

ROCK COUNTY, WISCONSIN



**GENERAL SERVICES COMMITTEE
TUESDAY, NOVEMBER 2, 2021 – 7:30 A.M.**

SOUTHERN WISCONSIN REGIONAL AIRPORT

ENDEAVOUR CONFERENCE ROOM

1716 W. AIRPORT RD.

JANESVILLE, WI 53546

Agenda

1. Call to Order
2. Approve Agenda
3. Public Comment
4. Approval of Minutes – October 19, 2021
5. Review of payments
6. Transfers
7. Resolutions and Committee Action
 - a. Retaining Edge Consulting Engineers Inc. for Consulting Services for the New 911 Communications Tower
 - b. Retaining SGTS Inc. for Professional Services for the Installation, Integration, and Commissioning of the Security Controls Equipment at the Health Department Building
8. Reports, Updates, Discussion and Possible Action
 - a. Approval to partner with Alliant Energy for the installation of a 1.4 megawatt solar array
 - b. Approval to purchase security equipment for the Health Department
 - c. Dr. Daniel Hale Williams Rock County Resource Center updates
 - i. Approval of Change Orders
 - ii. Sound issues
 - d. 911/IT renovation updates
 - i. Schedule

e. District Attorney renovation updates

i. Schedule

9. Communications, Announcements, and Information

10. Tour of Airport

11. Adjournment

The County of Rock will provide reasonable accommodations to people with disabilities. Please contact us at 608-757-5510 or e-mail countyadmin@co.rock.wi.us at least 48 hours prior to a public meeting to discuss any accommodations that may be necessary.



GENERAL SERVICES COMMITTEE
Minutes – October 19, 2021

Call to Order. Chair Potter called the meeting of the General Services Committee to order via Zoom at 7:30 A.M., on Tuesday, October 19, 2021.

Committee Members Present: Supervisors Potter, Wilson, Homan, Fox, and Brien.

Committee Members Absent: None.

Staff Members Present: Josh Smith, County Administrator; Randy Terronez, Assistant to the County Administrator; Terri Carlson, Risk Manager; Brent Sutherland, Facilities Director; and Dave Froeber and Mike Parille, Facilities Superintendents.

Others Present: Brian Zobel, UW Whitewater at Rock County.

Approval of Agenda. Supervisor Fox moved approval of the agenda, second by Supervisor Wilson. ADOPTED.

Public Comment. None.

Approval of Minutes – October 5, 2021. Supervisor Wilson moved approval of the minutes of October 5, 2021 as presented, second by Supervisor Brien. ADOPTED

Review of Payments.

None.

Transfers.

None.

Resolutions and Committee Action

Awarding Contract for the Purchase of a Backup Radio Repeater System for Public Works

“NOW, THEREFORE, BE IT RESOLVED, that the Rock County Board of Supervisors duly assembled this ____ day of _____, 2021 does hereby approve and authorize awarding a contract in the amount of \$ 29,000 to General Communications of Madison WI, for the purchase of Backup Radio Repeater systems equipment for the Department of Public Works.”

Supervisor Brien moved approval of the above resolution, second by Supervisor Homan. ADOPTED.

Reports, Updates, Discussion, and Possible Action

Future meetings – In-person versus continuing with Zoom

Supervisor Fox expressed his support for meeting in-person and offered the use of the Airport Conference Room. Supervisor Wilson advocated for utilizing multiple County facilities for meeting spaces. Supervisor Fox asked that the committee meet only when there are action items on

the agenda. Supervisor Wilson inquired whether the meeting could be virtual for shorter agendas with no action items. Chair Potter will work with Brent to schedule future meetings.

Dr. Daniel Hale Williams Rock County Resource Center updates

Approval of Change Order

None.

Punchlist items progress

Brent informed the committee that they have dates for the last-minute furniture items. Cullen is fixing the drywall seams soon. Workers in the DWRC have been noticing that sounds are still traveling, so they are working to manage and remedy. The railing around the rocks in the rotunda will be installed in 3 weeks. They are also working on installing duress alarms and holding trainings for them.

911/IT renovation updates

Schedule

Brent informed the committee that they will be started with the 911 renovation first. They will be meeting today to review surveys to make sure that they have a full-site survey so that they know where all utilities are located. 911 will remain in operation during the whole process.

District Attorney renovation updates

Schedule

Brent informed the committee that phase 1 is scheduled to be complete at the end of December. Phase 2 should be done at the end of April 2022.

Furniture

Brent informed the committee that the furniture is delayed until March.

Review and Discussion of 2022 Recommended Budget

Josh Smith highlighted projects and requests that were not recommended for 2022. He explained that he recommended the Administrative Assistant position for Facilities Management. Supervisor Wilson asked for an update on the County Board room audio-visual technology project. Josh responded that there will be a live feed of what is being presented at County Board meetings to go out to the YouTube feed. Brent added that 98" monitors will be added for presentations in the County Board room. Randy explained that one of the monitors will display the voting board.

Communications, Announcements, and Information

None.

Adjournment. Supervisor Wilson moved adjournment at 8:08 A.M., second by Supervisor Homan.
ADOPTED.

Respectfully submitted,

Haley Hoffman
Office Coordinator

NOT OFFICIAL UNTIL APPROVED BY COMMITTEE

RESOLUTION NO. _____

AGENDA NO. _____

**RESOLUTION
ROCK COUNTY BOARD OF SUPERVISORS**

The General Services Committee
INITIATED BY

The General Services Committee
SUBMITTED BY



Brent Sutherland- Director of
Facilities Management
DRAFTED BY

October 26, 2021
DATE DRAFTED

**Retaining Edge Consulting Engineers Inc. for Consulting Services for
the New 911 Communications Tower**

1 **WHEREAS**, the current 911 communication tower is attached to the Pinehurst building that is scheduled
2 to be demolished in 2023; and,
3
4 **WHEREAS**, a conditions assessment was completed on the current 193ft tower to see if it could be
5 moved and reused which will allow for the completion of the facilities master plan projects; and,
6
7 **WHEREAS**, the conditions assessment showed the condition of the current tower will require several
8 repairs and upgrades to this tower; and,
9
10 **WHEREAS**, the cost to reuse the existing tower with the required repairs and upgrades to the new
11 location would exceed the cost of a new tower and therefore it is recommended we build a new tower
12 verses reusing the current tower; and,
13
14 **WHEREAS**, Edge Consulting Engineers Inc. from Prairie Du Sac, Wisconsin will be providing the
15 consulting services for design, specifications, and construction management for the installation of a new
16 Communications tower in the amount of \$50,200.00; and ,
17
18 **NOW, THEREFORE, BE IT RESOLVED** by the Rock County Board of Supervisors duly assembled
19 this _____ day of _____, 2021, that a contract for engineering services be
20 awarded to Edge Consulting Engineers Inc, of Prairie Du Sac, WI, in the amount of \$ 50,200.00.

Respectfully submitted,

GENERAL SERVICES COMMITTEE

Robert Potter, Chair

Tom Brien, Vice Chair

Brent Fox

William Wilson

Dave Homan

LEGAL NOTE:

The County Board is authorized to take this action pursuant to secs. 59.01 and 59.51, Wis. Stats. Professional services are not subject to bidding requirements of sec. 59.52(29), Wis. Stats.

s/Richard Greenlee

Richard Greenlee
Corporation Counsel

ADMINISTRATIVE NOTE:

Recommended.

/s/Josh Smith

Josh Smith
County Administrator

FISCAL NOTE:

The Pinehurst project is being funded by a mix of sales tax revenue and debt service.

/s/Sherry Oja

Sherry Oja
Finance Director

Executive Summary

Retaining Edge Consulting Engineers Inc. for consulting services for the new 911 Communications tower

The resolution before you will give authorization to contract with Edge Consulting Engineers Inc. for professional services required to design, draft specifications and construction management services for installation of a new 911 Communications Tower.

The current communication tower will have to be relocated to allow for the demolition of the pine hurst building. A condition assessment was performed on the current tower to determine if we should move the current one to a new location or just build a new tower. The assessment indicated it to be more cost effective to build a new tower verses move the existing.

June 15, 2021

Brent Sutherland
Director – Facilities Management
Rock County
51 S Main St.
Janesville, WI 53545

**SUBJECT: TOWER CONDITION ASSESSMENT & MAINTENANCE INSPECTION
ROCK CO. (SHERIFF'S OFFICE TOWER)
ASR#: NONE
LAT/LONG: N42° 43' 39.7", W89° 01' 49.3"
JANESVILLE, WI**

Mr. Sutherland:

Per your request Edge Consulting Engineers, Inc. (Edge) has completed a condition assessment and TIA/EIA tower maintenance inspection of the existing 193' self-support tower owned by Rock County and located at the Rock County Sheriff's Office in Janesville, Wisconsin.

Both the procedures of the assessment/inspection and this report were completed per the requirements of **Annex J: Maintenance and Condition Assessment Procedures** of the TIA/EIA-222-G standard. The standard recommends routine inspection of self-support towers on a maximum of 5-year intervals. Shorter intervals are recommended for Class III (Public Safety) Structures and after severe wind and/or ice storms or other extreme conditions.

The following **limitations and/or exceptions** should be noted for this inspection:

- Subsurface items were not excavated for inspection or otherwise verified

Please refer to the following additional attachments for more detailed information regarding this inspection:

1. Site Map
2. Inspection Photos
3. TIA-222-G Maintenance Inspection Checklist
4. Tower Plumb & Twist Tables
5. As-Built Tower Loading Table
6. Ground Resistance

MAINTENANCE ISSUES LIST:

Based upon the field inspection conducted on June 10, 2021 the following issues were identified:

Item #	Category	Issue	Status & Recommendation	Photo #
1	Tower Climbing Facilities	Safety Climb Missing	A safety climb cable was not installed on the tower. Recommended to install a safety climb system for future work on the tower.	1
2	Structure Finish	Galvanizing Condition	Entire tower galvanizing is starting to show signs of wear. In Particular, cross members from 160' to 165' on face A-B and face B-C where rust/corrosion is present on crossmembers. It is recommended that all tower members exhibiting rust/corrosion be cleaned and coated with cold galvanizing compound.	2
3	Structure Finish	Tower Hardware	Rust/Corrosion is currently present on nearly all tower member hardware. It is recommended that all tower member hardware be replaced within the next 3-5 years.	3
4	Mount Finish	Antenna Mount	Rust/corrosion is present on antenna mount for dipole located on leg B at 189.2' (A2). It is recommended that antenna mount be cleaned of all rust/corrosion and coated with cold galvanizing compound.	4
5	Mount Finish	Antenna Mount	Rust/corrosion is present on antenna mount for grid dish located on leg C at 103.0' (A17). It is recommended that antenna mount be cleaned of all rust/corrosion and coated with cold galvanizing compound.	5
6	Coax	Coax Mounting	All antenna coax are mounted to leg B and leg C via tap and zip-ties. It is recommended that a waveguide ladder be installed and coax be mounted to tower via snap-ins.	6
7	Coax	Kellum Grip	Coax Kellum grip for omni located on leg C at 177.9' (A3) is improperly installed and supported on tower. It is recommended that an approved mounting clamp be installed to properly support Kellum grip/coax and that the Kellum grip be taped at bottom.	7
8	Coax	Coax Mounting	Coax Kellum grip is not taped at bottom for dipole located on leg B at 189.2' (A2). It is recommended that Kellum grip be taped at base.	8

It is the professional opinion of Edge Consulting Engineers, Inc. that the above listed items be addressed.

TOWER PLUMB & TWIST:

As part of the maintenance inspection procedures, a tower plumb and twist evaluation was conducted in accordance with the current TIA-222 standards. Based on our measurements, **the tower was found to be within acceptable tolerances.** See attached tower plumb and twist forms for further details.

ANTENNA INVENTORY:

An inventory of all installed antennas and lines was completed as part of this inspection. An As-Built Tower Loading Table summarizing this information has been attached to this report.

GROUND RESISTANCE:

The ground system was tested using the fall-of-potential testing method. The site resistance to earth measurement should be taken at the point where the auxiliary potential electrode appears to be outside of the effective resistance areas of both the ground electrodes under test as well as the auxiliary current electrode. Typically, this region is graphically displayed as a plateau along the fall-of-potential plot. Specific detail on the test results, calculations, and plot have been attached as the Ground System Inspection Form. **Based on these results, the ground system was observed to plateau at approximately 1.0 Ohms. In general, systems which that achieve a resistance of 5 ohms or less are considered acceptable.**

In addition, all bonded ground leads extending above grade are tested using a clamp-on resistance tester which measures the continuity of that specific ground lead. This test assures that the specific ground lead under test is properly bonded to the ground ring below as well the object it is intended to ground. **All ground leads associated with the tower were tested and were found to be properly bonded.**

We appreciate the opportunity to work with you on this project. If you have any questions and/or concerns regarding this report please feel free to give us a call.

RECOMMENDATIONS:

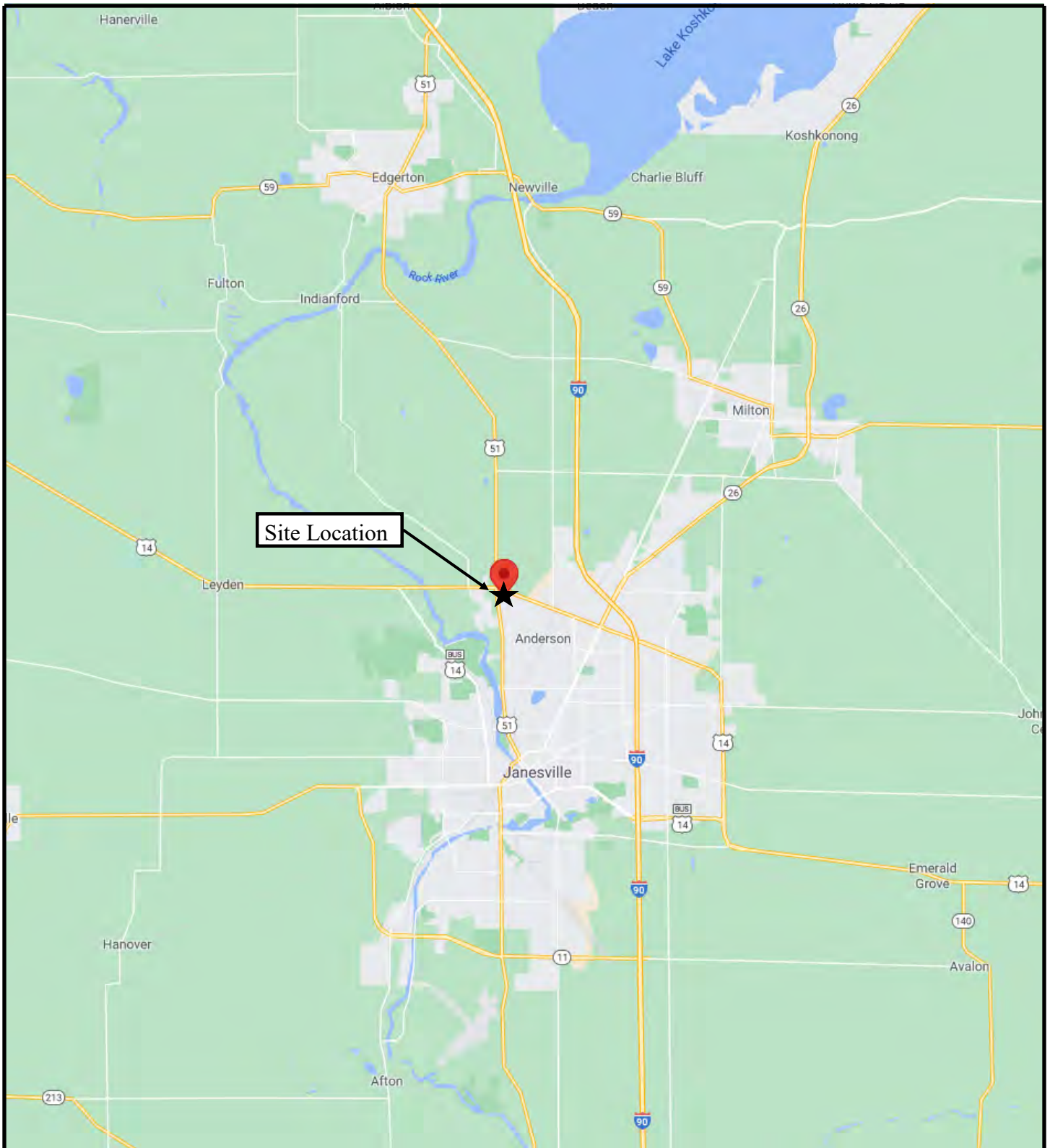
As part of this condition assessment, we were asked to provide our recommendations regarding the potential for reuse of this tower in an alternate location. Based on our observations, the tower does appear to be structurally suitable for reuse. However, the overall galvanization system of the tower members is starting to fail and will likely require ongoing maintenance going forward. In addition, it is recommended that all tower member hardware be replaced if the tower is re-erected in an alternate location. Given the costs associated with complete dismantling, re-erection and ongoing galvanizing system maintenance, it is our opinion that re-use of this tower is likely cost prohibitive.

Sincerely,


Edge Consulting Engineers, Inc.



Lucas Scott
Engineering Technician



**FIGURE 1
SITE MAP**

 Edge Consulting Engineers, Inc.	Project Number:	30926
	Project Name:	Rock Co. (Sheriff's Office Tower)
	Project Location:	200 E. Hwy 14 Janesville, WI 53545
	Inspection Date:	6/10/2021



1.JPG



2.JPG



3.JPG



4.JPG



5.JPG



6.JPG



7.JPG



8.JPG



9.JPG



10.JPG



11.JPG



12.JPG



13.JPG



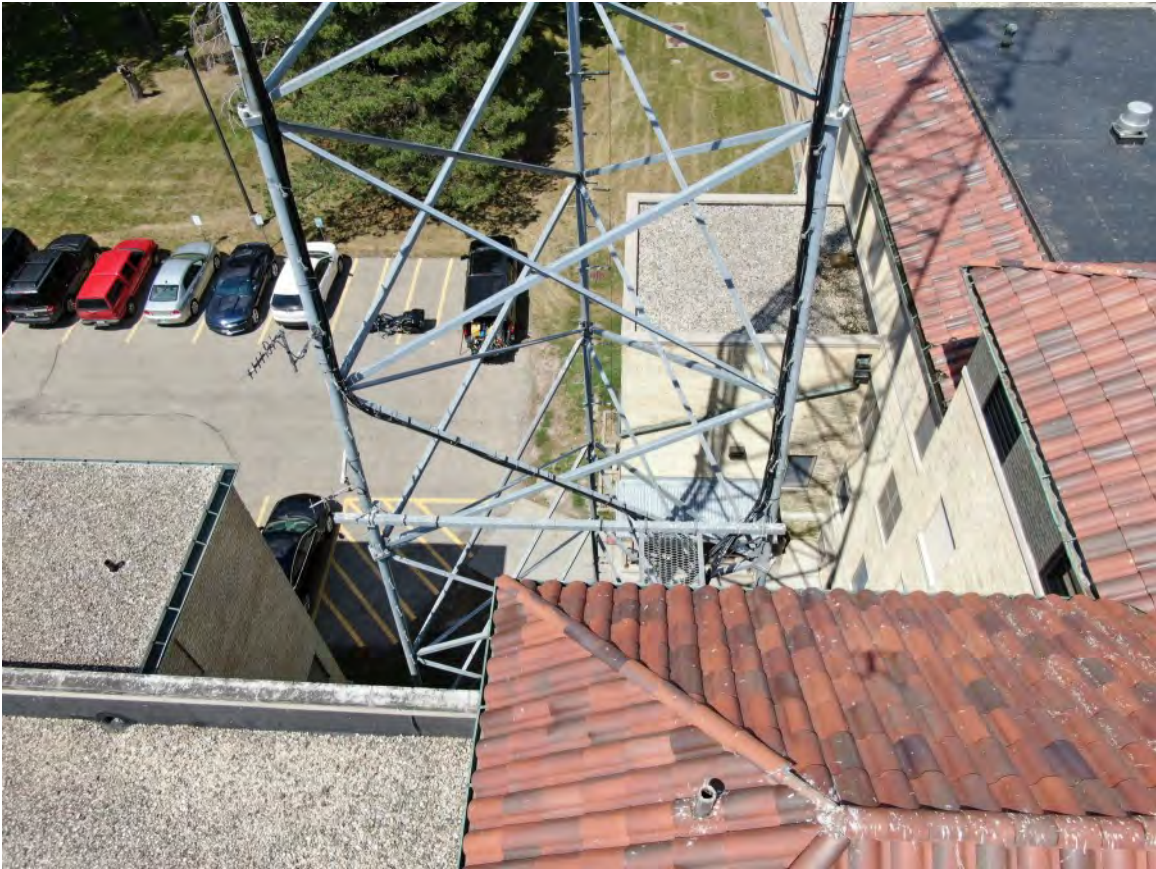
14.JPG



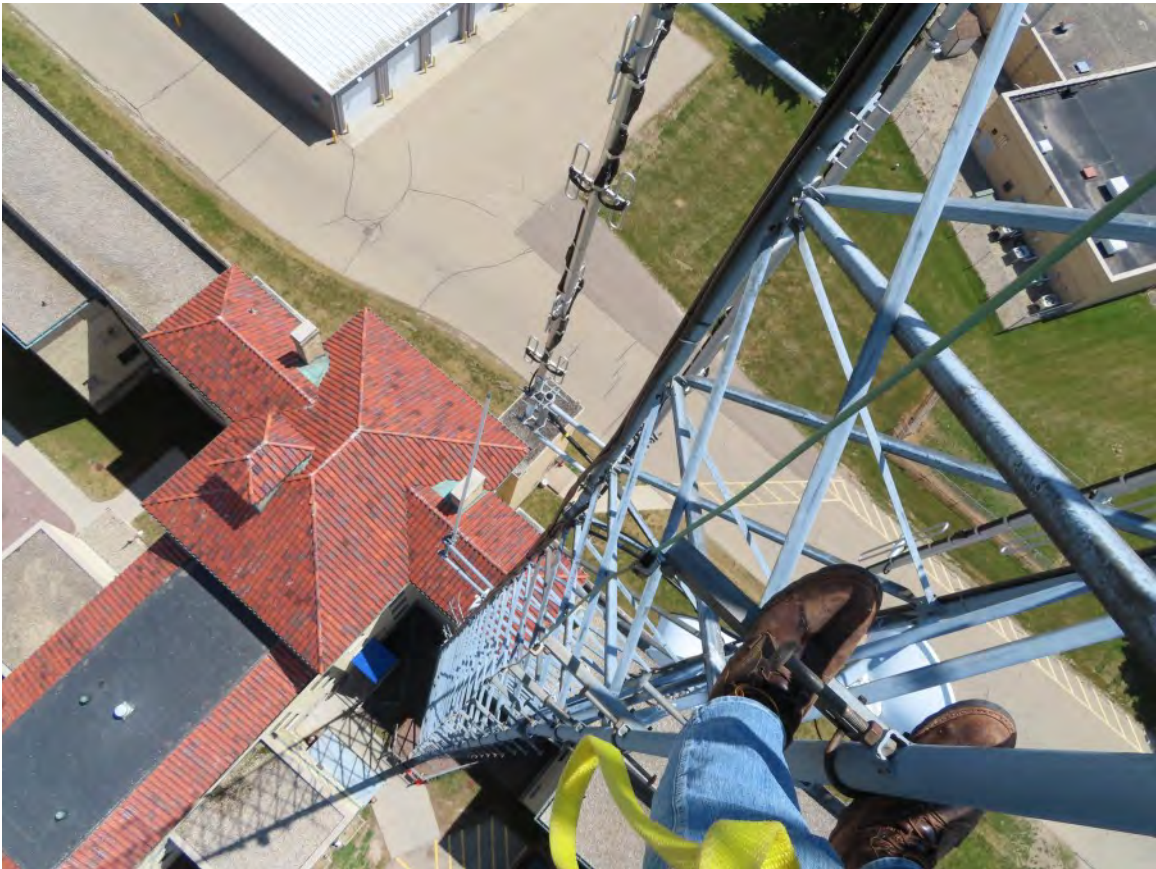
15.JPG



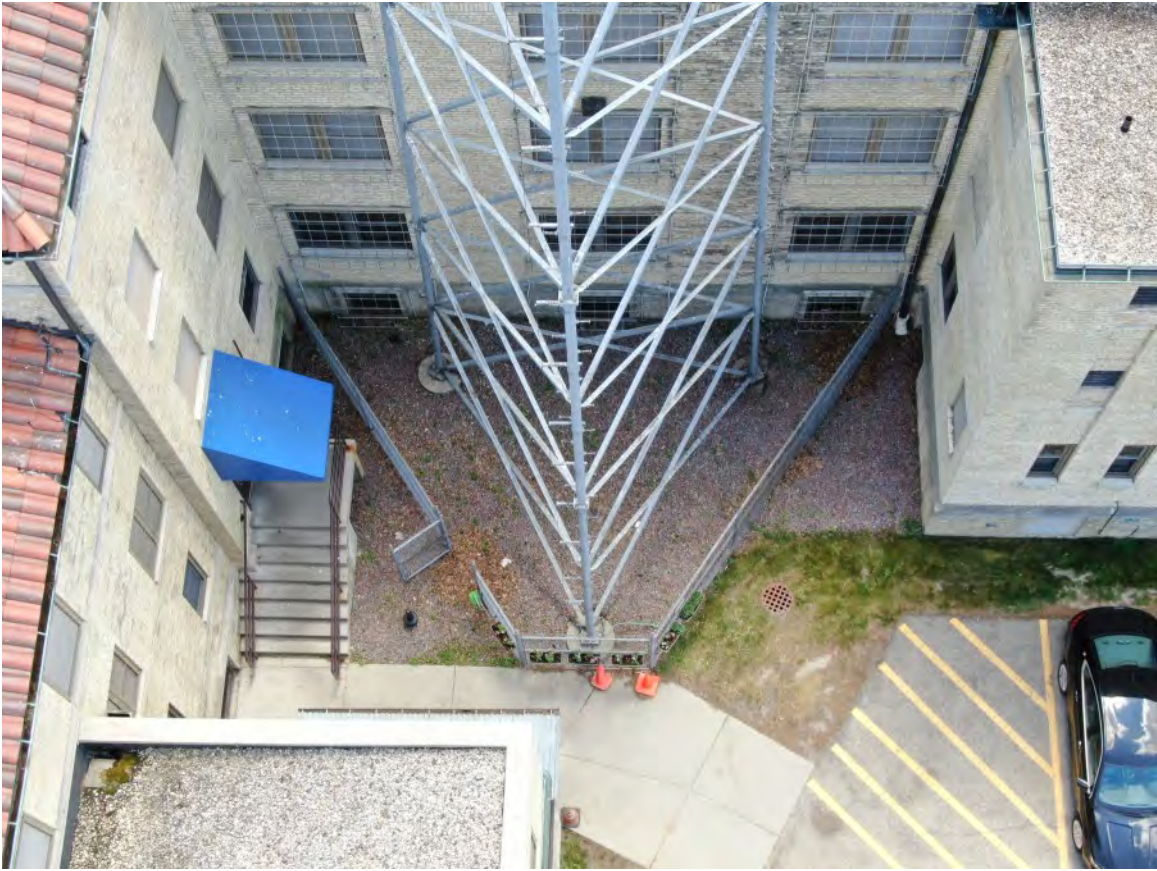
16.JPG



17.JPG



18.JPG



19.JPG

Site Name/Client ID:	30926 Rock Co. (Sheriff's Office Tower)	Date of Inspection:	6/10/2021
Site Location:	200 E US 14 Janesville, WI 53545	Inspected By:	RDL/MJV
Tower Height/Type:	193' Self-support	Weather Conditions:	Sunny
Tower Manufacturer:	Rohn	Ambient Temperature :	93°
Tower Owner:	Rock County	Wind Speed/Direction:	5 MPH

TOWER

Category	Item	Pass	Fail	NA	Issue	Comments/Recommendations
Structure Condition	Damaged members (legs/bracing)	X				
	Loose members	X				
	Missing members	X				
	Loose and/or missing bolts and/or nut locking devices.	X				
	Visible cracks in welded connections including cracks underneath canister mounts for flag poles and other similar connections.	X				
	Pole flange and base plate cracks visible in base metal or at ends of plate stiffeners (cracks in base metal may only be visible inside surface of pole).	X				
Finish	Paint and/or galvanizing condition.		X		Entire tower galvanizing shows signs of wear specifically, cross members from 160' to 165' on face A-B and face B-C where corrosion is present on crossmembers.	It is recommended that all corrosion be removed from crossmembers and cold galvanizing compound be installed.
	Rust and/or corrosion condition including mounts and accessories.		X		Entire tower galvanizing shows signs of wear specifically, cross members from 160' to 165' on face A-B and face B-C where corrosion is present on crossmembers.	It is recommended that all corrosion be removed from crossmembers and cold galvanizing compound be installed.
	FAA or ICAO color marking conditions.			X		
	Water collection in members (to be remedied, e.g., unplug drain holes, etc.)	X				
Lighting (External Components)	Conduit, junction boxes, and fasteners (weather tight and secure).			X		
	Drain and vent openings (unobstructed).			X		
	Wiring condition			X		
	Light lenses			X		
	Bulb condition			X		
	Contollers (Flasher, Photo Control, Alarms).			X		
	Obstructions to lighting system.			X		
Grounding	Connections	X				
	Corrosion	X				
	Lightning protection	X				
Structure Alignment	Tower Plumb	X				See the attached tower plumb calculations for details.
	Tower Twist	X				See the attached tower twist calculations for details.

APPURTENANCES

Item Description	Specification	Pass	Fail	NA	Deviation	Comments/Recommendations
Antenna & Mount Condition	Proper tie-back of microwave dishes.	X				
	Damage to supporting structure at connections.	X				
	Defects, deformations, loose, missing members, etc.	X				
	Loose or missing hardware.	X				
	Condition of antenna covers.	X				
	Obstructions to climbing path or safety climb systems.			X		A safety climb cable was not installed on the tower.

Feed Line & Cable Condition	Flanges, seals, dents, jacket damage, grounding, etc.	X				
	Properly secured/supported on the structure and mount.		X		Antenna A3 coax is not properly installed into kellum grip and antenna A2 and A3 kellum grips are not taped at bottom.	Recommend coax be properly supported and kellum grip be taped.
	Hanger condition (snap-ins, bolt-on, kellum grips, etc.)		X		Antenna A3 coax is not properly installed into kellum grip and antenna A2 and A3 kellum grips are not taped at bottom.	Recommend coax be properly supported and kellum grip be taped.
	Secured to structure (waveguide ladder)	X				
Additional Appurtenances (Ice shields, walkways, platforms, climbing facilities, sensors, floodlights, etc.)	Condition	X				
	Obstructions to climbing path or safety climb systems.	X				
	Defects, deformations, loose, missing members, etc.	X				
	Loose or missing hardware.	X				
	Secured to structure.	X				
Insulators (Base insulator, Am detuning kits, fiberglass rods, porcelain insulator, non-metallic guys, etc.)	Cracking and chipping.	X				
	Cleanliness of insulators.	X				
	Spark gaps.	X				
	Insulation transformer.	X				
	Bolts and Connections.	X				
	Delamination, UV degradation, rod slippage.	X				

GUYED TOWERS

Item Description	Specification	Pass	Fail	NA	Deviation	Comments/Recommendations
Guyed Wires	Strand Condition (corrosion, breaks, nicks, kinks, etc.			X		
Guy Hardware Conditions	Turnbuckle thread past body.			X		
	Turnbuckle secured with safety cable or equivalent.			X		
	Turnbuckle cracks, defects, damage, etc.			X		
	Cable thimbles			X		
	Ice clips			X		
	Cable clamps applied properly and bolts tight.			X		
	Wire serving			X		
	Slippage or damage strands.			X		
	Deadend grips - fully wrapped, end sleeve/ice clips (on anchor end)			X		
	Poured sockets - signs of separation, twisting, etc.			X		
	Shackles, bolts, pins and cotter pins.			X		
	Inspect tension rods/anchor rods welded to fan plates for fatigue cracks.			X		
Guy Tensions	Existing tensions within +/- 10% of the initial design tension for guys up to and including 1 in. diameter and +/- 5% for guys greater than 1 in. diameter.			X		
Guyed Anchors	Settlement, movement or earth cracks.			X		
	Grade sloped away from anchors.			X		
	Anchor shaft condition below grade.			X		
	Corrosion control measures (galvanizing, coating, concrete encasement, cathodic protection systems, etc.).			X		
	Anchor heads above grade, clear of vegetation, obstructions, etc. and turnbuckles free to articulate.			X		

CONCRETE FOUNDATIONS						
Item Description	Specification	Pass	Fail	NA	Deviation	Comments/Recommendations
Ground Condition	Settlement, movement or earth cracks.	X				
	Erosion	X				
	Site condition (standing water, drainage, trees, etc.)	X				
Anchorage Condition	Top and bottom base plate nuts tight.	X				
	Nut locking device.	X				
	Grout condition	X				
	Anchorage	X				
	Anchor rods	X				
Concrete Condition	Cracking, spalling, or splitting.	X				
	Chipped or broken concrete.	X				
	Honeycombing	X				
	Low spots to collect moisture.	X				

ADDITIONAL COMMENTS

Entire tower galvanizing shows signs of wear specifically, cross members from 160' to 165' on face A-B and face B-C where corrosion is present on crossmembers. It is recommended that all corrosion be removed from crossmembers and cold galvanizing compound be installed

TOWER PLUMB & TWIST VERIFICATION - TRIANGULAR TOWER MEASUREMENTS & CALCULATIONS

Project #:	30926	Date:	6/10/2021	Tower Type:	Self-Support	Tower Owner:	Rock County									
Site Name:	Rock Co. (Sheriff's Office Tower)	Wind:	5 MPH	Tower Height:	193	Client:	Rock County									
Location:	200 E US 14 Janesville, WI 53545	Temp:	93	Tower Vendor:	Rohn	Inspector(s):	RDL & MJV									
Sighted Elev. On Tower (feet)	Tower Face Width (inches)	FIELD MEASUREMENTS									CALCULATIONS					
		SETUP 1 - LEG A			SETUP 2 - LEG B			SETUP 3 - LEG C			TWIST			OUT-OF-PLUMB		
		Distance 1 To Tower (feet)	Measured Angle 1 (seconds)	D1 (inches)	Distance 2 To Tower (feet)	Measured Angle 2 (seconds)	D2 (inches)	Distance 3 To Tower (feet)	Measured Angle 2 (seconds)	D3 (inches)	d (inches)	e (inches)	"Twist" α ($^{\circ}$)	x (inches)	y (inches)	"Plumb Dist." r (inches)
0	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	0.000	
60	180	144.0	-86	-0.720	309.0	-25	-0.449	432.0	28	0.704	-0.155	-0.001	-0.086	-0.666	-0.565	0.873
100	132	144.0	-84	-0.704	309.0	-11	-0.198	432.0	47	1.181	0.093	0.001	0.070	-0.796	-0.797	1.127
140	84	144.0	-85	-0.712	309.0	-18	-0.324	432.0	49	1.232	0.065	0.001	0.077	-0.898	-0.777	1.188
180	60	144.0	-161	-1.349	309.0	-79	-1.420	432.0	91	2.287	-0.161	-0.005	-0.266	-2.140	-1.188	2.448
193	60	144.0	-171	-1.433	309.0	-66	-1.186	432.0	102	2.564	-0.019	-0.001	-0.031	-2.165	-1.414	2.586

TOWER PLUMB & TWIST VERIFICATION - TRIANGULAR TOWER RESULTS

Project #:	30926	Date:	6/10/2021		Tower Type:	Self-Support		Tower Owner:	Rock County	
Site Name:	Rock Co. (Sheriff's Office Tower)	Wind:	5 MPH		Tower Height:	193		Client:	Rock County	
Location:	200 E US 14 Janesville, WI 53545	Temp:	93		Tower Vendor ID:	Rohn		Inspector(s):	RDL & MJV	
Sighted Elev. On Tower (feet)	TOWER OUT-OF-PLUMB RESULTS					TOWER TWIST RESULTS				
	Plumb Distance From Tower Base Centerline (inches)	Plumb Distance From Previous Sighted Elevation (inches)	Max. Allowable Plumb Distance From Previous Sighted Elevation (inches)	Tolerance Utilization (%)	Analysis Outcome (Pass/Fail)	Twist Angle from Tower Base (°)	Twist Angle from Previous Sighted Elevation (°)	Max. Allowable Twist Angle from Previous Sighted Elevation (°)	Tolerance Utilization (%)	Analysis Outcome (Pass/Fail)
0	-	-	-	-	-	-	-	-	-	-
60	0.873	0.873	1.8	48.51%	Pass	-0.086	-0.086	3.000	2.86%	Pass
100	1.127	0.253	1.2	21.11%	Pass	0.070	0.156	2.000	7.79%	Pass
140	1.188	0.061	1.2	5.09%	Pass	0.077	0.007	2.000	0.35%	Pass
180	2.448	1.260	1.2	105.04%	Fail	-0.266	-0.343	2.000	17.14%	Pass
193	2.586	0.138	0.4	35.36%	Pass	-0.031	0.235	0.650	36.17%	Pass
Whole Tower	2.586	2.586	5.79	44.66%	Pass	-0.031	-0.031	5.000	0.62%	Pass
Plumb Requirements:						Twist Requirements:				
The horizontal distance between the vertical centerlines at any two elevations shall not exceed 0.25 percent of the vertical distance between the two elevations.						The twist between any two elevations shall not exceed 0.5 degrees in 10 ft (3m). The maximum twist over the structure shall not exceed 5 degrees.				

Top of Base Plate = 879.3'

#30926 ROCK CO. (Sheriff's Office Tower) AS BUILT TOWER LOADING JUNE 10, 2021													
ANTENNA ID	ANTENNA TYPE	(QTY.) ANTENNA MODEL SIZE & WEIGHT	TOWER LEG	ANTENNA MOUNT SIZE & WEIGHT	MOUNT HEIGHT (T.O.C.)	C/L HEIGHT (T.O.C.)	C/L ELEV. (NAVD 88)	ANTENNA AZIMUTH	TILT (+/-)	Tx LINE ID	FREQUENCY (MHz)	OWNER USE	NOTES
A1	Dipole	(1) Unknown 10'	A	Tight Mount	191.2'	194.5'	1073.8'	24.2°					
A2	Dipole	(1) Unknown 20'	B	Stand-Off	179.3'	189.2'	1068.5'	121°					
A3	Omni	(1) Unknown 20'	C	Stand-Off	177.6'	177.9'	1057.2'	332.8°					
A4	Dipole	(1) Unknown 10'	B	Stand-Off	164.6'	169.2'	1048.5'	207.6°					
A5	Dipole	(1) Unknown	C	Stand-Off	162.5'	172.5'	1051.8'	211.2°					
A6	Microwave Antenna	(1) Unknown	C	Tight Mount	165.8'	165.8'	1045.1'	238.9°					
A7	Microwave Antenna	(1) Unknown	C	6' Mast Standoff	149.8'	149.4'	1028.7'	186.2°					
A8	Omni	(1) Unknown 20'	B	Stand-Off	137.0'	148.0'	1027.3'	118.5°					
A9	Rectangle Dish	(1) Mimo Max	C	Tight Mount	133.8'	133.8'	1013.1'	237.3°					
A10	Microwave Antenna	(1) Unknown	B	Tight Mount	128.6'	128.6'	1007.9'	145°					
A11	Omni	(1) Unknown 5'	C	Stand-Off	122.0'	124.6'	1003.9'	257.7°					
A12	Microwave Antenna	(1) Unknown	B	Tight Mount	123.5'	123.5'	1002.8'	117.4°					
A13	Microwave Antenna	(1) Unknown	C	Tight Mount	117.4'	117.4'	996.7'	176.5°					
A14	Omni	(1) Unknown 6'	B	Stand-Off	112.5'	115.5'	994.8'	145.3°					
A15	Microwave Antenna	(1) Unknown	C	Tight Mount	110.2'	110.2'	989.5'	228.2°					
A16	Omni	(1) Unknown 8'	B	Stand-Off	103.0'	106.6'	985.9'	145.3°					
A17	Grid Dish	(1) Unknown	C	Tight Mount	103.0'	103.0'	982.3'	273.7°					
A18	Grid Dish	(1) Unknown	C	Tight Mount	96.0'	96.0'	975.3'	238°					
A19	Omni	(1) Unknown 8'	C	Stand-Off	82.3'	86.3'	965.6'	113°					
A20	Omni	(1) Unknown 1.5'	B	Stand-Off	81.9'	82.6'	961.9'	261.9°					
A21	Omni	(1) Unknown 6'	C	Stand-Off	74.7'	77.7'	957.0'	260.9°					
A22	Yagi	(1) Unknown	B	Stand-Off	75.4'	75.4'	954.7'	138°					
A23	Omni	(1) Unknown 8'	C	Stand-Off	64.9'	68.9'	948.2'	266.8°					
A24	Omni	(1) Unknown 8'	B	Stand-Off	64.5'	68.5'	947.8'	144.9°					
A25	Yagi	(1) Unknown	C	Tight Mount	53.3'	53.3'	932.6'	213.5°					
A26	Yagi	(1) Unknown	C	Tight Mount	46.3'	46.3'	925.6'	251.85°					

See coax configuration chart.

GROUND SYSTEM INSPECTION

Site Name: Rock County (Sheriff's Office Tower) Proj. # #30926

Inspector/Date: RDL/MJV 6/10/2021



Grounding Test Equipment: AEMC 3 Point Ground Resistance Tester

SITE CONDITIONS:

Precip.: Current Day Within Last 2 Days Within Last 5 Days

Temp: 93 Not Recently

Soil: Moist Wet Dry

Comments: _____

Ground System Installation:

Single Rod Multiple Rods
 Appears Complete Only Sub-Grade Installation
 Power Installed Telco Installed Bonds Removed

Ground Electrode Description: _____

Comments: _____

Dist (Ft)	Resist Ohms
0	0.81
30	0.87
60	0.91 R1
90	1.01
120	1.15 R2
150	1.27
180	1.44 R3
210	1.84
240	2.58
270	3.52

Z

Fall of Potential Method & Alternative Methods:

The ground system was tested using the fall-of-potential testing method. The site resistance to earth measurement should be taken at the point where the auxiliary potential electrode appears to be outside of the effective resistance areas of both the ground electrodes under test as well as the auxiliary current electrode. Typically this region is graphically displayed as a plateau along the fall-of-potential plot.

However, if a plateau is not evident and the site layout does not allow for a greater Z lead distance, the slope method can be utilized.

Slope Method:

1. Place Z out as far as you can from X and note the distance.
2. Take readings with Y electrode at 20,40, and 60% distances from X to Z and label them R1, R2, and R3
3. Calculate the slope co-efficient by the formula $(R3-R2)/(R2-R1)$
4. Then divide the Z distance by the slope co-efficient and take a reading at that distance.

Slope Method Resistance: _____

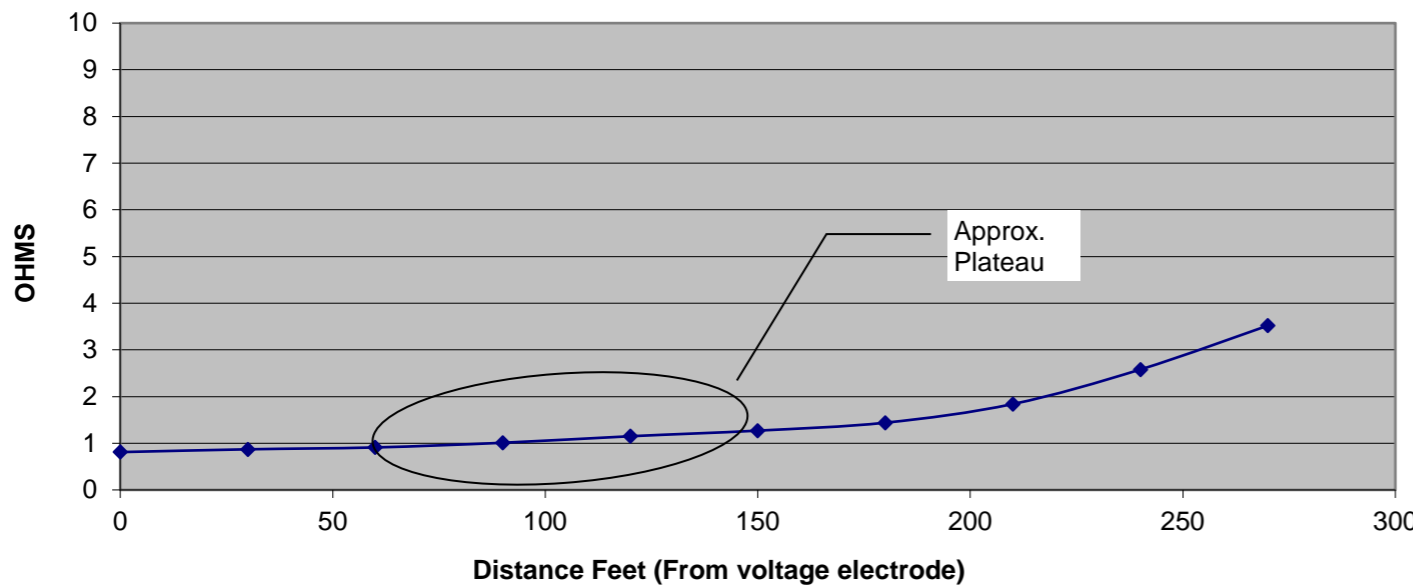
Voltage Electrode appears to be outside of influence of:

Ground Electrode Under Test Yes No
 Current Test Probe Yes No

Comments: _____

Plateau evident at roughly 1.0 ohms.

FALL OF POTENTIAL PLOT



**Edge - A/E Services
Rock Co., WI**

Site:	Item:	Description:	Fee:	Notes:
1	Sheriff's Office Tower - New XXX' Self-Support Tower			
	1	Field Inspection, Data Collection & Surveying	\$3,800	B
	2	NEPA Compliance Documentation	\$3,000	C
	3	NEPA Expenses (DNR Consultation/Tribal/Public Notices)	\$1,000	D
	4	Archeological Survey	\$2,600	E
	5	Architectural/Visual APE Study	\$2,000	P
	6	Geotechnical Investigation - Self-Support Tower	\$4,000	
	7	FAA Determination & FCC ASR Registration	\$1,300	
	8	Zoning & Construction Drawings	\$5,500	
	9	Construction Staking	\$1,400	F,G
	10	Tower Foundation Inspection	\$2,400	
	11	Punch List Inspection (w/ Tower Climb)	\$2,900	F
	12	Final Inspection (No Tower climb)	\$1,400	F
	13	As-Built Drawings	\$1,400	J
		Site Sub-Total:	\$32,700	
2	Overall Project			
	1	Design Phase Project Management (1 Site)	\$2,500	O
	2	Specs, Bid Docs & Public Bid Process - (1) Bid Package	\$5,000	J
	3	Contract Administration (1 Contract)	\$2,500	K
	4	Construction Phase Project Management (1 Site)	\$2,500	O
		Sub-Total:	\$12,500	
		Project Total:	\$45,200	
3	Optional Services			
	1	Utility Coordination	\$1,800	H
	2	Pre-Bid Meeting (1 meeting)	\$1,600	
	3	Pre-Construction Meeting (1 meeting)	\$1,600	
	4	New Tower Submittal Structural Analysis (Each Tower)	\$2,000	M
Notes:				
	A	Includes Property/Boundary, lease parcel survey w/ 1A Certificate. Title report to be provided by Others at the project outset.		
	B	Includes topographic survey w/ 1A Certificate. No boundary/property survey.		
	C	Includes coordination with SHPO, TCNS, DNR, Public Notices, etc..		
	D	NEPA expenses (Public Notices, Database Searches, etc.) do not include costs for extended environmental or historical studies and/or tribal monitoring during construction. NEPA fees charged by tribes and other entities shall be billed separately. NEPA fees will be billed on actual incurred cost plus 15%.		
	E	Archeological survey only. Historical architectural, endangered species or other extended studies, if required, shall be considered an additional expense.		
	F	Services assumed to be grouped for multiple sites to minimize travel.		
	G	Assumes one time staking of the site.		

**Edge - A/E Services
Rock Co., WI**

Site:	Item:	Description:	Fee:	Notes:
	H	Coordinate utility service applications (electric & natural gas) with utility provider(s) on behalf of Client. Fees charged by Utilities are not included and shall be paid directly by Client. Site visits, requested by Utility companies, are not assumed and if required shall be considered an additional expense.		
	I	Service not requested or to be compelled by Others.		
	J	Assume redline As-Built drawings will be provided to Edge documenting all changes and no field verification is required.		
	K	Perform inventory of antennas, lines & appurtenances. Service does not include mapping of tower members.		
	L	Assumes all required information to complete the analysis are provided (tower & foundation design drawings, geotechnical report, existing tower loading). Modification design for failing structures is not included.		
	M	Structurally model and analyze submitted tower and tower foundation system design to confirm compliance with design requirements.		
	N	Costs for tower modification design will be determined upon receiving a failing tower structural analysis.		
	O	Participate in weekly project management calls. Manage sites throughout the project phase.		
	P	Recommended to be completed prior to NEPA SHPO submittal due to presence of mapped nearby historic properties. This will save time during the NEPA process.		

RESOLUTION NO. _____

AGENDA NO. _____

**RESOLUTION
ROCK COUNTY BOARD OF SUPERVISORS**

The General Services Committee
INITIATED BY

The General Services Committee
SUBMITTED BY



Brent Sutherland- Director of
Facilities Management
DRAFTED BY

September 28, 2021
DATE DRAFTED

**Retaining SGTS Inc. for Professional Services for the Installation,
Integration, and Commissioning of the Security Controls Equipment at the
Health Department Building**

1 **WHEREAS**, funds were budgeted for the scheduled security improvements at Rock County Public
2 Health Department building in 2021; and
3

4 **WHEREAS**, SGTS, as our security integrator, will design, develop specifications, install, program,
5 integrate and commission the controlled access, cameras, and equipment controls at the Health
6 Department; and,
7

8 **WHEREAS**, typically SGTS provides the professional services and we bid out the equipment ; and,
9

10 **WHEREAS**, the cost for the professional Services is \$24,780.
11

12 **NOW, THEREFORE, BE IT RESOLVED** by the Rock County Board of Supervisors duly assembled
13 this _____ day of _____, 2020, that a contract for professional services be
14 awarded to SGTS Inc., of Madison, Wisconsin, in the amount of \$24,780.

Respectfully submitted,

GENERAL SERVICES COMMITTEE

Robert Potter, Chair

Tom Brien, Vice Chair

Dave Homan

Brent Fox

William Wilson

Retaining SGTS Inc. for Professional Services for the Installation, Integration, and Commissioning of the Security Controls Equipment at the Health Department Building

Page 2

LEGAL NOTE:

The County Board is authorized to take this action pursuant to secs. 59.01 and 59.51, Wis. Stats. Professional services are not subject to bidding requirements of sec. 59.52(29), Wis. Stats.

s/Richard Greenlee

Richard Greenlee
Corporation Counsel

ADMINISTRATIVE NOTE:

Recommended.

/s/Josh Smith

Josh Smith
County Administrator

FISCAL NOTE:

This project is being funded with sales tax revenue.

/s/Sherry Oja

Sherry Oja
Finance Director

Approval to partner with Alliant Energy for the installation of a 1.4 mega-watt solar array:

I am requesting approval and support to partner with Alliant Energy to install an estimated 1.4 mega-watt solar array on 10-acre parcel just east of Rock Haven on county owned land that is zoned for business and industrial. Rock County will provide the land and Alliant energy will install and maintain the equipment. Alliant Energy will provide lease payments and potentially Renewable Energy Credits. If approved by Rock County before Dec 31, 2021 the array approval process could be completed and ready for construction to start in 2023.

Rock County has passed a Resolution Feb 22nd 18-2B-461 which gives Rock County Facilities Management Department guidance for looking at ways to reduce our energy consumption, increase our use of renewable energy in an economically feasible way by 25% by 2025. It was later amended April 8th adding language to become carbon neutral by 2050. Rock County Facilities Management as well as Supervisor Homan has been working with Alliant Energy for a potential solar project that Rock County could partner with Alliant to achieve the goals set out by the Resolutions passed. I feel this project meets the intent of the resolution previously passed by Rock County Board of Supervisors.



Rock County

Customer Hosted Renewable Solutions Proposal

September 17, 2021



September 17, 2021

Dear Mr. Sutherland,

Alliant Energy is pleased to provide you this indicative proposal for a solar facility to be located on approximately nine acres of land near Humes Road in Janesville, Wisconsin. We appreciate your ongoing willingness to collaborate on this exciting project and believe a 1.4 - megawatt (MW) solar array under the Customer Hosted Program could help achieve both of our sustainability and energy goals. The purpose of this proposal is to reinforce our commitment to executing a successful project for Rock County in the months ahead.

Overall, the solar array will be owned by Alliant Energy and will add clean energy to the grid that will help power local homes and nearby businesses for decades to come. In return, Alliant Energy will pay Rock County an annual fixed lease payment of **\$63,658** over the next 20 years – or longer if the extension options are agreed to by both parties. Please note the lease payment is set by the Public Service Commission of Wisconsin and the estimated payment above could increase or decrease if the lease is executed in 2022 vs. 2021.

Alliant Energy's goal is to have the solar facility installed and operational in 2023 or 2024, but this timeline depends on the timely execution of the lease agreement, receipt of all required permits, and completing all interconnection work. The project timeline is also reliant on Alliant Energy completing some extensive upgrades to the local distribution system near the array. After the lease agreement is finalized, a more detailed design will be developed to include construction drawings and a more specific implementation schedule.

It is important to understand that an unexpected discovery on the property or unforeseen market conditions could impact the size of the project, your estimated annual lease payments, or the construction schedule. We hope our teams can meet soon to discuss any questions you may have about this proposal and the enclosed lease.

Again, thank you for the opportunity to work together on an exciting project that will be an essential step in our joint efforts to build a cleaner energy future for the greater Janesville area.

Sincerely,



Zack A. Hill
Alliant Energy, Sr. Resource Development Manager

ROCK COUNTY Solar Project - Indicative Pro Forma

Project Name: Rock County Customer Contact: Brent Sutherland Total Project Size: 1.4 MW(ac) ¹ Facility Area: ~9 acres	Alliant Energy Contact: Bill Alt Phone: 608.757.7565 Email: WilliamAlt@alliantenergy.com Proposal Date: September 17, 2021
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Customer-Hosted Renewables Program

Indicative Project Size: 1.4 MW(ac)

Under the Customer-Hosted Renewables Program, the primary financial benefit to Rock County is the annual lease payment for hosting the solar array. The lease payment formula was approved by the Public Service Commission of Wisconsin and cannot be changed. This agreement is autonomous from the utility service that is provided to Rock County and **will not impact** your monthly utility rates or electric rates.

Alliant Energy Lease Payments to ROCK COUNTY	
Total Annual Payment	20-Year Total
\$63,658	\$1,273,160

You may elect to receive Renewable Energy Credits (RECs) in lieu of full lease payments under this Program to help meet the County's sustainability goals; however, your annual lease payments would be reduced by the current value of the RECs over the life of the contract. Alliant Energy can provide more information about this option during our next discussion.

Estimated REC Value as of May 2021: \$3.60/MWh

¹ Size of facility will be finalized once a detail design has been completed and final equipment has been selected. Size proposed may vary by +/- 10% of the final facility.

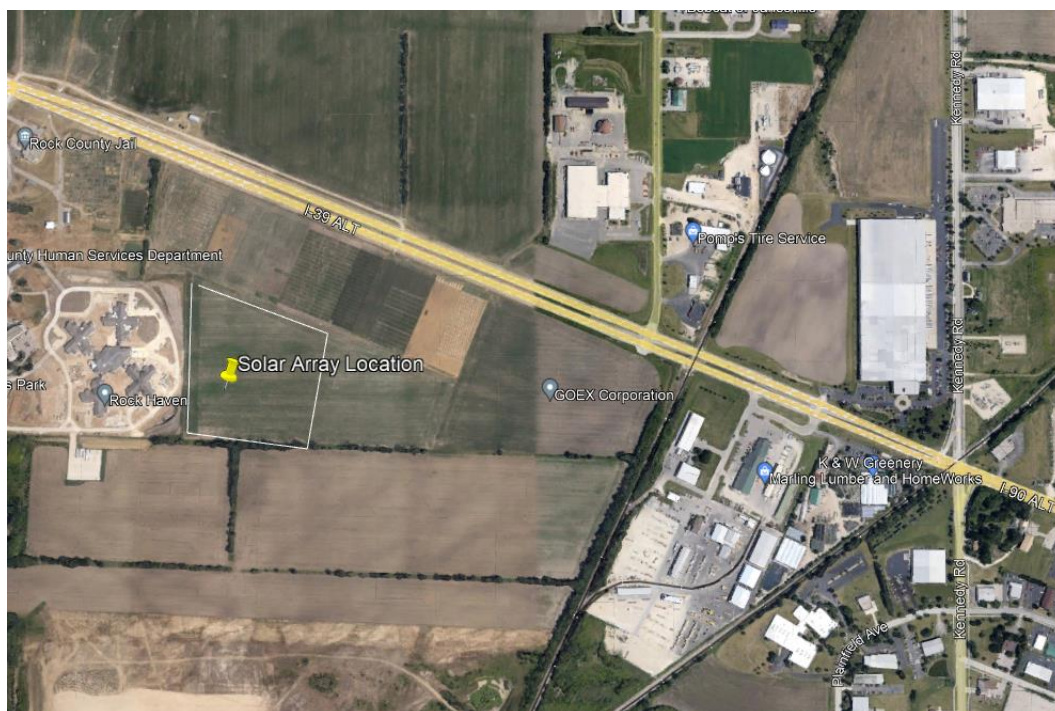
ROCK COUNTY Solar Project – Next Steps

This proposal is valid until December 31, 2021. We are available to discuss and refine the proposal during this period, including a joint site inspection to confirm access and boundary assumptions. Alliant Energy requests that Rock County indicate their written acceptance of this proposal via email, authorizing Alliant Energy to commission contractors to conduct feasibility studies on your behalf, and state Rock County's intention to negotiate and execute the enclosed Lease agreement.

Following are some of the activities that would be initiated by Alliant Energy upon receipt of your approval to move forward with the project:

- Order a Critical Issues Analysis to check for potential site issues, including wetlands, endangered species, historical landmarks, easements, recorded sub-surface utilities or other impediments, etc.
- Order a Geotech Analysis to determine the suitability of subsurface conditions for pile-driven racking foundations (depending on weather).
- Conduct additional due diligence on the potential costs and challenges of interconnecting the array to the local distribution grid.
- Assign a Project Manager and form an internal Engineering Team to develop written specifications for requesting a construction quote from one or more Solar Developers.

REFERENCE AREA



ROCK COUNTY, WISCONSIN
51 S. Main Street
Janesville, WI 53545



Facilities Management
Facilities Maintenance
(608) 757-5527
(608) 757-5516 - Fax

Approval to purchase security equipment for the Health Department

Funds were budgeted in 2021 for security equipment to be purchased for the Health Department building. The cost of the equipment is \$24,993 SGTS will provide this equipment which will be the same equipment that has been installed county wide. This specific equipment is being requested for integration continuity as well as provides efficiency in managing our inventory control of spare replacement part required. This is below the required threshold hold for bidding of equipment.