-S,M,R,E		28.04
	FREIGHT	S103690	
Total			3,673.04

2/21/2023 Diggers Hotline Inc.

01/31/23 INVOICE

100-00-52900-000-000	DIGGERS HOTLINE		8.00
	JANUARY 2023 PREPAID EMAIL FEES	1/31/23	

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ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
Total			8.00
<hr/>			
2/21/2023 DOEGNITZ ACE HARDWARE			
2/1/23 INVOICE			
600-00-54600-390-000		PLANT - SUPPLIES/EXP	6.99
		1 PRIMER	17968
660-00-54600-390-000		WWTP - S,M,R,E	1.77
		KEY RING & GROUPLER	17976
100-00-53230-230-000		SHOP-S,M,R,E	3.48
		TEFLON TAPE & PIPE NIPPLE FITTING	17952
100-00-53230-230-000		SHOP-S,M,R,E	13.98
		2 SPRAY PAINT	17949
100-00-53230-230-000		SHOP-S,M,R,E	1.74
		6 BOLTS	17940
Total			27.96
<hr/>			
2/21/2023 FRONTIER COMMUNICATIONS			
1/28/23 INVOICE			
660-00-54600-221-000		WWTP - TELEPHONE/INTERNET	171.94
		TELEPHONE & INTERNET WWTP	1/28/23
Total			171.94
<hr/>			
2/21/2023 HAWKINS INC			
2/6/23 INVOICE			
600-00-54600-999-000		CHEMICALS FOR TREATMENT	913.10
		AZONE 15-132 GALLON	6395223
600-00-54600-999-000		CHEMICALS FOR TREATMENT	34.50
		FUEL SURCHARGE	6395223
600-00-54600-999-000		CHEMICALS FOR TREATMENT	15.00
		FREIGHT CHARGE	6395223
Total			962.60
<hr/>			
2/21/2023 HAWKINS INC			
1/27/23 INVOICE			
600-00-54600-999-000		CHEMICALS FOR TREATMENT	968.44
		AZONE 15-140 GALLONS	6389791
600-00-54600-999-000		CHEMICALS FOR TREATMENT	15.00
		FREIGHT CHARGE	6389791
Total			983.44

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POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
2/21/2023 J&H Heating Inc.			
2/2/23 INVOICE			
100-00-55110-230-000		LIBRARY-S,M,R,E	614.27
		LIBRARY PREVENTATIVE MAINT	
		W35914	
Total			614.27
2/21/2023 Lakeside International Trucks			
1/30/23 INVOICE			
100-00-53240-360-000		VEHICLE-S.M.R.E	54.20
		DEF 2.5 FLEETRIT	
		4085578P	
Total			54.20
2/21/2023 MCCLONE AGENCY			
2/8/23 INVOICE			
100-00-51510-210-000		ACCOUNTING-PROF SERVICES	1,109.40
		WORKERS COMP AUDIT	
		9037	
600-00-51510-210-000		ACCOUNTING/AUDIT	369.80
		WORKERS COMP AUDDIT	
		9037	
660-00-51931-390-000		INSURANCE-WORKERS COMP	369.80
		WORKERS COMP AUDIT	
		9037	
Total			1,849.00
2/21/2023 MUELLERS SALES AND SERVICE INC			
2/6/23 INVOICE			
100-00-55220-230-000		LAKEVIEW PARK-S,M,R,E	64.00
		STIHL ULTRA SYNTHETIC MIX OIL	
		20230039	
Total			64.00
2/21/2023 NAPA AUTO PARTS			
2/6/23 INVOICE			
660-00-54600-390-000		WWTP - S,M,R,E	10.29
		PX 6BR BLUE RTV SILIC	
		778430	
660-00-54600-390-000		WWTP - S,M,R,E	11.49
		PX 77BR RTV SILICONE	
		778430	
Total			21.78
2/21/2023 OPERATION & MANAGEMENT SERVICE LLC			
2/1/23 INVOICE			
660-00-57400-200-000		CONTRACTED SERVICES	1,000.00
		CERTIFIED WASTEWATER OPERATOR IN CHARGE	
		2/1/23	

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ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
600-00-57400-200-000		CONTRACTED SERVICES	1,000.00
		CERTIFIED WATER OPERATOR IN CHARGE	
	2/1/23		
Total			2,000.00

2/21/2023 SHEBOYGAN COUNTY HIGHWAY DEPT

1/31/23 INVOICE

100-00-53300-350-000		SNOW REMOVAL/SALT	2,882.13
		JANUARY 2023 SALT & SALT BRINE	
	126934		
Total			2,882.13

2/21/2023 SHELLIE BROWN

09/30/2022

100-00-44180-000-000		STREET OPENING PERMITS	10.00
		REFUND ROW APPLICATION 511 CARROLL ST	
Total			10.00

2/21/2023 TRUSTEES OF THE RANDOM LAKE

2/7/23

100-00-52200-350-000		FIRE DEPT-SERVICES	46,386.00
		2023 CONTRACT PAYMENT	
Total			46,386.00

2/21/2023 UNIFIRST CORPORATION

1/31/23 INVOICE

100-00-53100-325-000		UNIFORMS	27.83
		UNIFORMS	
	1283837		
600-00-53660-392-000		UNIFORMS	27.83
		UNIFORMS	
	1283837		
660-00-53660-392-000		UNIFORMS	27.83
		UNIFORMS	
	1283837		
Total			83.49

2/21/2023 UNIFIRST CORPORATION

2/7/23 INVOICE

100-00-53100-325-000		UNIFORMS	23.59
		UNIFORMS	
	1284929		
600-00-53660-392-000		UNIFORMS	23.60
		UNIFORMS	
	1284929		
660-00-53660-392-000		UNIFORMS	23.60
		UNIFORMS	
	1284929		

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POOLED CHECKING (COLLINS)

ACCT

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
Total			70.79
2/21/2023 UNIFIRST CORPORATION			
12/13/22 INVOICE			
100-00-53100-325-000		UNIFORMS	23.85
		UNIFORMS	1275991
600-00-53660-392-000		UNIFORMS	23.85
		UNIFORMS	1275991
660-00-53660-392-000		UNIFORMS	23.84
		UNIFORMS	1275991
100-00-53100-325-000		UNIFORMS	1.33
		CREDIT	CREDIT
600-00-53660-392-000		UNIFORMS	1.33
		CREDIT	CREDIT
660-00-53660-392-000		UNIFORMS	1.32
		CREDIT	CREDIT
Total			75.52
2/21/2023 USA BLUE BOOK			
1/30/23 INVOICE			
660-00-54600-390-000		WWTP - S,M,R,E	72.95
		STENNER VARIABLE CAM 5PK	251771
660-00-54600-390-000		WWTP - S,M,R,E	123.95
		STENNER INDEX PLATE 5PK	251771
660-00-54600-390-000		WWTP - S,M,R,E	93.95
		STENNER BALL BEARING REPL ASSY W/BRACKET	251771
660-00-54600-390-000		WWTP - S,M,R,E	177.95
		QUICKPRO STYLE ROLLER 4PK	251771
660-00-54600-390-000		WWTP - S,M,R,E	18.41
		FREIGHT CHARGE	251771
Total			487.21
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
100-00-53420-220-000		STREET LIGHTS	4,212.20
		STREET LIGHTS	4452720404
Total			4,212.20

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POOLED CHECKING (COLLINS)

ACCT

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
	2/21/2023	WE ENERGIES	
	1/30/23	BILL DATE	
600-00-54600-220-000		PLANT - ELECTRIC	1,255.35
		WELL #2	4454159688
		Total	1,255.35
	2/21/2023	WE ENERGIES	
	1/30/23		
600-00-54600-223-000		PLANT - GAS	209.67
		100 LAKE DRIVE	4454568008
		Total	209.67
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
660-00-54600-223-000		WWTP-GAS	671.82
		690A WOLF RD	4452660476
		Total	671.82
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
660-00-54600-220-000		WWTP - ELECTRICITY	196.82
		83 E SHORE DRIVE	4451225108
		Total	196.82
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
660-00-54600-220-000		WWTP - ELECTRICITY	112.04
		2698 STATE ROAD 144	4451732572
		Total	112.04
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
100-00-51600-220-000		ELECTRIC/GAS-VILLAGE HALL	122.21
		110A BUTLER ST	4452066476
		Total	122.21
	2/21/2023	WE ENERGIES	
	1/30/23	BILL DATE	
600-00-54600-223-000		PLANT - GAS	44.86
		701 NORTH ST	4454432433

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ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
Total			44.86
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
100-00-53230-221-000		UTILITIES-SHOP	1,392.12
		800 KRIER LANE	
		4451160212	
Total			1,392.12
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
600-00-54600-220-000		PLANT - ELECTRIC	21.28
		536 BUTLER STREET	
		4451747181	
Total			21.28
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
100-00-55213-220-000		JESSE BAY PARK-CARROLL ST	15.30
		CARROLL ST	
		4452053540	
Total			15.30
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
100-00-51600-220-000		ELECTRIC/GAS-VILLAGE HALL	149.47
		96 RUSSELL DRIVE	
		4451979126	
Total			149.47
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
100-00-55170-220-000		MEMORIAL PLOT-ELECTRICITY	30.57
		431 1ST STREET	
		4451575315	
Total			30.57
2/21/2023 WE ENERGIES			
1/27/23 BILL DATE			
100-00-55220-220-000		LAKEVIEW PARK-ELECTRICITY	14.83
		54 RUSSELL DRIVE	
		4450801378	
Total			14.83
2/21/2023 WE ENERGIES			
1/30/23 BILL DATE			

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POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
660-00-54600-220-000		WWTP - ELECTRICITY	3,245.87
	690 WOLF ROAD	4453806622	
		Total	3,245.87
<hr/>			
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
100-00-55220-220-000		LAKEVIEW PARK-ELECTRICITY	14.83
	66 RUSSELL DRIVE	4451995229	
		Total	14.83
<hr/>			
	2/21/2023	WE ENERGIES	
	1/30/23	BILL DATE	
660-00-54600-223-000		WWTP-GAS	883.62
	690 WOLF ROAD	4454318902	
		Total	883.62
<hr/>			
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
100-00-55210-220-000		KIRCHER PARK-ELECTRICTY	14.83
	598 GRAND AVENUE	4452637827	
		Total	14.83
<hr/>			
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
100-00-55210-220-000		KIRCHER PARK-ELECTRICTY	15.93
	590 GRAND AVENUE	4451960535	
		Total	15.93
<hr/>			
	2/21/2023	WE ENERGIES	
	1/30/23	BILL DATE	
600-00-54600-220-000		PLANT - ELECTRIC	1,289.64
	701 NORTH STREET	4453340672	
		Total	1,289.64
<hr/>			
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
100-00-55211-220-000		BERTRAM PARK-ELECTRICITY	192.65
	529 1ST ST	4452612275	
		Total	192.65

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ALL Checks by Payee

ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
100-00-56321-220-000		ENTRY SIGNS VILLAGE-ELECTRIC	20.02
		890 CARROLL ST	
		4451215307	
		Total	20.02
	2/21/2023	WE ENERGIES	
	1/27/23	BILL DATE	
660-00-54600-220-000		WWTP - ELECTRICITY	35.11
		27B HICKORY DRIVE	
		4452008528	
		Total	35.11
	2/21/2023	WM CORPORATE SERVICES INC	
	2/2/23	INVOICE	
100-00-53620-390-000		GARBAGE-CONTRACT	6,003.49
		64 Gallon Cart Service	
		0072275-4172-4	
100-00-53620-390-001		RECYCLING-CONTRACT	2,036.31
		64 Gallon Cart Service - Recycle	
		0072275-4172-4	
100-00-53620-390-000		GARBAGE-CONTRACT	241.19
		Fuel/Environmental Charge	
		0072275-4172-4	
		Total	8,280.99
		Grand Total	91,241.28

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ALL Checks by Payee

ACCT

POOLED CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Amount

Total Expenditure from Fund # 100 - GENERAL FUND	71,485.00
Total Expenditure from Fund # 600 - WATER FUND	7,009.56
Total Expenditure from Fund # 660 - WASTEWATER FUND	12,746.72
Total Expenditure from all Funds	91,241.28

Due date after 2/20

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In Progress Checks - Full Report - ALL

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ALL Checks by Payee

ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
<hr/>			
	2/21/2023	AARON SCHMIT	
02/12/2023			
700-00-52660-000-000		PERSONNEL	31.58
		SODA	78276
700-00-52630-005-000		FOAM	27.84
		MILEAGE	021223
		Total	59.42
<hr/>			
	2/21/2023	ANDRES MEDICAL BILLING	
02/06/2023			
700-00-52600-004-000		AMBULANCE BILLING	900.78
		BILLING SERVICE	022023RLWI
		Total	900.78
<hr/>			
	2/21/2023	DOEGNITZ ACE HARDWARE	
02/01/2023			
700-00-52610-001-000		MISCELLANEOUS	62.93
		SANDING DISCS	17957
700-00-52610-001-000		MISCELLANEOUS	5.40
		5/16 X 2#	17956
		Total	68.33
<hr/>			
	2/21/2023	EXTINGUISHERS AT RANDOM LLC	
02/11/2023			
700-00-52630-000-000		FIRE EQUIPMENT	170.00
		NSW 5 ABC	021123
		Total	170.00
<hr/>			
	2/21/2023	GOLDFISH UNIFORMS	
01/19/2023			
700-00-52660-006-000		UNIFORMS	56.11
		BLUE SHIRT	290768-1
		Total	56.11
<hr/>			
	2/21/2023	JERRYS TRANSMISSION SERVICE INC	
02/02/2023			
700-00-52690-009-000		1759 AMBULANCE	184.35
		EBERHARD EXT/LOCKING	0040434
		Total	184.35
<hr/>			

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In Progress Checks - Full Report - ALL

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ALL Checks by Payee

ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee	Amount
	2/21/2023	JERRYS TRANSMISSION SERVICE INC	
	02/07/2023		
700-00-52690-009-000		1759 AMBULANCE	303.17
		SPARE PART	
		0040451	
		Total	303.17
	2/21/2023	LUXEMBOURG AMERICAN CULTURAL CENTER	
	02/12/2023		
700-00-52640-001-000		MISCELLANEOUS	160.00
		DONATION	
		02122023	
		Total	160.00
	2/21/2023	MBM	
	01/23/2023		
700-00-52640-003-000		COPY MACHINE	32.95
		USAGE	
		IN4184719	
		Total	32.95
	2/21/2023	NAPA AUTO PARTS	
	01/11/2023		
700-00-52690-000-000		TRUCKS	60.49
		LIGHTBULB	
		777246	
		Total	60.49
	2/21/2023	PAT DEPIES	
	02/06/2023		
700-00-52660-007-000		TRAINING	99.76
		MILEAGE	
		WEMSA 2023	
700-00-52660-007-000		TRAINING	40.00
		ATTENDANCE WAGE	
		WEMSA 2023	
700-00-52660-007-000		TRAINING	10.00
		ATTENDANCE WAGE	
		02/08/23 SCEMSA	
		Total	149.76
	2/21/2023	SHEBOYGAN COUNTY TRAINING OFFICERS ASSOC	
	01/30/2023		
700-00-52660-007-000		TRAINING	40.00
		PROPS	
		013023	
		Total	40.00

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ALL Checks by Payee

ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Voucher Nbr	Check Date	Payee		Amount
	2/21/2023	SIREN SERVICES		
	02/01/2023			
700-00-52690-006-000		1764 ENGINE		9,713.49
	JAN 23		1643	
			Total	9,713.49
	2/21/2023	TNT SERVICE		
	02/09/2023			
700-00-52690-008-000		1798 TENDER		830.00
		LABOR	9290	
700-00-52690-008-000		1798 TENDER		388.95
		PARTS	9290	
700-00-52690-008-000		1798 TENDER		9.20
		SHOP SUPPLIES	9290	
			Total	1,228.15
	2/21/2023	TRI COUNTY AIR		
	02/06/2023			
700-00-52680-006-000		TRI CITY DUES AND AIR		416.00
		STATEMENT OF ACCOUNTS 2022	2022	
			Total	416.00
	2/21/2023	US CELLULAR		
	01/24/2023			
700-00-52640-008-000		TELEPHONE		60.13
		CELL PHONE	0558613701	
			Total	60.13
			Grand Total	13,603.13

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ALL Checks by Payee

ACCT

FIRE DEPT CHECKING (COLLINS)

Dated From: 2/21/2023

From Account:

Thru: 2/21/2023

Thru Account:

Amount

Total Expenditure from Fund # 700 - AMBULANCE FUND

13,603.13

Total Expenditure from all Funds

13,603.13



Village Board Meeting
Monday, February 6, 2023
6:30 pm

LOCATION OF MEETING: 96 RUSSELL DRIVE

Meeting Minutes

1. Call to Order, Roll Call: President San Felippo called the meeting to order at 6:30 pm. Trustees present included Blaine Werner, Elizabeth Manian, Mike San Felippo, Duane Urbanski, and Barbara Ruege. Keri Wallenkamp attended virtually. Eric Stowell arrived at 6:48 pm. Village staff present included Clerk/Treasurer Stephanie Waala and DPW Director Peter Lederer. For additional attendees see attached sign-in sheet.

2. Pledge of Allegiance: Those present stood to recite the Pledge of Allegiance.

3. Public Comments.

John Hawley introduced Natasha Torrey who is running for Circuit Court Judge at the upcoming April election. Natasha Torrey gave a summary of her personal and professional accomplishments.

Staci Schluechtermann questioned how chamber bucks will be collected, will a substitute be given, how will it be recorded properly. Questioned why there is no stop sign coming out of the subdivision on Orth as it is a traffic hazard.

4. Old Business:

- a. Discussion and Possible Action on the Recommendation of the Plan Commission to approve the final plat for the Woodland View Subdivision submitted by the Scholler Development, LLC.

President San Felippo informed the board the Plan Commission approved the plat for recommendation with corrections to the numbering of the lots in the detail drawing.

Trustee Werner made a motion to approve the recommendation with the addition to change the detail drawing, motion was seconded by Trustee Urbanski. Motion carried 6-0.

- b. Presentation of Wastewater Treatment Plant Bids

Engineers Aaron Groh, Pat Carnahan, and John Butt presented slides to the board detailing the history of the plant, the bid results, evaluation of the bids, and alternatives of the bids.

Trustee Urbanski asks for clarification that if the project is broken into multiple phases could the clean water fund be used multiple times. Engineer Groh informed the board that yes it could be, but cost to break it into multiple phases and rebidding may offset any additional loan amounts received.

Ehlers representative Jon Cameron presented slides to the board detailing the preliminary financing plan summary, estimated treatment plant project impact scenarios, utility bill affordability analysis, and other issues to consider.

Trustee Ruege asks for clarification as to if the 20% is guaranteed for principal forgiveness with the Clean Water Loan. Jon Cameron informed the board that the maximum to receive is \$2 million, but there is no

guarantee until the loan is applied for, but because it is over \$10 million it is likely to be \$2 million.

Trustee Wallenkamp asks for clarification on if these estimates include consultant fees. Jon Cameron informed the board that yes, the total does.

Trustee Wallenkamp asks for clarification as to why was there not a project Performa and then the project based on what the village could afford. Engineer Groh informed the board that the direction provided to the design team was replacement of the RBC and that is what is being proposed.

Trustee Ruege asks for clarification as to what is the contingency of what may not be included and is there a backup plan. Engineer Groh informed the board the loan principal forgiveness would be the amount of contingency and there is no guarantee something will not come up.

Trustee Urbanski asks for clarification as to why a different municipality of the same size had a recent bid with one of the same contractors and it came in at \$6.9 million. Engineer Groh informed the board that he cannot compare between the two because he does not know what the bid was for. He will look into.

Trustee Stowell asks for clarification as to if additional research has been done towards the Buy America program and if those savings would offset the Clean Water Fund Loan. Engineer Groh informed the board that a parts line item list has not been asked of the contractors but can be.

- c. Discussion and Possible Action Regarding the Wastewater Treatment Plant financing options and associated user rate impacts

No discussion

- d. Discussion and Possible Action to Award the Bid for the 2023 Wastewater Treatment Plant

The village board requests more options of the engineers before a decision can be made.

- e. Discussion and Possible Action on the Recommendation of the Finance Committee related to Utility Sewer billing.

Clerk Waala informed the board that all estimates of cost of mailings was presented to the finance committee and their recommendation was to go to monthly billing. The employee costs will be the same due to the time currently spent on sending out delinquent notices that will no longer need to be sent out.

Trustee Werner made a motion to approve utility bills to be sent out monthly starting in April, motion was seconded by Trustee Manian. Motion carried 6-1 (Ruege opposed).

5. New Business:

- a. Discussion and Possible Action on the approval of pay recommendation #3 from R.G. Schmitt Inc

Trustee Stowell made a motion to approve as submitted, motion was seconded by Trustee Wallenkamp. Motion carried 7-0.

- b. Discussion and Possible Action on proposing an agreement with the Chamber of Commerce to accept Chamber Bucks at village hall and Bob McDermott Lakeview Park

President San Felippo informed the board of a proposal from the Chamber of Commerce to allow payments at village entities of chamber bucks. Residents can gift chamber bucks to family and friends who come to the park.

Trustee Wallenkamp informed the board she does not recommend because we can't give change.

No motion taken.

- c. Discussion and Possible Action on the Recommendation of the Lake, Parks, and Recreation Committee related to the purchase of 4 No Wake buoys from Crystal Lake

Trustee Werner informed the board that the additional buoys would not increase the no wake area, but help to define the area better near the piers.

Trustee Stowell made a motion to approve the purchase out of the BMLP savings account, motion was seconded by Trustee Werner. Motion carried 7-0.

- d. Update on purchasing of DPW equipment.

Director Lederer informed the board that a 1-ton cab and chassis has been purchased from Texas and when it arrives a dump box will be installed. The Jacobson lawnmower is being replaced with the same style mower. The John Deere mower is being replaced with a Kubota and the John Deere will go on Wisconsin Surplus to sell. A Pelican sweeper has been purchased from Sheboygan to replace the current sweeper. A mini excavator has been purchased to replace the Case backhoe.

6. Old Business:

- a. Discussion and Possible Action on the Recommendation of the Fire Department related to the Medical Director position.

President San Felippo informed the board that in December the Fire Department recommended to stay with Dr Zils and reevaluate in 1 year. The board was requested to send questions to the village clerk and none have been submitted at this time.

Trustee Wallenkamp asks for clarification as to if the Medical Director position has ever been approved by the board in the past. President San Felippo informed the board that previously no, but because of the changes with the fire dept there was a request to review the process and the fire dept was requested to make a recommendation. Suggests a Public Safety Committee meeting be scheduled to discuss and meet with the Fire Dept on more clarification of what the medical director role entails.

- b. Discussion and Possible Action Regarding Ordinance No. 2023-02 to Repeal and Recreate Section 30-5(c), Create Section 30-5(d) related to Snow and Ice Removal

No motion taken.

- c. Discussion and Possible Action Regarding updates to the Fee Schedule

Trustee Wallenkamp made a motion to approve as submitted, motion was seconded by Trustee Manian. Motion carried 7-0.

7. Consent Agenda – items within the consent agenda can be considered individually if the Village Board chooses to do so:

- a. Approval of Payroll Vouchers for 01/26/2023: \$23,144.30
- b. Approval of Accounts Payable Checks 1/23/2023-1/31/2023: General Fund \$65.00; Water Fund \$624.28; Sewer Fund \$52.60.
- c. Approval of Accounts Payable Checks for 02/07/2023: General Fund \$40,552.17; Debt Fund \$73,108.63; TID #3 \$33,0721.00; TID #4 \$6,590.50; Water Fund \$107,154.51; Sewer Fund \$60,143.05
- d. Approval of the January 16 & 19, 2023, meeting minutes
- e. Approval of Operators License for the following:

- April Elizabeth Schmidt
- Charity Lynn Hauer
- Debra D Berth
- Jennifer Marie Olszewski

f. Review of Sheboygan County Sheriff's Department January 2023 report

Trustee Ruege made a motion to approve item a as submitted, motion was seconded by Trustee Urbanski. Motion carried 7-0.

Trustee Manian made a motion to approve item d as submitted, motion was seconded by Trustee Wallenkamp. Motion carried 6-0 (Trustee Ruege abstained)

Trustee Ruege made a motion to approve item e as submitted, motion was seconded by Trustee Stowell. Motion carried 7-0.

Trustee Urbanski made a motion to approve item f as submitted, motion was seconded by Trustee Stowell. Motion carried 7-0.

Trustee Wallenkamp made a motion to approve items b & c as submitted, motion was seconded by Trustee Ruege. Motion carried 7-0.

8. Staff and committee reports:

- a. Clerk/Treasurer: The workers comp audit will be starting tomorrow as well as in-person absentee voting start tomorrow.
- b. Public Works: Winter maintenance is being done.
- c. Committees
 - Lake, Parks, and Recreation: new signage to be proposed from the committee.
 - Lake, Parks, and Recreation Ad-Hoc: new building costs will be \$30,000 for jus the shell with no electrical or interior furnishings. Hoping to start in March.
 - Finance: requesting all committees to so a 3-5-10 year project plan
- d. President: ice rink is re-opened after being closed over the weekend. Maybe closing again due to warmer weather.

9. Consider and Act by Roll Call Vote to Enter into Closed Session for the following:

- a. Pursuant to SS. 19.85(1)(e) Deliberating or negotiating the purchasing of public properties the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session (Wastewater Treatment Plant)
- b. Pursuant to SS. 19.85(1)(c) Considering employment, promotion, compensation, or performance evaluation data of any public employee over which the governmental body has jurisdiction or exercises responsibility (Employees).

Trustee Ruege made a motion to move into closed session at 9:01 pm, motion was seconded by Trustee Stowell. Motion carried 7-0.

10. Reconvene to Open Session Pursuant to SS. 19.85(2).

Trustee Stowell made a motion to move into open session at 10:22 pm, motion was seconded by Trustee Urbanski. Motion carried 7-0.

11. Discussion and Possible Action on closed session matters.

Trustee Stowell made a motion to hire John Fuchs to be the hearing examiner of personnel complaint submitted about a Fire Dept employee, motion was seconded by Trustee Urbanski. Motion carried 6-0 (Trustee Werner abstained).

12. Adjourned at 10:25 pm

Items on the Agenda may be taken out of order as listed. Created by Stephanie Waala on 02/16/2023.

WI Open Meeting Law (Wis. Stat. 19.83(2) and 19.84(2)) In general, the open meetings law grants citizens the right to attend and observe open session meetings of governmental bodies but does not require a governmental body to allow members of the public to speak or actively participate in the body's meeting. A governmental body is free to determine for itself whether and to what extent it will allow citizen participation at its meetings.

Fund: 100 - GENERAL FUND

Account Number		2023		2023 Budget	Budget Status	% of Budget
		January	Actual 01/31/2023			
100-00-41110-000-000	PROPERTY TAXES-GENERAL FUND	1,294,382.14	1,294,382.14	993,738.00	300,644.14	130.25
100-00-41310-000-000	MUNICIPAL UTILITY TAX	0.00	0.00	70,000.00	-70,000.00	0.00
TAXES		1,294,382.14	1,294,382.14	1,063,738.00	230,644.14	121.68
100-00-43410-000-000	STATE SHARE REV	0.00	0.00	95,073.00	-95,073.00	0.00
100-00-43412-000-000	SHARED REVENUE-SHEB COUNTY	0.00	0.00	32,479.00	-32,479.00	0.00
100-00-43420-000-000	2% FRE DUES	0.00	0.00	6,000.00	-6,000.00	0.00
100-00-43425-000-000	EXEMPT COMPUTER AID	0.00	0.00	2,796.00	-2,796.00	0.00
100-00-43427-000-000	PERSONAL PROPERTY AID	0.00	0.00	3,615.00	-3,615.00	0.00
100-00-43430-000-000	STATE AID-TRANSPORTATION	22,648.15	22,648.15	90,593.00	-67,944.85	25.00
100-00-43431-000-000	LOTTERY CREDIT	0.00	0.00	24,761.00	-24,761.00	0.00
100-00-43435-000-000	STATE AID- CABLE FRANCHISE FEE	0.00	0.00	3,759.00	-3,759.00	0.00
100-00-43440-000-000	STATE AID-RECYCLING	0.00	0.00	3,600.00	-3,600.00	0.00
100-00-43690-000-000	Other State Grants	1,200.00	1,200.00	0.00	1,200.00	0.00
INTERGOV. STATE PAYMENTS		23,848.15	23,848.15	262,676.00	-238,827.85	9.08
100-00-44110-000-000	ALCOHOL LICENSING	10.00	10.00	4,440.00	-4,430.00	0.23
100-00-44120-000-000	OPERATOR LICENSES	210.00	210.00	2,000.00	-1,790.00	10.50
100-00-44130-000-000	OTHER LICENSES-TOBACCO/SOLICIT	0.00	0.00	1,315.00	-1,315.00	0.00
100-00-44170-000-000	STREET PERMITS	0.00	0.00	50.00	-50.00	0.00
100-00-44180-000-000	STREET OPENING PERMITS	10.00	10.00	50.00	-40.00	20.00
100-00-44190-000-000	CABLE FRANCHISE FEES	0.00	0.00	7,200.00	-7,200.00	0.00
100-00-44210-000-000	DOG LICENSES	117.00	117.00	500.00	-383.00	23.40
100-00-44220-000-000	CAT LICENSES	24.00	24.00	100.00	-76.00	24.00
100-00-44300-000-000	BUILDING PERMITS	331.50	331.50	12,000.00	-11,668.50	2.76
100-00-44410-000-000	ZONING & APPEALS FEES	0.00	0.00	200.00	-200.00	0.00
LICENSES & PERMITS		702.50	702.50	27,855.00	-27,152.50	2.52
100-00-45110-000-000	COURT PENALTIES & COSTS	732.33	732.33	750.00	-17.67	97.64
100-00-45120-000-000	DOG LICENSE PENALTIES	0.00	0.00	50.00	-50.00	0.00
100-00-45130-000-000	PARKING VIOLATIONS	650.00	650.00	2,500.00	-1,850.00	26.00
100-00-45190-000-000	OTHER LAW & ORD. VIOLATIONS	0.00	0.00	500.00	-500.00	0.00
Fines, Forfeits & Penalties		1,382.33	1,382.33	3,800.00	-2,417.67	36.38
100-00-46100-000-000	CLERK/TREASURER FEES	9.25	9.25	750.00	-740.75	1.23
100-00-46120-000-000	LIBRARY-CHARGE FOR SERVICE	0.00	0.00	3,500.00	-3,500.00	0.00
100-00-46125-000-000	BMLP PARKING	0.00	0.00	10,000.00	-10,000.00	0.00
100-00-46130-000-000	BOAT LAUNCH	170.00	170.00	13,000.00	-12,830.00	1.31
100-00-46135-000-000	PAVILLION RENTAL	100.00	100.00	2,000.00	-1,900.00	5.00
100-00-46150-000-000	PUBLICATION FEE	0.00	0.00	150.00	-150.00	0.00
Public Charges for Services		279.25	279.25	29,400.00	-29,120.75	0.95
100-00-48100-000-000	INTEREST INCOME	5,284.57	5,284.57	2,000.00	3,284.57	264.23
100-00-48200-000-000	BUILDING RENT	1,594.75	1,594.75	19,137.00	-17,542.25	8.33
100-00-48400-000-000	INSURANCE DIVIDENDS & REFUNDS	0.00	0.00	2,000.00	-2,000.00	0.00
100-00-48520-000-000	DONATIONS - MUSIC IN THE PARK	0.00	0.00	8,400.00	-8,400.00	0.00
100-00-48530-000-000	DONATIONS - ICE RINK	2,000.00	2,000.00	0.00	2,000.00	0.00
100-00-48875-000-000	REFUND OF EXPENDITURES	-1,340.61	-1,340.61	500.00	-1,840.61	-268.12

Fund: 100 - GENERAL FUND

Account Number	2023		2023 Budget	Budget Status	% of Budget
	January	Actual 01/31/2023			
Miscellaneous Revenue	7,538.71	7,538.71	32,037.00	-24,498.29	23.53
100-00-49320-000-000 FUND BAL APPL-LAKE WEED TREAT	0.00	0.00	16,000.00	-16,000.00	0.00
100-00-49340-000-000 FUNT BAL APPL-AEMT	0.00	0.00	19,971.00	-19,971.00	0.00
PROCEEDS FROM WATER	0.00	0.00	35,971.00	-35,971.00	0.00
Total Revenues	1,328,133.08	1,328,133.08	1,455,477.00	-127,343.92	91.25

Fund: 100 - GENERAL FUND

Account Number		2023		2023 Budget	Budget Status	% of Budget
		January	Actual 01/31/2023			
100-00-51100-110-000	VILLAGE PRESIDENT SALARY	0.00	0.00	1,500.00	1,500.00	0.00
100-00-51100-120-000	VILLAGE BOARD WAGES	0.00	0.00	2,560.00	2,560.00	0.00
100-00-51100-121-000	COMMITTEE WAGES	0.00	0.00	2,520.00	2,520.00	0.00
100-00-51100-131-000	VILLAGE BOARD FICA	0.00	0.00	2,442.00	2,442.00	0.00
100-00-51100-321-000	VILLAGE BOARD TRAINING/DUES	0.00	0.00	1,800.00	1,800.00	0.00
100-00-51101-390-000	VILLAGE BOARD-MILEAGE/EXPENSES	0.00	0.00	1,200.00	1,200.00	0.00
100-00-51130-000-000	BANK FEE	156.86	156.86	225.00	68.14	69.72
100-00-51300-210-000	LEGAL-PROFESSIONAL SERVICES	0.00	0.00	15,000.00	15,000.00	0.00
100-00-51310-000-000	CODIFICATION/MAINTENANCE	0.00	0.00	5,000.00	5,000.00	0.00
100-00-51420-110-000	CLERK/TREASURER WAGES	4,142.77	4,142.77	59,744.00	55,601.23	6.93
100-00-51420-120-000	DEPUTY CLERK/TREASURER WAGES	719.84	719.84	9,427.00	8,707.16	7.64
100-00-51420-121-000	CLERKS OFFICE-PART TIME	0.00	0.00	300.00	300.00	0.00
100-00-51420-131-000	CLERKS OFFICE-FICA	371.15	371.15	8,715.00	8,343.85	4.26
100-00-51420-132-000	CLERKS OFFICE-RETIREMENT	330.68	330.68	4,704.00	4,373.32	7.03
100-00-51420-133-000	CLERKS OFFICE-HEALTH/DENTAL	98.28	98.28	1,393.00	1,294.72	7.06
100-00-51420-133-001	CLERKS OFFICE-HEALTH SAVINGS	36.80	36.80	2,000.00	1,963.20	1.84
100-00-51420-134-000	CLERKS OFFICE-LIFE/DIS INSUR	32.45	32.45	1,173.00	1,140.55	2.77
100-00-51420-135-000	UNEMPLOYMENT COMP	0.00	0.00	1,000.00	1,000.00	0.00
100-00-51420-136-000	HRA SERVICE FEES	20.00	20.00	240.00	220.00	8.33
100-00-51420-210-000	SUPPORT-WEBSITE	0.00	0.00	1,000.00	1,000.00	0.00
100-00-51420-211-000	SUPPORT-SOFTWARE	435.50	435.50	3,150.00	2,714.50	13.83
100-00-51420-212-000	PRINTING	0.00	0.00	500.00	500.00	0.00
100-00-51420-213-000	PUBLISHING	519.09	519.09	4,500.00	3,980.91	11.54
100-00-51420-290-000	LEASED OFFICE EQUIPMENT	36.56	36.56	400.00	363.44	9.14
100-00-51420-311-000	POSTAGE	88.60	88.60	500.00	411.40	17.72
100-00-51420-320-000	EDUCATION/TRAINING	0.00	0.00	2,000.00	2,000.00	0.00
100-00-51420-321-000	DUES/MEMBERSHIPS	130.00	130.00	500.00	370.00	26.00
100-00-51420-330-000	CLERKS OFFICE-MILEAGE	0.00	0.00	500.00	500.00	0.00
100-00-51420-390-000	CLERKS OFFICE-SUPPLIES/EXP	0.00	0.00	4,500.00	4,500.00	0.00
100-00-51420-810-000	CLERKS OFFICE-EQUIPMENT	625.38	625.38	2,500.00	1,874.62	25.02
100-00-51422-390-000	TECHNOLOGY - S, M, R, E	0.00	0.00	9,000.00	9,000.00	0.00
100-00-51440-120-000	ELECTION WAGES	0.00	0.00	3,000.00	3,000.00	0.00
100-00-51440-213-000	PUBLISHING-ELECTIONS	0.00	0.00	200.00	200.00	0.00
100-00-51440-310-000	ELECTION SUPPLIES	0.00	0.00	1,000.00	1,000.00	0.00
100-00-51440-390-000	ELECTION EXPENSES	0.00	0.00	1,000.00	1,000.00	0.00
100-00-51440-810-000	ELECTION EQUIPMENT	0.00	0.00	750.00	750.00	0.00
100-00-51510-210-000	ACCOUNTING-PROF SERVICES	0.00	0.00	19,560.00	19,560.00	0.00
100-00-51510-211-000	ACCOUNTING SUBSIDY	0.00	0.00	4,000.00	4,000.00	0.00
100-00-51530-210-000	ASSESSING-PROF SERVICES	0.00	0.00	7,000.00	7,000.00	0.00
100-00-51530-393-000	ASSESSING-STATE MANUF FEE	0.00	0.00	1,164.00	1,164.00	0.00
100-00-51600-220-000	ELECTRIC/GAS-VILLAGE HALL	0.00	0.00	4,000.00	4,000.00	0.00
100-00-51600-221-000	TELEPHONE/INTERNET-VILLAGE HAL	33.13	33.13	1,200.00	1,166.87	2.76
100-00-51600-222-000	WATER/SEWER-VILLAGE HALL	0.00	0.00	1,400.00	1,400.00	0.00
100-00-51600-230-000	VILLAGE HALL - S.M.R.E	22.75	22.75	12,000.00	11,977.25	0.19
100-00-51930-510-000	INSURANCE-LIABILITY/PROP	12,488.00	12,488.00	20,542.00	8,054.00	60.79
100-00-51930-520-000	INSURANCE-VEHICLE	0.00	0.00	15,506.00	15,506.00	0.00
100-00-51931-000-000	WORKERS COMP	0.00	0.00	10,040.00	10,040.00	0.00
GENERAL GOVERNMENT		20,287.84	20,287.84	252,355.00	232,067.16	8.04
100-00-52100-120-000	REOURCE OFFICER	-943.15	-943.15	0.00	943.15	0.00
100-00-52100-380-000	LAW ENFORCEMENT-CONTRACT	0.00	0.00	46,881.00	46,881.00	0.00
100-00-52101-210-000	LEGAL-PROFESSIONAL SERVICES	0.00	0.00	20,000.00	20,000.00	0.00

Fund: 100 - GENERAL FUND

Account Number		2023		2023 Budget	Budget Status	% of Budget
		January	Actual 01/31/2023			
100-00-52200-100-000	2% FIRE DUES	0.00	0.00	6,000.00	6,000.00	0.00
100-00-52200-350-000	FIRE DEPT-SERVICES	0.00	0.00	43,810.00	43,810.00	0.00
100-00-52200-390-000	FD-Fire Department - S&E	0.00	0.00	25,000.00	25,000.00	0.00
100-00-52200-501-000	FD-RETIREMENT FUND	22,464.00	22,464.00	0.00	-22,464.00	0.00
100-00-52300-110-000	AEMT-WAGES	3,881.30	3,881.30	51,296.00	47,414.70	7.57
100-00-52300-131-000	FICA	194.38	194.38	4,847.00	4,652.62	4.01
100-00-52300-132-000	RETIREMENT	702.52	702.52	6,771.00	6,068.48	10.38
100-00-52300-133-000	HEALTH/DENTAL	1,983.82	1,993.82	4,117.00	2,123.18	48.43
100-00-52300-134-000	LIFE/DISABILITY	93.04	93.04	1,172.00	1,078.96	7.94
100-00-52300-135-000	HEALTH SAVINGS ACCT	0.00	0.00	2,000.00	2,000.00	0.00
100-00-52500-000-000	BUILDING INSPECTOR	1,234.18	1,234.18	10,000.00	8,765.82	12.34
100-00-52500-390-000	BUILING INSP SUPPLIES/EXP	0.00	0.00	750.00	750.00	0.00
100-00-52500-391-000	SIREN-MAINTENANCE/EXP	0.00	0.00	300.00	300.00	0.00
100-00-52900-000-000	DIGGERS HOTLINE	0.00	0.00	500.00	500.00	0.00
PUBLIC SAFETY		29,620.09	29,620.09	223,444.00	193,823.91	13.26
100-00-53100-110-000	DPW DIRECTOR-WAGES	2,023.22	2,023.22	26,852.00	24,828.78	7.53
100-00-53100-120-000	DPW LABORERS-WAGES	7,017.12	7,017.12	59,641.00	52,623.88	11.77
100-00-53100-122-000	DPW PART/TIME-WAGES	0.00	0.00	10,500.00	10,500.00	0.00
100-00-53100-123-000	WAGES-SEASONAL LAKEVIEW PRK	0.00	0.00	11,000.00	11,000.00	0.00
100-00-53100-129-000	OVERTIME	255.00	255.00	7,000.00	6,745.00	3.64
100-00-53100-131-000	FICA	651.45	651.45	10,898.00	10,246.55	5.98
100-00-53100-132-000	RETIREMENT	632.06	632.06	5,882.00	5,249.94	10.75
100-00-53100-133-000	HEALTH/DENTAL INSURANCE	4,722.64	4,722.64	37,390.00	32,667.36	12.63
100-00-53100-134-000	LIFE/DISABILITY INSURANCE	131.72	131.72	2,053.00	1,921.28	6.42
100-00-53100-135-000	HEALTH SAVINGS ACCT	0.00	0.00	3,134.00	3,134.00	0.00
100-00-53100-136-000	EAP/DOT DRUG PROGRAM	0.00	0.00	300.00	300.00	0.00
100-00-53100-137-000	DUES/MEMBERSHIPS	0.00	0.00	100.00	100.00	0.00
100-00-53100-138-000	HRA SERVICE FEES	0.00	0.00	270.00	270.00	0.00
100-00-53100-310-000	SAFETY SUPPLIES/EXP	0.00	0.00	2,000.00	2,000.00	0.00
100-00-53100-311-000	SAFETY SUPPLIES REIMBURSEMENT	0.00	0.00	1,000.00	1,000.00	0.00
100-00-53100-320-000	EDUCATION/TRAINING	0.00	0.00	2,000.00	2,000.00	0.00
100-00-53100-325-000	UNIFORMS	23.84	23.84	1,000.00	976.16	2.38
100-00-53100-350-000	OFFICE SUPPLIES/EXP	0.00	0.00	300.00	300.00	0.00
100-00-53101-390-000	CELL PHONE-DPW	0.00	0.00	300.00	300.00	0.00
100-00-53230-221-000	UTILITIES-SHOP	0.00	0.00	6,500.00	6,500.00	0.00
100-00-53230-222-000	SEWER/WATER-SHOP	0.00	0.00	800.00	800.00	0.00
100-00-53230-230-000	SHOP-S,M,R,E	0.00	0.00	10,000.00	10,000.00	0.00
100-00-53230-240-000	SHOP RENTAL SPACE	500.00	500.00	0.00	-500.00	0.00
100-00-53240-350-000	EQUIPMENT/STREET MACH-S,M,R,E	0.00	0.00	49,800.00	49,800.00	0.00
100-00-53240-380-000	VEHICLE-S.M.R.E	170.15	170.15	10,000.00	9,829.85	1.70
100-00-53240-391-000	GAS & OIL (60%)	0.00	0.00	10,000.00	10,000.00	0.00
100-00-53300-230-000	STREET/STREET SIGN MAINT	0.00	0.00	16,000.00	16,000.00	0.00
100-00-53300-350-000	SNOW REMOVAL/SALT	0.00	0.00	16,000.00	16,000.00	0.00
100-00-53420-220-000	STREET LIGHTS	0.00	0.00	50,000.00	50,000.00	0.00
100-00-53430-125-000	SIDEWALK MAINTENANCE	0.00	0.00	3,000.00	3,000.00	0.00
100-00-53440-390-000	STORM SEWER-S,M,R,E	0.00	0.00	7,000.00	7,000.00	0.00
100-00-53620-390-000	GARBAGE-CONTRACT	0.00	0.00	72,000.00	72,000.00	0.00
100-00-53620-390-001	RECYCLING-CONTRACT	0.00	0.00	25,000.00	25,000.00	0.00
100-00-53640-390-000	YARD/TREE/BRUSH CONTROL	0.00	0.00	6,000.00	6,000.00	0.00
100-00-53650-390-000	RADIOS-S,M,R,E	0.00	0.00	500.00	500.00	0.00

Fund: 100 - GENERAL FUND

Account Number		2023	2023	2023	Budget	% of
		January	Actual 01/31/2023	Budget	Status	Budget
PUBLIC WORKS						
		16,127.20	16,127.20	464,220.00	448,092.80	3.47
100-00-55110-230-000	LIBRARY-S,M,R,E	0.00	0.00	2,000.00	2,000.00	0.00
100-00-55110-380-000	LIBRARY-CONTRACT	11,335.50	11,335.50	45,346.00	34,010.50	25.00
100-00-55170-220-000	MEMORIAL PLOT-ELECTRICITY	0.00	0.00	350.00	350.00	0.00
100-00-55170-390-000	MEMORIAL PLOT-S,M,R,E	0.00	0.00	75.00	75.00	0.00
100-00-55180-220-000	HOLIDAY-ELECTRICITY	0.00	0.00	425.00	425.00	0.00
100-00-55180-390-000	HOLIDAY-S,M,R,E	0.00	0.00	200.00	200.00	0.00
100-00-55210-220-000	KIRCHER PARK-ELECTRICTY	0.00	0.00	1,500.00	1,500.00	0.00
100-00-55210-222-000	KIRCHER PARK-SEWER/WATER	0.00	0.00	400.00	400.00	0.00
100-00-55210-230-000	KIRCHER PARK-S,M,R,E	0.00	0.00	5,000.00	5,000.00	0.00
100-00-55211-220-000	BERTRAM PARK-ELECTRICITY	0.00	0.00	2,750.00	2,750.00	0.00
100-00-55211-222-000	BERTRAM PARK-SEWER/WATER	0.00	0.00	400.00	400.00	0.00
100-00-55211-230-000	BERTRAM PARK-S,M,R,E	0.00	0.00	500.00	500.00	0.00
100-00-55212-230-000	BURR OAK PARK-S,M,R,E	0.00	0.00	3,000.00	3,000.00	0.00
100-00-55213-220-000	JESSE BAY PARK-CARROLL ST	0.00	0.00	350.00	350.00	0.00
100-00-55220-220-000	LAKEVIEW PARK-ELECTRICITY	0.00	0.00	750.00	750.00	0.00
100-00-55220-222-000	LAKEVIEW PARK-SEWER/WATER	0.00	0.00	1,500.00	1,500.00	0.00
100-00-55220-230-000	LAKEVIEW PARK-S,M,R,E	0.00	0.00	8,000.00	8,000.00	0.00
100-00-55240-230-000	PARKS-S,M,R,E	0.00	0.00	5,000.00	5,000.00	0.00
100-00-55420-230-001	MUSIC IN THE PARK EXPENSES	0.00	0.00	8,400.00	8,400.00	0.00
CULTURE, RECREATION & EDUCATIO						
		11,335.50	11,335.50	85,946.00	74,610.50	13.19
100-00-56200-000-000	ECONOMOIC DEVELOP-SHEB CTY	0.00	0.00	7,000.00	7,000.00	0.00
100-00-56250-000-000	COMMUNITY BETTERMENT	0.00	0.00	3,500.00	3,500.00	0.00
100-00-56300-390-000	GOOSE ABATEMENT	0.00	0.00	3,000.00	3,000.00	0.00
100-00-56310-000-000	LAKE WEED TREATMENT	0.00	0.00	16,000.00	16,000.00	0.00
100-00-56321-220-000	ENTRY SIGNS VILLAGE-ELECTRIC	0.00	0.00	500.00	500.00	0.00
100-00-56950-120-000	WAGES-BOZA	0.00	0.00	1,500.00	1,500.00	0.00
DEVELOPER INCENTIVE PAYMENT						
		0.00	0.00	31,500.00	31,500.00	0.00
100-00-57120-230-000	VILLAGE HALL	0.00	0.00	19,137.00	19,137.00	0.00
100-00-57240-000-000	STREET MACHINERY	0.00	0.00	25,000.00	25,000.00	0.00
CAPITAL OUTLAY						
		0.00	0.00	44,137.00	44,137.00	0.00
Total Expenses						
		77,370.63	77,370.63	1,101,602.00	1,024,231.37	7.02
Net Totals						
		1,250,762.45	1,250,762.45	353,875.00	-896,887.45	353.45

Fund: 400 - TID #3

Account Number		2023		2023 Budget	Budget Status	% of Budget
		January	Actual 01/31/2023			
400-00-41110-000-000	PROPERTY TAXES	24,413.85	24,413.85	0.00	24,413.85	0.00
TAXES		24,413.85	24,413.85	0.00	24,413.85	0.00
400-00-43427-000-000	PERSONAL PROPERTY AID	0.00	0.00	13,888.00	-13,888.00	0.00
400-00-43441-000-000	STATE AID-EXEMPT COMPUTER	0.00	0.00	196.00	-196.00	0.00
INTERGOV. STATE PAYMENTS		0.00	0.00	14,084.00	-14,084.00	0.00
Total Revenues		24,413.85	24,413.85	14,084.00	10,329.85	173.34

Fund: 400 - TID #3

Account Number		2023	2023	2023	Budget	% of
		January	Actual 01/31/2023	Budget	Status	Budget
400-00-51130-000-000	BANK FEE	20.00	20.00	225.00	205.00	8.89
GENERAL GOVERNMENT		20.00	20.00	225.00	205.00	8.89
400-00-58100-000-000	PRINCIPAL	0.00	0.00	19,414.00	19,414.00	0.00
400-00-58200-000-000	INTEREST	0.00	0.00	15,188.00	15,188.00	0.00
DEBT SERVICE		0.00	0.00	34,602.00	34,602.00	0.00
Total Expenses		20.00	20.00	34,827.00	34,807.00	0.06
Net Totals		24,393.85	24,393.85	-20,743.00	-45,136.85	-117.60

Fund: 401 - TID #4

Account Number		2023	2023	2023	Budget	Budget	% of
		January	Actual 01/31/2023				
401-00-48100-000-000	INTEREST ON INVESTMENT	1,198.40	1,198.40	0.00	1,198.40	0.00	
401-00-48875-000-000	REFUND OF EXPENDITURES	23,580.00	23,580.00	0.00	23,580.00	0.00	
Miscellaneous Revenue		24,778.40	24,778.40	0.00	24,778.40	0.00	
Total Revenues		24,778.40	24,778.40	0.00	24,778.40	0.00	

Fund: 401 - TID #4

Account Number		2023	2023	2023	Budget	% of
		January	Actual 01/31/2023	Budget	Status	Budget
401-00-51130-000-000	BANK FEE	20.00	20.00	225.00	205.00	8.89
GENERAL GOVERNMENT		20.00	20.00	225.00	205.00	8.89
401-00-58100-000-000	PRINCIPAL	0.00	0.00	327,541.00	327,541.00	0.00
401-00-58200-000-000	INTEREST	0.00	0.00	33,791.00	33,791.00	0.00
DEBT SERVICE		0.00	0.00	361,332.00	361,332.00	0.00
Total Expenses		20.00	20.00	361,557.00	361,537.00	0.01
Net Totals		24,758.40	24,758.40	-361,557.00	-386,315.40	-6.85

Fund: 500 - LIBRARY

Account Number		2023		2023 Budget	Budget Status	% of Budget
		2023 January	Actual 01/31/2023			
500-00-43720-000-000	Grants - Library	0.00	0.00	15,000.00	-15,000.00	0.00
500-00-43734-000-000	Ozaukee County	0.00	0.00	52,421.60	-52,421.60	0.00
500-00-43735-000-000	Sheboygan County	0.00	0.00	15,084.16	-15,084.16	0.00
500-00-43736-000-000	Washington County	0.00	0.00	2,672.88	-2,672.88	0.00
500-00-43741-000-000	Adell	0.00	0.00	11,374.00	-11,374.00	0.00
500-00-43742-000-000	Random Lake	11,335.50	11,335.50	45,342.00	-34,006.50	25.00
500-00-43743-000-000	Town of Scott	0.00	0.00	49,113.00	-49,113.00	0.00
500-00-43744-000-000	Sherman	10,393.00	10,393.00	41,572.00	-31,179.00	25.00
INTERGOV. STATE PAYMENTS		21,728.50	21,728.50	232,579.64	-210,851.14	9.34
500-00-45000-000-000	Fines, Forfeits & Penalties	89.20	89.20	1,500.00	-1,410.80	5.95
Fines, Forfeits & Penalties		89.20	89.20	1,500.00	-1,410.80	5.95
500-00-46000-000-000	Public Charges for Services	144.30	144.30	2,350.00	-2,205.70	6.14
Public Charges for Services		144.30	144.30	2,350.00	-2,205.70	6.14
500-00-48875-000-000	Refund of Expenditures	0.00	0.00	6,935.61	-6,935.61	0.00
Miscellaneous Revenue		0.00	0.00	6,935.61	-6,935.61	0.00
Total Revenues		21,962.00	21,962.00	243,365.25	-221,403.25	9.02

Fund: 500 - LIBRARY

Account Number		2023	2023	2023	Budget Status	% of Budget
		January	Actual 01/31/2023	Budget		
500-00-55110-110-000	Salaries	4,037.95	4,037.95	68,366.25	64,328.30	5.91
500-00-55110-120-000	Wages	4,690.46	4,690.46	76,534.00	71,843.54	6.13
500-00-55110-141-000	Workers Compensation	0.00	0.00	205.00	205.00	0.00
500-00-55110-142-000	FICA	641.15	641.15	9,075.00	8,433.85	7.07
500-00-55110-144-000	Health, Life Insurance	2,366.38	2,366.38	27,000.00	24,633.62	8.76
500-00-55110-145-000	WRS - retirement	360.14	360.14	4,950.00	4,589.86	7.28
500-00-55110-211-000	Accounting	0.00	0.00	2,750.00	2,750.00	0.00
500-00-55110-212-000	Fiscal Agent	0.00	0.00	3,500.00	3,500.00	0.00
500-00-55110-220-000	Electricity	0.00	0.00	5,000.00	5,000.00	0.00
500-00-55110-221-000	Telephone	0.00	0.00	1,800.00	1,800.00	0.00
500-00-55110-222-000	Sewer, Water	0.00	0.00	250.00	250.00	0.00
500-00-55110-223-000	Gas	0.00	0.00	2,000.00	2,000.00	0.00
500-00-55110-240-000	Repair & Maintenance Services	0.00	0.00	3,500.00	3,500.00	0.00
500-00-55110-241-000	Copy Machine	0.00	0.00	2,000.00	2,000.00	0.00
500-00-55110-310-000	Office Supplies	0.00	0.00	1,700.00	1,700.00	0.00
500-00-55110-311-000	Postage, UPS, Etc.	0.00	0.00	150.00	150.00	0.00
500-00-55110-312-000	Licenses & Permits	0.00	0.00	500.00	500.00	0.00
500-00-55110-313-000	Internet Access	0.00	0.00	1,200.00	1,200.00	0.00
500-00-55110-314-000	Equipment	0.00	0.00	1,000.00	1,000.00	0.00
500-00-55110-320-000	Due to Other Libraries	0.00	0.00	75.00	75.00	0.00
500-00-55110-330-000	Mileage	0.00	0.00	200.00	200.00	0.00
500-00-55110-331-000	Continuing Education	0.00	0.00	500.00	500.00	0.00
500-00-55110-341-000	AV Materials	0.00	0.00	3,000.00	3,000.00	0.00
500-00-55110-342-000	Books	0.00	0.00	11,000.00	11,000.00	0.00
500-00-55110-343-000	Databases	0.00	0.00	2,000.00	2,000.00	0.00
500-00-55110-344-000	Monarch	0.00	0.00	12,100.00	12,100.00	0.00
500-00-55110-345-000	Newspapers	0.00	0.00	510.00	510.00	0.00
500-00-55110-346-000	Periodicals	734.47	734.47	800.00	65.53	91.81
500-00-55110-350-000	Endowment Fund - Programming	1,132.11	1,132.11	0.00	-1,132.11	0.00
500-00-55110-360-000	Janitorial Supplies	0.00	0.00	1,500.00	1,500.00	0.00
500-00-55110-398-000	Advertising, Outreach	0.00	0.00	200.00	200.00	0.00
CULTURE, RECREATION & EDUCATIO		13,962.66	13,962.66	243,365.25	229,402.59	5.74
Total Expenses		13,962.66	13,962.66	243,365.25	229,402.59	5.74
Net Totals		7,999.34	7,999.34	0.00	-7,999.34	

Fund: 600 - WATER FUND

Account Number		2023	2023	2023	Budget Status	% of Budget
		January	Actual 01/31/2023	Budget		
600-00-51100-110-000	VILLAGE PRESIDENT SALARY	0.00	0.00	1,500.00	1,500.00	0.00
600-00-51100-120-000	VILLAGE BOARD WAGES	0.00	0.00	2,560.00	2,560.00	0.00
600-00-51100-131-000	VILLAGE BOARD FICA	0.00	0.00	2,124.00	2,124.00	0.00
600-00-51102-320-000	VB - Publications	0.00	0.00	50.00	50.00	0.00
600-00-51103-330-000	VB - League Dues	0.00	0.00	515.00	515.00	0.00
600-00-51130-000-000	BANK FEE	25.00	25.00	225.00	200.00	11.11
600-00-51300-210-000	LEGAL COUNSELING	0.00	0.00	750.00	750.00	0.00
600-00-51420-120-000	C/T - salaries, wages	681.31	681.31	7,468.00	6,786.69	9.12
600-00-51420-214-000	DEPUTY CLERK/TREASURER	1,439.68	1,439.68	18,853.00	17,413.32	7.64
600-00-51420-390-000	OFFICE SUPPLIES/EXP	36.58	36.58	0.00	-36.58	0.00
600-00-51421-136-000	HRA SERVICE FEES	20.00	20.00	240.00	220.00	8.33
600-00-51421-311-000	C/T - postage UPS, etc.	88.60	88.60	500.00	411.40	17.72
600-00-51421-390-000	C/T - supplies, expenses	0.00	0.00	2,000.00	2,000.00	0.00
600-00-51422-390-000	COMPUTERS.SOFTWARE	68.00	68.00	3,300.00	3,232.00	2.06
600-00-51422-391-000	TECHNOLOGY	0.00	0.00	3,300.00	3,300.00	0.00
600-00-51430-120-000	PW-WAGES	4,908.21	4,908.21	67,773.00	62,864.79	7.24
600-00-51510-210-000	ACCOUNTING/AUDIT	0.00	0.00	6,520.00	6,520.00	0.00
600-00-51540-390-000	INSURANCE-LIABILITY/PROPERTY	2,676.00	2,676.00	4,402.00	1,726.00	60.79
600-00-51931-390-000	INSURANCE-WORKERS COMP	0.00	0.00	5,777.00	5,777.00	0.00
600-00-51931-520-000	INSURANCE-VEHICLE	0.00	0.00	1,159.00	1,159.00	0.00
600-00-51950-000-000	RETIREMENT	476.09	476.09	6,398.00	5,921.91	7.44
600-00-51960-000-000	HEALTH/DENTAL INSURANCE	2,425.15	2,425.15	31,054.00	28,628.85	7.81
600-00-51965-000-000	LIFE/DISABILITY INSURANCE	100.84	100.84	1,630.00	1,529.16	6.19
600-00-51970-000-000	FICA	477.74	477.74	11,856.00	11,378.26	4.03
600-00-51975-000-000	HEALTH SAVINGS ACCOUNT	73.60	73.60	2,534.00	2,460.40	2.90
GENERAL GOVERNMENT		13,496.80	13,496.80	162,488.00	168,991.20	7.40
600-00-53660-392-000	UNIFORMS	23.85	23.85	0.00	-23.85	0.00
PUBLIC WORKS		23.85	23.85	0.00	-23.85	0.00
600-00-54600-221-001	TELEPHONE-ADMIN	33.14	33.14	0.00	-33.14	0.00
600-00-54800-331-000	CONTINUING EDUCATION	960.00	960.00	0.00	-960.00	0.00
HEALTH & HUMAN SERVICES		993.14	993.14	0.00	-993.14	0.00
600-00-57400-200-000	CONTRACTED SERVICES	0.00	0.00	12,000.00	12,000.00	0.00
CAPITAL OUTLAY		0.00	0.00	12,000.00	12,000.00	0.00
600-00-58100-000-000	PRINCIPAL	0.00	0.00	131,052.00	131,052.00	0.00
600-00-58200-000-000	INTEREST	0.00	0.00	32,302.00	32,302.00	0.00
DEBT SERVICE		0.00	0.00	163,354.00	163,354.00	0.00
Total Expenses		14,513.79	14,513.79	357,842.00	343,328.21	4.06
Net Totals		48,799.76	48,799.76	-356,842.00	-405,641.76	-13.88

Fund: 600 - WATER FUND

Account Number		2023	2023	2023	Budget	% of
		January	Actual 01/31/2023	Budget	Status	Budget
600-00-46450-200-000	Metered Sales - Residential	8.85	8.85	0.00	8.85	0.00
600-00-46450-300-000	Metered Sales - Commercial	91.98	91.98	0.00	91.98	0.00
600-00-46450-400-000	Metered Sales - Industrial	56,421.96	56,421.96	0.00	56,421.96	0.00
600-00-46451-000-000	Unmetered Sales	397.75	397.75	0.00	397.75	0.00
600-00-46452-000-000	Delinquent Charge	156.30	156.30	0.00	156.30	0.00
Public Charges for Services		57,076.84	57,076.84	0.00	57,076.84	0.00
600-00-48100-000-000	Interest on Investments	667.25	667.25	1,000.00	-332.75	66.73
600-00-48160-000-000	Well Permit	25.00	25.00	0.00	25.00	0.00
600-00-48200-000-000	Rent - Water Tower	5,544.46	5,544.46	0.00	5,544.46	0.00
Miscellaneous Revenue		6,236.71	6,236.71	1,000.00	5,236.71	623.67
Total Revenues		63,313.55	63,313.55	1,000.00	62,313.55	6,331.36

Fund: 660 - WASTEWATER FUND

Account Number		2023	2023	2023	Budget	Budget	% of
		January	Actual 01/31/2023				
660-00-46450-000-000	METERED SALES	22,060.46	22,060.46	0.00	22,060.46	0.00	
660-00-46452-000-000	DELINQUENT CHARGE	323.94	323.94	0.00	323.94	0.00	
Public Charges for Services		22,384.40	22,384.40	0.00	22,384.40	0.00	
660-00-48100-000-000	INTEREST ON INVESTMENT	396.64	396.64	0.00	396.64	0.00	
660-00-48875-000-000	REFUND OF EXPENDITURES	74,557.14	74,557.14	0.00	74,557.14	0.00	
Miscellaneous Revenue		74,953.78	74,953.78	0.00	74,953.78	0.00	
Total Revenues		97,338.18	97,338.18	0.00	97,338.18	0.00	

Fund: 660 - WASTEWATER FUND

Account Number		2023		2023 Budget	Budget Status	% of Budget
		January	Actual 01/31/2023			
660-00-51100-110-000	VILLAGE PRESIDENT SALARY	0.00	0.00	1,500.00	1,500.00	0.00
660-00-51100-120-000	VILLAGE BOARD WAGES	0.00	0.00	2,560.00	2,560.00	0.00
660-00-51100-131-000	VILLAGE BOARD FICA	0.00	0.00	2,124.00	2,124.00	0.00
660-00-51102-320-000	PUBLISHING	192.37	192.37	500.00	307.63	38.47
660-00-51103-330-000	LEAGUE DUES	0.00	0.00	315.00	315.00	0.00
660-00-51130-000-000	BANK FEE	20.00	20.00	225.00	205.00	8.89
660-00-51420-120-000	CLERK/TREASURER-WAGES	681.31	681.31	7,468.00	6,786.69	9.12
660-00-51420-214-000	DEPUTY CLERK/TREASURER	1,439.68	1,439.68	18,853.00	17,413.32	7.64
660-00-51420-390-000	OFFICE SUPPLIES/EXPENSES	0.00	0.00	500.00	500.00	0.00
660-00-51421-136-000	HRA SERVICE FEES	20.00	20.00	240.00	220.00	8.33
660-00-51421-311-000	POSTAGE	88.60	88.60	500.00	411.40	17.72
660-00-51421-390-000	OFFICE SUPPLIES/EXP	26.58	26.58	1,500.00	1,473.42	1.77
660-00-51422-390-000	COMPUTER/SOFTWARE-S,M,R,E	68.00	68.00	3,300.00	3,232.00	2.06
660-00-51422-391-000	TECHNOLOGY	0.00	0.00	3,300.00	3,300.00	0.00
660-00-51430-120-000	WWTF-WAGES	8,390.04	8,390.04	116,642.00	108,251.96	7.19
660-00-51510-210-000	ACCOUNTING/AUDIT	0.00	0.00	6,520.00	6,520.00	0.00
660-00-51540-390-000	INSURANCE-LIABILITY/PROPERTY	2,676.00	2,676.00	4,402.00	1,726.00	60.79
660-00-51540-395-000	OTHER INSURANCE-NO FAULT COV	0.00	0.00	2,912.00	2,912.00	0.00
660-00-51931-390-000	INSURANCE-WORKERS COMP	0.00	0.00	5,776.00	5,776.00	0.00
660-00-51931-520-000	INSURANCE-VEHICLE	0.00	0.00	1,159.00	1,159.00	0.00
660-00-51950-000-000	RETIREMENT	714.77	714.77	9,765.00	9,050.23	7.32
660-00-51960-000-000	HEALTH/DENTAL INSURANCE	4,568.65	4,568.65	66,036.00	61,467.35	6.92
660-00-51965-000-000	LIFE/DISABILITY INSURANCE	174.57	174.57	3,546.00	3,371.43	4.92
660-00-51970-000-000	FICA	741.75	741.75	18,094.00	17,352.25	4.10
660-00-51975-000-000	HEALTH SAVINGS ACCOUNT	73.60	73.60	5,734.00	5,660.40	1.28
GENERAL GOVERNMENT		19,875.92	19,875.92	283,471.00	263,595.08	7.01
660-00-53660-392-000	UNIFORMS	23.85	23.85	0.00	-23.85	0.00
PUBLIC WORKS		23.85	23.85	0.00	-23.85	0.00
660-00-54600-221-000	WWTP - TELEPHONE/INTERNET	280.14	280.14	1,920.00	1,639.86	14.59
660-00-54600-221-001	TELEPHONE-ADMIN	33.13	33.13	0.00	-33.13	0.00
660-00-54600-390-000	WWTP - S,M,R,E	149.00	149.00	0.00	-149.00	0.00
HEALTH & HUMAN SERVICES		462.27	462.27	1,920.00	1,457.73	24.08
660-00-57400-200-000	CONTRACTED SERVICES	0.00	0.00	12,000.00	12,000.00	0.00
CAPITAL OUTLAY		0.00	0.00	12,000.00	12,000.00	0.00
660-00-58100-000-000	PRINCIPAL	0.00	0.00	48,374.00	48,374.00	0.00
660-00-58200-000-000	INTEREST	0.00	0.00	14,368.00	14,368.00	0.00
DEBT SERVICE		0.00	0.00	62,742.00	62,742.00	0.00
Total Expenses		20,362.04	20,362.04	360,133.00	339,770.96	5.65
Net Totals		76,976.14	76,976.14	-360,133.00	-437,109.14	-21.37

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Cash Accounts Balance Report

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POOLED CHECKING (COLLINS)

ACCT

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	1,885,287.69
100-00-11110-000-000	POOLED GENERAL	2,605,871.47
100-00-11112-000-000	POOLED LV CONCESSION	53,429.93
300-00-11110-000-000	POOLED (COLLINS) DEBT	-177,832.75
400-00-11110-000-000	POOLED (COLLINS) TID #3	65,301.39
401-00-11110-000-000	POOLED (COLLINS) TID #4	-95,655.46
402-00-11110-000-000	POOLED (COLLINS) TID #5	-1,308.70
500-00-11110-000-000	POOLED (COLLINS) LIBRARY	-27,960.73
600-00-11110-000-131	POOLED (COLLINS) WATER	16,610.12
660-00-11110-000-131	POOLED (COLLINS) SEWER	-553,167.58
700-00-11102-000-000	POOLED (COLLINS) FIRE	0.00
1/31/2023	Cash Accounts Balance:	1,885,287.69

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Cash Accounts Balance Report

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ACCT

GENERAL MM (FMR 1791) COLLINS

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	418,375.27
100-00-11532-001-000	GEN FUND MM (SAVINGS)	418,375.27
1/31/2023	Cash Accounts Balance:	418,375.27

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Cash Accounts Balance Report

Page: 1

PUBLIC FUNDS (COLLINS) SAVINGS

ACCT

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	670,874.93
100-00-11200-001-000	SAVINGS PUBLIC FUNDS	-1,052.24
100-00-11400-001-000	MAPS (SAVINGS)	4,323.02
100-00-11410-001-000	OFFICE BLDG (SAVINGS)	25,087.83
100-00-11420-001-000	COMMUNICATIONS (SAVINGS)	5,336.64
100-00-11535-001-000	STORM SEWER (SAVINGS)	716.72
100-00-11545-001-000	STREETS (SAVINGS)	57,084.28
100-00-11560-001-000	KIRCHER PARK (SAVINGS)	13,090.85
100-00-11580-001-000	BM-LAKEVIEW PARK (SAVINGS)	36,141.10
100-00-11580-001-001	BMLP-MUSIC IN THE PARK (SAVING	8,000.57
100-00-11585-001-000	LAKE WEED TRTMT (SAVINGS)	81,127.87
100-00-11590-001-000	EQUIPMENT (SAVINGS)	167,760.63
100-00-11595-001-000	COMMUNITY BETTERMENT (SAVINGS)	40,552.02
100-00-11605-001-000	OFFICE EQUIPMENT (SAVINGS)	12,639.88
100-00-11611-001-000	INS DEDUCTIBLE (SAVINGS)	10,288.44
100-00-11612-001-000	FISHING PIER (SAVINGS)	1,539.30
100-00-11615-001-000	BURR OAK PARK (SAVINGS)	107.59
100-00-11617-001-000	ARPA FUNDS (SAVINGS)	151,282.35
100-00-11619-001-000	AEMT REMAINING FUNDS (SAVINGS)	32,750.44
100-00-11620-001-000	BMLP CONCESSIONS (SAVINGS)	20,073.70
100-00-11621-001-000	ICE RINK (SAVINGS)	4,023.94
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1/31/2023	Cash Accounts Balance:	670,874.93

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Cash Accounts Balance Report

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ACCT

OPERATIONAL MM (COLLINS)

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	90,065.27
600-00-11351-000-000	OPERATIONAL (COLLINS)	90,065.27

1/31/2023	Cash Accounts Balance:	90,065.27
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Cash Accounts Balance Report

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WATER TOWER (COLLINS)

ACCT

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	353,884.67
600-00-11301-000-000	WATER TOWER (COLLINS)	353,884.67
1/31/2023	Cash Accounts Balance:	353,884.67

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Cash Accounts Balance Report

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ACCT

SEWER DEPRECIATION (COLLINS)

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	87,138.41
660-00-11621-000-000	SEWER DEPRECIATION 5% (COLLINS	87,138.41
1/31/2023	Cash Accounts Balance:	87,138.41

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Cash Accounts Balance Report

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MM REPLACEMENT (COLLINS)

ACCT

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	191,127.01
660-00-11661-000-000	MM REPLACEMENT (COLLINS)	191,127.01
1/31/2023	Cash Accounts Balance:	191,127.01

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Cash Accounts Balance Report

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ACCT

PLANT OPERATION & MAINT (COLLINS)

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	2,603.41
660-00-11611-000-000	PLANT OP & MAINT (COLLINS)	2,603.41
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1/31/2023	Cash Accounts Balance:	2,603.41

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Cash Accounts Balance Report

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FIRE DEPT CHECKING (COLLINS)

ACCT

Reconciliation Date: 1/31/2023

1/31/2023	Computer Balance:	9,954.49
700-00-11110-000-000	FIRE DEPT (COLLINS)	9,954.49
1/31/2023	Cash Accounts Balance:	9,954.49
