

AGENDA
BOARD OF PUBLIC WORKS MEETING
Tuesday, July 27, 2021 at 7:00 p.m.
Jackson Village Hall
N168 W20733 Main Street
Jackson, WI 53037

1. Call to Order and Roll Call
2. Approval of the Board of Public Works Minutes of June 29, 2021
3. Presentation of Twin Creeks Sewer Pump Station Capacity – City Water
4. Review of Preliminary Special Assessment Willow Ridge Dr Reconstruction Project
5. Review of One Ton Truck Street Department Quote
6. Resolution #21-16 Jackson Sewer Utility 2020 CMAR
7. Pay Request #7 – Spruce St & Ridgeway Dr Extensions – Wondra Construction, Inc.
8. Review of US Cellular & Verizon Cellular Antenna Agreement White Water Tower
9. Director of Public Works Report
10. Citizens/Village Staff to address the Board
11. Adjourn

Persons with disabilities requiring special accommodations for attendance at the meeting should contact the Village Hall at least one (1) business day prior to the meeting.

It is possible that members of the Village Board may attend the above meeting. No action will be taken by any governmental body at this meeting other than the governmental body specifically referred to in this meeting notice. This notice is given so that members of the Village Board may attend the meeting without violating the open meeting law.

DRAFT Minutes
Board of Public Works Meeting
Tuesday, June 29, 2021 at 7:00 p.m.
Jackson Village Hall
N168 W20733 Main Street
Jackson, WI 53037

1. Call to Order and Roll Call

Chair Heckendorf called the meeting to order at 7:00 p.m.

Members Present: Tr. Engelhardt, Tr. Matter, Tim Meffert, Steve Schoen and Gloria Teifke

Members Absent: Sarah Malchow

Staff Present: Director of Public Works Brian Kober, Police Chief Ryan Vossekuil and Clerk Jilline Dobratz

2. Approval of the Board of Public Works Minutes of June 1, 2021

Motion by Gloria Teifke, second by Tr. Matter to approve the Board of Public Works minutes of June 1, 2021.

Vote: 6 ayes, 0 nays. Motion carried.

3. Dallmann Village No Parking Request on Ash Drive

Director Kober stated the recommendation was to place temporary no parking signs on Ash Drive last month. Residents are present to make comments if allowed. Chair Heckendorf will permit two minutes per person. Police Chief Vossekuil is recommending discontinuing the temporary no parking signs and treat it as any other street in the Village. The state law requires no parking within four feet of a driveway.

Deb Fochs, N163W19760 Songbird Circle, commented there are two driveways for the Condominium Development so another entrance can be used. She also has data of vehicles that did not abide the temporary signage. Greg Hooyman, N163W19760 Songbird Circle, spoke on parking and signage. Cary Slosarski, N163W19750 Songbird Circle, lives in front of the area in dispute, it is a dead-end circle.

Motion by Chair Heckendorf, second by Gloria Teifke to remove the temporary no parking signs located on Ash Drive by the Dallmann Village Condominium Development driveway and take no other action at this time.

Vote: 6 ayes, 0 nays. Motion carried.

4. Discussion on Truck Route for the Village

Director Kober gave background information on the request that was made to have a truck route in the Village. Police Chief Vossekuil commented during the Highway 60 project last year, they had two or three calls of trucks in neighborhoods. He is not recommending a truck route. In 2024 during the resurfacing project, the Department of Transportation will have one lane open at all times. No action was taken at this time.

5. Discussion on Ordinance Changes for Stop Sign and Speed Limit Locations

Director Kober discussed the potential ordinance changes for a new stop sign and changing an existing speed limit. The stop sign is at the intersection of Ridgeway Drive and Spruce Street. Traffic would stop on Ridgeway to enter onto Spruce Street. The speed limit reduction on Cedar Creek Road from Hidden Creek Road to Jackson Drive would be

from 45 mph to 25 mph. Police Chief Vossekuil stated there is more traffic with new developments and the reduced speed needs to be in both directions.

Motion by Chair Heckendorf, second by Tr. Engelhardt to recommend staff prepare ordinance changes for the stop sign and speed limit locations for the Village Board meeting in July.

Vote: 6 ayes, 0 nays. Motion carried.

6. Resolution #21-15 Intent to Exercise Assessment Police Powers – Coffee Connection Trail Project

Director Kober reviewed the handout on the bid costs and Preliminary Property Assessments. Cost per linear foot is \$123.61. The Village portion is a TIF #7 expense. The Department of Transportation has to approve the plan as it is in their right of way.

Discussion ensued on the size of sidewalks and costs in front of the business properties.

Motion by Gloria Teifke, second by Steve Schoen to recommend Budget & Finance and Village Board approve Resolution #21-15 Intent to Exercise Assessment Police Powers – Coffee Connection Trail Project as presented.

Director Kober will contact Gremmer regarding prices and cost comparisons.

Vote: 5 ayes, 1 nay (Tr. Engelhardt). Motion carried.

7. Review of Proposal for WWTF Facilities Plan – Town & Country Engineering

Director Kober reviewed the proposal. It would be a sewer budget expense.

Motion by Chair Heckendorf, second by Tr. Engelhardt to recommend Budget & Finance and Village Board approve Review of Proposal for WWTF Facilities Plan – Town & Country Engineering not to exceed \$45,000.00.

Vote: 6 ayes, 0 nays. Motion carried.

8. Director of Public Works Report

Motion by Chair Heckendorf, seconded by Tr. Matter to place the Director of Public Works Report on file.

Vote: 6 ayes, 0 nays. Motion carried.

9. Citizens/Village Staff to Address the Board

Greg Hooyman commented on Resolution #21-15 regarding the sizes of the sidewalk and property owner's special assessments.

Cary Slosarski commented on sidewalk sizes and costs.

10. Adjourn.

Motion by Chair Heckendorf, second by Tim Meffert to adjourn.

Vote: 6 ayes, 0 nays. Meeting was adjourned at 8:05 p.m.

Respectfully submitted,

Jilline Dobratz, *CMC/WCMC*
Village Clerk

TO: Village of Jackson Board of Public Works
FROM: Eric Fulsaa and Tom Nennig, City Water
DATE: July 14, 2021
SUBJECT: Twin Creeks Sewer Pump Station Capacity

Background

The Twin Creek Sewer Pump Station serves several single-family developments in a portion of Section 29 at the southeast quadrant of the intersection of Sherman Rd and Jackson Dr. The pump station was installed in 2002 and was initially designed for 24 single-family lots with a future 62 single-family lots proposed. The station contains (2) 4-inch submersible pumps with each sized for 80 gpm at 17.4 feet of total dynamic head. There is a new proposed development – Maplewood Farms – which would conceptually connect to the existing sanitary system at the southeast corner of the existing Twin Creeks Subdivision. The Village of Jackson has asked City Water to analyze the existing pump station and assess its capacity to handle the additional sewer flow the proposed Maplewood Farm subdivision would add.

Analysis

The current Twin Creek Pump Station serves 118 single-family residential lots. This is greater than the anticipated service area from the original pump station design. However, the original station was upsized to meet DNR code requirements for flow velocity in the force main, so the current demand is still within the original design parameters. Below are listed design criteria for both existing and proposed conditions. For consistency, we used the same assumptions as the original design of the Twin Creeks Pump Station.

- Current Pump Design: 80 gpm @ 17.4 feet TDH
- Existing
 - Service Population: 118 lots @ 2.5 population/lot = 295
 - Service Flow:
 - $295 \times 100 \text{ gpcpd} = 29,500 \text{ gpd average}$
 - $29,500 \times 4 \text{ (peak factor)} = 118,000 \text{ gpd} = 82 \text{ gpm peak}$
- Proposed
 - Service Population: 214 lots @ 2.5 population/lot = 535 (based on similar lot density)
 - Service Flow:
 - $535 \times 100 \text{ gpcpd} = 53,500 \text{ gpd average}$
 - $53,500 \times 4 \text{ (peak factor)} = 214,000 \text{ gpd} = 148.6 \text{ gpm peak}$

It is good engineering practice to have enough pump capacity to meet design flows with the single largest pump unit out of service. The Twin Creeks station has the capacity to pump up to 160 gpm with both pumps running but only a firm capacity of 80 gpm. If the proposed Maplewood Farms development feeds into the Twin Creeks Pump Station, there is a chance the flow entering the wet well is higher than a single pump's ability to empty the wet well, ultimately leading to surcharges and backups in the sewer system. The working capacity of the

wet well is only 317.5 gallons, so in a peak flow situation the wet well would be filled in just over 2 minutes.

Recommendation

There are essentially three options based on the analysis and capacity of the current Twin Creeks Pump Station – 1. Do no upgrades and no extra development, 2. Upgrade/replace pump station for more capacity, or 3. Relay or install new interceptor sewer by Cedar Creek

In the first scenario, the Maplewood Farms would not be able to discharge into the existing Twin Creek Pump Station. This would either require the addition of a secondary pump station and wet well or the development would not be able to proceed.

In the second scenario, the existing pumps could potentially be replaced with a different model that has a different pump curve, offering increased flow capacity at similar heads. Alternately, a new sewer lift station could replace the existing station. In either option, Maplewood Farms could connect and discharge into the existing Twin Creeks Subdivision Sewer System. Additional engineering to complete a design for a new lift station will have to be done to proceed.

In the third scenario, the existing interceptor that carries the discharge from the Twin Creeks Lift Station to the treatment plant would either be relayed or a new interceptor installed at a lower elevation. The elevation would be lowered such that the Twin Creeks Lift Station would be unnecessary. Additional engineering to complete a design for a new or relayed interceptor sewer will have to be done to proceed.

Any further engineering or analysis needed will be completed as part of the full report and analysis that will be completed later this year as part of City Water's contract with the Village.

Memo

To: Jen Keller, Village Administrator
From: Brian W. Kober, P. E., Director of Public Works
Subject: Replacing One Ton Chipper Truck
Date: July 23, 2021
CC: Board of Public Works; Village Board

Per the 2020 Five Year Public Works Capital Equipment Report, and \$70,000.00 was set aside in the Capital Expenditures Fund to purchase a One Ton Plow Truck to replace the 2000 One Ton Chipper Truck. The 2005 One Ton Truck would become the new chipper truck.

Back in October 2020, phone calls were made to local dealerships and the low quote came from Ewald Automotive Group for a purchase price of \$29,500.00. The Jackson Water Utility just received the same truck from EVS for a price of \$29,783.80. The proposed truck has a savings of \$283.80 compared to the early 2020 truck order.

The stainless box, hitch, trailer wiring, lighting, and plow quote came from a locate business of Jackson Truck Body Inc for a cost of \$22,451.00.

Due to the pandemic, Ewald Automotive Group was not able to order the truck. A 2022 truck is now available for an increase price of \$2,725.20. The total purchase price is \$32,509.00.

Ewald Automotive Group is the only local dealership that is able to provide a government discount. The recommend purchase of the one ton truck using the Capital expenditures Fund.

If you have any questions, please do not hesitate to ask.

Brian W. Kober, P.E.



Ewald Automotive Group

Chrissy Gensch | 262-673-9400 | chrissy.gensch@ewaldauto.com

Village of Jackson

Prepared For: Russ Krueger

262-677-0707

russell.krueger@villageofjackson.com

Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA
Work Truck



Ewald Automotive Group

Chrissy Gensch | 262-673-9400 | chrissy.gensch@ewaldauto.com

Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA Work Truck (☒ Complete)

Quote Worksheet

	MSRP
Base Price	\$38,400.00
Dest Charge	\$1,695.00
Total Options	\$2,775.00
Subtotal	\$42,870.00
Subtotal Pre-Tax Adjustments	\$0.00
Less Customer Discount	(\$10,361.00)
Subtotal Discount	(\$10,361.00)
Trade-In	\$0.00
Subtotal Trade-In	\$0.00
Taxable Price	\$32,509.00
Sales Tax	\$0.00
Subtotal Taxes	\$0.00
Subtotal Post-Tax Adjustments	\$0.00
Total Sales Price	\$32,509.00

Comments:

2022 Chevy Silverado to the specifications as detailed. Registration fees are not included. Payment terms are net 10 days.

Dealer Signature / Date

Customer Signature / Date

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Data Version: 14202. Data Updated: Jul 8, 2021 11:40:00 PM PDT.



Ewald Automotive Group

Chrissy Gensch | 262-673-9400 | chrissy.gensch@ewaldauto.com

Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA Work Truck (✔ Complete)

Standard Equipment

Mechanical

Engine, 6.6L V8 with Direct Injection and Variable Valve Timing, gasoline, (401 hp [299 kW] @ 5200 rpm, 464 lb -ft of torque [629 N-m] @ 4000 rpm) (STD)

Transmission, 6-speed automatic, heavy-duty (STD) (Requires (L8T) 6.6L V8 gas engine.)

Rear axle, 3.73 ratio (Requires (L8T) 6.6L V8 gas engine. Not available with (L5P) Duramax 6.6L Turbo-Diesel V8 engine.)

Auto-locking rear differential

Air filter, heavy-duty

Air filtration monitoring

Transfer case, two-speed, electronic shift with push button controls (Requires 4WD models.)

All-wheel drive

Cooling, external engine oil cooler

Cooling, auxiliary external transmission oil cooler

Battery, heavy-duty 720 cold-cranking amps/80 Amp-hr, maintenance-free with rundown protection and retained accessory power (Included and only available with (L8T) 6.6L V8 gas engine.)

Alternator, 170 amps (Requires (L8T) 6.6L V8 gas engine.)

Recovery hooks, front, frame-mounted, Black

Body, Chassis Cab

Frame, fully-boxed, hydroformed front section and an open "C" rear section

GVWR, 14,000 lbs. (6350 kg)

Suspension Package

Steering, Recirculating Ball with smart flow power steering system

Brakes, 4-wheel antilock, 4-wheel disc with DURALIFE rotors

Fuel tank, front and rear, 63.5 gallon

Capped Fuel Fill

Exterior

Tires, LT235/80R17E all-season highway, blackwall (STD)

Spare tire delete Deletes the spare tire and wheel. (STD)

Wheels, 17" (43.2 cm) painted steel

Dual Rear Wheels

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Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA Work Truck (✔ Complete)

Exterior

Wheel trim, painted center caps

Bumpers, front, Black

Bumper, rear, delete

Moldings, beltline, Black

Grille (Front grille bar with "CHEVROLET" molded in Black, includes Black mesh inserts with small Gold bowtie emblem.)

Headlamps, halogen reflector with halogen Daytime Running Lamps

Lamps, Smoked Amber roof marker, (LED)

Lamps, cargo area, cab mounted integrated with center high mount stop lamp with switch in bank on left side of steering wheel

Mirrors, outside high-visibility vertical trailering lower convex mirrors, manual-folding/extending (extends 3.31" [84.25mm]), molded in Black

Mirror caps, Black

Glass, solar absorbing, tinted

Door handles, Black grained

Entertainment

Audio system, Chevrolet Infotainment 3 system, 7" diagonal color touchscreen, AM/FM stereo. Additional features for compatible phones include: Bluetooth audio streaming for 2 active devices, voice command pass-through to phone, wired Apple CarPlay and Android Auto capable. (STD)

Audio system feature, 2-speakers (Requires Regular Cab model.)

Bluetooth for phone, connectivity to vehicle infotainment system

Interior

Seats, front 40/20/40 split-bench with upper covered armrest storage with fixed lumbar (STD)

Seat adjuster, driver 4-way manual

Seat adjuster, passenger 4-way manual

Vinyl seat trim

Floor covering, rubberized-vinyl

Steering column, Tilt-Wheel, manual with wheel locking security feature

Steering wheel, urethane

Instrument cluster 6-gauge cluster featuring speedometer, fuel level, engine temperature, tachometer, voltage and oil pressure

Driver Information Center, 3.5" diagonal monochromatic display

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Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA Work Truck (Complete)

Interior

Exterior Temperature Display located in radio display

Brake lining wear indicator

Windows, manual (Requires Regular Cab model.)

Door locks, manual (Requires Regular Cab model.)

Power outlet, front auxiliary, 12-volt

USB ports, 2 (first row) located on instrument panel

Air conditioning, single-zone

Mirror, inside rearview, manual tilt

Assist handles front A-pillar mounted for driver and passenger, rear B-pillar mounted

Back-up alarm calibration. This calibration will allow installation of an aftermarket back-up alarm by disabling rear perimeter lighting (Deleted when (8S3) Back-up alarm is ordered.)

Safety-Mechanical

StabiliTrak, stability control system with Proactive Roll Avoidance and traction control, includes electronic trailer sway control and hill start assist

Safety-Exterior

Daytime Running Lamps with automatic exterior lamp control

Safety-Interior

Airbags Dual-stage frontal airbags for driver and front outboard passenger; Seat-mounted side-impact airbags for driver and front outboard passenger; Head-curtain airbags for front and rear outboard seating positions; Includes front outboard Passenger Sensing System for frontal outboard passenger airbag (Always use seat belts and child restraints. Children are safer when properly secured in a rear seat in the appropriate child restraint. See the Owner's Manual for more information.)

Tire Pressure Monitoring System with Tire Fill Alert (does not apply to spare tire)

Teen Driver a configurable feature that lets you activate customizable vehicle settings associated with a key fob, to help encourage safe driving behavior. It can limit certain available vehicle features, and it prevents certain safety systems from being turned off. An in-vehicle report card gives you information on driving habits and helps you to continue to coach your new driver

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WARRANTY

Warranty Note: <<< Preliminary 2022 Warranty >>>

Basic Years: 3

Basic Miles/km: 36,000

Drivetrain Years: 5

Drivetrain Miles/km: 60,000

Drivetrain Note: HD Duramax Diesel: 5 Years/100,000 Miles; Qualified Fleet Purchases: 5 Years/100,000 Miles

Corrosion Years (Rust-Through): 6

Corrosion Years: 3

Corrosion Miles/km (Rust-Through): 100,000

Corrosion Miles/km: 36,000

Roadside Assistance Years: 5

Roadside Assistance Miles/km: 60,000

Roadside Assistance Note: HD Duramax Diesel: 5 Years/100,000 Miles; Qualified Fleet Purchases: 5 Years/100,000 Miles

Maintenance Note: 1 Year/1 Visit

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Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA Work Truck (✓ Complete)

Selected Model and Options

MODEL

CODE	MODEL	MSRP
CK31003	2022 Chevrolet Silverado 3500HD CC 4WD Reg Cab 146" WB, 60" CA Work Truck	\$38,400.00

COLORS

CODE	DESCRIPTION
GAZ	Summit White

EMISSIONS

CODE	DESCRIPTION	MSRP
FE9	Emissions, Federal requirements	\$0.00

ENGINE

CODE	DESCRIPTION	MSRP
L8T	Engine, 6.6L V8 with Direct Injection and Variable Valve Timing, gasoline, (401 hp [299 kW] @ 5200 rpm, 464 lb-ft of torque [629 N-m] @ 4000 rpm) (STD)	\$0.00

TRANSMISSION

CODE	DESCRIPTION	MSRP
MYD	Transmission, 6-speed automatic, heavy-duty (STD) (Requires (L8T) 6.6L V8 gas engine.)	\$0.00

AXLE

CODE	DESCRIPTION	MSRP
GT4	Rear axle, 3.73 ratio (Requires (L8T) 6.6L V8 gas engine. Not available with (L5P) Duramax 6.6L Turbo-Diesel V8 engine.)	\$0.00

PREFERRED EQUIPMENT GROUP

CODE	DESCRIPTION	MSRP
1WT	Work Truck Preferred Equipment Group includes standard equipment	\$0.00

TIRES

CODE	DESCRIPTION	MSRP
QQO	Tires, LT235/80R17E all-season highway, blackwall (STD)	\$0.00

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SPARE TIRE

CODE	DESCRIPTION	MSRP
ZQO	Tire, spare LT235/80R17E highway (Requires (QO) all-season tires.)	\$380.00

PAINT

CODE	DESCRIPTION	MSRP
GAZ	Summit White	\$0.00

SEAT TYPE

CODE	DESCRIPTION	MSRP
AE7	Seats, front 40/20/40 split-bench with upper covered armrest storage with fixed lumbar (STD)	\$0.00

SEAT TRIM

CODE	DESCRIPTION	MSRP
H2G	Jet Black, Vinyl seat trim	\$0.00

RADIO

CODE	DESCRIPTION	MSRP
IOR	Audio system, Chevrolet Infotainment 3 system, 7" diagonal color touchscreen, AM/FM stereo. Additional features for compatible phones include: Bluetooth audio streaming for 2 active devices, voice command pass-through to phone, wired Apple CarPlay and Android Auto capable. (STD)	\$0.00

ADDITIONAL EQUIPMENT - PACKAGE

CODE	DESCRIPTION	MSRP
VYU	Snow Plow Prep Package includes (KW5) 220-amp alternator, includes increased front GAWR on Heavy Duty models, (NZZ) skid plates (transfer case and oil pan), pass through dash grommet hole and roof emergency light provisions. Contact GM Upfitter Integration at www.gmupfitter.com for plow installation details and assistance (Requires 4WD model. Upgradeable to (KHF) Dual alternators (220-amp primary, 170-amp auxiliary). Not available with (F60) Heavy Duty Front Spring Package.)	\$300.00
ZLQ	WT Fleet Convenience Package includes (AQQ) Remote Keyless Entry, (K34) Cruise Control and (DBG) power trailer mirrors with heated upper glass and manual extending/folding, (AXG) power windows, express up/down driver, (AED) power windows, express down passenger and (AU3) power door locks (Requires Fleet or Government order. Not available with (PCV) WT Convenience Package.)	\$1,250.00

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ADDITIONAL EQUIPMENT - MECHANICAL

CODE	DESCRIPTION	MSRP
JL1	Trailer brake controller, integrated (Requires (PCV) WT Convenience Package or (ZLQ) WT Fleet Convenience Package.)	\$275.00
KW5	Alternator, 220 amps (Included with (L5P) Duramax 6.6L Turbo-Diesel V8 engine or (VYU) Snow Plow Prep Package. Free flow on (L8T) 6.6L V8 gas engine.)	Inc.
N2M	Fuel tank, front only, 23.5 gallon *CREDIT*	(\$100.00)
NQH	Transfer case, two-speed active, electronic Autotrac with push button control (Requires 4WD models.)	\$200.00

ADDITIONAL EQUIPMENT - EXTERIOR

CODE	DESCRIPTION	MSRP
DBG	Mirrors, outside power-adjustable vertical trailing with heated upper glass, lower convex mirrors, integrated turn signals, manual folding/extending (extends 3.31" [84.25mm]) (Included and only available with (PCV) WT Convenience Package or (ZLQ) WT Fleet Convenience Package.)	Inc.
NZZ	Skid Plates protect the oil pan, front axle and transfer case (Included with (VYU) Snow Plow Prep Package.)	Inc.

ADDITIONAL EQUIPMENT - INTERIOR

CODE	DESCRIPTION	MSRP
9L7	Upfitter switch kit, (5) Provides 3-30 amp and 2-20 amp configurable circuits to facilitate installation of aftermarket electrical accessories. Kit with all required parts will be shipped loose with the truck for installation by the dealer or upfitter at customer expense. Installation instructions and technical assistance available at www.gmupfitter.com .	\$150.00
AED	Window, power front, passenger express down (On Regular Cab model, included and only available with (PCV) WT Convenience Package or (ZLQ) WT Fleet Convenience Package.)	Inc.
AQQ	Remote Keyless Entry, with 2 transmitters (Included and only available with (PCV) WT Convenience Package or (ZLQ) WT Fleet Convenience Package.)	Inc.
AU3	Door locks, power (On Regular Cab models, included and only available with (PCV) WT Convenience Package or (ZLQ) WT Fleet Convenience Package.)	Inc.
AXG	Window, power front, drivers express up/down (On Regular Cab model, included and only available with (PCV) WT Convenience Package or (ZLQ) WT Fleet Convenience Package.)	Inc.
K34	Cruise control, electronic with set and resume speed, steering wheel-mounted (Included with (ZLQ) WT Fleet Convenience Package or (PCV) WT Convenience Package.)	Inc.

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ADDITIONAL EQUIPMENT - SAFETY-INTERIOR

CODE	DESCRIPTION	MSRP
8S3	Back-up alarm, 97 decibels. Shipped loose for dealer or upfitter installation on chassis cab models.	\$45.00

CUSTOM EQUIPMENT

CODE	DESCRIPTION	MSRP
DI-1	4 KEYS TOTAL	\$150.00
DI-2	BACKUP ALARM	\$125.00
Options Total		\$2,775.00

This document contains information considered Confidential between GM and its Clients uniquely. The information provided is not intended for public disclosure. Prices, specifications, and availability are subject to change without notice, and do not include certain fees, taxes and charges that may be required by law or vary by manufacturer or region. Performance figures are guidelines only, and actual performance may vary. Photos may not represent actual vehicles or exact configurations. Content based on report preparer's input is subject to the accuracy of the input provided.
Data Version: 14202. Data Updated: Jul 8, 2021 11:40:00 PM PDT.



Ewald Automotive Group

Chrissy Gensch | 262-673-9400 | chrissy.gensch@ewaldauto.com

Vehicle: [Fleet] 2022 Chevrolet Silverado 3500HD CC (CK31003) 4WD Reg Cab 146" WB, 60" CA Work Truck (Complete)

Price Summary

PRICE SUMMARY

	MSRP
Base Price	\$38,400.00
Total Options	\$2,775.00
Vehicle Subtotal	\$41,175.00
Destination Charge	\$1,695.00
Grand Total	\$42,870.00

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Data Version: 14202. Data Updated: Jul 8, 2021 11:40:00 PM PDT.

RESOLUTION #21-16

A RESOLUTION ADOPTING THE 2020 COMPLIANCE MAINTENANCE ANNUAL REPORT FOR THE JACKSON WASTEWATER TREATMENT FACILITY

WHEREAS, the State of Wisconsin Department of Natural Resources requires a Compliance Maintenance Annual Report for the Village of Jackson Wastewater Treatment Plant; and

WHEREAS, the Village of Jackson Wastewater Treatment Plant Superintendent, the Village's Engineer, the Village Clerk and the Village Treasurer have completed the necessary information requested in the annual report; and

NOW, THEREFORE, BE IT RESOLVED, that the Village Board of the Village of Jackson, Washington County, Wisconsin, does hereby resolve that the Village Board has reviewed the Compliance Maintenance Annual Report, and has approved it for submission.

Introduced by: _____

Seconded by: _____

Vote: _____ Aye _____ Nay

Passed and Approved: _____

Michael E. Schwab – Village President

Attest: _____
Jilline S. Dobratz – Village Clerk

Proof of Posting:

I the undersigned, certify that I posted this Resolution on bulletin boards at the Village Hall, Post Office, and one other location in the Village.

Village Official

Date

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

Last Updated: Reporting For:

7/16/2021

2020

Influent Flow and Loading

1. Monthly Average Flows and BOD Loadings

1.1 Verify the following monthly flows and BOD loadings to your facility.

Influent No. 701	Influent Monthly Average Flow, MGD	x	Influent Monthly Average BOD Concentration mg/L	x	8.34	=	Influent Monthly Average BOD Loading, lbs/day
January	1.2797	x	182	x	8.34	=	1,947
February	1.2210	x	197	x	8.34	=	2,007
March	1.5810	x	188	x	8.34	=	2,483
April	1.2833	x	247	x	8.34	=	2,640
May	1.6074	x	237	x	8.34	=	3,176
June	1.1777	x	219	x	8.34	=	2,149
July	1.2694	x	212	x	8.34	=	2,245
August	1.0419	x	228	x	8.34	=	1,978
September	1.1483	x	206	x	8.34	=	1,972
October	1.1719	x	234	x	8.34	=	2,285
November	1.1223	x	227	x	8.34	=	2,121
December	1.1642	x	236	x	8.34	=	2,291

2. Maximum Monthly Design Flow and Design BOD Loading

2.1 Verify the design flow and loading for your facility.

Design	Design Factor	x	%	=	% of Design
Max Month Design Flow, MGD	1.875	x	90	=	1.6875
		x	100	=	1.875
Design BOD, lbs/day	2980	x	90	=	2682
		x	100	=	2980

2.2 Verify the number of times the flow and BOD exceeded 90% or 100% of design, points earned, and score:

	Months of Influent	Number of times flow was greater than 90% of	Number of times flow was greater than 100% of	Number of times BOD was greater than 90% of design	Number of times BOD was greater than 100% of design
January	1	0	0	0	0
February	1	0	0	0	0
March	1	0	0	0	0
April	1	0	0	0	0
May	1	0	0	1	1
June	1	0	0	0	0
July	1	0	0	0	0
August	1	0	0	0	0
September	1	0	0	0	0
October	1	0	0	0	0
November	1	0	0	0	0
December	1	0	0	0	0
Points per each		2	1	3	2
Exceedances		0	0	1	1
Points		0	0	3	2
Total Number of Points					5

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

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3. Flow Meter

3.1 Was the influent flow meter calibrated in the last year?

☒ Yes

Enter last calibration date (MM/DD/YYYY)

2020-08-06

☐ No

If No, please explain:

4. Sewer Use Ordinance

4.1 Did your community have a sewer use ordinance that limited or prohibited the discharge of excessive conventional pollutants ((C)BOD, SS, or pH) or toxic substances to the sewer from industries, commercial users, hauled waste, or residences?

☒ Yes

☐ No

If No, please explain:

4.2 Was it necessary to enforce the ordinance?

☐ Yes

☒ No

If Yes, please explain:

5. Septage Receiving

5.1 Did you have requests to receive septage at your facility?

Septic Tanks

Holding Tanks

Grease Traps

☒ Yes

☒ Yes

☒ Yes

☐ No

☐ No

☐ No

5.2 Did you receive septage at your facility? If yes, indicate volume in gallons.

Septic Tanks

☒ Yes

2946550

gallons

☐ No

Holding Tanks

☒ Yes

15874420

gallons

☐ No

Grease Traps

☒ Yes

3100

gallons

☐ No

5.2.1 If yes to any of the above, please explain if plant performance is affected when receiving any of these wastes.

The WWTF has a 126,000 gallon septic receiving station capacity. The operators control the flow from the station to the headworks through a automated valve connected to a flow meter. Operators adjust valve to slowly empty the station over a 24 hr time. The plant adjust well to this operation.

6. Pretreatment

6.1 Did your facility experience operational problems, permit violations, biosolids quality concerns, or hazardous situations in the sewer system or treatment plant that were attributable to commercial or industrial discharges in the last year?

☐ Yes

☒ No

If yes, describe the situation and your community's response.

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

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6.2 Did your facility accept hauled industrial wastes, landfill leachate, etc.? ☐ Yes ☒ No If yes, describe the types of wastes received and any procedures or other restrictions that were in place to protect the facility from the discharge of hauled industrial wastes.	
---	--

Total Points Generated	5
Score (100 - Total Points Generated)	95
Section Grade	A

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

Last Updated: Reporting For:

7/16/2021

2020

Effluent Quality and Plant Performance (BOD/CBOD)

1. Effluent (C)BOD Results

1.1 Verify the following monthly average effluent values, exceedances, and points for BOD or CBOD

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit > 10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	17	15.3	3	1	0	0
February	17	15.3	4	1	0	0
March	17	15.3	3	1	0	0
April	17	15.3	4	1	0	0
May	12	10.8	4	1	0	0
June	12	10.8	3	1	0	0
July	12	10.8	3	1	0	0
August	12	10.8	3	1	0	0
September	12	10.8	4	1	0	0
October	12	10.8	4	1	0	0
November	17	15.3	4	1	0	0
December	17	15.3	3	1	0	0
* Equals limit if limit is <= 10						
Months of discharge/yr				12		
Points per each exceedance with 12 months of discharge					7	3
Exceedances					0	0
Points					0	0
Total number of points						0

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge. Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

2. Flow Meter Calibration

2.1 Was the effluent flow meter calibrated in the last year?

☒ Yes

Enter last calibration date (MM/DD/YYYY)

2020-08-06

☐ No

If No, please explain:

3. Treatment Problems

3.1 What problems, if any, were experienced over the last year that threatened treatment?

N/A

4. Other Monitoring and Limits

4.1 At any time in the past year was there an exceedance of a permit limit for any other pollutants such as chlorides, pH, residual chlorine, fecal coliform, or metals?

☐ Yes

☒ No

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

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If Yes, please explain:

4.2 At any time in the past year was there a failure of an effluent acute or chronic whole effluent toxicity (WET) test?

☐ Yes

☒ No

If Yes, please explain:

4.3 If the biomonitoring (WET) test did not pass, were steps taken to identify and/or reduce source(s) of toxicity?

☐ Yes

☐ No

☒ N/A

Please explain unless not applicable:

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

Last Updated: Reporting For:

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2020

Effluent Quality and Plant Performance (Total Suspended Solids)

1. Effluent Total Suspended Solids Results

1.1 Verify the following monthly average effluent values, exceedances, and points for TSS:

Outfall No. 001	Monthly Average Limit (mg/L)	90% of Permit Limit >10 (mg/L)	Effluent Monthly Average (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance	90% Permit Limit Exceedance
January	12	10.8	2	1	0	0
February	12	10.8	2	1	0	0
March	12	10.8	1	1	0	0
April	12	10.8	2	1	0	0
May	12	10.8	2	1	0	0
June	12	10.8	2	1	0	0
July	12	10.8	2	1	0	0
August	12	10.8	2	1	0	0
September	12	10.8	2	1	0	0
October	12	10.8	2	1	0	0
November	12	10.8	2	1	0	0
December	12	10.8	3	1	0	0

* Equals limit if limit is ≤ 10

Months of Discharge/yr	12		
Points per each exceedance with 12 months of discharge:	7	3	
Exceedances	0	0	
Points	0	0	
Total Number of Points		0	

NOTE: For systems that discharge intermittently to state waters, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

n/a

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

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2020

Effluent Quality and Plant Performance (Ammonia - NH3)

1. Effluent Ammonia Results

1.1 Verify the following monthly and weekly average effluent values, exceedances and points for ammonia

Outfall No. 001	Monthly Average NH3 Limit (mg/L)	Weekly Average NH3 Limit (mg/L)	Effluent Monthly Average NH3 (mg/L)	Monthly Permit Limit Exceed ance	Effluent Weekly Average for Week 1	Effluent Weekly Average for Week 2	Effluent Weekly Average for Week 3	Effluent Weekly Average for Week 4	Weekly Permit Limit Exceed ance
January	7		.253888889	0					
February	7		.255	0					
March	7		.19	0					
April	4.3		.158333333	0					
May	5.7		.144117647	0					
June	3.9		.244117647	0					
July	3.9		.492833333	0					
August	3.9		.289444444	0					
September	3.9		1.107647059	0					
October									
November									
December									
Points per each exceedance of Monthly average:									10
Exceedances, Monthly:									0
Points:									0
Points per each exceedance of weekly average (when there is no monthly average):									2.5
Exceedances, Weekly:									0
Points:									0
Total Number of Points									0

NOTE: Limit exceedances are considered for monthly OR weekly averages but not both. When a monthly average limit exists it will be used to determine exceedances and generate points. This will be true even if a weekly limit also exists. When a weekly average limit exists and a monthly limit does not exist, the weekly limit will be used to determine exceedances and generate points.

1.2 If any violations occurred, what action was taken to regain compliance?

n/a

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Jackson (Village) Wastewater Treatment Plant

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Effluent Quality and Plant Performance (Phosphorus)

1. Effluent Phosphorus Results

1.1 Verify the following monthly average effluent values, exceedances, and points for Phosphorus

Outfall No. 001	Monthly Average phosphorus Limit (mg/L)	Effluent Monthly Average phosphorus (mg/L)	Months of Discharge with a Limit	Permit Limit Exceedance
January	.85	0.625	1	0
February	.85	0.754	1	0
March	.85	0.597	1	0
April	.85	0.676	1	0
May	.85	0.665	1	0
June	.85	0.662	1	0
July	.85	0.587	1	0
August	.85	0.535	1	0
September	.85	0.742	1	0
October	.85	0.606	1	0
November	.85	0.548	1	0
December	.85	0.738	1	0
Months of Discharge/yr			12	
Points per each exceedance with 12 months of discharge:				10
Exceedances				0
Total Number of Points				0

NOTE: For systems that discharge intermittently to waters of the state, the points per monthly exceedance for this section shall be based upon a multiplication factor of 12 months divided by the number of months of discharge.

Example: For a wastewater facility discharging only 6 months of the year, the multiplication factor is $12/6 = 2.0$

1.2 If any violations occurred, what action was taken to regain compliance?

n/a

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

Last Updated: Reporting For:

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Biosolids Quality and Management

1. Biosolids Use/Disposal

1.1 How did you use or dispose of your biosolids? (Check all that apply)

- ☒ Land applied under your permit
- ☐ Publicly Distributed Exceptional Quality Biosolids
- ☐ Hauled to another permitted facility
- ☐ Landfilled
- ☐ Incinerated
- ☐ Other

NOTE: If you did not remove biosolids from your system, please describe your system type such as lagoons, reed beds, recirculating sand filters, etc.

1.1.1 If you checked Other, please describe:

2. Land Application Site

2.1 Last Year's Approved and Active Land Application Sites

2.1.1 How many acres did you have?

980.40 acres

2.1.2 How many acres did you use?

52 acres

2.2 If you did not have enough acres for your land application needs, what action was taken?

2.3 Did you overapply nitrogen on any of your approved land application sites you used last year?

☐ Yes (30 points)

☒ No

2.4 Have all the sites you used last year for land application been soil tested in the previous 4 years?

☒ Yes

☐ No (10 points)

☐ N/A

0

3. Biosolids Metals

Number of biosolids outfalls in your WPDES permit:

3.1 For each outfall tested, verify the biosolids metal quality values for your facility during the last calendar year.

Outfall No. 002 - ANAEROBIC LIQUID

Parameter	80% of Limit	H.Q. Limit	Ceiling Limit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	80% Value	High Quality	Ceiling
Arsenic		41	75				13.6										0	0
Cadmium		39	85				0										0	0
Copper		1500	4300		1040		849			851			827				0	0
Lead		300	840				19.4										0	0
Mercury		17	57				0										0	0
Molybdenum	60		75				12.7									0		0
Nickel	336		420				20									0		0
Selenium	80		100				0									0		0
Zinc		2800	7500				791										0	0

3.1.1 Number of times any of the metals exceeded the high quality limits OR 80% of the limit for molybdenum, nickel, or selenium = 0

Exceedence Points

☒ 0 (0 Points)

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☐ 1-2 (10 Points)

☐ > 2 (15 Points)

3.1.2 If you exceeded the high quality limits, did you cumulatively track the metals loading at each land application site? (check applicable box)

☐ Yes

☐ No (10 points)

● N/A - Did not exceed limits or no HQ limit applies (0 points)

☐ N/A - Did not land apply biosolids until limit was met (0 points)

3.1.3 Number of times any of the metals exceeded the ceiling limits = 0

Exceedence Points

● 0 (0 Points)

☐ 1 (10 Points)

☐ > 1 (15 Points)

3.1.4 Were biosolids land applied which exceeded the ceiling limit?

☐ Yes (20 Points)

● No (0 Points)

3.1.5 If any metal limit (high quality or ceiling) was exceeded at any time, what action was taken? Has the source of the metals been identified?

n/a

0

4. Pathogen Control (per outfall):

4.1 Verify the following information. If any information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2020 - 03/31/2020
Density:	736,030
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic Digestion

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	01/01/2020 - 12/31/2020
Density:	736,030
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic Digestion

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Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	04/01/2020 - 06/30/2020
Density:	736,030
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic Digestion

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	07/01/2020 - 09/30/2020
Density:	736,030
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic Digestion

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2020 - 12/31/2020
Density:	736,030
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic Digestion

Outfall Number:	002
Biosolids Class:	B
Bacteria Type and Limit:	Fecal Coliform
Sample Dates:	10/01/2020 - 12/31/2020
Density:	736,030
Sample Concentration Amount:	MPN/G TS
Requirement Met:	Yes
Land Applied:	Yes
Process:	Anaerobic Digestion
Process Description:	Anaerobic Digestion

- 4.2 If exceeded Class B limit or did not meet the process criteria at the time of land application.
- 4.2.1 Was the limit exceeded or the process criteria not met at the time of land application?
- o Yes (40 Points)

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

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● No

If yes, what action was taken?

0

5. Vector Attraction Reduction (per outfall):

5.1 Verify the following information. If any of the information is incorrect, use the Report Issue button under the Options header in the left-side menu.

Outfall Number:	002
Method Date:	03/31/2020
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	002
Method Date:	12/31/2020
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	002
Method Date:	06/30/2020
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	002
Method Date:	09/30/2020
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

Outfall Number:	002
Method Date:	12/31/2020
Option Used To Satisfy Requirement:	Injection when land apply
Requirement Met:	Yes
Land Applied:	Yes
Limit (if applicable):	
Results (if applicable):	

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Jackson (Village) Wastewater Treatment Plant

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Outfall Number:	002		0
Method Date:	12/31/2020		
Option Used To Satisfy Requirement:	Injection when land apply		
Requirement Met:	Yes		
Land Applied:	Yes		
Limit (if applicable):			
Results (if applicable):			
5.2 Was the limit exceeded or the process criteria not met at the time of land application? ☐ Yes (40 Points) ☒ No If yes, what action was taken?			
6. Biosolids Storage 6.1 How many days of actual, current biosolids storage capacity did your wastewater treatment facility have either on-site or off-site? ☒ >= 180 days (0 Points) ☐ 150 - 179 days (10 Points) ☐ 120 - 149 days (20 Points) ☐ 90 - 119 days (30 Points) ☐ < 90 days (40 Points) ☐ N/A (0 Points) 6.2 If you checked N/A above, explain why.			
7. Issues 7.1 Describe any outstanding biosolids issues with treatment, use or overall management: No outstanding biosolids issues noted			

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Jackson (Village) Wastewater Treatment Plant

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2020

Staffing and Preventative Maintenance (All Treatment Plants)

1. Plant Staffing 1.1 Was your wastewater treatment plant adequately staffed last year? ● Yes ○ No If No, please explain: Could use more help/staff for: 1.2 Did your wastewater staff have adequate time to properly operate and maintain the plant and fulfill all wastewater management tasks including recordkeeping? ● Yes ○ No If No, please explain:	
2. Preventative Maintenance 2.1 Did your plant have a documented AND implemented plan for preventative maintenance on major equipment items? ● Yes (Continue with question 2) ☐☐ ○ No (40 points)☐☐ If No, please explain, then go to question 3: 2.2 Did this preventative maintenance program depict frequency of intervals, types of lubrication, and other tasks necessary for each piece of equipment? ● Yes ○ No (10 points) 2.3 Were these preventative maintenance tasks, as well as major equipment repairs, recorded and filed so future maintenance problems can be assessed properly? ● Yes ○ Paper file system ○ Computer system ● Both paper and computer system ○ No (10 points)	0
3. O&M Manual 3.1 Does your plant have a detailed O&M and Manufacturer Equipment Manuals that can be used as a reference when needed? ● Yes ○ No	
4. Overall Maintenance /Repairs 4.1 Rate the overall maintenance of your wastewater plant. ○ Excellent ● Very good ○ Good ○ Fair ○ Poor Describe your rating: WWTF staff maintains the plant in a efficient and timely matter	

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

Last Updated: Reporting For:
7/16/2021 **2020**

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

Compliance Maintenance Annual Report

Jackson (Village) Wastewater Treatment Plant

Last Updated: Reporting For:

7/16/2021

2020

Operator Certification and Education

1. Operator-In-Charge

1.1 Did you have a designated operator-in-charge during the report year?

● Yes (0 points)

○ No (20 points)

Name:

CHAD M RUSS

Certification No:

35582

0

2. Certification Requirements

2.1 In accordance with Chapter NR 114.56 and 114.57, Wisconsin Administrative Code, what level and subclass(es) were required for the operator-in-charge (OIC) to operate the wastewater treatment plant and what level and subclass(es) were held by the operator-in-charge?

Sub Class	SubClass Description	WWTP	OIC		
		Advanced	OIT	Basic	Advanced
A1	Suspended Growth Processes	X			X
A2	Attached Growth Processes				
A3	Recirculating Media Filters				
A4	Ponds, Lagoons and Natural				
A5	Anaerobic Treatment Of Liquid				
B	Solids Separation	X			X
C	Biological Solids/Sludges	X			X
P	Total Phosphorus	X			X
N	Total Nitrogen				
D	Disinfection	X			X
L	Laboratory	X			X
U	Unique Treatment Systems				
SS	Sanitary Sewage Collection	X	NA	NA	NA

0

2.2 Was the operator-in-charge certified at the appropriate level and subclass(es) to operate this plant? (Note: Certification in subclass SS is required 5 years after permit reissuance and is basic level only.)

● Yes (0 points)

○ No (20 points)

3. Succession Planning

3.1 In the event of the loss of your designated operator-in-charge, did you have a contingency plan to ensure the continued proper operation and maintenance of the plant that includes one or more of the following options (check all that apply)?

☒ One or more additional certified operators on staff

☐ An arrangement with another certified operator

☒ An arrangement with another community with a certified operator

☐ An operator on staff who has an operator-in-training certificate for your plant and is expected to be certified within one year

☐ A consultant to serve as your certified operator

☐ None of the above (20 points)

If "None of the above" is selected, please explain:

0

4. Continuing Education Credits

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4.1 If you had a designated operator-in-charge, was the operator-in-charge earning Continuing Education Credits at the following rates? OIT and Basic Certification: ○ Averaging 6 or more CECs per year. ○ Averaging less than 6 CECs per year. Advanced Certification: ● Averaging 8 or more CECs per year. ○ Averaging less than 8 CECs per year.	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Financial Management

1. Provider of Financial Information Name: Brian W. Kober Telephone: 262-677-0707 (XXX) XXX-XXXX E-Mail Address (optional): brian.kober @villageofjackson.com		
2. Treatment Works Operating Revenues 2.1 Are User Charges or other revenues sufficient to cover O&M expenses for your wastewater treatment plant AND/OR collection system ? ● Yes (0 points) ☐ ☐ ○ No (40 points) If No, please explain: 2.2 When was the User Charge System or other revenue source(s) last reviewed and/or revised? Year: 2020 ● 0-2 years ago (0 points) ☐ ☐ ○ 3 or more years ago (20 points) ☐ ☐ ○ N/A (private facility) 2.3 Did you have a special account (e.g., CWF required segregated Replacement Fund, etc.) or financial resources available for repairing or replacing equipment for your wastewater treatment plant and/or collection system? ● Yes (0 points) ○ No (40 points)		0
REPLACEMENT FUNDS [PUBLIC MUNICIPAL FACILITIES SHALL COMPLETE QUESTION 3]		
3. Equipment Replacement Funds 3.1 When was the Equipment Replacement Fund last reviewed and/or revised? Year: 2020 ● 1-2 years ago (0 points) ☐ ☐ ○ 3 or more years ago (20 points) ☐ ☐ ○ N/A If N/A, please explain: 3.2 Equipment Replacement Fund Activity 3.2.1 Ending Balance Reported on Last Year's CMAR 3.2.2 Adjustments - if necessary (e.g. earned interest, audit correction, withdrawal of excess funds, increase making up previous shortfall, etc.) 3.2.3 Adjusted January 1st Beginning Balance 3.2.4 Additions to Fund (e.g. portion of User Fee, earned interest, etc.)		\$ 889,966.98 \$ 0.00 \$ 889,966.98 + \$ 249,222.27

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3.2.5 Subtractions from Fund (e.g., equipment replacement, major repairs - use description box 3.2.6.1 below*)

- \$ 72,111.63

3.2.6 Ending Balance as of December 31st for CMAR Reporting Year

\$ 1,067,077.62

All Sources: This ending balance should include all Equipment Replacement Funds whether held in a bank account(s), certificate(s) of deposit, etc.

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

Replaced Various Equipment

3.3 What amount should be in your Replacement Fund? \$ 247,810.00

0

Please note: If you had a CWFP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the SectionInstructions link under Info header in the left-side menu.

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

● Yes

○ No

If No, please explain.

4. Future Planning

4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?

● Yes - If Yes, please provide major project information, if not already listed below. ☐ ☐

○ No

Project #	Project Description	Estimated Cost	Approximate Construction Year
1	The current discharge permit has a August 31, 2026 compliance date requirement for lower phosphorus limit. We are investigating a variety of options to meet the lower limit. Also, a new Facilities Planning Study is being created.	120,000	2024

5. Financial Management General Comments

ENERGY EFFICIENCY AND USE

6. Collection System

6.1 Energy Usage

6.1.1 Enter the monthly energy usage from the different energy sources:

COLLECTION SYSTEM PUMPAGE: Total Power Consumed

Number of Municipally Owned Pump/Lift Stations: 1

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	Electricity Consumed (kWh)	Natural Gas Consumed (therms)
January	424	
February	340	
March	387	
April	378	
May	341	
June	338	
July	298	
August	239	
September	265	
October	241	
November	259	
December	310	
Total	3,820	0
Average	318	0

6.1.2 Comments:

6.2 Energy Related Processes and Equipment

6.2.1 Indicate equipment and practices utilized at your pump/lift stations (Check all that apply):

- ☐ Comminution or Screening
- ☐ Extended Shaft Pumps
- ☐ Flow Metering and Recording
- ☐ Pneumatic Pumping
- ☒ SCADA System
- ☐ Self-Priming Pumps
- ☒ Submersible Pumps
- ☐ Variable Speed Drives
- ☐ Other:

6.2.2 Comments:

6.3 Has an Energy Study been performed for your pump/lift stations?

● No

○ Yes

Year:

By Whom:

Describe and Comment:

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6.4 Future Energy Related Equipment

6.4.1 What energy efficient equipment or practices do you have planned for the future for your pump/lift stations?

None

7. Treatment Facility

7.1 Energy Usage

7.1.1 Enter the monthly energy usage from the different energy sources:

TREATMENT PLANT: Total Power Consumed/Month

	Electricity Consumed (kWh)	Total Influent Flow (MG)	Electricity Consumed/ Flow (kWh/MG)	Total Influent BOD (1000 lbs)	Electricity Consumed/ Total Influent BOD (kWh/1000lbs)	Natural Gas Consumed (therms)
January	101,360	39.67	2,555	60.36	1,679	2,787
February	88,560	35.41	2,501	58.20	1,522	2,400
March	89,360	49.01	1,823	76.97	1,161	1,828
April	98,800	38.50	2,566	79.20	1,247	880
May	91,782	49.83	1,842	98.46	932	1,100
June	83,360	35.33	2,359	64.47	1,293	916
July	96,000	39.35	2,440	69.60	1,379	265
August	84,560	32.30	2,618	61.32	1,379	295
September	91,360	34.45	2,652	59.16	1,544	470
October	85,360	36.33	2,350	70.84	1,205	381
November	98,720	33.67	2,932	63.63	1,551	879
December	125,360	36.09	3,474	71.02	1,765	2,148
Total	1,134,582	459.94		833.23		14,349
Average	94,549	38.33	2,509	69.44	1,388	1,196

7.1.2 Comments:

7.2 Energy Related Processes and Equipment

7.2.1 Indicate equipment and practices utilized at your treatment facility (Check all that apply):

- ☐ Aerobic Digestion
- ☒ Anaerobic Digestion
- ☐ Biological Phosphorus Removal
- ☒ Coarse Bubble Diffusers
- ☒ Dissolved O2 Monitoring and Aeration Control
- ☐ Effluent Pumping
- ☒ Fine Bubble Diffusers
- ☒ Influent Pumping
- ☐ Mechanical Sludge Processing
- ☒ Nitrification
- ☒ SCADA System
- ☐ UV Disinfection
- ☒ Variable Speed Drives
- ☐ Other:

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7.2.2 Comments:

7.3 Future Energy Related Equipment

7.3.1 What energy efficient equipment or practices do you have planned for the future for your treatment facility?

None

8. Biogas Generation

8.1 Do you generate/produce biogas at your facility?

☐ No

☒ Yes

If Yes, how is the biogas used (Check all that apply):

☒ Flared Off

☒ Building Heat

☒ Process Heat

☐ Generate Electricity

☐ Other:

9. Energy Efficiency Study

9.1 Has an Energy Study been performed for your treatment facility?

☒ No

☐ Yes

☐ Entire facility

Year:

By Whom:

Describe and Comment:

☐ Part of the facility

Year:

By Whom:

Describe and Comment:

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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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2020

Sanitary Sewer Collection Systems

1. Capacity, Management, Operation, and Maintenance (CMOM) Program

1.1 Do you have a CMOM program that is being implemented?

☒ Yes

☐ No

If No, explain:

1.2 Do you have a CMOM program that contains all the applicable components and items according to Wisc. Adm Code NR 210.23 (4)?

☒ Yes

☐ No (30 points)

☐ N/A

If No or N/A, explain:

1.3 Does your CMOM program contain the following components and items? (check the components and items that apply)

☒ Goals [NR 210.23 (4)(a)]

Describe the major goals you had for your collection system last year:

Prevent SSO's, mainline backup, Rehabilitation or replacement of laterals and mainline sewer.

Did you accomplish them?

☒ Yes

☐ No

If No, explain:

☒ Organization [NR 210.23 (4) (b)] ☐

Does this chapter of your CMOM include:

☒ Organizational structure and positions (eg. organizational chart and position descriptions)

☒ Internal and external lines of communication responsibilities

☒ Person(s) responsible for reporting overflow events to the department and the public

☒ Legal Authority [NR 210.23 (4) (c)]

What is the legally binding document that regulates the use of your sewer system?

Sewer use Ordinance

If you have a Sewer Use Ordinance or other similar document, when was it last reviewed and revised? (MM/DD/YYYY) 2017-05-09

Does your sewer use ordinance or other legally binding document address the following:

☒ Private property inflow and infiltration

☒ New sewer and building sewer design, construction, installation, testing and inspection

☒ Rehabilitated sewer and lift station installation, testing and inspection

☒ Sewage flows satellite system and large private users are monitored and controlled, as necessary

☒ Fat, oil and grease control

☒ Enforcement procedures for sewer use non-compliance

☒ Operation and Maintenance [NR 210.23 (4) (d)]

Does your operation and maintenance program and equipment include the following:

☒ Equipment and replacement part inventories

☒ Up-to-date sewer system map

☒ A management system (computer database and/or file system) for collection system information for O&M activities, investigation and rehabilitation

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- ☒ A description of routine operation and maintenance activities (see question 2 below)
- ☒ Capacity assessment program
- ☒ Basement back assessment and correction
- ☒ Regular O&M training

☒ Design and Performance Provisions [NR 210.23 (4) (e)] ☐ ☐

What standards and procedures are established for the design, construction, and inspection of the sewer collection system, including building sewers and interceptor sewers on private property?

- ☒ State Plumbing Code, DNR NR 110 Standards and/or local Municipal Code Requirements
- ☒ Construction, Inspection, and Testing
- ☐ Others:

☒ Overflow Emergency Response Plan [NR 210.23 (4) (f)] ☐ ☐

Does your emergency response capability include:

- ☒ Responsible personnel communication procedures
- ☒ Response order, timing and clean-up
- ☒ Public notification protocols
- ☒ Training
- ☒ Emergency operation protocols and implementation procedures

☒ Annual Self-Auditing of your CMOM Program [NR 210.23 (5)] ☐ ☐

☐ Special Studies Last Year (check only those that apply):

- ☐ Infiltration/Inflow (I/I) Analysis
- ☐ Sewer System Evaluation Survey (SSES)
- ☐ Sewer Evaluation and Capacity Management Plan (SECAP)
- ☐ Lift Station Evaluation Report
- ☐ Others:

0

2. Operation and Maintenance

2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained.

Cleaning	1.4	% of system/year
Root removal	0	% of system/year
Flow monitoring	0	% of system/year
Smoke testing	0	% of system/year
Sewer line televising	1.6	% of system/year
Manhole inspections	9.2	% of system/year
Lift station O&M	2	# per L.S./year
Manhole rehabilitation	0.3	% of manholes rehabbed
Mainline rehabilitation	0	% of sewer lines rehabbed
Private sewer inspections	5	% of system/year
Private sewer I/I removal	0	% of private services

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River or water crossings % of pipe crossings evaluated or maintained

Please include additional comments about your sanitary sewer collection system below:

3. Performance Indicators

3.1 Provide the following collection system and flow information for the past year.

28.09	Total actual amount of precipitation last year in inches
34.2	Annual average precipitation (for your location)
42.5	Miles of sanitary sewer
1	Number of lift stations
0	Number of lift station failures
0	Number of sewer pipe failures
0	Number of basement backup occurrences
0	Number of complaints
1.16	Average daily flow in MGD (if available)
1.9	Peak monthly flow in MGD (if available)
	Peak hourly flow in MGD (if available)

3.2 Performance ratios for the past year:

0.00	Lift station failures (failures/year)
0.00	Sewer pipe failures (pipe failures/sewer mile/yr)
0.00	Sanitary sewer overflows (number/sewer mile/yr)
0.00	Basement backups (number/sewer mile)
0.00	Complaints (number/sewer mile)
1.6	Peaking factor ratio (Peak Monthly:Annual Daily Avg)
0.0	Peaking factor ratio (Peak Hourly:Annual Daily Avg)

4. Overflows

LIST OF SANITARY SEWER (SSO) AND TREATMENT FACILITY (TFO) OVERFLOWS REPORTED **

Date	Location	Cause	Estimated Volume
None reported			

** If there were any SSOs or TFOs that are not listed above, please contact the DNR and stop work on this section until corrected.

5. Infiltration / Inflow (I/I)

5.1 Was infiltration/inflow (I/I) significant in your community last year?

☐ Yes

☒ No

If Yes, please describe:

5.2 Has infiltration/inflow and resultant high flows affected performance or created problems in your collection system, lift stations, or treatment plant at any time in the past year?

☐ Yes

☒ No

If Yes, please describe:

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5.3 Explain any infiltration/inflow (I/I) changes this year from previous years: Repaired 7 Laterals, televised 132 laterals 5.4 What is being done to address infiltration/inflow in your collection system? Utility continue to address I&I by replacing old mainline, manhole repair or replacement as needed. Replacing private laterals that are found to be failing through lateral inspection.	
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Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	A

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Last Updated: Reporting For:
7/16/2021 2020

Grading Summary

WPDES No: 0021806

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS
Influent	A	4	3	12
BOD/CBOD	A	4	10	40
TSS	A	4	5	20
Ammonia	A	4	5	20
Phosphorus	A	4	3	12
Biosolids	A	4	5	20
Staffing/PM	A	4	1	4
OpCert	A	4	1	4
Financial	A	4	1	4
Collection	A	4	3	12
TOTALS			37	148
GRADE POINT AVERAGE (GPA) = 4.00				

Notes:

- A = Voluntary Range (Response Optional)
- B = Voluntary Range (Response Optional)
- C = Recommendation Range (Response Required)
- D = Action Range (Response Required)
- F = Action Range (Response Required)

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Resolution or Owner's Statement

Name of Governing
Body or Owner:

Village of Jackson

Date of Resolution or
Action Taken:

2021-08-10

Resolution Number:

21-16

Date of Submittal:

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO SPECIFIC CMAR SECTIONS (Optional for grade A or B. Required for grade C, D, or F):

Influent Flow and Loadings: Grade = A

Effluent Quality: BOD: Grade = A

Effluent Quality: TSS: Grade = A

Effluent Quality: Ammonia: Grade = A

Effluent Quality: Phosphorus: Grade = A

Biosolids Quality and Management: Grade = A

Staffing: Grade = A

Operator Certification: Grade = A

Financial Management: Grade = A

Collection Systems: Grade = A

(Regardless of grade, response required for Collection Systems if SSOs were reported)

ACTIONS SET FORTH BY THE GOVERNING BODY OR OWNER RELATING TO THE OVERALL GRADE POINT AVERAGE AND ANY GENERAL COMMENTS

(Optional for G.P.A. greater than or equal to 3.00, required for G.P.A. less than 3.00)

G.P.A. = 4.00



engineering | architecture | environmental | surveying
landscape architecture | planning | economic development

W61 N497 Washington Avenue
Cedarburg, WI 53012
262-204-2360
800-472-7372
FAX 262-375-2688
www.cedarcorp.com

July 20, 2021

Village of Jackson
N168 W20733 Main Street
PO Box 637
Jackson, WI 53037

Attn: Mr. Brian Kober, P.E., Director of Public Works

Re: Contractor's Application for Payment No. 7
Spruce Street and Ridgeway Drive Extensions
Project No. 05789-0008

Dear Mr. Kober:

Enclosed for your use in payment to Wondra Construction, Inc. in the amount of \$122,388.21 is Contractor's Application for Payment No. 7.

Following your review and approval, please complete the application for payment forms within the areas reserved for the Owner. Thereafter, retain one copy for your records, provide the second copy to the Contractor with payment, and provide the third copy to our office.

Should you have any questions, please feel free to contact me at our Cedarburg office.

Sincerely,

CEDAR CORPORATION

A handwritten signature in blue ink, appearing to read 'Douglas T. Kroes'.

Douglas T. Kroes
Senior Construction Manager

Enclosed: As Noted

Cc: Roger Thimm, Wondra Construction, Inc.

☒ Owner ☐ Engineer
☐ Contractor ☐ Funding Agency

Contractor's Application for Payment No. 7

Application Period: 01-29-2021 to 07-15-2021		Application Date: 7/19/2021
To (Owner): Village of Jackson	From (Contractor): Wondra Construction, Inc.	Via (Engineer): Cedar Corporation
Project: Spruce Street and Ridgeway Drive Extensions	Contract: Roger Thimm	
Owner's Contract No: A-20	Contractor's Project No:	Engineer's Project No: 05789-0008

Application For Payment Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
1		\$785.00
2	\$17,584.00	
3		\$51,765.50
TOTALS	\$17,584.00	\$52,550.50
NET CHANGE BY CHANGE ORDERS	-\$34,966.50	

1. ORIGINAL CONTRACT PRICE.....	\$	\$1,423,655.55
2. Net change by Change Orders.....	\$	-\$34,966.50
3. Current Contract Price (Line 1 ± 2).....	\$	\$1,388,689.05
4. TOTAL COMPLETED AND STORED TO DATE (Column I total on Progress Estimates).....	\$	\$1,393,903.26
5. RETAINAGE:		
a. 5% X \$1,393,903.26 Work Completed.....	\$	\$69,695.16
b. 5% X Stored Material.....	\$	
c. Total Retainage (Line 5.a + Line 5.b).....	\$	\$69,695.16
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$	\$1,324,208.09
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$	\$1,201,819.88
8. AMOUNT DUE THIS APPLICATION.....	\$	\$122,388.21

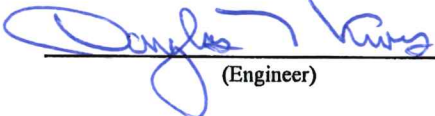
Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: Roger W. Thimm Date: 7-20-2021

Payment of: \$ \$122,388.21
(Line 8 or other - attach explanation of the other amount)

is recommended by:  (Engineer) 7-20-21 (Date)

Payment of: \$ \$122,388.21
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ Funding or Financing Entity (if applicable) _____ (Date)

Unit Price Progress Estimate

Contractor's Application

Project: Spruce Street and Ridgeway Drive Extensions						Application Number: 7						
Application Period: 01-29-2021 to 07-15-2021						Application Date: July 19, 2021						
A				B	C	D	E	F	G	H	I	J
Item		Estimated Bid Quantity	Unit Price	Quantity Completed						Total Completed & Stored to Date (C+E+G)		% Comp.
Bid No.	Description			Previous Applications		This Application		Materials Stored				
				Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	
1	CLEARING AND GRUBBING	1 L.S.	\$12,000.00	1	\$12,000.00					1	\$12,000.00	100.0%
2	COMMON EXCAVATION	1 L.S.	\$132,600.00	1	\$132,600.00					1	\$132,600.00	100.0%
3	IMPORTED FILL MATERIAL	3,200 C.Y.	\$26.00									
4	SAW CUTTING ASPHALT PAVEMENT	451 L.F.	\$3.35	114	\$381.90					114	\$381.90	25.3%
5	ASPHALT PAVEMENT REMOVAL	562 S.Y.	\$2.60	452	\$1,175.20					452	\$1,175.20	80.4%
6	8" PVC SANITARY SEWER MAIN	1,871 L.F.	\$90.00	1877	\$168,930.00					1877	\$168,930.00	100.3%
7	48" DIA. SANITARY SEWER MANHOLE (7 Units)	94 V.F.	\$310.25	93.47	\$28,999.07					93.47	\$28,999.07	99.4%
8	SANITARY MANHOLE RIM ADJUSTMENT	1 EACH	\$550.00	1	\$550.00					1	\$550.00	100.0%
9	8" PVC WATER MAIN	2,750 L.F.	\$64.10	2741	\$175,698.10					2741	\$175,698.10	99.7%
10	12"X 8" LIVE TAPPING TEE	2 EACH	\$3,850.00	2	\$7,700.00					2	\$7,700.00	100.0%
11	HYDRANT ASSEMBLY	6 EACH	\$5,535.00	6	\$33,210.00					6	\$33,210.00	100.0%
12	8" GATE VALVE	10 EACH	\$1,995.00	9	\$17,955.00					9	\$17,955.00	90.0%
13	REMOVE CATCH BASIN	1 EACH	\$500.00	2	\$1,000.00					2	\$1,000.00	200.0%
14	27" RCP STORM SEWER	76 L.F.	\$67.95	76	\$5,164.20					76	\$5,164.20	100.0%
15	27" RCP APRON ENDWALL (AEW) W/ TRASHGUARD	1 EACH	\$1,720.00	1	\$1,720.00					1	\$1,720.00	100.0%
16	24" RCP STORM SEWER	734 L.F.	\$60.60	734	\$44,480.40					734	\$44,480.40	100.0%
17	24" RCP APRON ENDWALL (AEW) W/ TRASHGUARD	1 EACH	\$1,455.00	1	\$1,455.00					1	\$1,455.00	100.0%
18	18" RCP STORM SEWER	495 L.F.	\$51.90	364	\$18,891.60					364	\$18,891.60	73.5%
19	18" RCP APRON ENDWALL (AEW) W/ TRASHGUARD	1 EACH	\$1,200.00	2	\$2,400.00					2	\$2,400.00	200.0%
20	15" RCP STORM SEWER	88 L.F.	\$46.90	88.5	\$4,150.65					88.5	\$4,150.65	100.6%
21	15" RCP APRON ENDWALL (AEW) W/ TRASHGUARD	1 EACH	\$1,080.00	1	\$1,080.00					1	\$1,080.00	100.0%
22	12" RCP STORM SEWER	290 L.F.	\$44.70	328.5	\$14,683.95					328.5	\$14,683.95	113.3%
23	48" DIA. STORM SEWER MANHOLE (5 Units)	16 V.F.	\$723.75	19	\$13,751.25					19	\$13,751.25	118.8%
24	60" DIA. STORM SEWER MANHOLE (1 Unit)	4 V.F.	\$736.50	3.67	\$2,702.96					3.67	\$2,702.96	91.8%
25	2' X 3' STORM SEWER CATCH BASIN	16 EACH	\$1,930.00	18	\$34,740.00					18	\$34,740.00	112.5%
26	POND OUTLET STRUCTURE	1 EACH	\$4,420.00	1	\$4,420.00					1	\$4,420.00	100.0%
27	CULVERT REMOVAL W/O REPLACEMENT	2 EACH	\$300.00	2	\$600.00					2	\$600.00	100.0%
28	53"X 34" HERCP CULVERT REMOVE AND REPLACE	204 L.F.	\$137.00	204	\$27,948.00					204	\$27,948.00	100.0%
29	53"X 34" HERCP CULVERT APRON ENDWALL (AEW)	4 EACH	\$1,725.00	4	\$6,900.00					4	\$6,900.00	100.0%
30	68"X 43" HERCP CULVERT	170 L.F.	\$180.60	176	\$31,785.60					176	\$31,785.60	103.5%
31	68"X 43" HERCP CULVERT APRON ENDWALL (AEW)	4 EACH	\$2,850.00	4	\$11,400.00					4	\$11,400.00	100.0%
32	RIP RAP, MEDIUM	120 C.Y.	\$85.70	120	\$10,284.00					120	\$10,284.00	100.0%
33	EXCAVATION BELOW SUBGRADE (EBS)	800 C.Y.	\$18.10	1156	\$20,923.60	27.5	\$497.75			1183.5	\$21,421.35	147.9%
34	EBS BACKFILL 1 1/4" DENSE	800 TONS	\$13.60	2382.95	\$32,408.12	54.91	\$746.78			2437.86	\$33,154.90	304.7%
35	EBS BACKFILL, BREAKER RUN	800 TONS	\$14.15									
36	CRUSHED AGGREGATE BASE COURSE 1 1/4"	6029 TONS	\$13.10	6549.94	\$85,804.21	224.94	\$2,946.71			6774.88	\$88,750.93	112.4%
37	REMOVE CURB AND GUTTER	272 L.F.	\$5.00	145	\$725.00					145	\$725.00	53.3%
38	30" CURB AND GUTTER TYPE D	5,225 L.F.	\$12.50	5240.5	\$65,506.25	297	\$3,712.50			5537.5	\$69,218.75	106.0%
39	7" CONCRETE DRIVEWAY APRON	1212 S.F.	\$6.70			2041.73	\$13,679.59			2041.73	\$13,679.59	168.5%
40	4" CONCRETE SIDEWALK	25030 S.F	\$3.80			23932.25	\$90,942.55			23932.25	\$90,942.55	95.6%
41	LOWER LAYER HMA PAVEMENT, 3 LT	1790 TONS	\$65.81	1790	\$117,799.90	32	\$2,105.92			1822	\$119,905.82	101.8%
42	UPPER LAYER HMA PAVEMENT, 4 LT	1040 TONS	\$62.90									

Unit Price Progress Estimate

Contractor's Application

Project: Spruce Street and Ridgeway Drive Extensions						Application Number: 7						
Application Period: 01-29-2021 to 07-15-2021						Application Date: July 19, 2021						
A				B	C	D	E	F	G	H	I	J
Bid No.	Item	Estimated Bid Quantity	Unit Price	Quantity Completed						Total Completed & Stored to Date (C+E+G)		% Comp.
	Description			Previous Applications		This Application		Materials Stored				
				Quantity	Amount	Quantity	Amount	Quantity	Amount	Quantity	Amount	
1	CLEARING AND GRUBBING	1 L.S.	\$12,000.00	1	\$12,000.00					1	\$12,000.00	100.0%
43	DITCH CHECKS	19 EACH	\$158.00	6	\$948.00					6	\$948.00	31.6%
44	SILT FENCE	2450 L.F.	\$1.50	2450	\$3,675.00					2450	\$3,675.00	100.0%
45	INLET PROTECTION	17 EACH	\$85.00	17	\$1,445.00					17	\$1,445.00	100.0%
46	TRACKING PAD	2 EACH	\$2,100.00	2	\$4,200.00					2	\$4,200.00	100.0%
47	TRAFFIC CONTROL	1 L.S.	\$3,700.00	1	\$3,700.00					1	\$3,700.00	100.0%
48	SITE RESTORATION	1 L.S.	\$36,800.00	0.7	\$25,760.00	0.3	\$11,040.00			1	\$36,800.00	100.0%
Alt 1	ASPHALT WEDGING	1 L.S.	\$850.00	1	\$850.00					1	\$850.00	100.0%
50	6" DRAIN TILE	LF	\$12.00	454	\$5,448.00					454	\$5,448.00	
51	HYDRANT MAN UPGRADE	LS	\$1,250.00	1	\$1,250.00					1	\$1,250.00	
52	7" DRIVEWAY APRON & SIDEWALK	SF	\$360.00									
53	WATER MAIN BLOW-OFFS	EACH	\$100.00	-4	-\$400.00					-4	-\$400.00	
54	HYDRAULIC DAMS	EACH	\$750.00	2	\$1,500.00					2	\$1,500.00	
55	18" RCP STORM SEWER CHANGES	EACH	\$1,431.00	1	\$1,431.00					1	\$1,431.00	
56	HYDRAULIC DAM-EAGLE DR CULVERT	EACH	\$1,500.00	1	\$1,500.00					1	\$1,500.00	
57	CULVERT TRANSITION GRADING	LS	\$2,400.00	1	\$2,400.00					1	\$2,400.00	
59	GEOGRID	SY	\$1.50	1539	\$2,308.50					1539	\$2,308.50	
60	Export Surplus Dirt	2686 CY	\$22.00	2686	\$59,092.00					2686	\$59,092.00	100.0%
61	Eagle Dr CMP Culvert Extension	1 LS	\$1,500.00	1	\$1,500.00					1	\$1,500.00	100.0%
62	Lower 18" RCP/ AEW	1 LS	\$2,700.00	1	\$2,700.00					1	\$2,700.00	100.0%
63	Ditching & Restoration Lot 2	1 LS	\$3,400.00	1	\$3,400.00					1	\$3,400.00	100.0%
64	Ditching East Eagle Dr	1 LS	\$3,600.00	1	\$3,600.00					1	\$3,600.00	100.0%
	TOTAL					\$1,268,231.46		\$125,671.80			\$1,393,903.26	

To(OWNER): Village of Jackson
PO Box 637
Jackson, WI 53037-

Project: Jackson Spruce St & Ridgeway D
Spruce St
Jackson, WI 53037

Application No: 7
Invoice No: 10680
Invoice Date: 7/19/2021
Terms: Net 31
Due Date: 8/19/2021
Period To: 7/15/2021
Project No:
Contract Date:

Page 1

From: Wondra Construction Inc.
W2874 Graylog Rd.
Iron Ridge, WI 53035
(920) 387-5840

Via(Architect/
Engineer)

For:

Original Contract sum.....	1,423,655.55
Change Orders.....	-34,966.50
Contract sum.....	1,388,689.05
Completed to date.....	1,393,903.27
Retainage.....	69,695.16
Total earned less retainage.....	1,324,208.11
Previous billings.....	1,201,819.88
Current payment due.....	122,388.21
Sales tax.....	0.00
Total due.....	122,388.21

To(OWNER): Village of Jackson
PO Box 637
Jackson, WI 53037-

Project: Jackson Spruce St & Ridgeway D
Spruce St
Jackson, WI 53037

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Page 2

From: Wondra Construction Inc.
W2874 Graylog Rd.
Iron Ridge, WI 53035
(920) 387-5840

Via(Architect/
Engineer)

For:

No.	Description	Total Quantity	Unit	Cost	Total Cost	Completed Units	Current Value	Prior Value	Due This Request
10	Clearing and Grubbing	1	Lump Sum	12,000.00	12,000.00	1	12,000.00	12,000.00	0.00
20	Common Excavation	1	Lump Sum	132,600.00	132,600.00	1	132,600.00	132,600.00	0.00
30	Imported Fill Material	900	CY	26.00	23,400.00	0	0.00	0.00	0.00
40	Saw Cutting Asphalt Pavement	451	LF	3.35	1,510.85	114	381.90	381.90	0.00
50	Asphalt Pavement Removal	562	SY	2.60	1,461.20	452	1,175.20	1,175.20	0.00
50	8" PVC Sanitary Sewer Main	1,871	LF	90.00	168,390.00	1,877	168,930.00	168,930.00	0.00
70	48" Dia. Sanitary Sewer Manhol	94	VF	310.25	29,163.50	93.47	28,999.07	28,999.07	0.00
80	Sanitary Manhole Rim Adjustmen	1	Each	550.00	550.00	1	550.00	550.00	0.00
90	8" PVC Water Main	2,750	LF	64.10	176,275.00	2,741	175,698.10	175,698.10	0.00
100	12"x8" Live Tapping Tee	2	Each	3,850.00	7,700.00	2	7,700.00	7,700.00	0.00
110	Hydrant Assembly	6	Each	5,535.00	33,210.00	6	33,210.00	33,210.00	0.00
120	8" Gate Valve	10	Each	1,995.00	19,950.00	9	17,955.00	17,955.00	0.00
130	Remove Catch Basin	2	Each	500.00	1,000.00	2	1,000.00	1,000.00	0.00
140	27" RCP Storm Sewer	76	LF	67.95	5,164.20	76	5,164.20	5,164.20	0.00
150	27" RCP Apron Endwall (AEW) W/	1	Each	1,720.00	1,720.00	1	1,720.00	1,720.00	0.00
160	24" RCP Storm Sewer	734	LF	60.60	44,480.40	734	44,480.40	44,480.40	0.00
170	24" RCP Apron Endwall (AEW) W/	1	Each	1,455.00	1,455.00	1	1,455.00	1,455.00	0.00
180	18" RCP Storm Sewer	374	LF	51.90	19,410.60	364	18,891.60	18,891.60	0.00
190	18" RCP Apron Endwall (AEW) W/	2	Each	1,200.00	2,400.00	2	2,400.00	2,400.00	0.00
200	15" RCP Storm Sewer	88	LF	46.90	4,127.20	88.5	4,150.65	4,150.65	0.00
210	15" RCP Apron Endwall (AEW) W/	1	Each	1,080.00	1,080.00	1	1,080.00	1,080.00	0.00
220	12" RCP Storm Sewer	327	LF	44.70	14,616.90	328.5	14,683.95	14,683.95	0.00
230	48" Dia. Storm Sewer Manhole (	16	VF	723.75	11,580.00	19	13,751.25	13,751.25	0.00
240	60" Dia. Storm Sewer Manhole (	4	VF	736.50	2,946.00	3.67	2,702.96	2,702.96	0.00
250	2'x3' Storm Sewer Catch Basin	18	Each	1,930.00	34,740.00	18	34,740.00	34,740.00	0.00
260	Pond Outlet Structure	1	Each	4,420.00	4,420.00	1	4,420.00	4,420.00	0.00
270	Culvert Removal W/O Replacemen	2	Each	300.00	600.00	2	600.00	600.00	0.00
280	53"x34" HERCP Culvert Remove a	204	LF	137.00	27,948.00	204	27,948.00	27,948.00	0.00
290	53"x34" HERCP Culvert Apron En	4	Each	1,725.00	6,900.00	4	6,900.00	6,900.00	0.00
300	64"x43" HERCP Culvert	170	LF	180.60	30,702.00	176	31,785.60	31,785.60	0.00
310	64"x43" HERCP Culvert Apron En	4	Each	2,850.00	11,400.00	4	11,400.00	11,400.00	0.00
320	Rip Rap Medium	120	CY	85.70	10,284.00	120	10,284.00	10,284.00	0.00
330	Excavation Below Subgrade (EBS	800	CY	18.10	14,480.00	1,183.5	21,421.35	20,923.60	497.75
340	EBS Backfill 1 1/4" Dense	800	Ton	13.60	10,880.00	2,437.86	33,154.90	32,408.12	746.78
350	EBS Backfill Breaker Run	800	Ton	14.15	11,320.00	0	0.00	0.00	0.00
360	Crushed Aggregate Base Course	6,029	Ton	13.10	78,979.90	6,774.88	88,750.93	85,804.21	2,946.72

To(OWNER): Village of Jackson
PO Box 637
Jackson, WI 53037-

Project: Jackson Spruce St & Ridgeway D
Spruce St
Jackson, WI 53037

Application No: 7
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Page 3

From: Wondra Construction Inc.
W2874 Graylog Rd.
Iron Ridge, WI 53035
(920) 387-5840

Via(Architect/
Engineer)

For:

<u>No.</u>	<u>Description</u>	<u>Total Quantity</u>	<u>Unit</u>	<u>Total Cost</u>	<u>Total Cost</u>	<u>Completed Units</u>	<u>Current Value</u>	<u>Prior Value</u>	<u>Due This Request</u>
370	Remove Curb and Gutter	272	LF	5.00	1,360.00	145	725.00	725.00	0.00
380	30" Curb and Gutter Type D	5,225	LF	12.50	65,312.50	5,537.5	69,218.75	65,506.25	3,712.50
390	7" Concrete Driveway Apron	1,212	SF	6.70	8,120.40	2,041.73	13,679.59	0.00	13,679.59
400	4" Concrete Sidewalk	25,030	SF	3.80	95,114.00	23,932.25	90,942.55	0.00	90,942.55
410	Lower Layer HMA Pavement 3 LT	1,790	Ton	65.81	117,799.90	1,822	119,905.82	117,799.90	2,105.92
420	Upper Layer HMA Pavement 4 LT	0	Ton	62.90	0.00	0	0.00	0.00	0.00
430	Ditch Checks	19	Each	158.00	3,002.00	6	948.00	948.00	0.00
440	Silt Fence	2,450	LF	1.50	3,675.00	2,450	3,675.00	3,675.00	0.00
450	Inlet Protection	17	Each	85.00	1,445.00	17	1,445.00	1,445.00	0.00
460	Tracking Pad	2	Each	2,100.00	4,200.00	2	4,200.00	4,200.00	0.00
470	Traffic Control	1	Lump Sum	3,700.00	3,700.00	1	3,700.00	3,700.00	0.00
480	Site Restoration	1	Lump Sum	36,800.00	36,800.00	1	36,800.00	25,760.00	11,040.00
490	Asphalt Wedging	1	LS	850.00	850.00	1	850.00	850.00	0.00
500	6" Drain Tile	454	LF	12.00	5,448.00	454	5,448.00	5,448.00	0.00
510	Hydrant Manu Upgrade	1	LS	1,250.00	1,250.00	1	1,250.00	1,250.00	0.00
520	7" Driveway Apron & Sidewalk	360	SF	7.60	2,736.00	0	0.00	0.00	0.00
530	Water Main Blow-Offs	-4	EA	100.00	-400.00	-4	-400.00	-400.00	0.00
540	Hydraulic Dams	2	EA	750.00	1,500.00	2	1,500.00	1,500.00	0.00
550	18" RCP Storm Sewer Changes	1	EA	1,431.00	1,431.00	1	1,431.00	1,431.00	0.00
560	Hydraulic Dam-Eagle Dr Culvert	1	EA	1,500.00	1,500.00	1	1,500.00	1,500.00	0.00
570	Culvert Transition Grading	1	LS	2,400.00	2,400.00	1	2,400.00	2,400.00	0.00
590	Geogrid	1,539	SY	1.50	2,308.50	1,539	2,308.50	2,308.50	0.00
600	Export Surplus Material	1	LS	59,092.00	59,092.00	1	59,092.00	59,092.00	0.00
610	Eagle Dr CMP Culvert Extension	1	LS	1,500.00	1,500.00	1	1,500.00	1,500.00	0.00
620	Lowerr 18" RCP/AEW	1	LS	2,700.00	2,700.00	1	2,700.00	2,700.00	0.00
630	Ditching & Restoration Lot2 &	1	LS	3,400.00	3,400.00	1	3,400.00	3,400.00	0.00
640	Ditching East Eagle Dr	1	LS	3,600.00	3,600.00	1	3,600.00	3,600.00	0.00
					<u>1,388,689.05</u>		<u>1,393,903.27</u>	<u>1,268,231.46</u>	<u>125,671.81</u>

THIRD AMENDMENT TO TOWER/LAND LEASE AGREEMENT

This Third Amendment to Tower/Land Lease Agreement (“Third Amendment”), made this _____ day of _____, 2021, modifies that certain Tower/Land Lease Agreement (“Lease”) dated April 20, 1999 by and between Village of Jackson, (“Jackson”), a Wisconsin municipal corporation and United States Cellular Operating Company LLC, a Delaware limited liability company, having an address at Attention: Real Estate Lease Administration, 8410 West Bryn Mawr Avenue, Chicago, Illinois 60631 (“USCOC”).

WHEREAS, Jackson and USCOC entered into that certain Tower/Land Lease Agreement dated April 20, 1999 as amended by the First Amendment to Tower/Land Lease Agreement dated August 28, 2002 and the Second Amendment to Tower/Land Lease Agreement dated September 23, 2019; and

WHEREAS, Jackson owns a water tower located on Parcel 2 of C.S.M No. 4465 Washington County, Wisconsin; and

WHEREAS, Jackson and USCOC entered into the Lease for the purpose of leasing certain property (the “Premises”) for the operation of a mobile telecommunications base station; and,

WHEREAS, USCOC desires to add equipment (“Modifications”) to Jackson’s water tower to meet changed engineering needs; and

WHEREAS, Jackson and USCOC, in their mutual interest, wish to amend the Lease as set forth below accordingly.

NOW THEREFORE, in consideration of the terms of the Lease and this Third Amendment and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Jackson and USCOC agree as follows:

- I. Lease Exhibit B-1 is hereby deleted in its entirety and replaced with the revised Exhibit B-2, a copy of which is attached and made a part hereof. Jackson hereby approves of USCOC’s Equipment and use of said Premises as specified in Exhibit B-2.
- II. In consideration for USCOC’s Modifications listed in Exhibit B-2, effective upon the first day of the month following the completion of the Modifications, the Rent will be increased by Three Thousand and 00/100 Dollars (\$3000.00) per year. Rent shall continue to escalate in accordance with the Lease.
- III. In all other respects the Lease is hereby ratified and affirmed without change.

[END OF AMENDMENT-SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties hereto bind themselves to this Third Amendment as of the date of full execution.

JACKSON:
Village of Jackson

USCOC:
United States Cellular Operating Company
LLC

By: _____

By: _____

Printed: _____

Printed: _____

Title: _____

Title: Vice President

Date: _____

Date: _____

[NOTARY PAGE TO FOLLOW]

STATE OF WISCONSIN)
)
 COUNTY OF WASHINGTON)

I, the undersigned, a notary public in and for the State and County aforesaid, do hereby certify that _____, known to me to be the same person whose name is subscribed to the foregoing Thrid Amendment to Tower/Land Lease Agreement appeared before me this day in person and acknowledged that he signed the said Amendment as his free and voluntary act for the uses and purposes therein stated.

Given under my hand and seal this ____ day of _____, 20__.

Notary Public

My commission expires _____

STATE OF ILLINOIS)
)
 COUNTY OF COOK)

I, the undersigned, a notary public in and for the State and County aforesaid, do hereby certify that _____, Vice President, known to me to be the same person whose name is subscribed to the foregoing Third Amendment to Tower/Land Lease Agreement, appeared before me this day in person and acknowledged that, pursuant to his authority, he signed the said Amendment as his free and voluntary act on behalf of the named limited liability company, for the uses and purposes therein stated.

Given under my hand and seal this ____ day of _____, 20__.

Notary Public

My commission expires _____

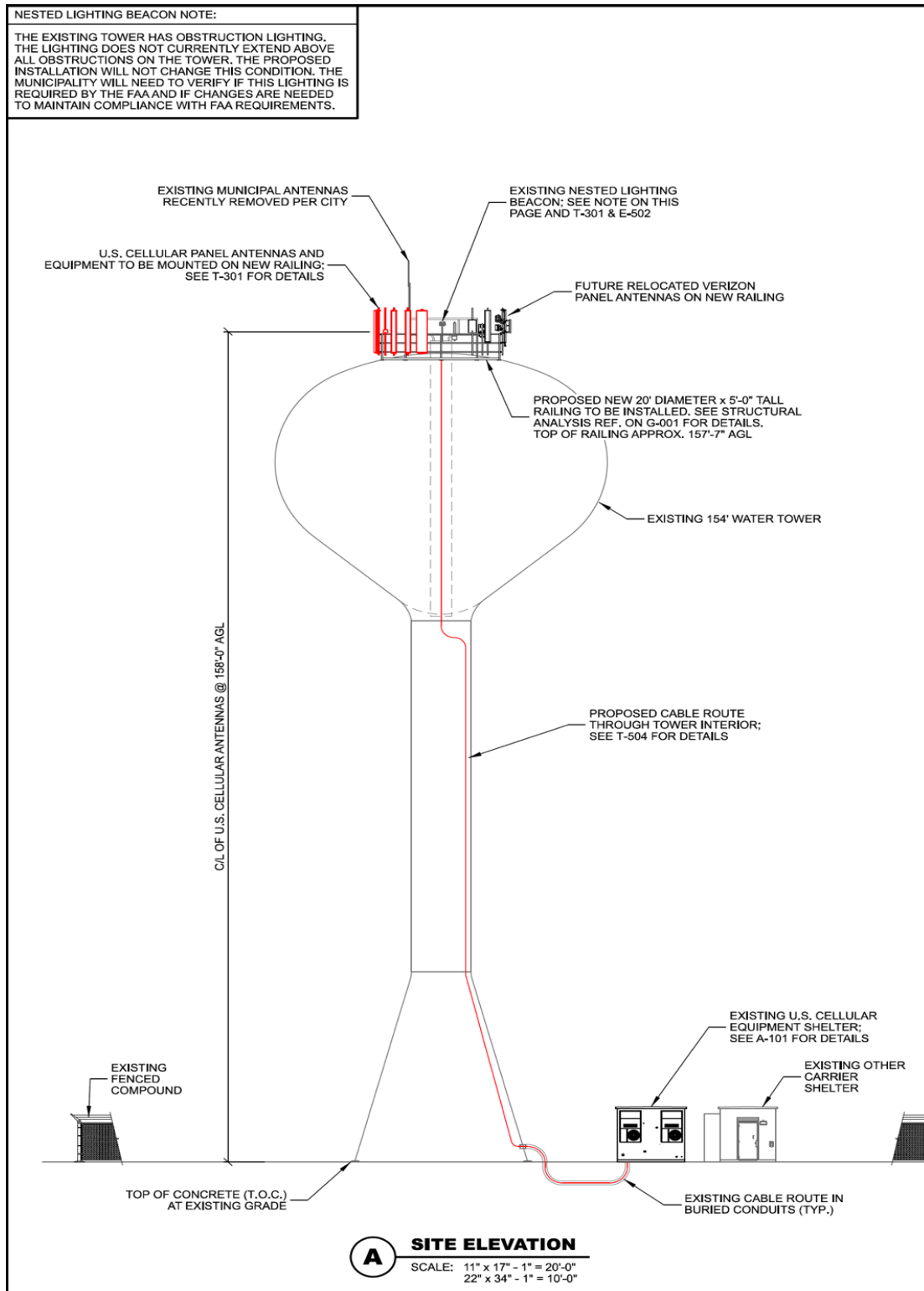
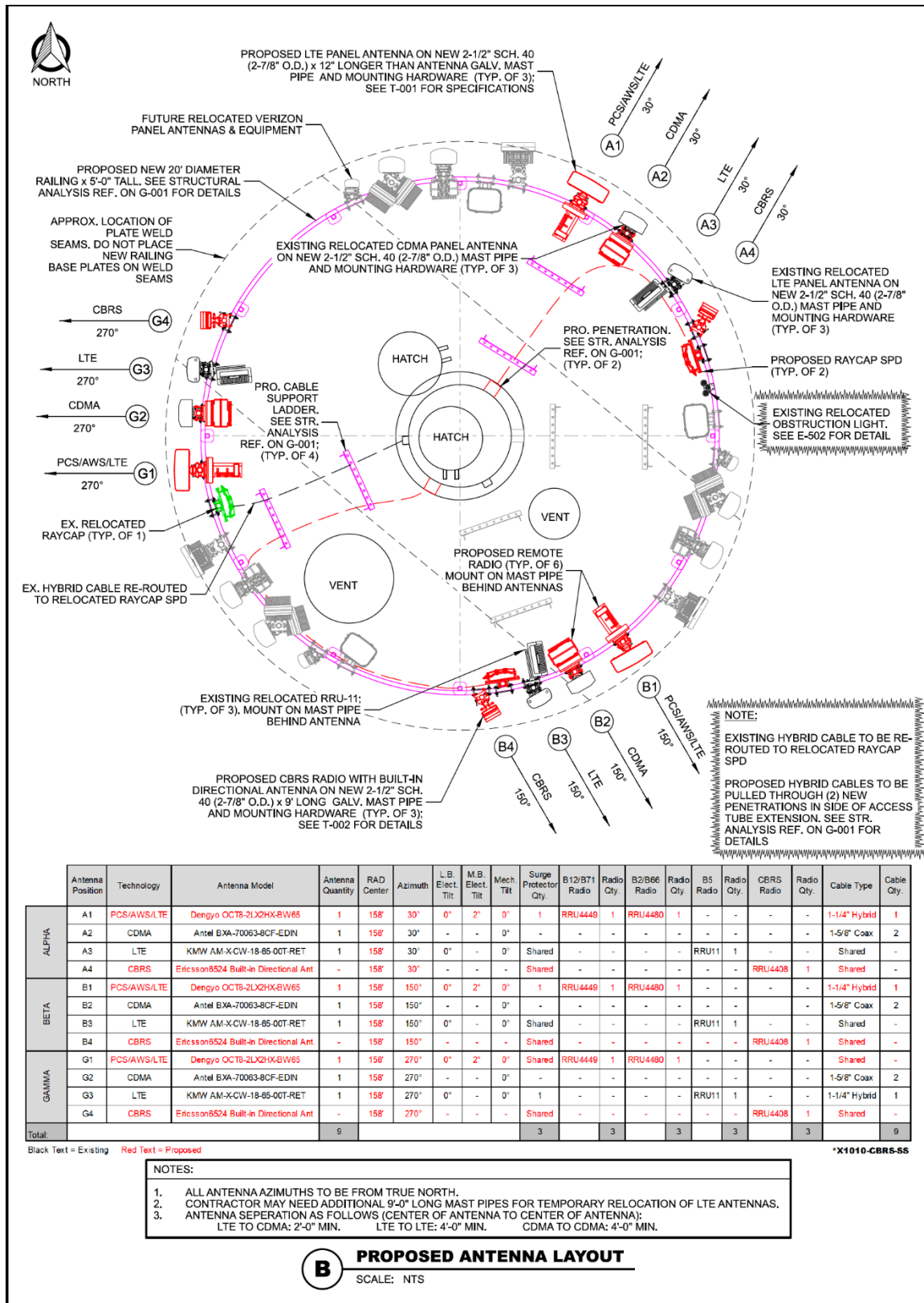
EXHIBIT B-2

EXHIBIT B-2 (cont.)

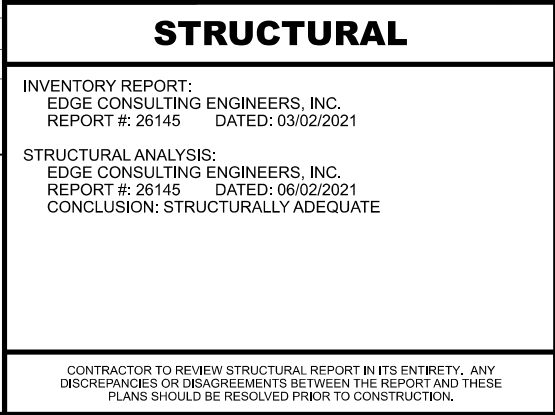
SCOPE OF WORK			
TOWER SCOPE			
MODERNIZATION SCOPE (REMAIN/RELOCATE)			
	QTY.	EQUIPMENT	ACTION
ANTENNA(S)/EQUIP.	3	CDMA ANTENNA(S) @ 158'	TO BE RELOCATED
	3	LTE ANTENNA(S) @ 158'	TO BE RELOCATED
	1	RAYCAP SPD(S)	TO BE RELOCATED
	3	RADIO UNIT(S)	TO BE RELOCATED
TRANSMISSION CABLE(S)	1	1-1/4" EUPEN HYBRID CABLE(S)	TO REMAIN
	6	1-5/8" CDMA COAX	TO REMAIN
COAX JUMPERS:	-	EXISTING CDMA COAX JUMPERS	REPLACE AS NECESSARY
GROUND BAR(S):	-	ANTENNA GROUND BAR*	G.C. TO VERIFY
	-	LOWER TOWER GROUND BAR*	TO REMAIN
MODERNIZATION SCOPE (TO BE INSTALLED)			
ANTENNA(S)/EQUIP.	3	LTE ANTENNA(S) @ 158'	TO BE INSTALLED
	3	CBRS RADIO(S) W/ BUILT-IN ANTENNA(S)	TO BE INSTALLED
	2	RAYCAP SPD(S)	TO BE INSTALLED
	6	REMOTE RADIO(S)	TO BE INSTALLED
TRANSMISSION CABLE(S)	2	1-1/4" EUPEN HYBRID CABLE(S)	TO BE INSTALLED
	6	RET JUMPER(S)	TO BE INSTALLED
COAX JUMPERS: SEE T-502 FOR QUANTITY AND LENGTHS	-	NEW LTE COAX JUMPERS	TO BE INSTALLED
GROUND BAR(S):	3	EQUIPMENT GROUND BARS	TO BE INSTALLED
POST-INTEGRATION SCOPE (DECOM)			
ANTENNA(S)/EQUIP.	3	REMOTE RADIO(S)	TO BE REMOVED
COAX JUMPERS:	-	EXISTING LTE COAX JUMPERS	TO BE REMOVED
COMPOUND SCOPE			
	QTY.	EQUIPMENT	ACTION
GPS ANTENNA(S):	1	GPS ANTENNA(S)	TO REMAIN
	1	LTE GPS ANTENNA	TO BE INSTALLED
CABLE ROUTE:	-	ICE BRIDGE HANGERS	ADEQUATE - TO REMAIN
	-	SHELTER COAX PORT	ADEQUATE - TO REMAIN
GROUND BAR(S):	-	SHELTER EXTERIOR GROUND BAR*	ADEQUATE - TO REMAIN
SHELTER INTERIOR SCOPE			
MODERNIZATION SCOPE (REMAIN/RELOCATE)			
EQUIPMENT:	1	RAYCAP SPD(S)	TO REMAIN
GROUND BAR(S):	-	GROUND BAR AT COAX PORT*	TO REMAIN
MODERNIZATION SCOPE (TO BE INSTALLED)			
EQUIPMENT:	-	RAYCAP PDU(S)	BY OTHERS
AUX RACK:	-	BASE BAND UNIT (BBU)	BY OTHERS
	2	RAYCAP FIBER TRAY(S)	TO BE INSTALLED
POST-INTEGRATION SCOPE (DECOM)			
EQUIPMENT RACK:	1	LTE EQUIPMENT RACK(S)	TO BE REMOVED
SPECIAL REQUIREMENTS			
CONTRACTOR TO COORDINATE CUTOVER PROCEDURE WITH U.S. CELLULAR PROJECT MANAGER PRIOR TO COMMENCING CONSTRUCTION.			
NEW 20' DIAMETER RAILING TO BE CUSTOM FABRICATED AND INSTALLED. (2) EXISTING RAILINGS TO BE REMOVED POST INTEGRATION. NEW CONSTRUCTION AND REMOVAL TO BE COORDINATED WITH MUNICIPALITY AND OTHER CARRIER			
NESTED TOWER BEACON MITIGATION REQUIRED; SEE T-201 & E-502 FOR REQUIREMENTS.			
NEW 2-1/2" SCH 40 (2-7/8" O.D.) MAST PIPE (12 TOTAL).			
NEW 2" SCH 40 (2-1/2" O.D.) EQUIPMENT MAST PIPE (3 TOTAL).			
EX. U.S. CELLULAR CDMA COAX JUMPERS TO BE REPLACED AND ROUTED OUT THE SIDE OF THE ACCESS HATCH EXTENSION THROUGH EXISTING 3-1/2" PIPE PENETRATION AND THROUGH NEW PIPE PENETRATIONS. U.S. CELLULAR TO VERIFY INTEGRATION REQUIREMENTS AND POSSIBLE EXTENSIVE DOWNTIME IMPACT			
* BRING UP TO U.S. CELLULAR STANDARDS AS NECESSARY			



MODERNIZATION DRAWINGS: WAVE 3
DX1010-CBRS-SS: E// B12/B71 2T2R / B2/B66 2T2R / B5 2T2R / CBRS
154' WATER TOWER

SITE LOCATION MAP

This map shows the location of the site in Jackson, Wisconsin. The site is marked with an orange 'X' and labeled 'SITE LOCATION'. The map includes major roads such as Highway 45, Highway 60, and County Highway P. Key landmarks include Tille Lake, Hasmer Lake, Jackson Park, and the Im Comfort Inn. A north arrow is located in the top left corner. An inset map of Wisconsin in the bottom right corner shows the location of Jackson within the state, marked with an orange 'X'.



DIRECTORY

CLIENT:
U.S. CELLULAR
8410 W. BRYN MAWR AVE., SUITE 700
CHICAGO, IL 60631
CONTACT: LAUREN MCNEILL

ENGINEERING COMPANY:
EDGE CONSULTING ENGINEERS, INC.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
PROJECT MANAGER: ANDREW BRADLEY

SITE ACQUISITION:
SITE ACQUISITION SOLUTIONS
19730 BELLBROOK BLVD.
GRETNA, NE 68028
CONTACT: JENNI KELLIS

PROJECT INFO	
SITE LOCATION: W227 N16551 SYSCO DRIVE JACKSON, WI 53037	
SITE #: 784425	
TOWER OWNER: VILLAGE OF JACKSON N168 W20733 MAIN STREET JACKSON, WI 53037 CONTACT: 262.677.0707 PHONE: BRIAN KOBER	
SITE COORDINATES (PER 2-C CERTIFICATE): LAT: 43°-19'-12.5" LONG: 88°-11'-28.0" GROUND ELEVATION (NGVD 1929): 918.2'	

SHEET INDEX	
NO.:	SHEET TITLE
G-001	TITLE SHEET
C-101	SITE PLAN
C-102	ENLARGED SITE PLAN
C-501	SITE DETAILS
A-101	SHELTER INTERIOR PLAN
A-501	BLOCK DIAGRAM
T-001	ANTENNA SPECIFICATIONS
T-002	EQUIPMENT SPECIFICATIONS
T-003	MOUNTING SPECIFICATIONS
T-201	SITE ELEVATION
T-301	ANTENNA CONFIGURATION
T-501	INSTALLATION DETAILS
T-502	CABLE DETAILS
T-503	CABLE BANDING DETAILS
T-504	CABLE ROUTING
T-505	PLUMBING DIAGRAM
T-506	PLUMBING DIAGRAM
T-901	SITE PHOTOS
E-501	GROUNDING DETAILS
E-502	LIGHT BEACON EXTENSION DETAILS
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS/CONDITIONS ON SITE. IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE FOR THE SAME.	

I HEREBY CERTIFY THAT THIS PLAN SET WAS
PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION OTHER THAN THE EXCEPTIONS
NOTED IN THE SHEET INDEX, AND THAT I AM
A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF WISCONSIN.

SIGNATURE: _____

DATE: _____

TITLE SHEET
JACKSON WT (784425)
JACKSON, WISCONSIN

CHECKED BY	ABB
PLOT DATE	6/2/2021
PROJECT NUMBER	26145
SET TYPE	DRAFT
SHEET NUMBER	G-001

I:\26100\26145\Design\CAD\CD\Plot\G-001.dgn

© EDGE CONSULTING ENGINEERS, INC.



1. AERIAL IMAGERY FROM GOOGLE EARTH.
2. NORTH ARROW SHOWN AS APPROXIMATE.
3. SITE PHOTOS PROVIDED BY EDGE CONSULTING ENGINEERS, INC
4. NO SURVEY AVAILABLE. SITE LAYOUT BASED ON FIELD MEASUREMENTS AND SITE PHOTOS.

NOTES

 **Edge**
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53571
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com



U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

SITE PLAN
JACKSON WT (784425)
JACKSON, WISCONSIN

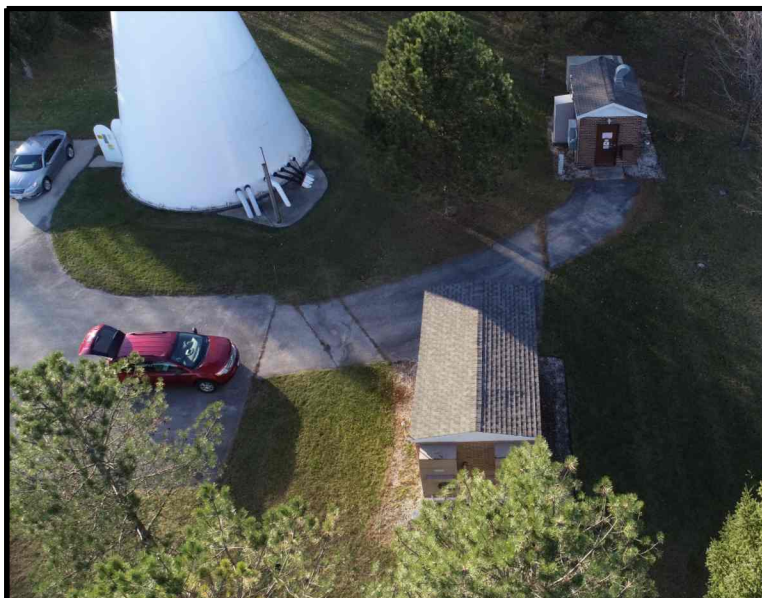
INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

SET TYPE	DRAFT
----------	-------

SHEET
NUMBER

C-101

© EDGE CONSULTING ENGINEERS, INC



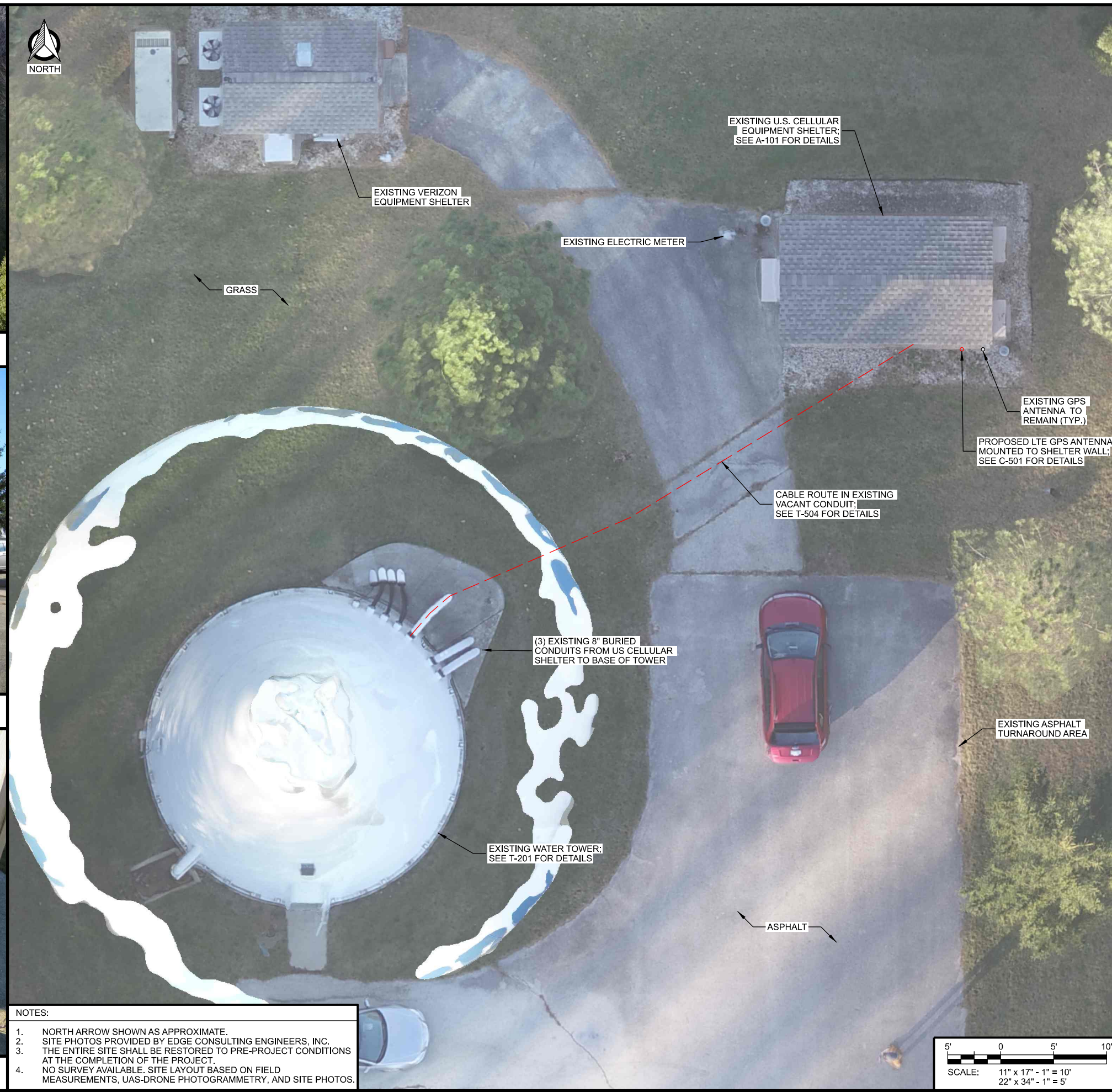
A	COMPOUND OVERVIEW
----------	--------------------------



B	COMPOUND OVERVIEW
----------	--------------------------



C	BURIED CONDUITS
----------	------------------------



NOTES:	
1.	NORTH ARROW SHOWN AS APPROXIMATE.
2.	SITE PHOTOS PROVIDED BY EDGE CONSULTING ENGINEERS, INC.
3.	THE ENTIRE SITE SHALL BE RESTORED TO PRE-PROJECT CONDITIONS AT THE COMPLETION OF THE PROJECT.
4.	NO SURVEY AVAILABLE. SITE LAYOUT BASED ON FIELD MEASUREMENTS, UAS-DRONE PHOTOGRAMMETRY, AND SITE PHOTOS.

CONSULTANT:

 **Edge**
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

 **uscellular**

U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

ENLARGED SITE PLAN
JACKSON WT (784425)
JACKSON, WISCONSIN

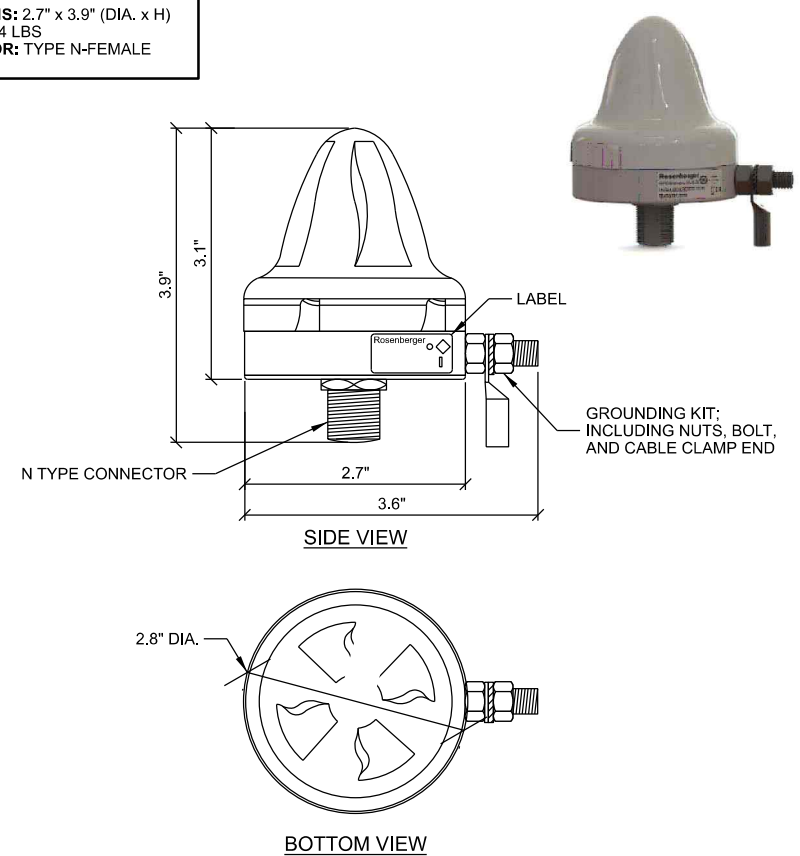
SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B
CHECKED BY	ABB	
PLOT DATE	6/2/2021	
PROJECT NUMBER	26145	
SET TYPE	DRAFT	
SHEET NUMBER	C-102	

PROPOSED LTE GPS ANTENNA
SECURED TO SHELTER WALL;
SEE DETAIL TO THE RIGHT

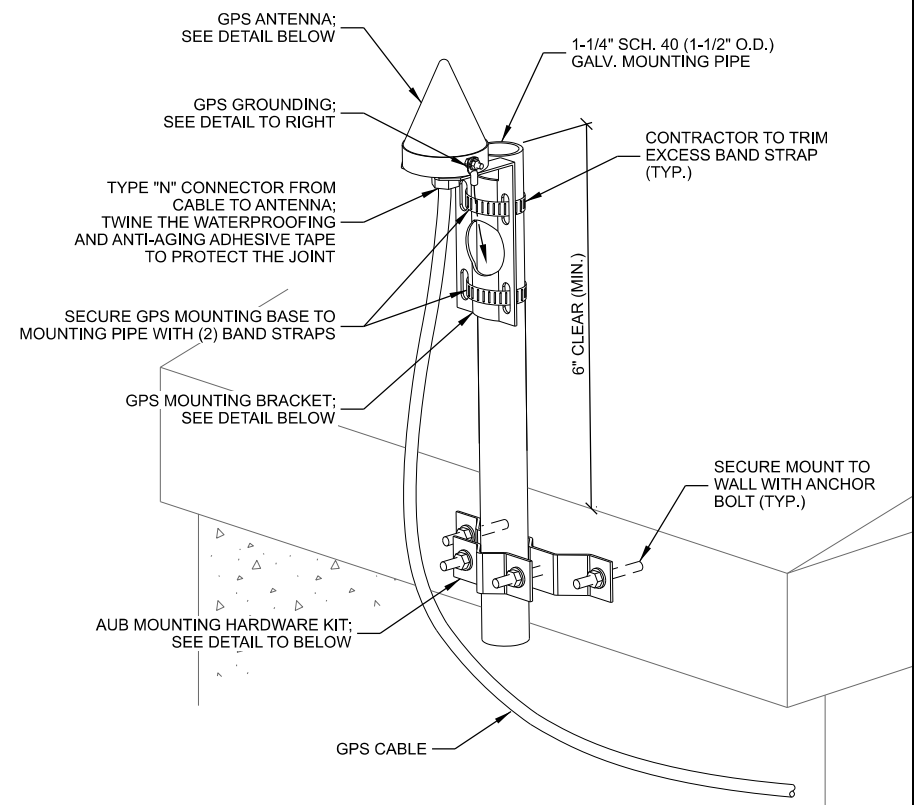


A PROPOSED GPS ANTENNA LOCATION

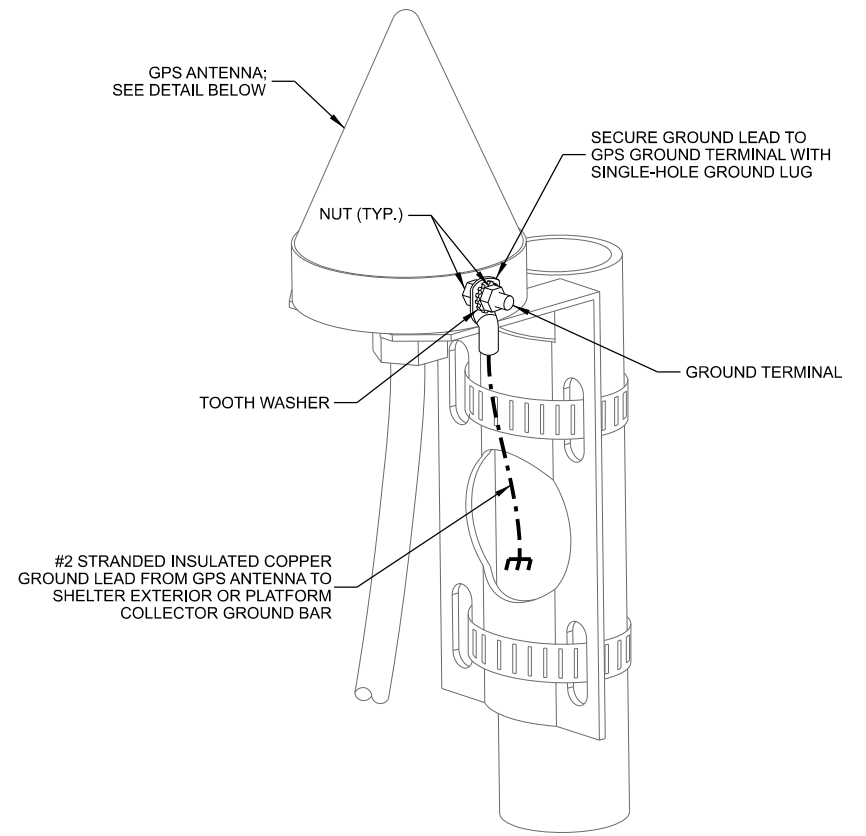
DIMENSIONS: 2.7" x 3.9" (DIA. x H)
WEIGHT: 0.4 LBS
CONNECTOR: TYPE N-FEMALE



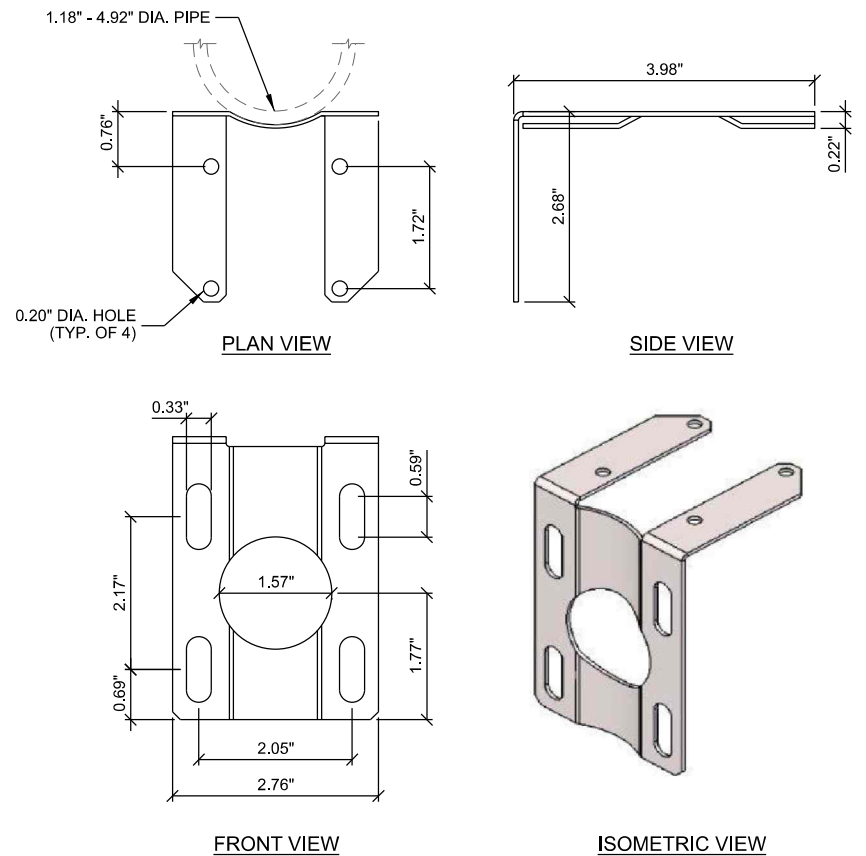
D GPS ANTENNA



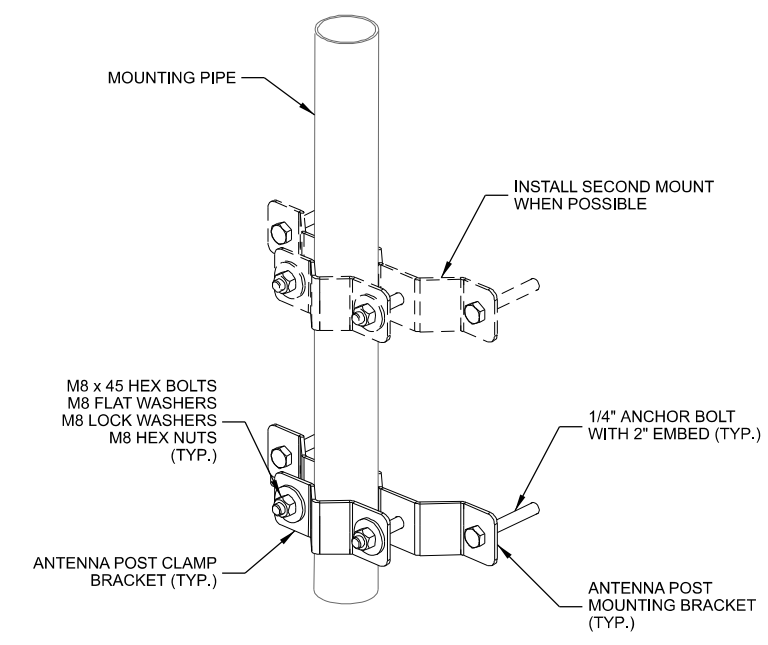
B GPS ANTENNA MOUNTING



C GPS GROUNDING



E GPS MOUNTING BRACKET



- NOTES:
1. ANCHOR FASTENERS TO MOUNT BRACKET KIT TO WALL MUST BE SELECTED ACCORDINGLY FOR WALL MATERIAL.
 2. WALL ANCHOR FASTENERS SUPPLIED BY GENERAL CONTRACTOR.
 3. PREFERRED INSTALLATION METHOD WITH (2) ANTENNA POST BRACKETS.

F AUB MOUNTING HARDWARE KIT

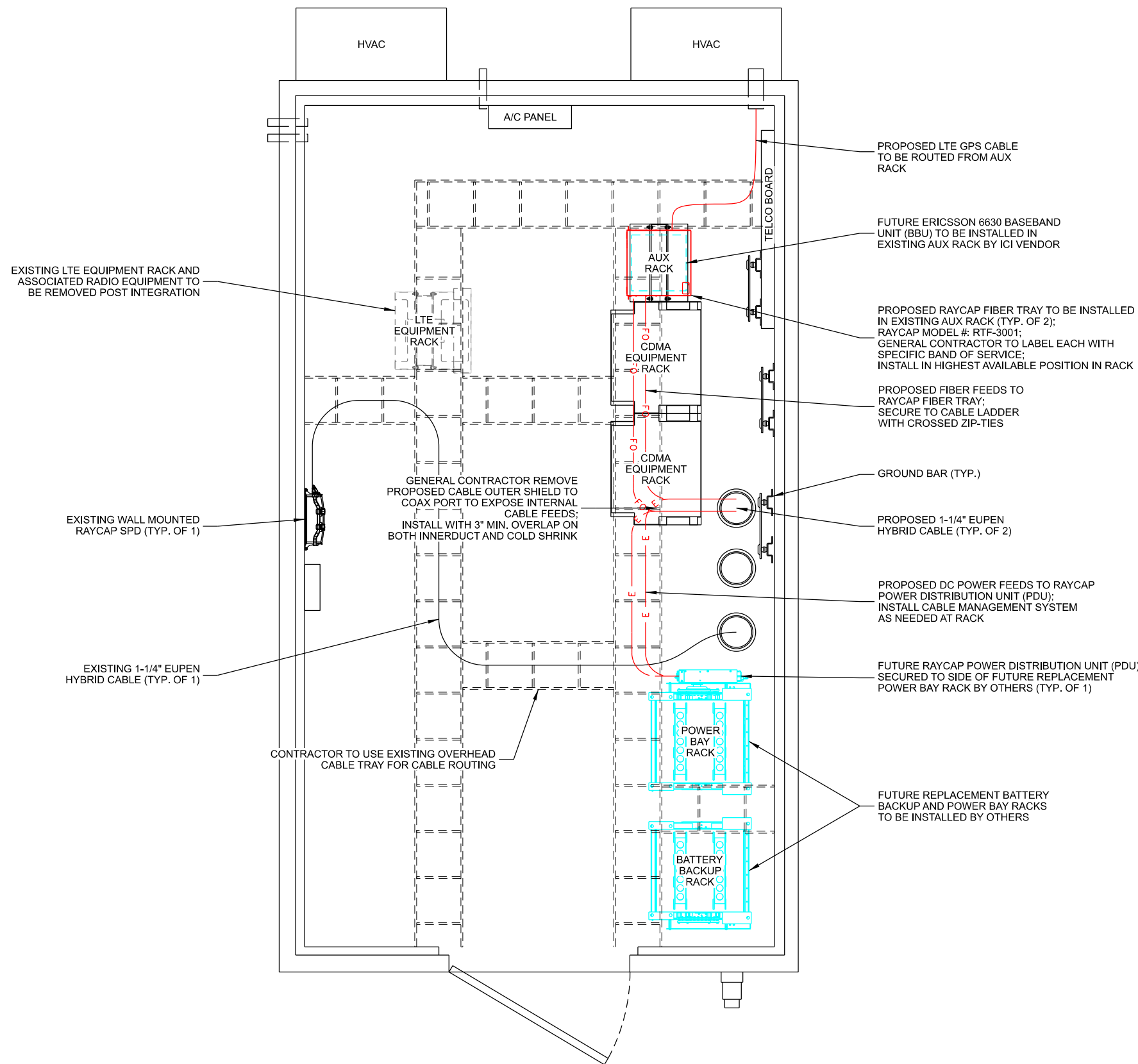
CONSULTANT:
Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:
uscellular
U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

SITE DETAILS
JACKSON WT (784425)
JACKSON, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED BY	ABB
PLOT DATE	6/2/2021
PROJECT NUMBER	26145
SET TYPE	DRAFT
SHEET NUMBER	C-501



A SHELTER INTERIOR LAYOUT
SCALE: 11" x 17" - 3/8" = 1'-0"
22" x 34" - 3/4" = 1'-0"

MANUFACTURER: RAYCAP
MODEL: RUSDC-1176-PDU-48 (BREAKERS NOT INCLUDED)
RUSDC-1176-PDU-48-AMCB-1240 (12 x 40A BREAKERS INCLUDED)
DIMENSIONS: 18.99" x 19.00" x 3.48" (D x W x H)
WEIGHT: 22 LBS (WITHOUT BREAKERS)

OPTIONAL ACCESSORIES
12 BREAKER KIT FOR ERICSSON RADIO SET: AMCB-48-1225-KIT
9 BREAKER KIT FOR NOKIA RADIO SET: AMCB-48-0640-0325-KIT
40A CIRCUIT BREAKER: AMCB-48-0140
25A CIRCUIT BREAKER: AMCB-48-0125
CABLE STORAGE: RTF-6601

2RU RACK MOUNTED DC SURGE SUPPRESSION AND POWER DISTRIBUTION SYSTEM FOR USE IN REMOTE RADIO HEAD (RRH) AND MULTI-CIRCUIT, DISTRIBUTED ANTENNA SYSTEMS.



B RAYCAP POWER DISTRIBUTION UNIT (PDU)



C EXISTING AUX EQUIPMENT RACK



D EXISTING LTE RACK(S) TO BE REMOVED

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
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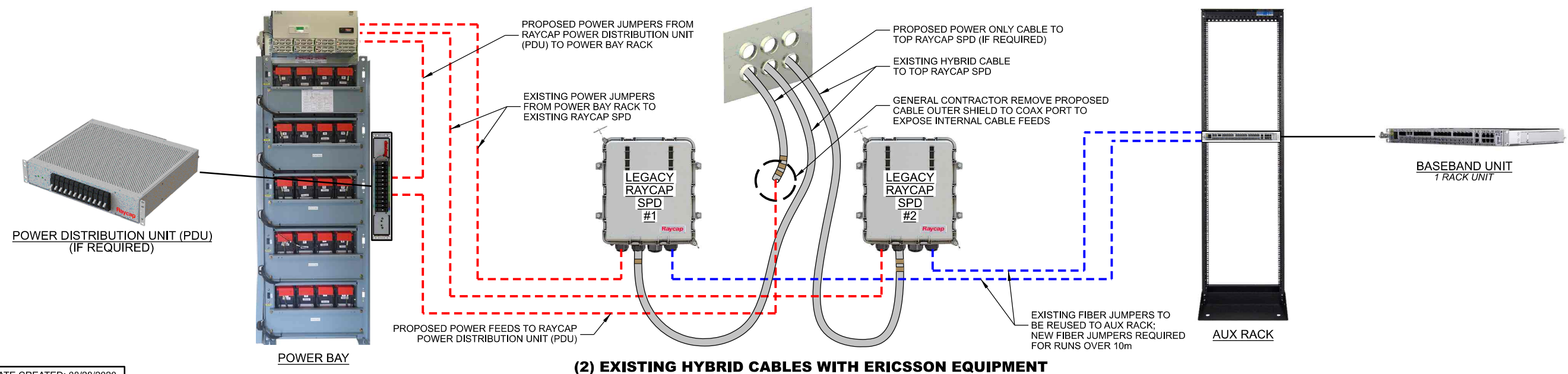
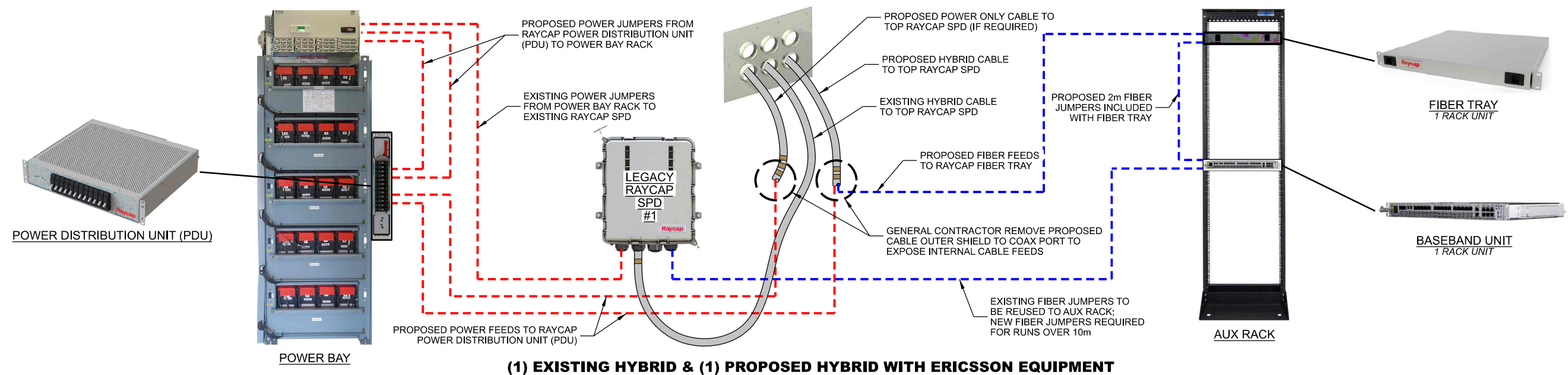
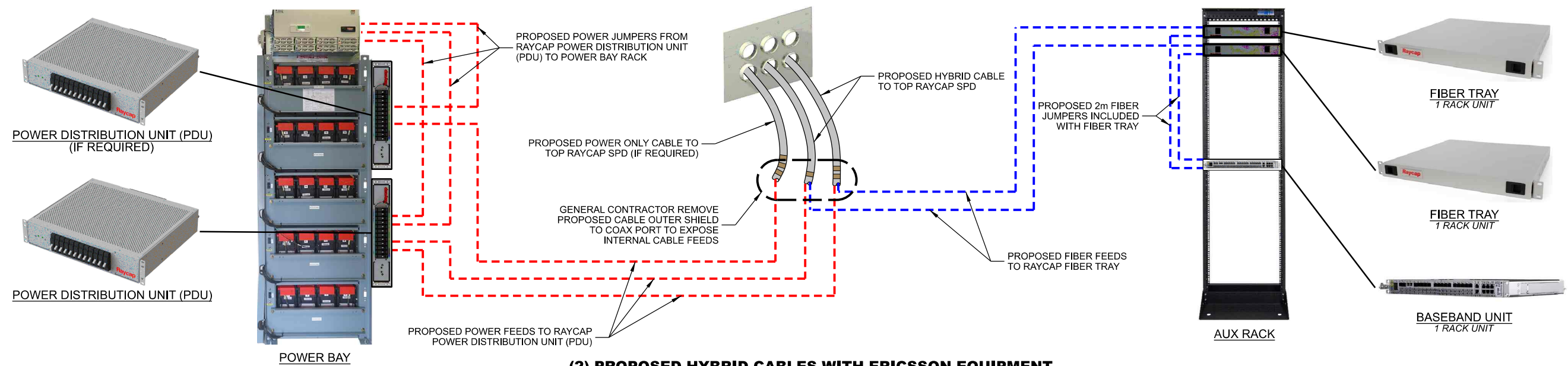
SHELTER INTERIOR PLAN
JACKSON WT (784425)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED BY:	ABB
PLOT DATE:	6/2/2021
PROJECT NUMBER:	26145
SET TYPE:	DRAFT

SHEET NUMBER **A-101**



SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B
CHECKED BY	ABB	
PLOT DATE	6/2/2021	
PROJECT NUMBER	26145	
SET TYPE	DRAFT	
SHEET NUMBER	A-501	



Base Station Antennas

Type OCT8-2LX2HX-BW65

Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

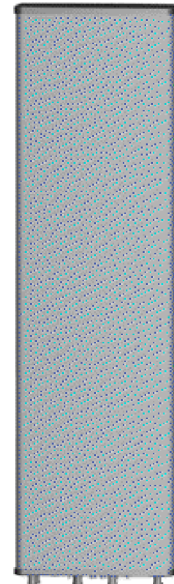
Base Station Antenna

8-ports 617-894 / 617-894 /1695-2400 /1695-2400 MHz 65°, 16 / 16 / 18 / 18 dBi, 2°-12° / 2°-12° / 2°-12° / 2°-12° Tilt Antenna With 4 Integrated RCUs.



Electrical Specifications

Frequency Range(MHz)		2x617-894			2x1695-2400		
		617-698	698-824	824-894	1695-1920	1920-2180	2300-2400
Polarization		±45°					
Horizontal 3dB Beamwidth(°)		70	63	60	66	63	58
Vertical 3dB Beamwidth(°)		10.4	9.1	8.0	5.5	5	4.3
Gain (dBi)		15.0	15.5	16.0	17.6	18.0	18.1
Electrical Downtilt		2°-12°			2°-12°		
Upper Sidelobe Suppression(dB)	First	≥16	≥16	≥16	≥16	≥16	≥16
Front-to-Back Ratio Total Power, ±30° (dB)		≥23	≥24	≥25	≥25	≥25	≥25
Cross polar ratio	Main direction(dB)	≥17	≥17	≥17	≥17	≥17	≥17
	±60° (dB)	≥7	≥7	≥7	≥7	≥7	≥7
Isolation ports		≥25 dB					
Isolation Frequency		≥30 dB					
VSWR		< 1.5					
Intermodulation IM3		< -150 dBc(2x43dBm carrier)					
Impedance		50 Ω					
Max. Power per Input (at 50°C ambient temperature)		500 W			300 W		
Lightning Protection		DC Ground					



Mechanical Specifications

Redome Material	Fiberglass
Connector Type and Location	4.3-10x8, Bottom iRCU in:1 x 8 pin male iRCU out:1 x 8 pin female
Dimensions,HxWxD(mm)/(inches)	2438 x 499 x 180 / 95.9 x 19.6 x 7.1
Packing Size(mm)/(inches)	2750 x 620 x 325 / 108.3 x 24.4 x 12.8
Weight ,w/o Mounting kit(kg)/(lbs)	47 / 103.4
Weight,with Mounting kit(kg)/(lbs)	53 / 116.6
Packing Weight(kg)/(lbs)	63 / 138.6
Max. Wind Velocity(mph)	150
Mounting hardware	ϕ 50 mm ~ ϕ 115 mm
Operational Temperature(°C)	-40 to +65
Operational Humidity(%)	<95
Wind Load at 100mph (Frontal/lateral/Rearside(N))	1416/280/1027



Base Station Antennas

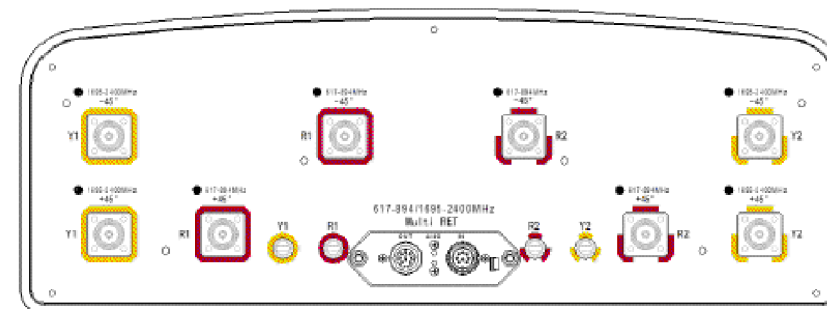
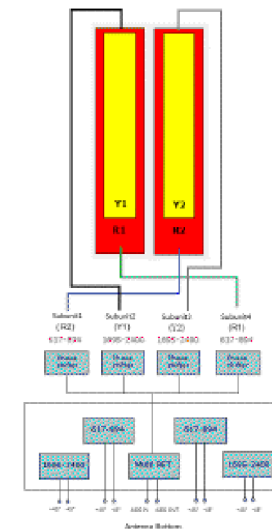
Type OCT8-2LX2HX-BW65

Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Integrated RET Properties

Protocols	Compliant to AISG 2.0/3GPP	
Input voltage range	+10~+30VDC(pin 6)	
Power consumption	<2W(stand by);<13W(motor activated)	
Connectors	AISG	2 x 8 pin connector acc. To IEC 60130-9 Acc.to AISG Daisy chain in: male Daisy chain out: female
	Antenna	Two motor shaft(Embedded motor)
Hardware interface	AISG	RS485A/B (pin5/pin3); Power supply(pin6); DC return(pin7) Acc.to AISG
Adjustment time(full range)	40 sec(typically, depending on antenna)	
Adjustment Cycles	≥10000	
Torque Max	≥160mN.m	
Lightning Protection Rating	IEC 61000-4-5 Current Pulse Profile, 8/20 μs 10 Repetitions Min. @ 6kA IEC 61312-1 Annex B Current Pulse Profile, 10/350 μs, 200 Repetitions Min. @ 0.6kA	

COMPREHENSIVE TILT CONFIGURATION



CONSULTANT:



CLIENT:



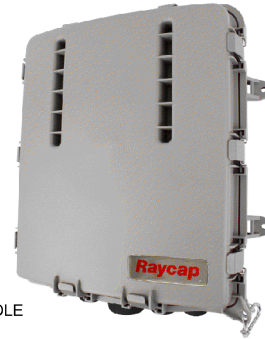
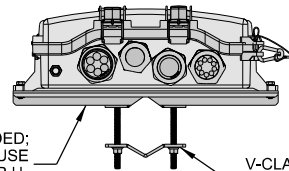
ANTENNA SPECIFICATIONS
JACKSON WT (784425)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE	DESCRIPTION
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

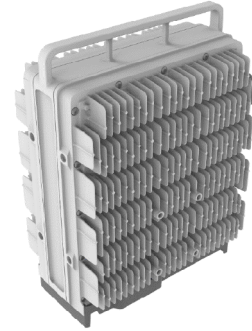
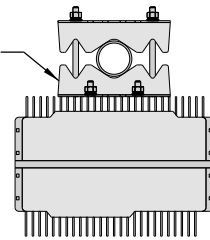
CHECKED BY	ABB
PLOT DATE	6/2/2021
PROJECT NUMBER	26145
SET TYPE	DRAFT
SHEET NUMBER	T-001

MOUNTING BRACKET INCLUDED:
REMOVE BRACKET AND USE
ENCLOSURE MOUNTS FOR H-
FRAME OR WALL MOUNT

[illegible]

A

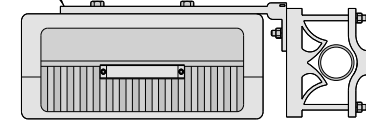
DUAL ERS BRACKET —



A diagram of the 9.4 inch wide model of the device. It shows a central vertical channel with a sliding component. The width is indicated as 9.4 inches. The device has a base and a top section with a handle. The central channel is flanked by two vertical bars, each with a circular feature. The device is shown in a side view, highlighting its compact design.

B

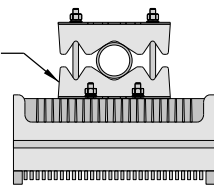
RRU SUPPORT KIT



7.2"

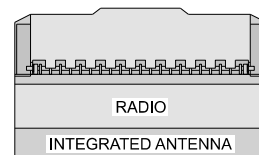
©

DUAL ERS BRACKET



D

MANUFACTURER: ERICSSON

[illegible]

1.0" 4.0"

E



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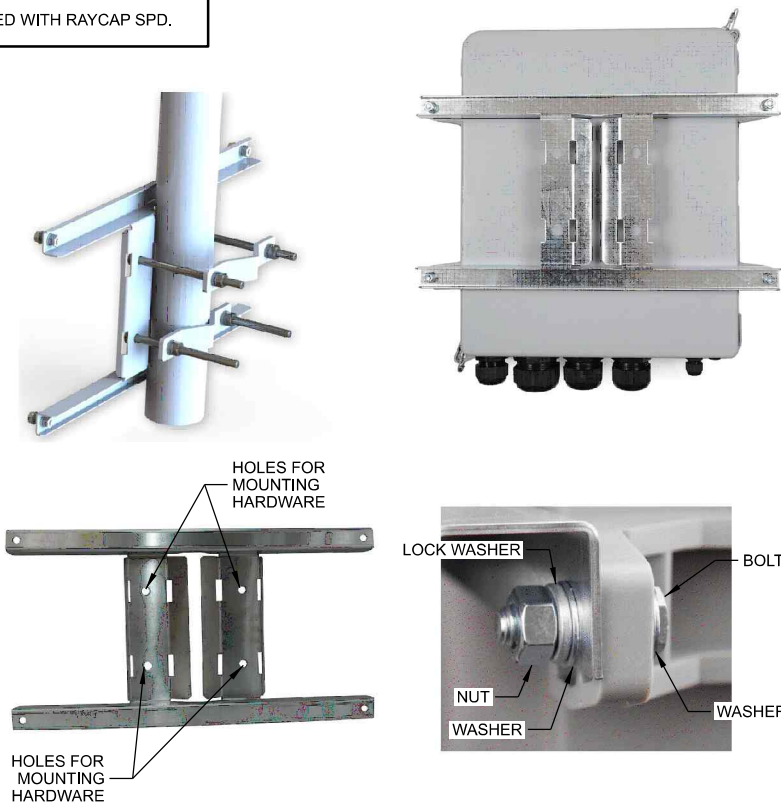


EQUIPMENT SPECIFICATIONS

[illegible]

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MANUFACTURER: RAYCAP
MODEL: MOUNTING BRACKET
INCLUDED WITH RAYCAP SPD.

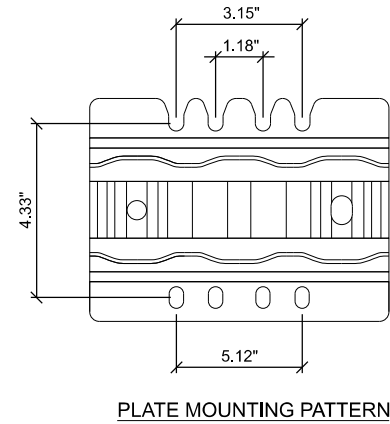


A RAYCAP SURGE PROTECTOR DEVICE (SPD) MOUNT

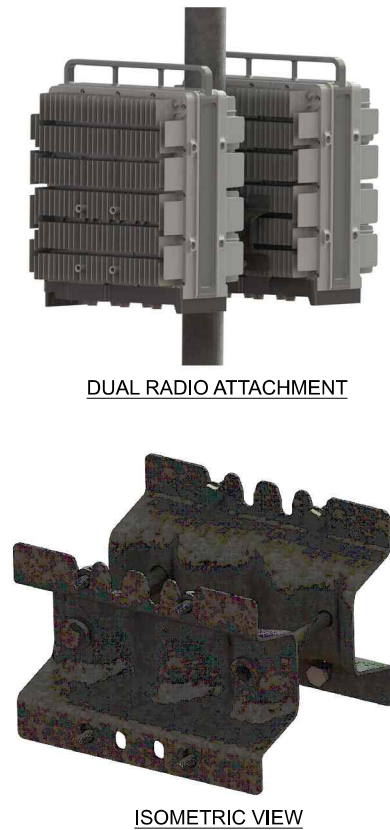
MANUFACTURER: ERICSSON
MODEL: SXK 109 1973/2
WEIGHT: 3.75 LBS

BRACKET FOR ATTACHING TWO STANDARD OR HEAVY ERS UNITS WITH A HOLE PATTERN OF CC 30 MM AND/OR CC 80 MM., EITHER TO A POLE, WALL, ANGLE TOWER OR SQUARE TUBE.

BOLTS FOR ATTACHING TWO ERS UNITS ARE SUPPLIED IN THE PACKAGE.



B DUAL ERS BRACKET



MANUFACTURER: ERICSSON
MODEL: SXK 107 2839/1
WEIGHT: 11 LBS

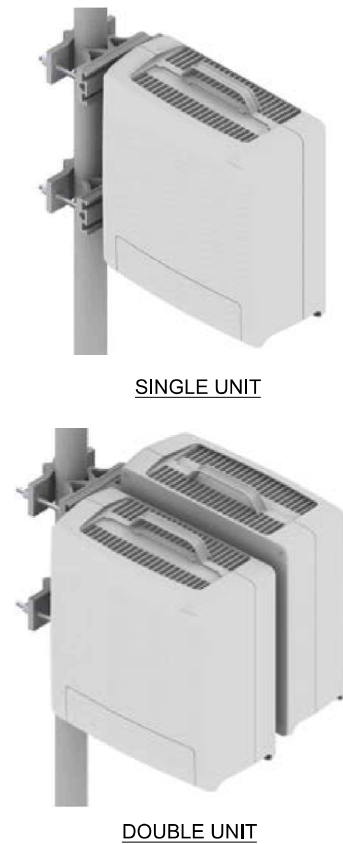
EXPANSION KIT ORDERED IN ADDITION TO
 SINGLE SUPPORT KIT FOR DUAL MOUNT

MANUFACTURER: ERICSSON
MODEL: SXK 107 2839/2
WEIGHT: 4LBS. 6.5 OZ.

ALL HARDWARE INCLUDED



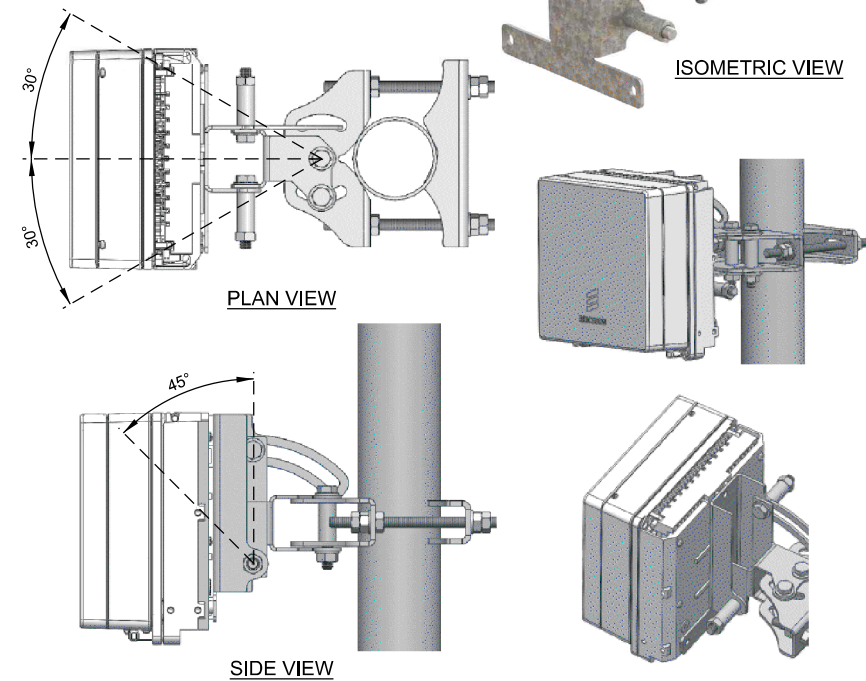
C REMOTE RADIO UNIT (RRU) SUPPORT KIT



MANUFACTURER: ERICSSON
MODEL: SXK 109 2165/1
WEIGHT: 6 LBS

BRACKET FOR ATTACHING MICRO ERS
UNITS TO A POLE, WALL, ANGLE TOWER
OR SQUARE TUBE.

TO BE USED WITH MICRO ERS RADIOS



D MICRO ERS TILT BRACKET

THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:

 **Edge**
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
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CLIENT:

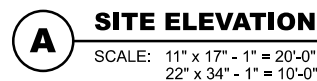
 **uscellular**

U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

MOUNTING SPECIFICATIONS

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B
CHECKED BY	ABB	
PLOT DATE	6/2/2021	
PROJECT NUMBER	26145	
SET TYPE	DRAFT	
SHEET NUMBER	T-003	

THE EXISTING TOWER HAS OBSTRUCTION LIGHTING. THE LIGHTING DOES NOT CURRENTLY EXTEND ABOVE ALL OBSTRUCTIONS ON THE TOWER. THE PROPOSED INSTALLATION WILL NOT CHANGE THIS CONDITION. THE MUNICIPALITY WILL NEED TO VERIFY IF THIS LIGHTING IS REQUIRED BY THE FAA AND IF CHANGES ARE NEEDED TO MAINTAIN COMPLIANCE WITH FAA REQUIREMENTS.

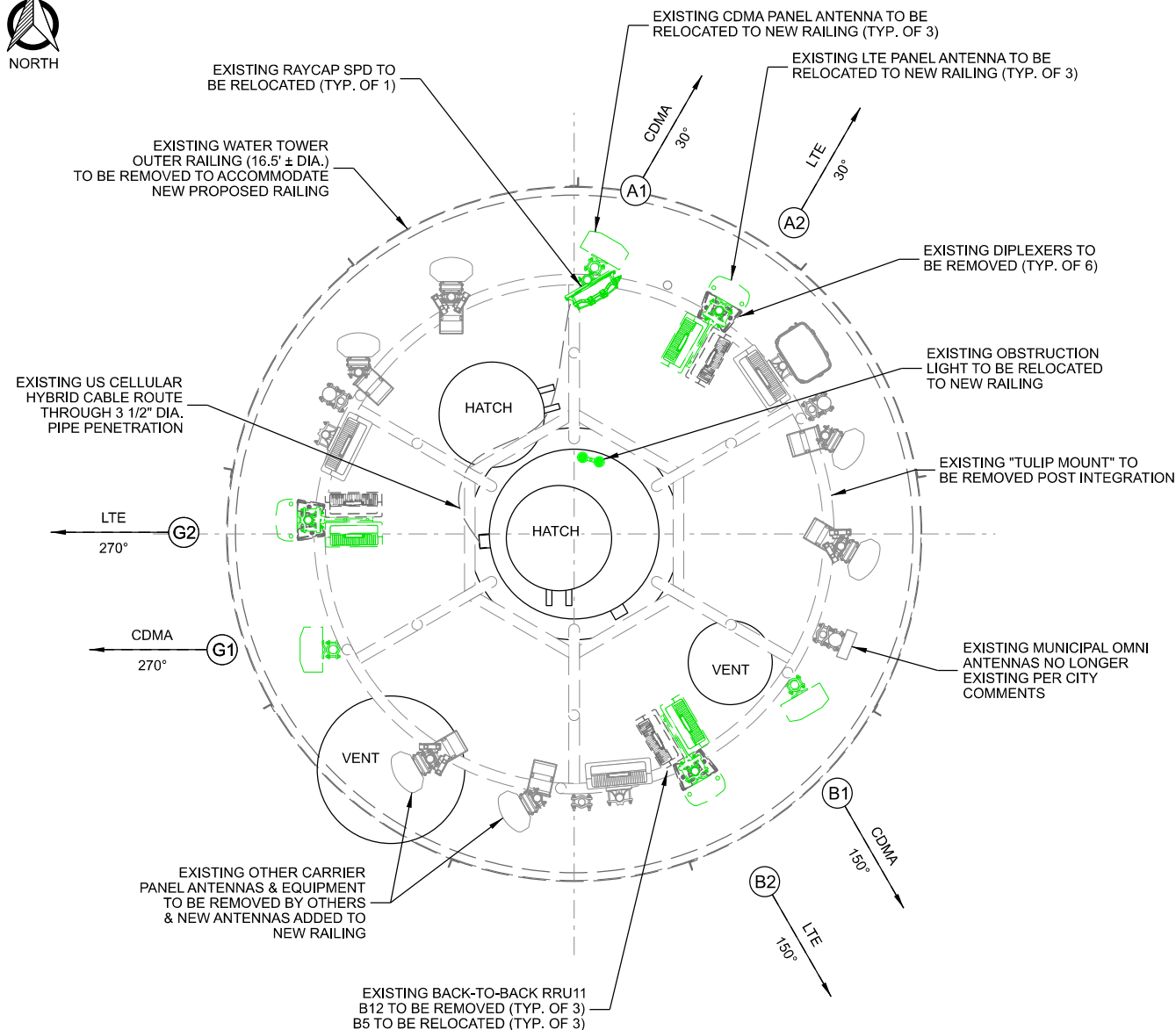


CLIENT:

 **uscellular**

U.S. CELLULAR
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SUITE 700
CHICAGO, IL 60631

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B
CHECKED BY:	ABB	
PLOT DATE	6/2/2021	
PROJECT NUMBER	26145	
SET TYPE	DRAFT	
SHEET NUMBER	T-201	



NOTE:

EXISTING OUTER RAILING TO BE
REMOVED AND REPLACED WITH
NEW 20' DIA. x 5'-0" TALL RAILING

	Antenna Position	Technology	Antenna Model	Antenna Quantity	RAD Center	Azimuth	Surge Protector Qty.	Radio Model	Radio Qty.	Diplexer Qty.	Bias-T Qty.	Cable Type	Cable Qty.
ALPHA	A1	CDMA	Antel BXA-70063-8CF-EDIN	1	164.0'	30°	-	-	-	-	-	1-5/8" Coax	2
	A2	LTE	KMW AM-XCW-18-65-00T-RET	1	164.5'	30°	1	RRU11	2	2	-	1-1/4" Hybrid	1
BETA	B1	CDMA	Antel BXA-70063-8CF-EDIN	1	164.0'	150°	-	-	-	-	-	1-5/8" Coax	2
	B2	LTE	KMW AM-XCW-18-65-00T-RET	1	164.5'	150°	-	RRU11	2	2	-	-	-
GAMMA	G1	CDMA	Antel BXA-70063-8CF-EDIN	1	164.0'	270°	-	-	-	-	-	1-5/8" Coax	2
	G2	LTE	KMW AM-XCW-18-65-00T-RET	1	164.5'	270°	-	RRU11	2	2	-	-	-
Total:				6			1		6	6	0		7

NOTE:

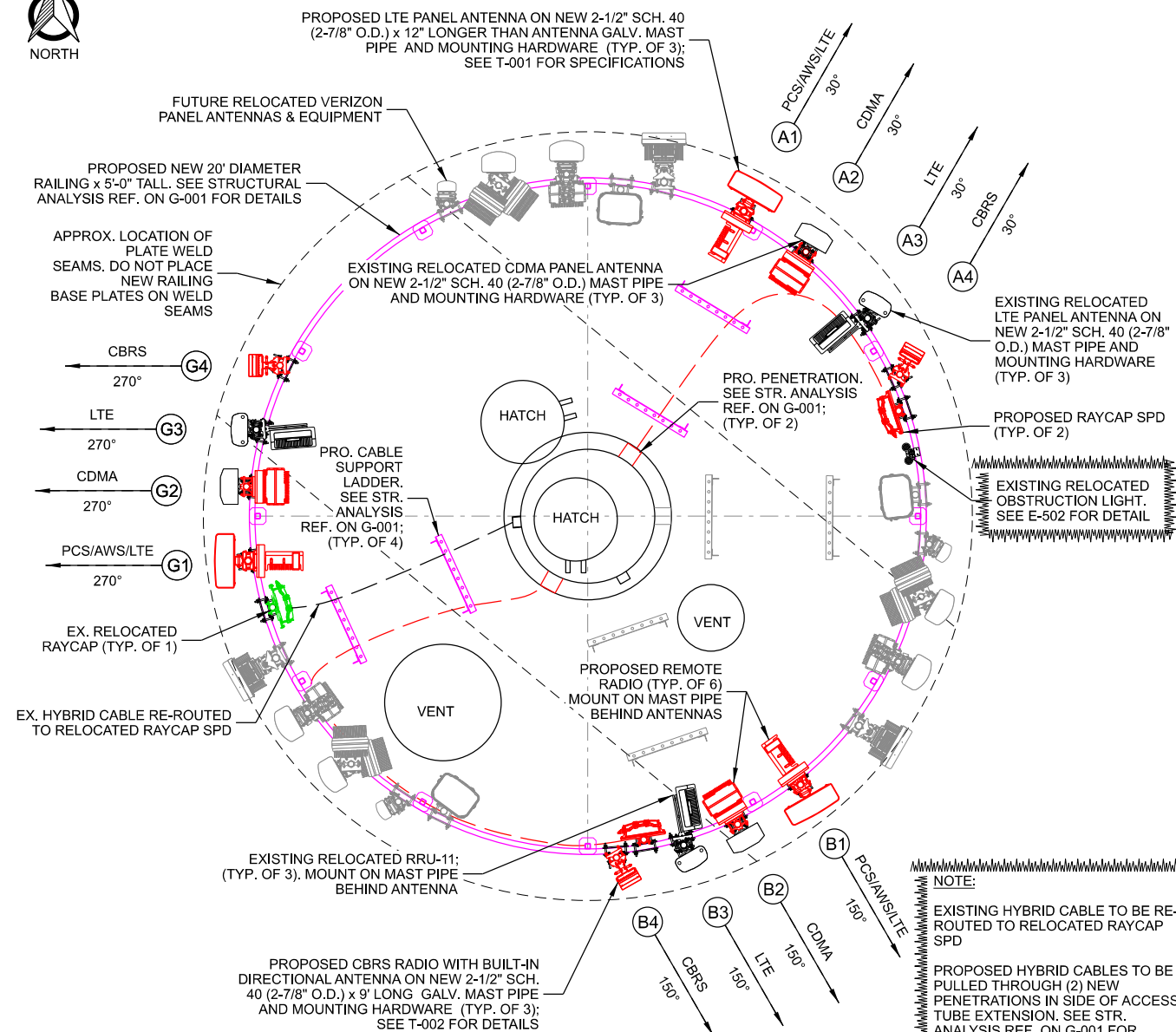
1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH

EXISTING ANTENNA LAYOUT

EXISTING ANTENNA LAYOUT

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



	Antenna Position	Technology	Antenna Model	Antenna Quantity	RAD Center	Azimuth	L.B. Elect. Tilt	M.B. Elect. Tilt	Mech. Tilt	Surge Protector Qty.	B12/B71 Radio	Radio Qty.	B2/B66 Radio	Radio Qty.	B5 Radio	Radio Qty.	CBRS Radio	Radio Qty.	Cable Type	Cable Qty.
ALPHA	A1	PCS/AWS/LTE	Dengyo OCT8-2LX2HX-BW65	1	158°	30°	0°	2°	0°	1	RRU4449	1	RRU4480	1	-	-	-	-	1-1/4" Hybrid	1
	A2	CDMA	Antel BXA-70063-8CF-EDIN	1	158°	30°	-	-	0°	-	-	-	-	-	-	-	-	-	1-5/8" Coax	2
	A3	LTE	KMW AM-X-CW-18-65-00T-RET	1	158°	30°	0°	-	0°	Shared	-	-	-	-	RRU11	1	-	-	Shared	-
	A4	CBRS	Ericsson6524 Built-in Directional Ant.	-	158°	30°	-	-	-	Shared	-	-	-	-	-	-	-	RRU4408	1	Shared
BETA	B1	PCS/AWS/LTE	Dengyo OCT8-2LX2HX-BW65	1	158°	150°	0°	2°	0°	1	RRU4449	1	RRU4480	1	-	-	-	-	1-1/4" Hybrid	1
	B2	CDMA	Antel BXA-70063-8CF-EDIN	1	158°	150°	-	-	0°	-	-	-	-	-	-	-	-	-	1-5/8" Coax	2
	B3	LTE	KMW AM-X-CW-18-65-00T-RET	1	158°	150°	0°	-	0°	Shared	-	-	-	-	RRU11	1	-	-	Shared	-
	B4	CBRS	Ericsson6524 Built-in Directional Ant.	-	158°	150°	-	-	-	Shared	-	-	-	-	-	-	-	RRU4408	1	Shared
GAMMA	G1	PCS/AWS/LTE	Dengyo OCT8-2LX2HX-BW65	1	158°	270°	0°	2°	0°	Shared	RRU4449	1	RRU4480	1	-	-	-	-	Shared	-
	G2	CDMA	Antel BXA-70063-8CF-EDIN	1	158°	270°	-	-	0°	-	-	-	-	-	-	-	-	-	1-5/8" Coax	2
	G3	LTE	KMW AM-X-CW-18-65-00T-RET	1	158°	270°	0°	-	0°	1	-	-	-	-	RRU11	1	-	-	1-1/4" Hybrid	1
	G4	CBRS	Ericsson6524 Built-in Directional Ant.	-	158°	270°	-	-	-	Shared	-	-	-	-	-	-	-	RRU4408	1	Shared
Total:				9						3		3		3		3		3		9

Black Text = Existing Red Text = Proposed

***X1010-CBRS-SS**

NOTES:

1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.
2. CONTRACTOR MAY NEED ADDITIONAL 9'-0" LONG MAST PIPES FOR TEMPORARY RELOCATION OF LTE ANTENNAS.
3. ANTENNA SEPERATION AS FOLLOWS (CENTER OF ANTENNA TO CENTER OF ANTENNA):
 LTE TO CDMA: 2'-0" MIN. LTE TO LTE: 4'-0" MIN. CDMA TO CDMA: 4'-0" MIN.

PROPOSED ANTENNA LAYOUT

SCALE: NTS

CONSULTANT:



624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:



U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

ANTENNA CONFIGURATION
JACKSON WT (784425)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED

APP

PLOT

6/2/2023-

PROJECT

36145

SET

DRAFT

[illegible]

T-301

EUPEN CABLE LENGTH			
	ALPHA RAY CAP	BETA RAY CAP	GAMMA RAY CAP
EXISTING HYBRID CABLE QUANTITY	-	-	1
PROPOSED HYBRID CABLE QUANTITY	1	1	-
LENGTH FROM SHELTER SOURCE TO COAX PORT	20 FT	20 FT	-
LENGTH ALONG BURIED CONDUITS	70 FT	70 FT	-
LENGTH FROM T.O.C. TO TOWER TOP SPD	160 FT	160 FT	-
HORIZONTAL ROUTING FROM HATCH PORT TO SPD	20 FT	25 FT	-
TOTAL LENGTH OF CABLE	270 FT	275 FT	-
ROUNDED LENGTH **	300 FT	300 FT	-
* 410' MAX = TYPICAL CABLE			
* 550' MAX = LOW INDUCTANCE CABLE			
** CABLE LENGTH TO BE ROUNDED UP TO NEAREST 50' LENGTH			

CBRS JUMPER CABLE INFO			
FIBER JUMPER: RAYCAP SPD TO REMOTE RADIO (CBRS)			
	QUANTITY	LENGTH	
ALPHA SECTOR	1	19.7 FT *	6 m
BETA SECTOR	1	19.7 FT *	6 m
GAMMA SECTOR	1	19.7 FT *	6 m
ALL SECTORS MUST HAVE THE SAME JUMPER LENGTHS			
* PREFERRED FIBER JUMPER LENGTH OF 5m (16.4')			
* MAXIMUM FIBER JUMPER LENGTH OF 6m (19.7')			

FIBER JUMPER CABLE INFO			
RAYCAP SPD TO REMOTE RADIO (B12/B71) - 10 GB			
	QUANTITY	LENGTH	
ALPHA/BETA	2	19.7 FT	6 m
GAMMA	2	19.7 FT	6 m
RAYCAP SPD TO REMOTE RADIO (B2/B66) - 10 GB			
	QUANTITY	LENGTH	
ALPHA/BETA	2	19.7 FT	6 m
GAMMA	2	19.7 FT	6 m
RAYCAP SPD TO REMOTE RADIO (B5) - 2.5 GB			
	QUANTITY	LENGTH	
ALPHA	1	19.7 FT	6 m
BETA	1	19.7 FT	6 m
REMOTE RADIO (B5) TO REMOTE RADIO (B5) - 2.5 GB			
	QUANTITY	LENGTH	
GAMMA	1	19.7 FT	6 m
ALL SECTORS MUST HAVE THE SAME JUMPER LENGTHS			
* PREFERRED JUMPER LENGTH OF 5m (16.4')			
* MAXIMUM JUMPER LENGTH OF 6m (19.7')			

NOTE:

1. CABLE LENGTHS AND QUANTITIES ARE FOR LTE INSTALLATION ONLY. CONTRACTOR TO DETERMINE AND PROVIDE QUANTITY AND LENGTH OF ANY ADDITIONAL JUMPERS REQUIRED.

A CABLE LENGTHS: *X1010

RET CABLE INFO			
REMOTE RADIO TO ANTENNA			
	QUANTITY	LENGTH	
ALPHA	2	32.8 FT	10 m
BETA	2	32.8 FT	10 m
GAMMA	2	32.8 FT	10 m
* STANDARD RET CABLE LENGTH OF 10 METERS; RF APPROVAL REQ'D FOR ADDITIONAL RET CABLE LENGTH			

COAX JUMPER CABLE INFO			
REMOTE RADIO TO ANTENNA (B12/B71)			
	QUANTITY	LENGTH	
ALPHA	4	15 FT *	
BETA	4	15 FT *	
GAMMA	4	15 FT *	
REMOTE RADIO TO ANTENNA (B2/B66)			
	QUANTITY	LENGTH	
ALPHA	4	15 FT *	
BETA	4	15 FT *	
GAMMA	4	15 FT *	
REMOTE RADIO TO ANTENNA (B5)			
	QUANTITY	LENGTH	
ALPHA	2	15 FT *	
BETA	2	15 FT *	
GAMMA	2	15 FT *	
ALL SECTORS MUST HAVE THE SAME JUMPER LENGTHS			
* APPROVED JUMPER LENGTH:			
Owned Site = 25 FT.			
Solo Site = 15 FT.			
* U.S. CELLULAR PRE-ORDERED JUMPER LENGTHS.			

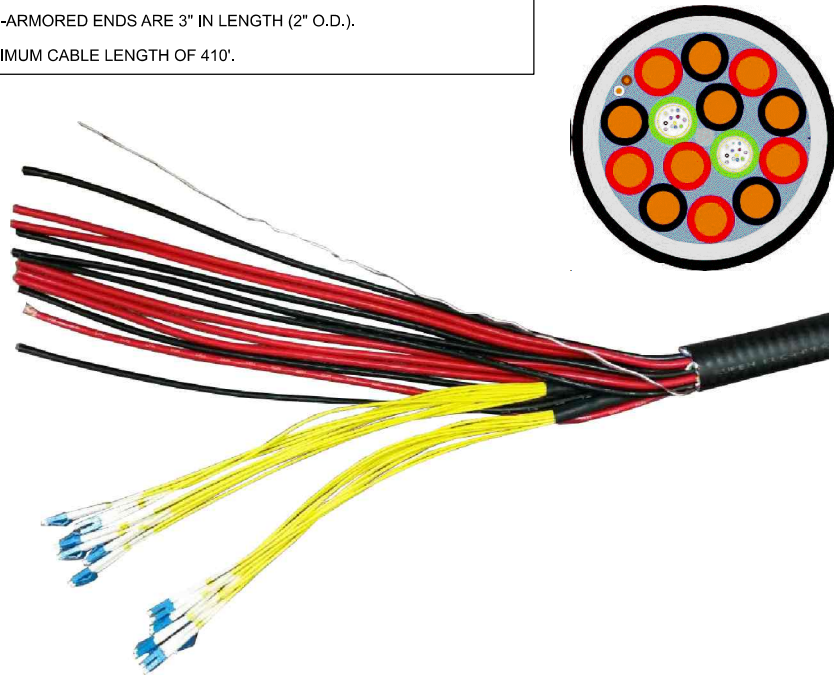
MANUFACTURER: EUPEN
MODEL: EUCAHYBRID 114-12AWG6
MINIMUM BENDING RADIUS: 360mm (14")
MAXIMUM PULLING STRENGTH: 150 daN
MAXIMUM HANGER SPACING: 1.0 m
APPROX. WEIGHT: 2300 kg/km (1.55 LB/FT)

1-1/4" HYBRID FIBER OPTIC CABLE WITH 48V ENERGY FEEDER IN CORRUGATED ALUMINUM SHIELDING WITH UV RESISTANT PE JACKET.

SHIPPED WITH 4' PROTECTED JACKET (2.25" O.D.) AT EACH END.

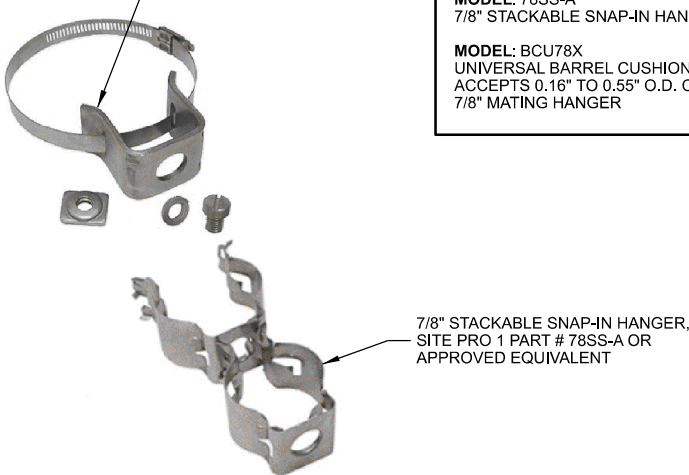
NON-ARMORED ENDS ARE 3" IN LENGTH (2" O.D.).

MAXIMUM CABLE LENGTH OF 410'.



B EUPEN HYBRID CABLE

UNIVERSAL STANDOFF KIT,
SITE PRO 1 PART # STK2-U
OR APPROVED EQUIVALENT



MANUFACTURER: SITE PRO 1

MODEL: STK2-U
UNIVERSAL TOWER STANDOFF KIT
FITS 1-1/2" DIA. TO 3" DIA. ROUND MEMBERS

MODEL: 78SS-A
7/8" STACKABLE SNAP-IN HANGER

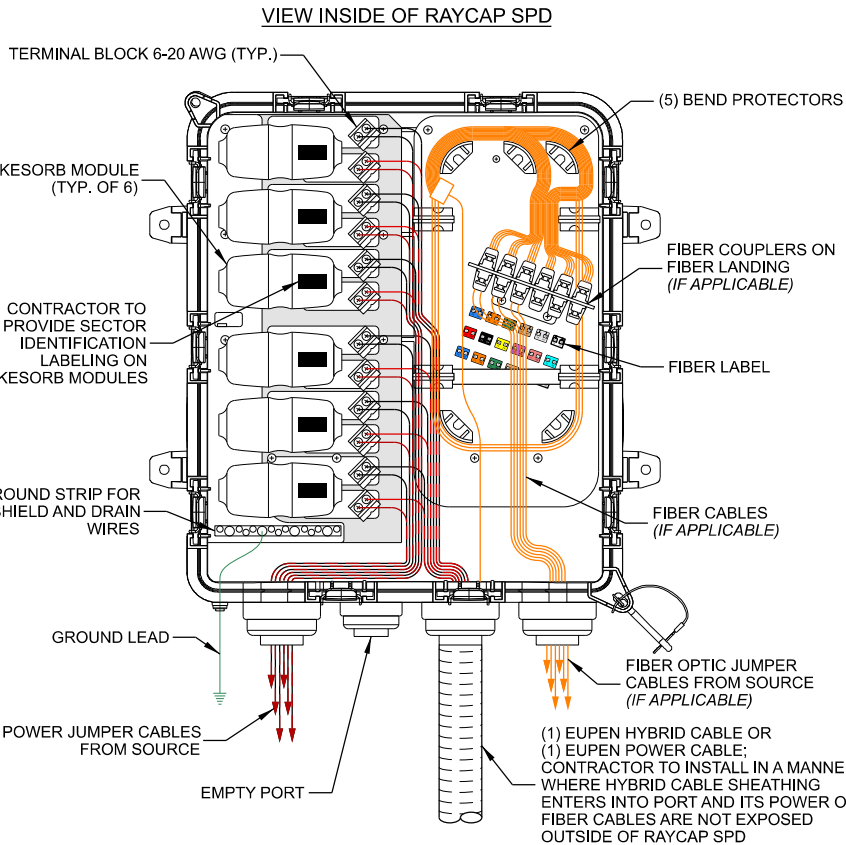
MODEL: BCU78X
UNIVERSAL BARREL CUSHION
ACCEPTS 0.16" TO 0.55" O.D. CABLES
7/8" MATING HANGER

7/8" STACKABLE SNAP-IN HANGER,
SITE PRO 1 PART # 78SS-A OR
APPROVED EQUIVALENT

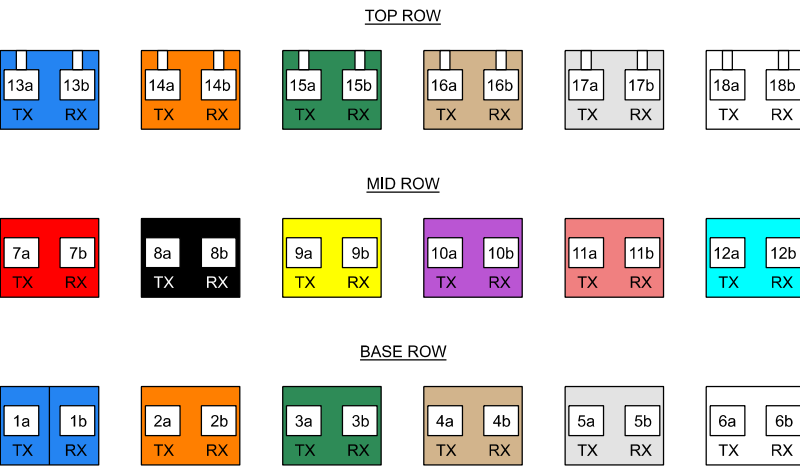
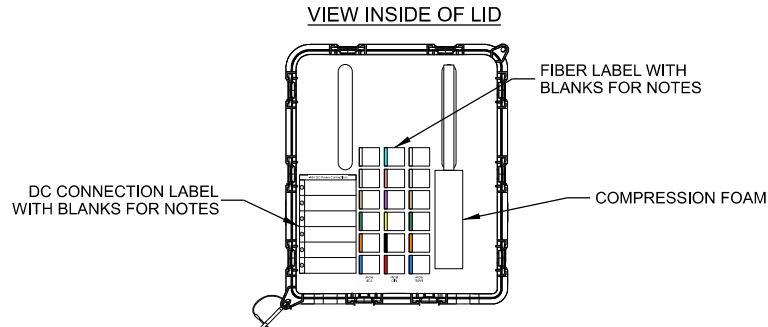


UNIVERSAL BARREL CUSHIONS,
SITEPRO1 PART # BCU78X;
ACCEPTS 0.16" TO 0.55" O.D.
CABLES; MATING HANGER SIZE
7/8"

C JUMPER ATTACHMENT



D RAYCAP SURGE PROTECTOR DEVICE (SPD) CABLING



E FIBER LABEL

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
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CLIENT:

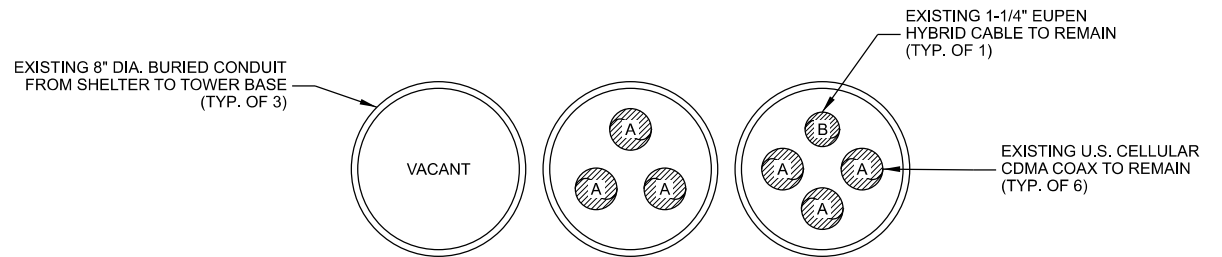
uscellular
U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

**CABLE DETAILS
JACKSON WT (784425)
JACKSON, WISCONSIN**

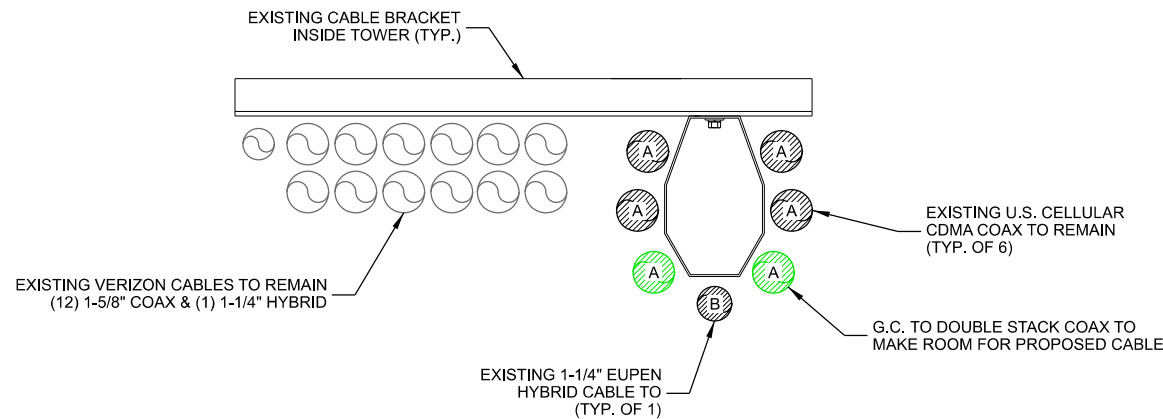
SUBMITAL:

INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED BY	ABB
PLOT DATE	6/2/2021
PROJECT NUMBER	26145
SET TYPE	DRAFT
SHEET NUMBER	T-502



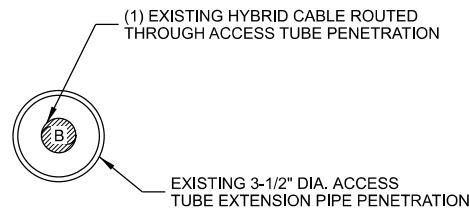
A EXISTING SHELTER BURIED COAX CONDUIT (INTERIOR VIEW)



B EXISTING TOWER INTERIOR CABLE LAYOUT

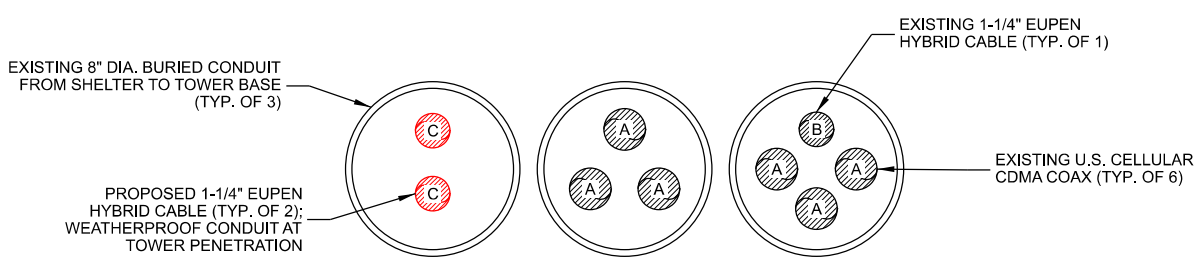
COAX NOTE:

- (6) EXISTING 1-5/8" CDMA COAX TO REMAIN. THESE CABLES JUMPER TO 1/2" AT THE TOP OF THE ACCESS TUBE AND ROUTE THROUGH THE "TULIP MOUNT" SUPPORT PIPES. NEW JUMPERS REQUIRED AND ROUTE THROUGH EXISTING & PROPOSED ACCESS TUBE PIPE PENETRATIONS
- (2) NEW PIPE PENETRATION TO BE INSTALLED THROUGH THE SIDE OF THE ACCESS TUBE EXTENSION TO ACCOMMODATE (2) PROPOSED HYBRID CABLES AND COAX JUMPERS. SEE STRUCTURAL ANALYSIS REF. ON G-001 FOR DETAILS

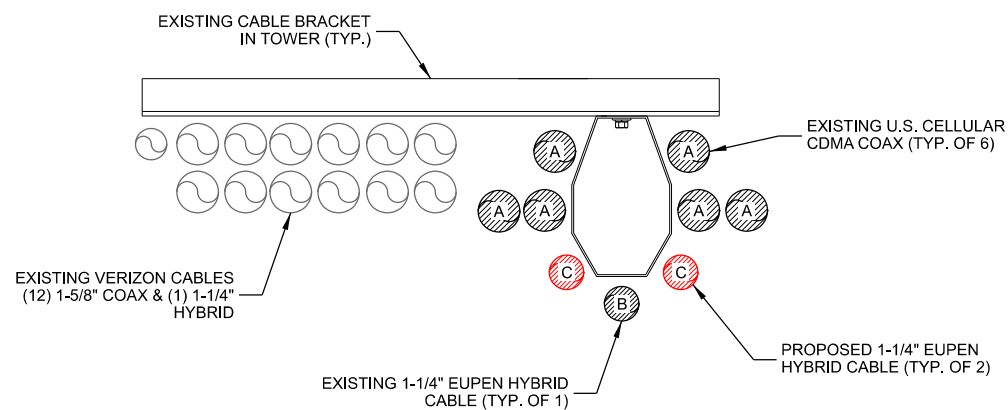


C EXISTING ACCESS TUBE PENETRATION LAYOUT

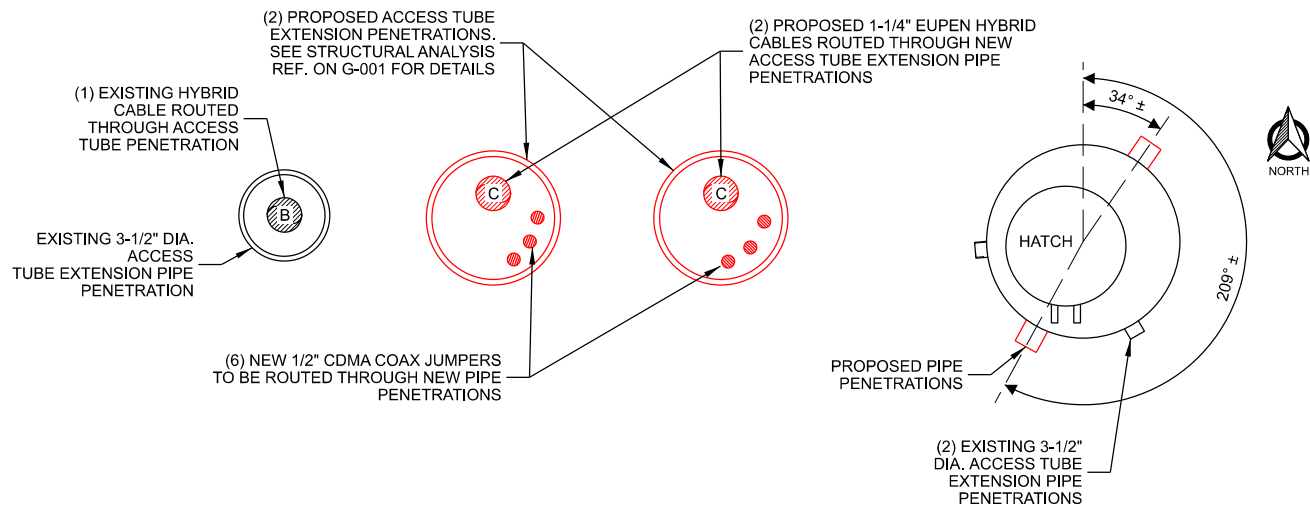
COAX SYMBOL	(#) SIZE	MOUNTING TYPE	CARRIER / OWNER	TECHNOLOGY
A	(6) 1-5/8"	TOWER INTERIOR	U.S. CELLULAR	CDMA
B	(1) 1-1/4"	TOWER INTERIOR	U.S. CELLULAR	HYBRID



D PROPOSED SHELTER BURIED COAX CONDUIT (INTERIOR VIEW)



E PROPOSED TOWER INTERIOR CABLE LAYOUT



F EXISTING ACCESS TUBE PENETRATION LAYOUT

COAX SYMBOL	(#) SIZE	MOUNTING TYPE	CARRIER / OWNER	TECHNOLOGY
A	(6) 1-5/8"	TOWER INTERIOR	U.S. CELLULAR	CDMA
B	(1) 1-1/4"	TOWER INTERIOR	U.S. CELLULAR	HYBRID
C	(2) 1-1/4"	TOWER INTERIOR	U.S. CELLULAR	HYBRID

CONSULTANT:

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Consulting Engineers, Inc.
624 WATER STREET
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U.S. CELLULAR
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SUITE 700
CHICAGO, IL 60631

**CABLE ROUTING
JACKSON WT (784425)
JACKSON, WISCONSIN**

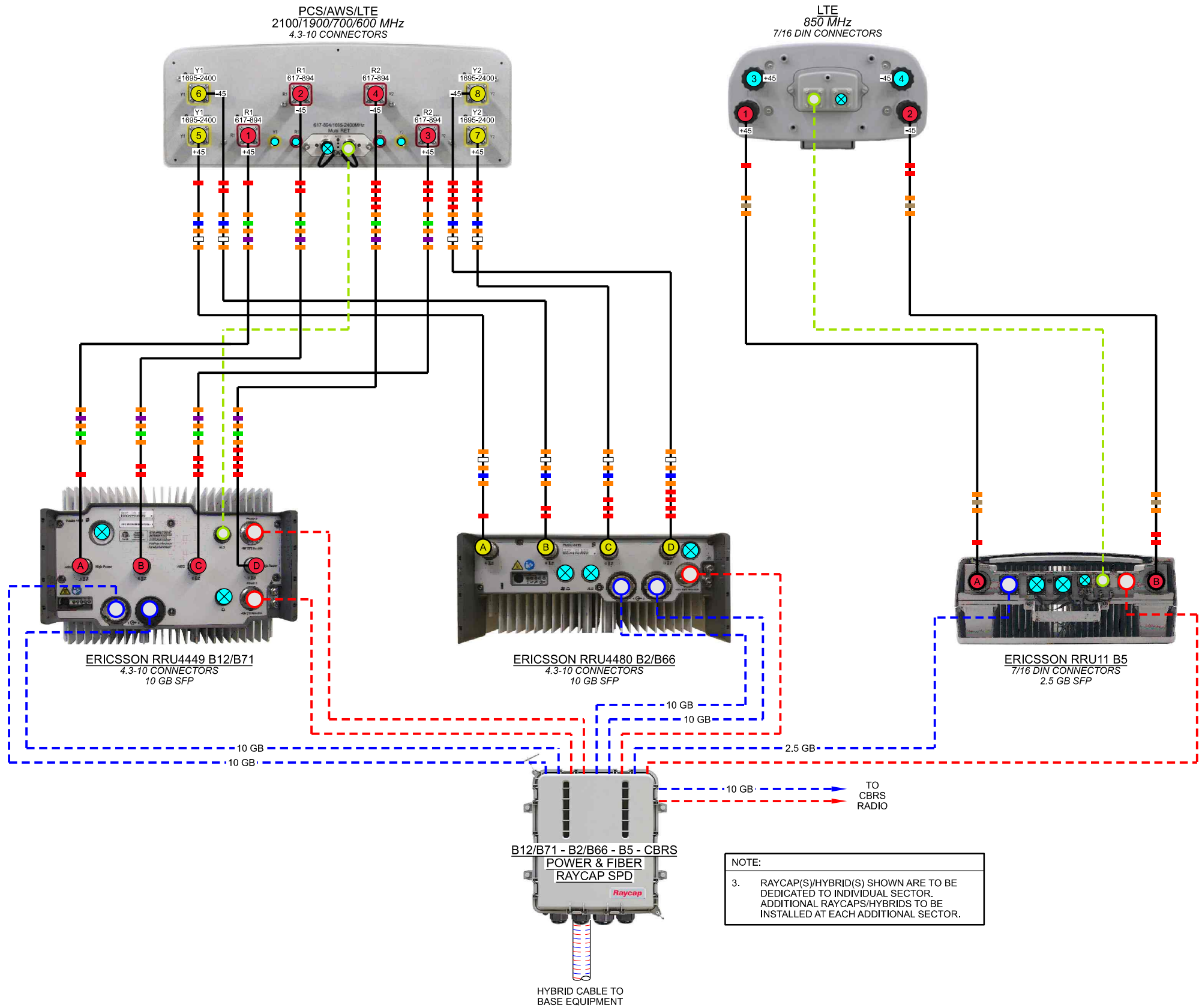
SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED BY:	ABB
PLOT DATE:	6/2/2021
PROJECT NUMBER:	26145
SET TYPE:	DRAFT
SHEET NUMBER:	T-504



E// B12/B71 2T2R / B2/B66 2T2R / B5 2T2R / CBRs
PER SECTOR CONFIGURATION



CABLE LEGEND

- EUPEN HYBRID CABLE
- 1/2" COAX JUMPER
- FIBER JUMPER
- POWER JUMPER
- RET JUMPER
- MID BAND PORT
- LOW BAND PORT
- WEATHERPROOF CAP
- 50ohm TERMINATION

DATE CREATED: 11/25/2020

PLUMBING DIAGRAM: DX1010-CBRs-SS
2T2R DESIGN: Yes-1

CONTAINS U.S. CELLULAR® CONFIDENTIAL INFORMATION. NOT FOR EXTERNAL USE OR DISCLOSURE WITHOUT PROPER AUTHORIZATION.

NOTE:

- RAYCAP(S)/HYBRID(S) SHOWN ARE TO BE DEDICATED TO INDIVIDUAL SECTOR. ADDITIONAL RAYCAPS/HYBRIDS TO BE INSTALLED AT EACH ADDITIONAL SECTOR.

NOTES:

- ALL JUMPERS BETWEEN RADIO UNITS & ANTENNAS MUST BE THE SAME LENGTH. CONTRACTOR TO INSTALL WEATHERPROOF CAP ON ALL UN-USED PORTS.

CONSULTANT:

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U.S. CELLULAR
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CHICAGO, IL 60631

PLUMBING DIAGRAM
JACKSON WT (784425)
JACKSON, WISCONSIN

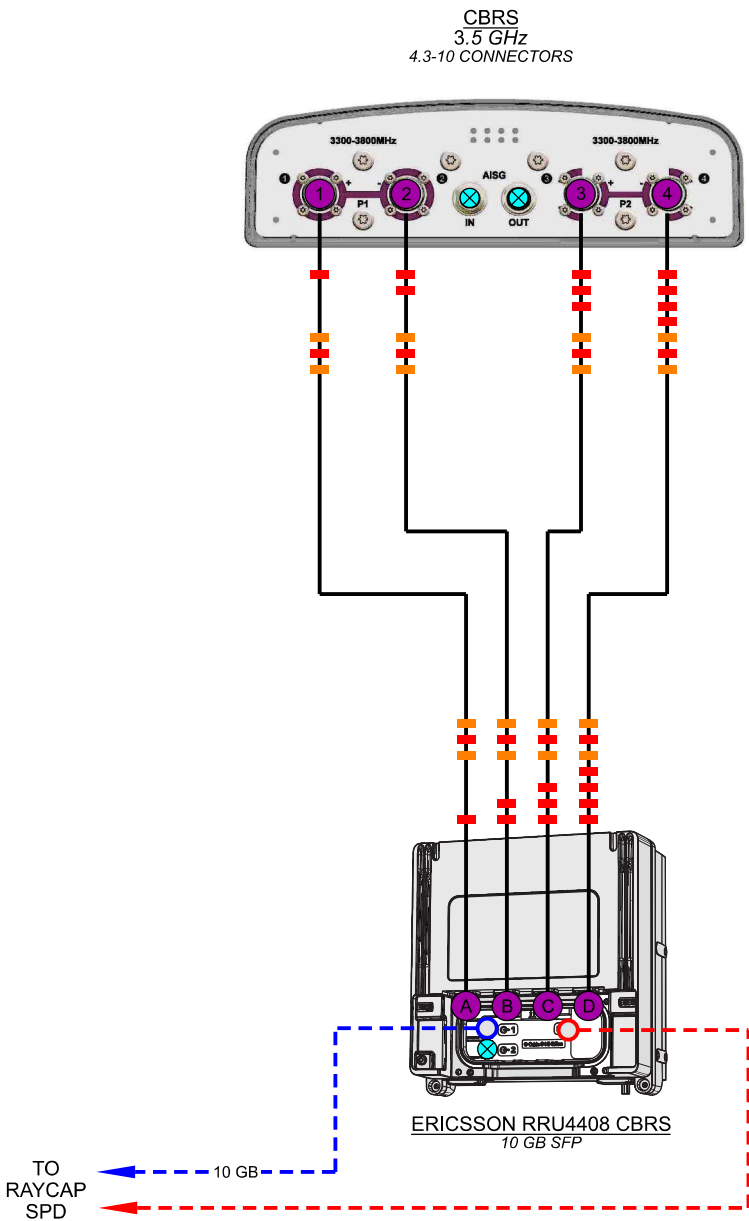
SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED BY:	ABB
PLOT DATE:	6/2/2021
PROJECT NUMBER:	26145
SET TYPE:	DRAFT
SHEET NUMBER:	T-505



**E// EXTERNAL CBRS ANTENNA
PER SECTOR CONFIGURATION**

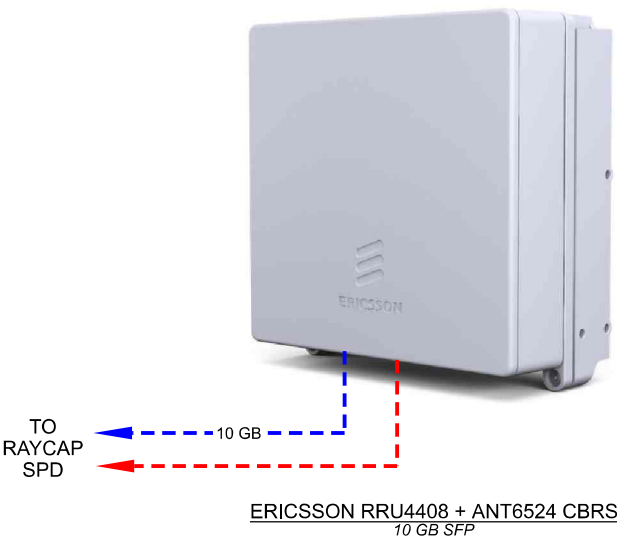


CABLE LEGEND

- 1/2" COAX JUMPER
- FIBER JUMPER
- POWER JUMPER
- HIGH BAND PORT
- WEATHERPROOF CAP

DATE CREATED: 11/17/2020

**E// INTEGRATED CBRS ANTENNA
PER SECTOR CONFIGURATION**



PLUMBING DIAGRAM: ERICSSON-CBRS

CONTAINS U.S. CELLULAR® CONFIDENTIAL INFORMATION. NOT FOR EXTERNAL USE OR DISCLOSURE WITHOUT PROPER AUTHORIZATION.

- NOTES:
- ALL JUMPERS BETWEEN RADIO UNITS & ANTENNAS MUST BE THE SAME LENGTH.
 - CONTRACTOR TO INSTALL WEATHERPROOF CAP ON ALL UN-USED PORTS.

CONSULTANT:



CLIENT:

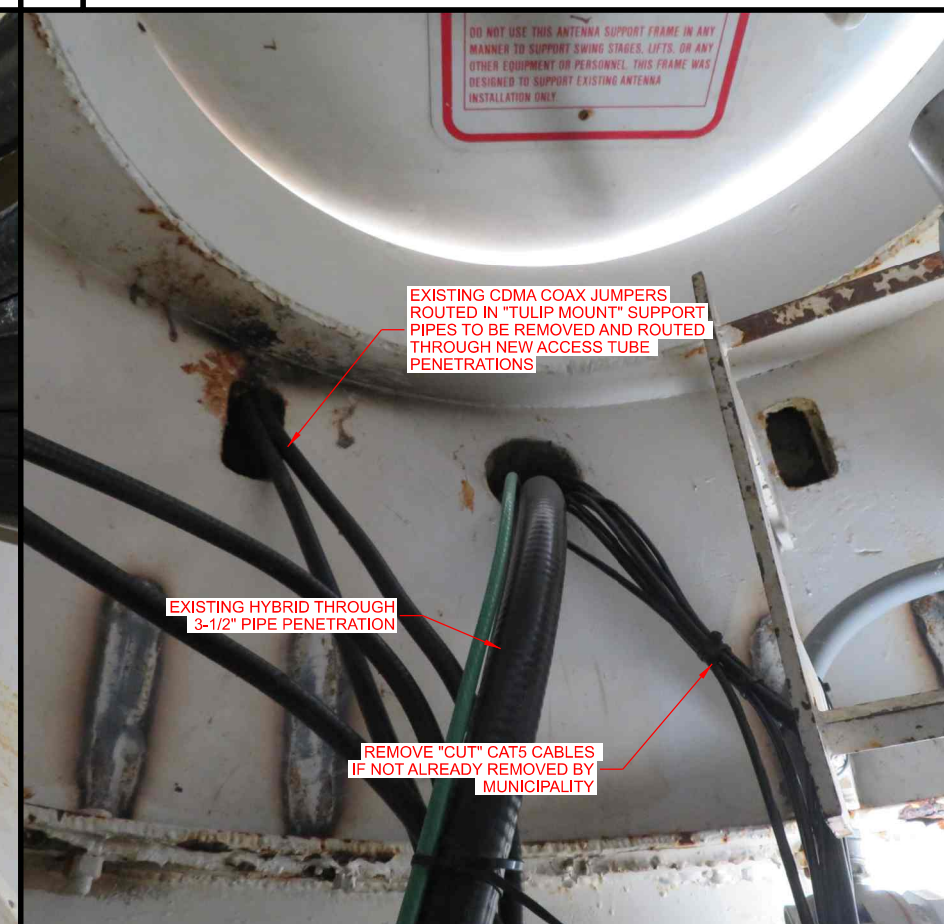
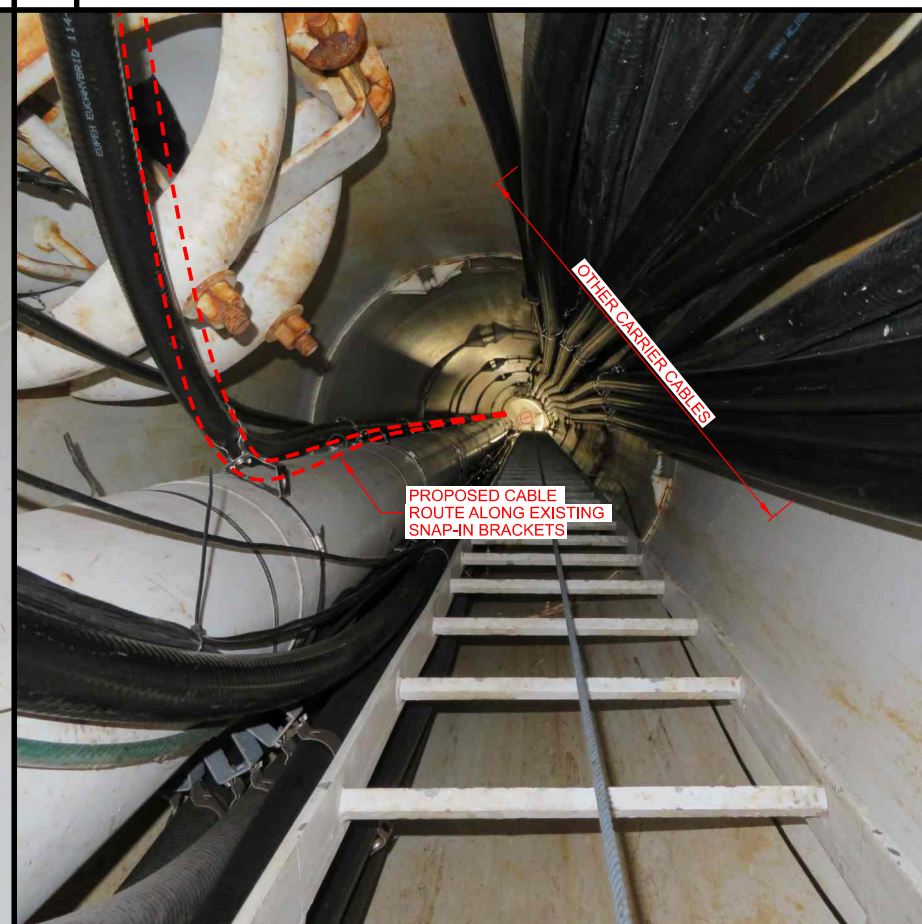
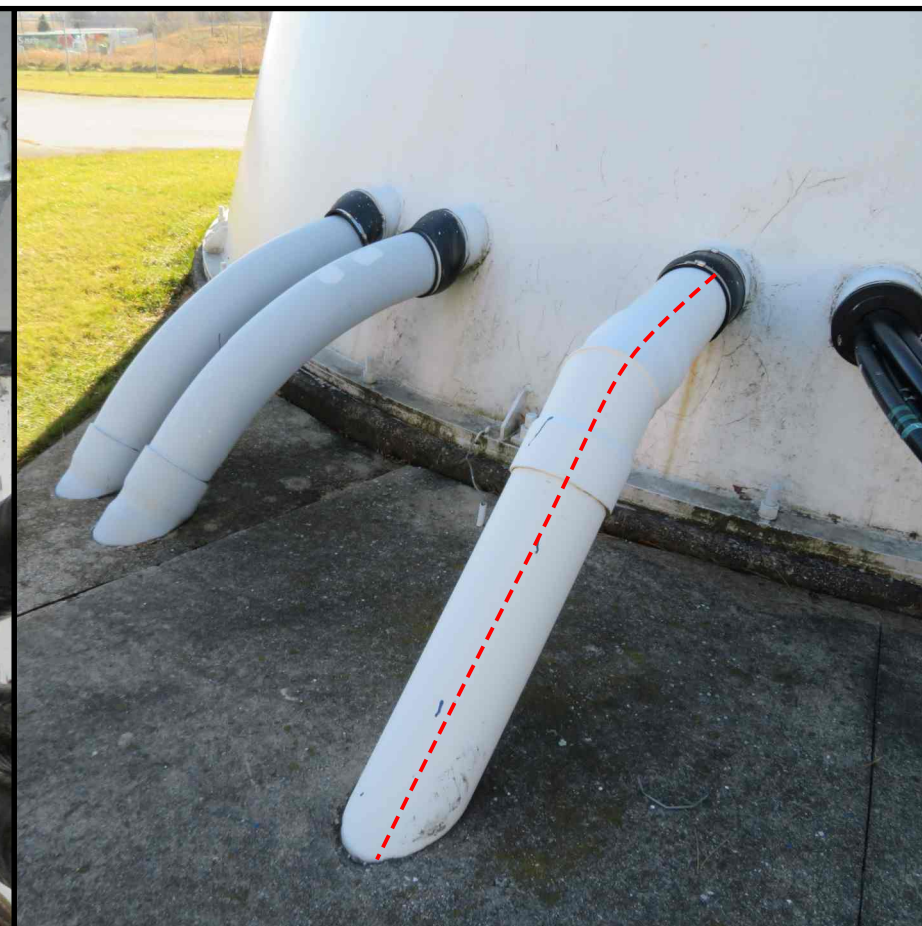


**PLUMBING DIAGRAM
JACKSON WT (784425)
JACKSON, WISCONSIN**

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
ADS	03/08/21	REV. A
CV	06/02/21	REV. B

CHECKED BY:	ABB
PLOT DATE:	6/2/2021
PROJECT NUMBER:	26145
SET TYPE:	DRAFT
SHEET NUMBER:	T-506



CONSULTANT:



CLIENT:



SITE PHOTOS
JACKSON WT (784425)
JACKSON, WISCONSIN

SUBMITTAL:

[illegible]

CHECKED BY	ABB
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PLOT DATE	6/2/2021
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PROJECT NUMBER	26145
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SET TYPE	DRAFT
-------------	-------

SHEET NUMBER	T-901
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ALL ANTENNAS, MAST PIPES, SUPPORTED STRUCTURES, AND CONNECTIONS TO BE PAINTED WHITE TO MATCH EXISTING EXTERIOR TOWER COATING SYSTEM. THE ONLY ITEMS THAT MAY BE GALVANIZED OR STAINLESS STEEL ARE THE U-BOLTS AND OTHER SMALL HARDWARE. PROPOSED CLIP ANGLES TO BE SHOP PRIMED AND PAINTED.

TO TOWER # STK2-UNIVERSAL

UNIVERSAL TOWER STANDOFF KIT

TO TOP OF MAST PIPE TO

UNIVERSAL TOWER STANDOFF KIT

THREADED CAP ON TOP OF MAST PIPE TO BE PAINTED WHITE TO MATCH EXISTING EXTERIOR COATING SYSTEM

8'-0" LONG, 2" SCH. 40 (2-3/8" O.D.) MAST PIPE;
PAINT WHITE TO MATCH EXISTING EXTERIOR
COATING SYSTEM



BE BOLTED TO PROPOSED
RAILING MEMBERS FOR
ON LIGHT MOUNTING;
OPRENE GASKET BETWEEN
RAILING MEMBERS AND
CLIP ANGLES TO PROTECT
PAINTING;
TO THE RIGHT

PROPOSED HITCH PIN,
FABORY # U39666.050.0575
OR APPROVED EQUIVALENT

HITCH PIN

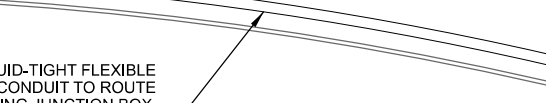
BE BOLTED TO PROPOSED
RAILING MEMBERS FOR
ON LIGHT MOUNTING;
OPRENE GASKET BETWEEN
RAILING MEMBERS AND
CLIP ANGLES TO PROTECT
PAINTING;
TO THE RIGHT

PROPOSED HITCH PIN,
FABORY # U39666.050.0575
OR APPROVED EQUIVALENT

HITCH PIN



HITCH PIN



1" LIQUID-TIGHT FLEXIBLE
METALLIC CONDUIT TO ROUTE
TO EXISTING JUNCTION BOX.
CABLE TO BE SPliced &
EXTENDED TO REACH NEW
LIGHT LOCATION

1/2" DIA. AXLE BOLT,
MCMaster-CARR #
2359ST17 OR APPROVED
EQUIVALENT:
INSTALL WITH LOCKING
WASHER

1/2" DIA. AXLE BOLT;
MCMMASTER-CARR #
23595T17 OR APPROVED
EQUIVALENT;
INSTALL WITH LOCKING
WASHER

A HINGED OBSTRUCTION LIGHTING MOUNT ELEVATION

B HINGED OBSTRUCTION LIGHTING MOUNT PLAN

UPPER ASSEMBLY

[illegible]

LOWER ASSEMBLY

C SHOP DRAWING ASSEMBLIES

CONSULTANT:

 **Edge**
Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
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www.edgeconsult.com

CLIENT:

 U.S. CELLULAR
8410 W. BRYN MAWR AVE.
SUITE 700
CHICAGO, IL 60631

LIGHT BEACON EXTENSION DETAILS
JACKSON WT (784425)
JACKSON, WISCONSIN

[illegible]

CHECKED BY	ABB
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PLOT DATE	6/2/2021
-----------	----------

PROJECT NUMBER	26145
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SET TYPE	DRAFT
----------	-------

SHEET NUMBER	E-502
-----------------	--------------

E-502



R:\28100\28155\Design\CAD\CD Plot\C-101.dgn

NOTES:

1. AERIAL IMAGERY FROM GOOGLE EARTH.
2. NORTH ARROW SHOWN AS APPROXIMATE.
3. SITE PHOTOS PROVIDED BY OTHERS.
4. NO SURVEY AVAILABLE. SITE LAYOUT BASED ON FIELD MEASUREMENTS AND SITE PHOTOS.

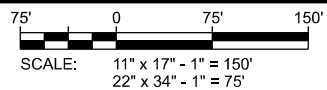
EXISTING WATER TOWER;
SEE T-201 FOR DETAILS

EXISTING FENCED COMPOUND;
SEE C-102 FOR DETAILS

EXISTING ACCESS DRIVE

SYSKO DR

CEDAR PKWY



CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

verizon
CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

SITE PLAN
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

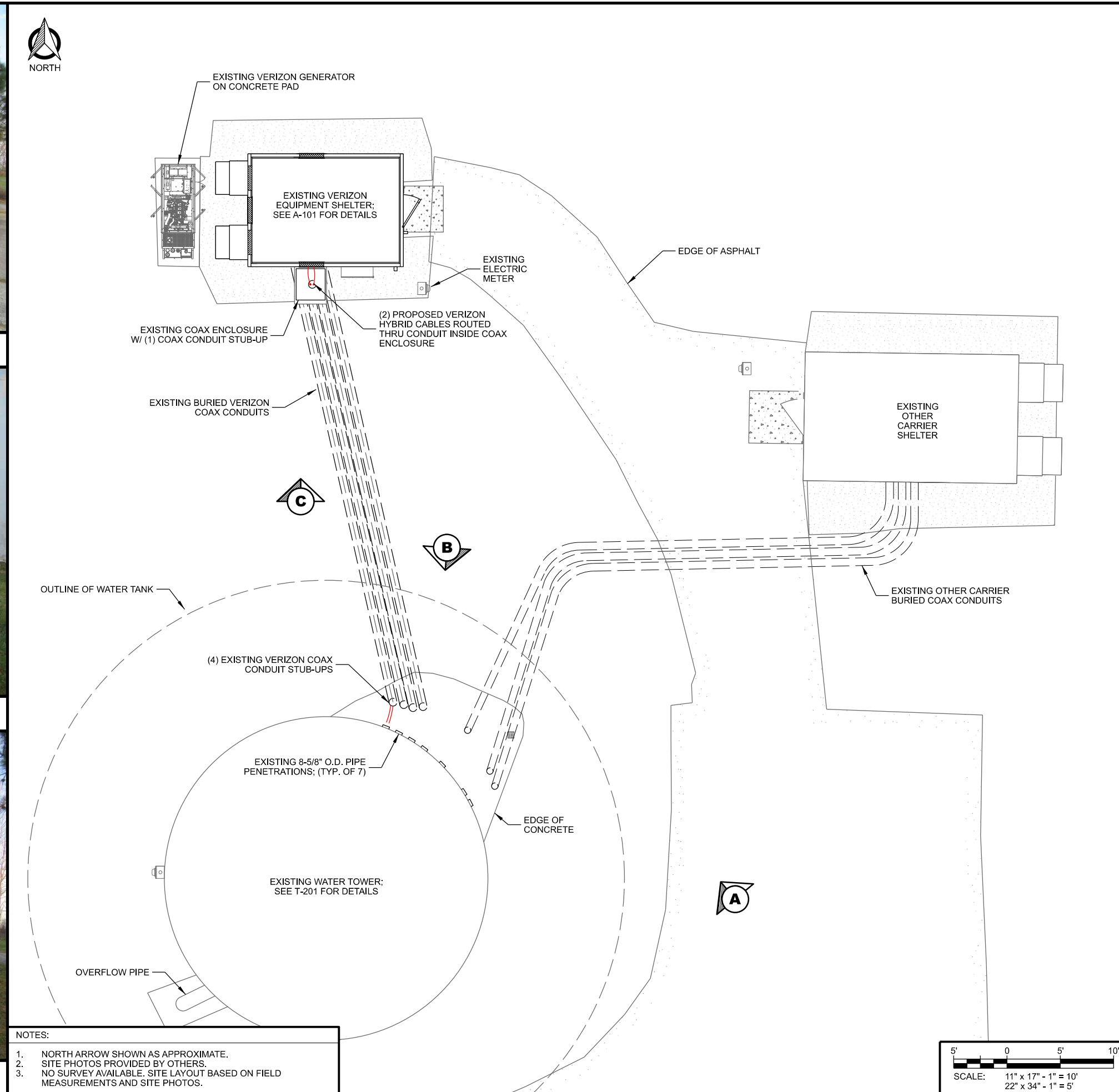
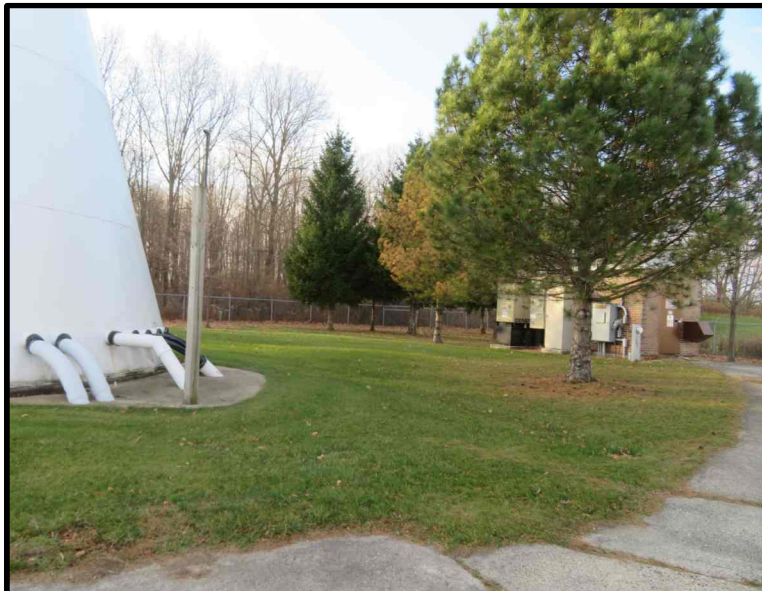
CHECKED BY: PCM

PLOT DATE: 6/2/2021

PROJECT NUMBER: 28155

SET TYPE: DRAFT

SHEET NUMBER: **C-101**



CONSULTANT:

 **Edge**
Consulting Engineers, Inc.

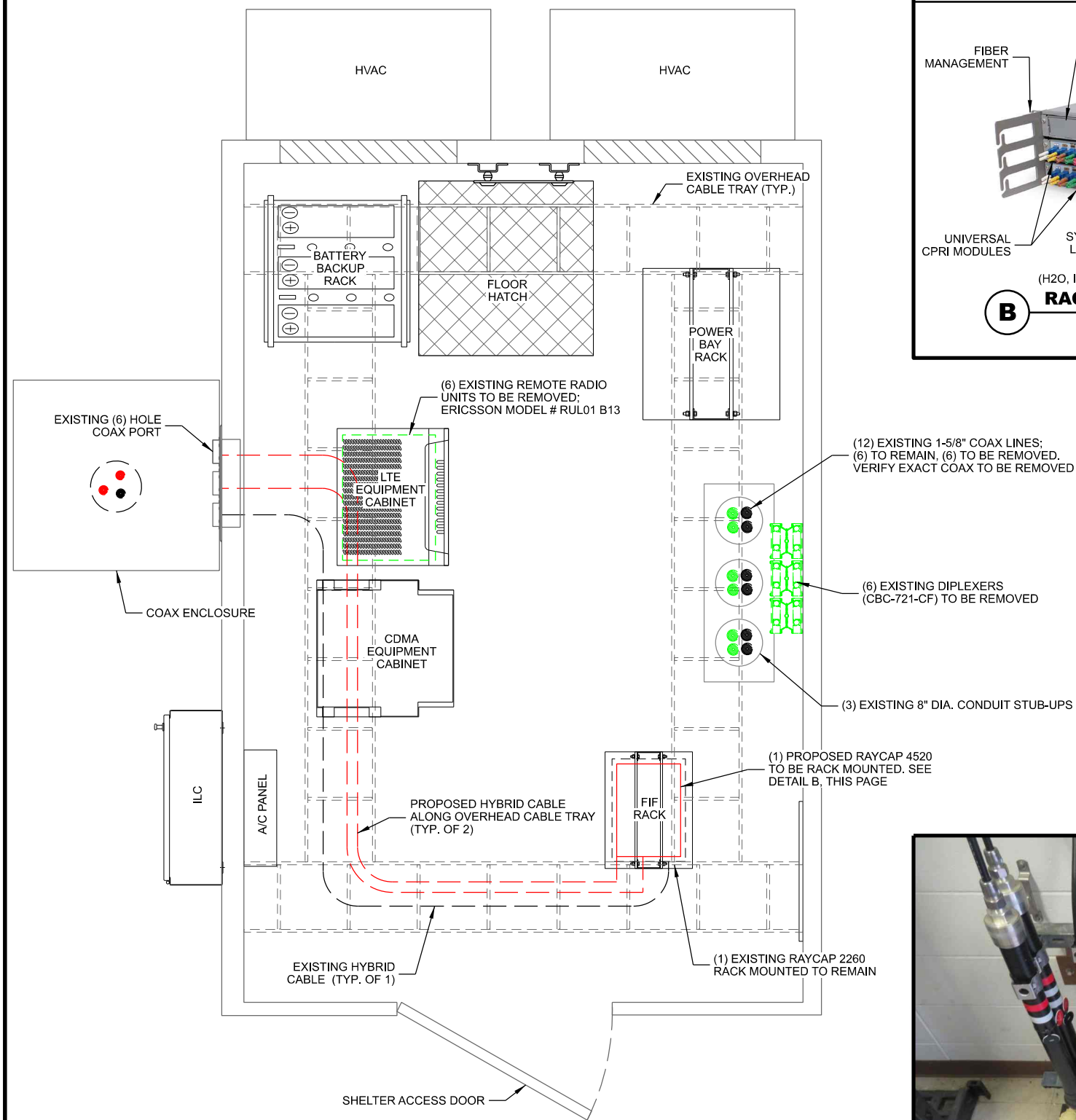
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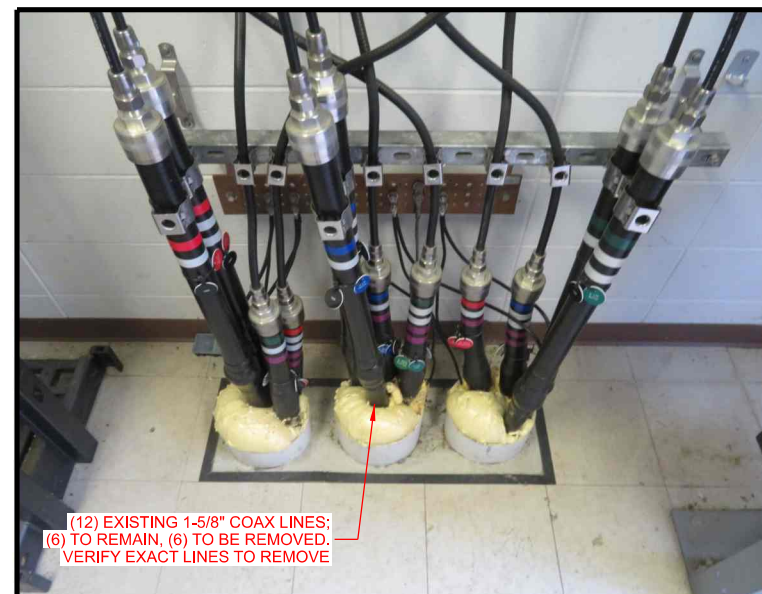
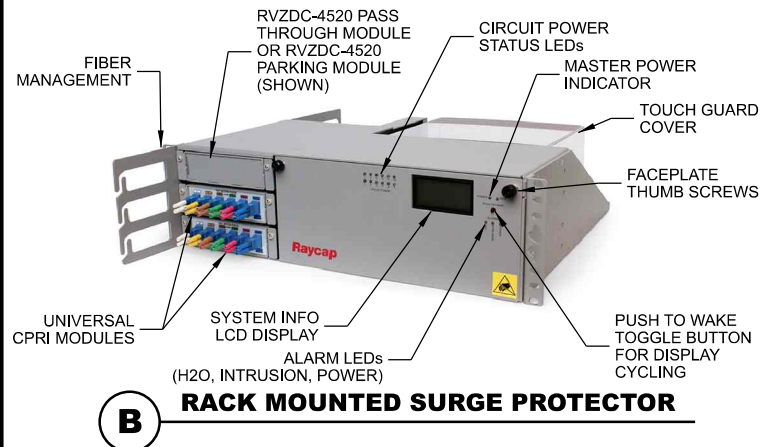
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d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A
CHECKED BY	PCM	
PLOT DATE	6/2/2021	
PROJECT NUMBER	28155	
SET TYPE	DRAFT	
SHEET NUMBER	C-102	



MANUFACTURER: RAYCAP
MODEL: RCMDC-4520-RM-48
DIMENSIONS: 5.18" x 18.32" x 15.80" (H x W x D)
WEIGHT: 22.10 LBS
RACK SPACE: 3RU

RACK MOUNTED DISTRIBUTION SURGE PROTECTION
FOR (12) RRH DC CIRCUITS.



CONSULTANT:



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TOWER 2, SUITE 400
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EQUIPMENT SHELTER LAYOUT

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED BY	PCM
PLOT DATE	6/2/2021
PROJECT NUMBER	28155
SET TYPE	DRAFT

SHEET
NUMBER

A-101

MANUFACTURER: RAYCAP
MODEL: MOUNTING BRACKET
INCLUDED WITH RAYCAP SPD.

RAYCAP SURGE
— PROTECTOR DEVICE
(SPD)

METAL MOUNTING
FRAME

**MOUNTING OPTION 1;
MOUNT BRACKET TO
2" TO 4" DIA. PIPE
(HARDWARE INCLUDED)**

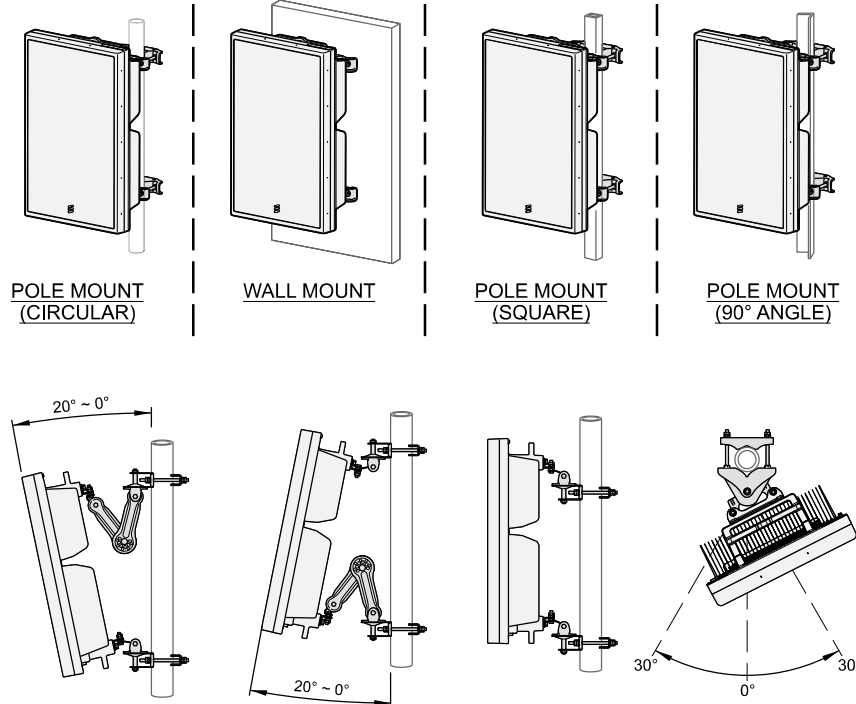
**MOUNTING OPTION 2;
— SECURE TO UNISTRUT
(NOT INCLUDED)**

**MOUNTING OPTION 3;
USE 1" STAINLESS STEEL
— BANDS (NOT INCLUDED)
THROUGH SLOTS ON
BRACKET**

A RAYCAP SURGE PROTECTOR DEVICE (SPD) MOUNT

MANUFACTURER: ERICSSON
MODEL: SXK 109 2064/1 (SWIVEL ANGLE)
 SXK 109 2065/1 (SWIVEL ANGLE AND TILT ANGLE)
WEIGHT: 9.7 LBS. (SWIVEL ANGLE)
 13.0 LBS. (SWIVEL ANGLE AND TILT ANGLE)

POLE	CICULAR	SQUARE	90° ANGLE
MIN. OUTER DIMENSION	3" DIA.	2" x 2"	2" x 2"
MAX. OUTER DIMENSION	4.5" DIA.	3.15" x 3.15"	3.15" x 3.15"

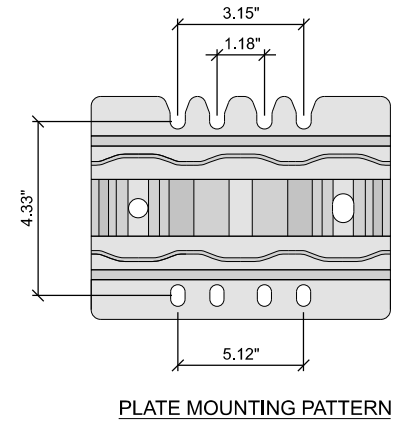


B ERICSSON SWIVEL MOUNT KIT

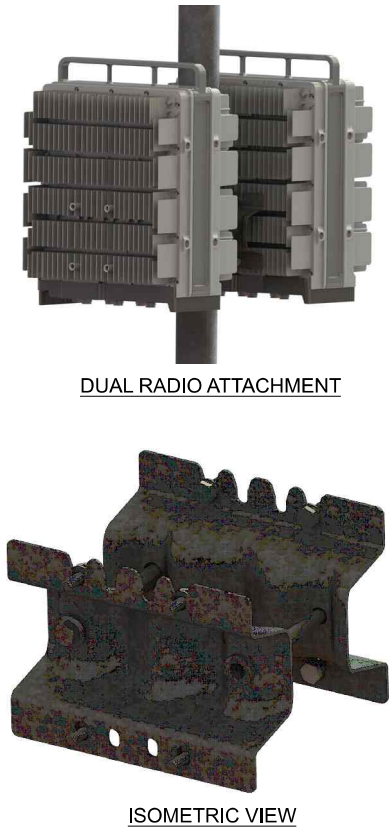
MANUFACTURER: ERICSSON
MODEL: SXK 109 1973/2
WEIGHT: 3.75 LBS

BRACKET FOR ATTACHING TWO STANDARD OR HEAVY ERS UNITS WITH A HOLE PATTERN OF CC 30 MM AND/OR CC 80 MM.. EITHER TO A POLE, WALL, ANGLE TOWER OR SQUARE TUBE.

BOLTS FOR ATTACHING TWO ERS UNITS ARE SUPPLIED IN THE PACKAGE.



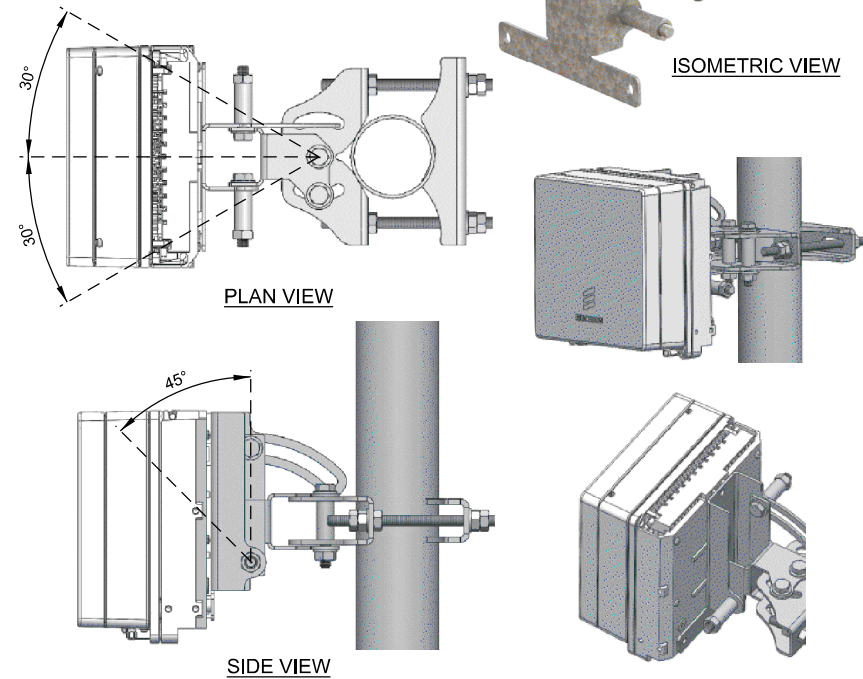
C DUAL ERS BRACKET



MANUFACTURER: ERICSSON
MODEL: SXK 109 2165/1
WEIGHT: 6 LBS

BRACKET FOR ATTACHING MICRO ERS
UNITS TO A POLE, WALL, ANGLE TOWER
OR SQUARE TUBE.

TO BE USED WITH MICRO ERS RADIOS



D MICRO ERS TILT BRACKET

I:\28100\28155\Design\CAD\CD\Plot\T-002.dgn

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CONSULTANT:



CLIENT:



MOUNTING SPECIFICATIONS
JACKSON WT-B (113385)
JACKSON, WISCONSIN

SUBMITTAL:

[illegible]

CHECKED BY	PCM
PLOT DATE	6/2/2021
PROJECT NUMBER	28155
SET TYPE	DRAFT
SHEET NUMBER	T-002

NHH-65B-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Effective Projective Area (EPA), frontal	0.26 m² 2.799 ft²
Effective Projective Area (EPA), lateral	0.22 m² 2.368 ft²
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information, General

RET Interface	8-pin DIN Female 8-pin DIN Male
RET Interface, quantity	2 female 2 male

Dimensions

Width	301 mm 11.85 in
Depth	180 mm 7.087 in

NHH-65B-R2B

180° ± 30°, dB						
CPR at Boresight, dB	22	21	23	23	22	19
CPR at Sector, dB	10	7	16	13	11	4

Mechanical Specifications

Wind Loading at Velocity, frontal	278.0 N @ 150 km/h 63.6 lbf @ 150 km/h
Wind Loading at Velocity, lateral	230.0 N @ 150 km/h 51.7 lbf @ 150 km/h
Wind Loading at Velocity, maximum	120.7 lbf @ 150 km/h 537.0 N @ 150 km/h
Wind Loading at Velocity, rear	282.0 N @ 150 km/h 63.4 lbf @ 150 km/h
Wind Speed, maximum	241 km/h 149.75 mph

Packaging and Weights

Width, packed	409 mm 16.102 in
Depth, packed	299 mm 11.772 in
Length, packed	1952 mm 76.85 in
Net Weight, without mounting kit	19.8 kg 43.651 lb
Weight, gross	32.3 kg 71.209 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant



Included Products

BSAMNT-3	–	Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.
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* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance
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Page 1 of 4

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1701 GOLF ROAD
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ROLLING MEADOW, IL 60008

ANTENNA SPECIFICATIONS
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED BY	PCM
PLOT DATE	6/2/2021
PROJECT NUMBER	28155
SET TYPE	DRAFT
SHEET NUMBER	T-003

COMMSCOPE®



HBX-6516DS-VTM

Andrew® Antenna, 1710–2170 MHz, 65° horizontal beamwidth, RET compatible

- Superior azimuth tracking and pattern symmetry to minimize any sector overlap
- Rugged, reliable design with excellent passive intermodulation suppression

Electrical Specifications

Frequency Band, MHz	1710–1880	1850–1990	1920–2170
Gain, dBi	17.7	18.0	18.0
Beamwidth, Horizontal, degrees	68	65	64
Beamwidth, Vertical, degrees	7.5	7.0	6.7
Beam Tilt, degrees	0–10	0–10	0–10
USLS, dB	18	18	18
Front-to-Back Ratio at 180°, dB	30	30	30
CPR at Boresight, dB	23	22	22
CPR at Sector, dB	12	10	9
Isolation, dB	30	30	30
VSWR Return Loss, dB	1.4 15.6	1.4 15.6	1.4 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm

Electrical Specifications, BASTA*

Frequency Band, MHz	1710–1880	1850–1990	1920–2170
Gain by all Beam Tilts, average, dBi	17.1	17.3	17.5
Gain by all Beam Tilts Tolerance, dB	±0.2	±0.3	±0.4
	0 ° 17.1	0 ° 17.3	0 ° 17.6
Gain by Beam Tilt, average, dBi	5 ° 17.2	5 ° 17.5	5 ° 17.7
	10 ° 16.9	10 ° 17.0	10 ° 17.1
Beamwidth, Horizontal Tolerance, degrees	±1.9	±1.6	±2.1
Beamwidth, Vertical Tolerance, degrees	±0.4	±0.3	±0.4
USLS, dB	19	19	19
Front-to-Back Total Power at 180° ± 30°, dB	25	26	26
CPR at Boresight, dB	22	22	22
CPR at Sector, dB	11	9	9

* CommScope® supports NGMN recommendations on Base Station Antenna Standards (BASTA). To learn more about the benefits of BASTA, [download the whitepaper Time to Raise the Bar on BSAs](#).

General Specifications

Antenna Brand	Andrew®
Antenna Type	DualPol®
Band	Single band
Brand	DualPol® Teletilt®
Operating Frequency Band	1710 – 2170 MHz

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page 1 of 2
April 1, 2015

COMMSCOPE®



HBX-6516DS-VTM

Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Low loss circuit board
Radome Material	PVC, UV resistant
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, total	2
Wind Loading, maximum	257.0 N @ 150 km/h 57.8 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h 149.8 mph

Dimensions

Depth	83.0 mm		3.3 in
Length	1306.0 mm		51.4 in
Width	166.0 mm		6.5 in
Net Weight	4.7 kg		10.4 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 2.0 Actuator HBX-6516DS-A1M
RET System Teletilt®

Regulatory Compliance/Certifications

Agency RoHS 2011/65/EU China RoHS SJ/T 11364-2006 ISO 9001:2008	Classification Compliant by Exemption Above Maximum Concentration Value (MCV) Designed, manufactured and/or distributed under this quality management system
---	--



Included Products

DB390 — Pipe Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Use for narrow panel antennas. Includes two pipe mounts.

DB5098E — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members

CONSULTANT:



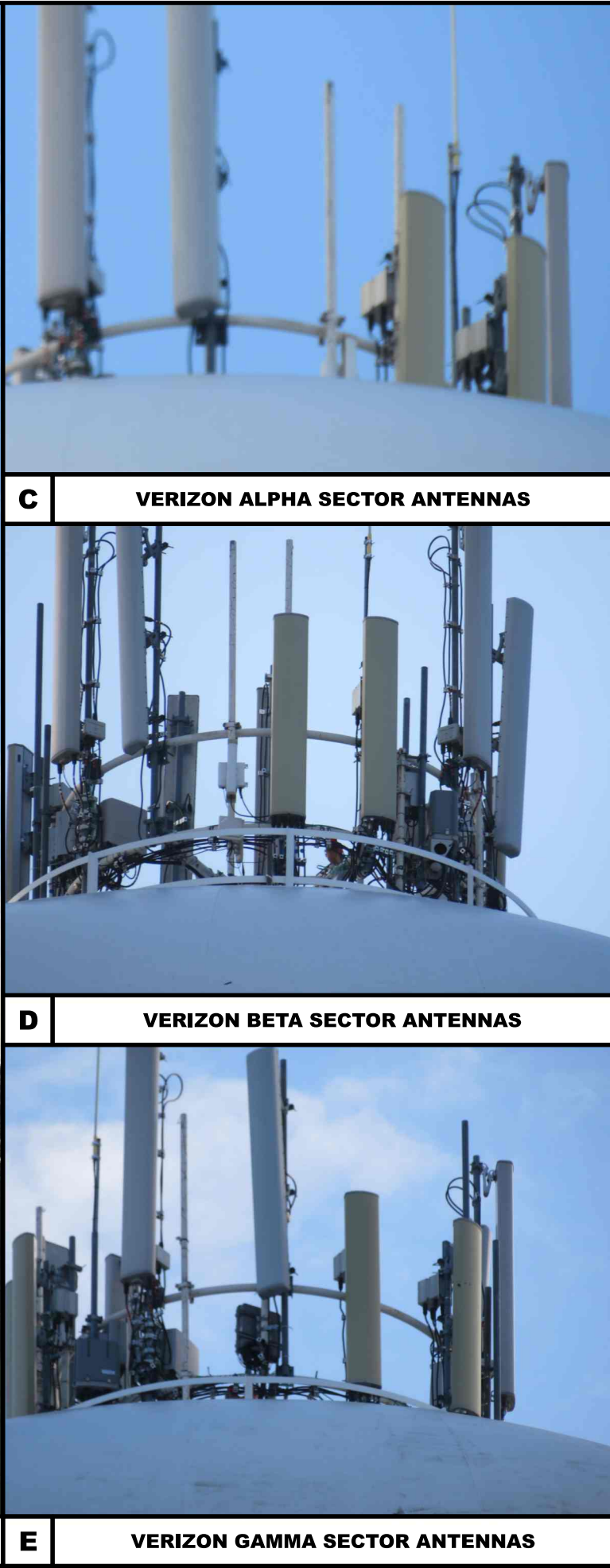
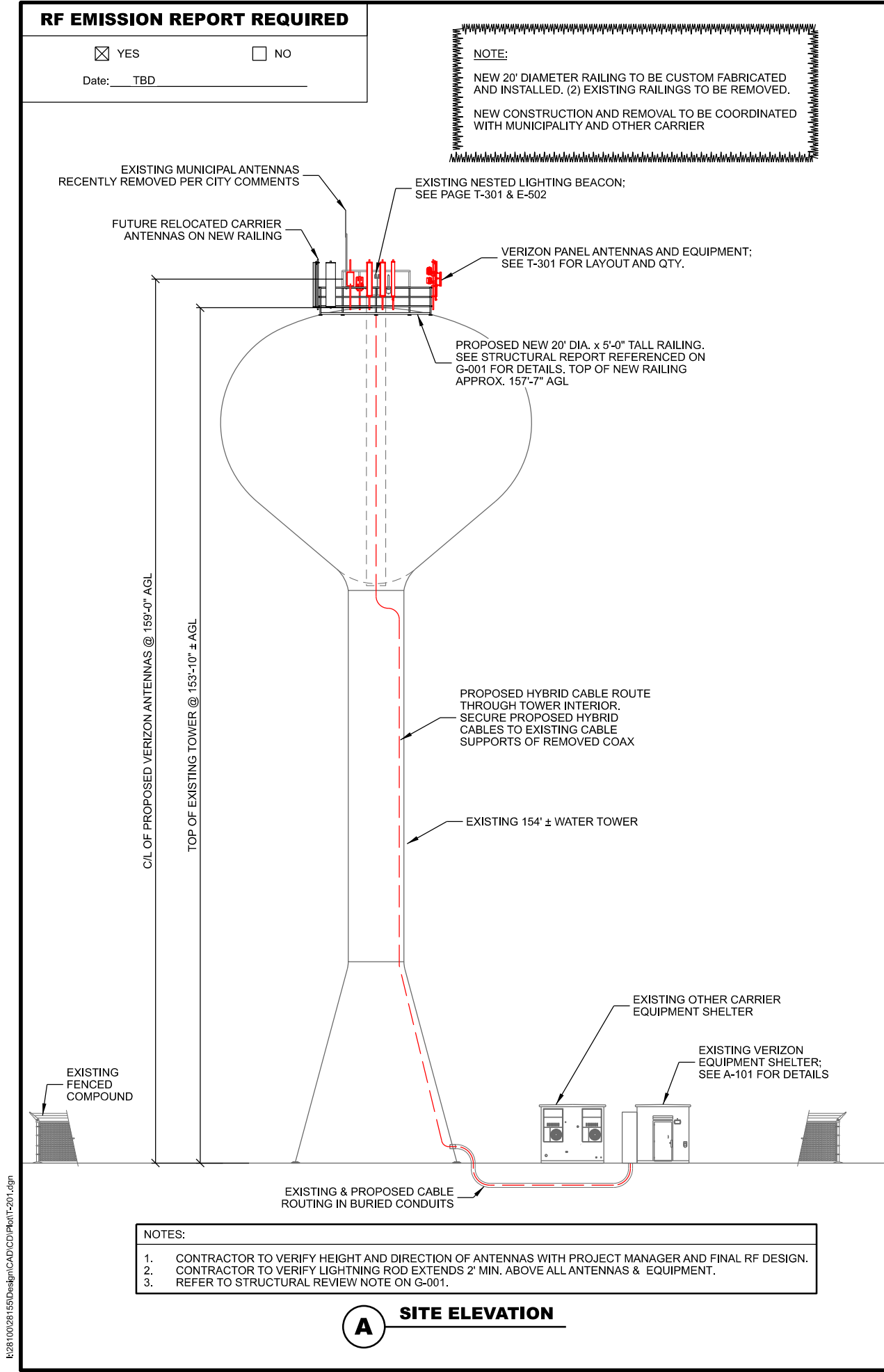
CLIENT:



ANTENNA SPECIFICATIONS
JACKSON WT-B (113385)
JACKSON, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A
CHECKED BY	PCM	
PLOT DATE	6/2/2021	
PROJECT NUMBER	28155	
SET TYPE	DRAFT	
SHEET NUMBER	T-004	

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CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

SITE ELEVATION
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED BY:

PCM

PLOT DATE:

6/2/2021

PROJECT NUMBER:

28155

SET TYPE:

DRAFT

SHEET NUMBER

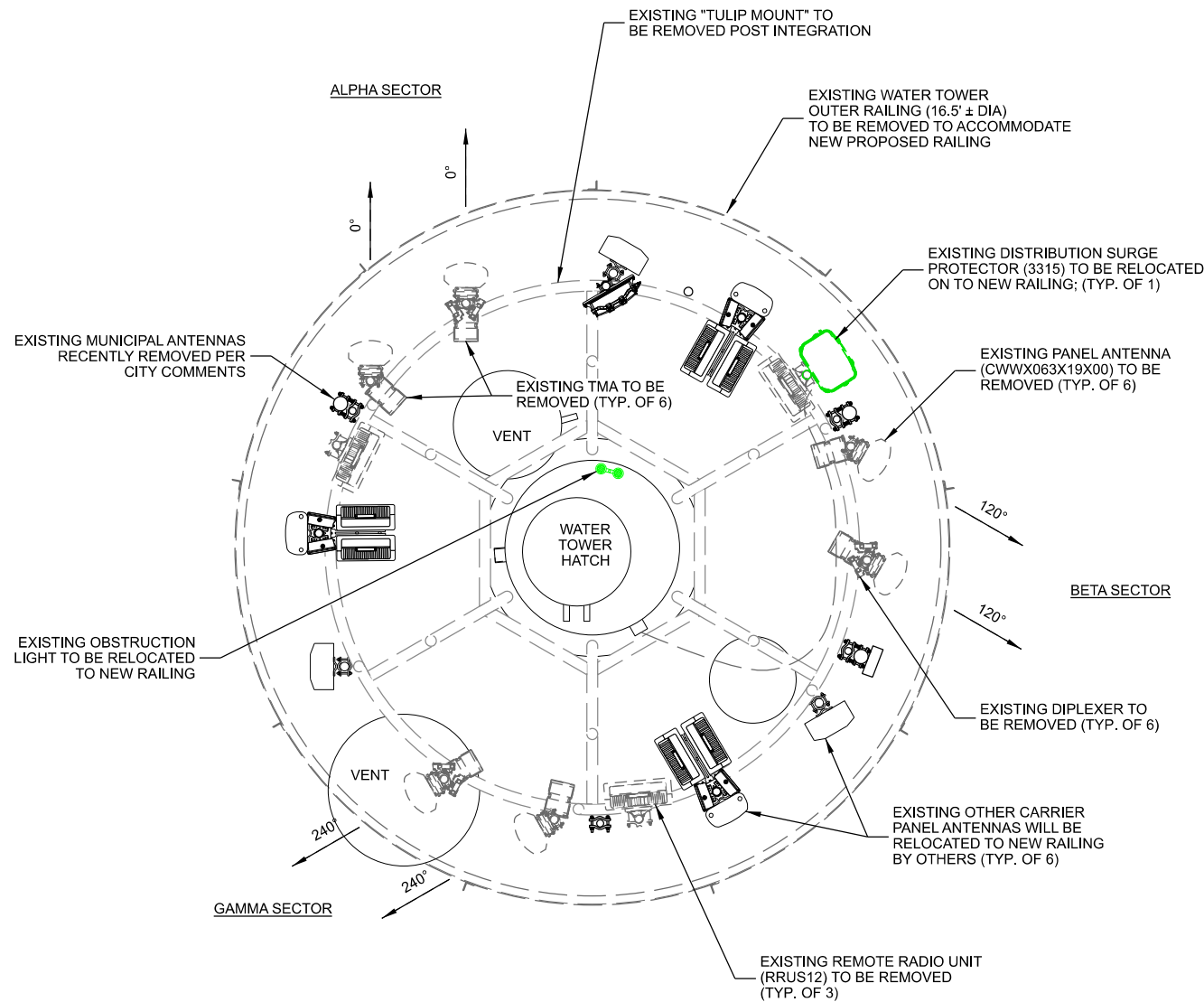
T-201

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NOTE:

EXISTING OUTER RAILING TO BE REMOVED AND REPLACED WITH NEW 20" DIA. x 5'-0" TALL RAILING



NOTE:

EXISTING MUNICIPAL ANTENNAS WERE EXISTING AT TIME OF SITE VISIT AND HAVE BEEN RECENTLY REMOVED PER CITY COMMENTS

NOTE:

1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

A EXISTING ANTENNA LAYOUT

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



PROPOSED PANEL ANTENNA ON NEW MAST PIPE (TYP. OF 6); ANDREW # NHH-65B-R2B. SEE T-003 FOR SPECIFICATIONS

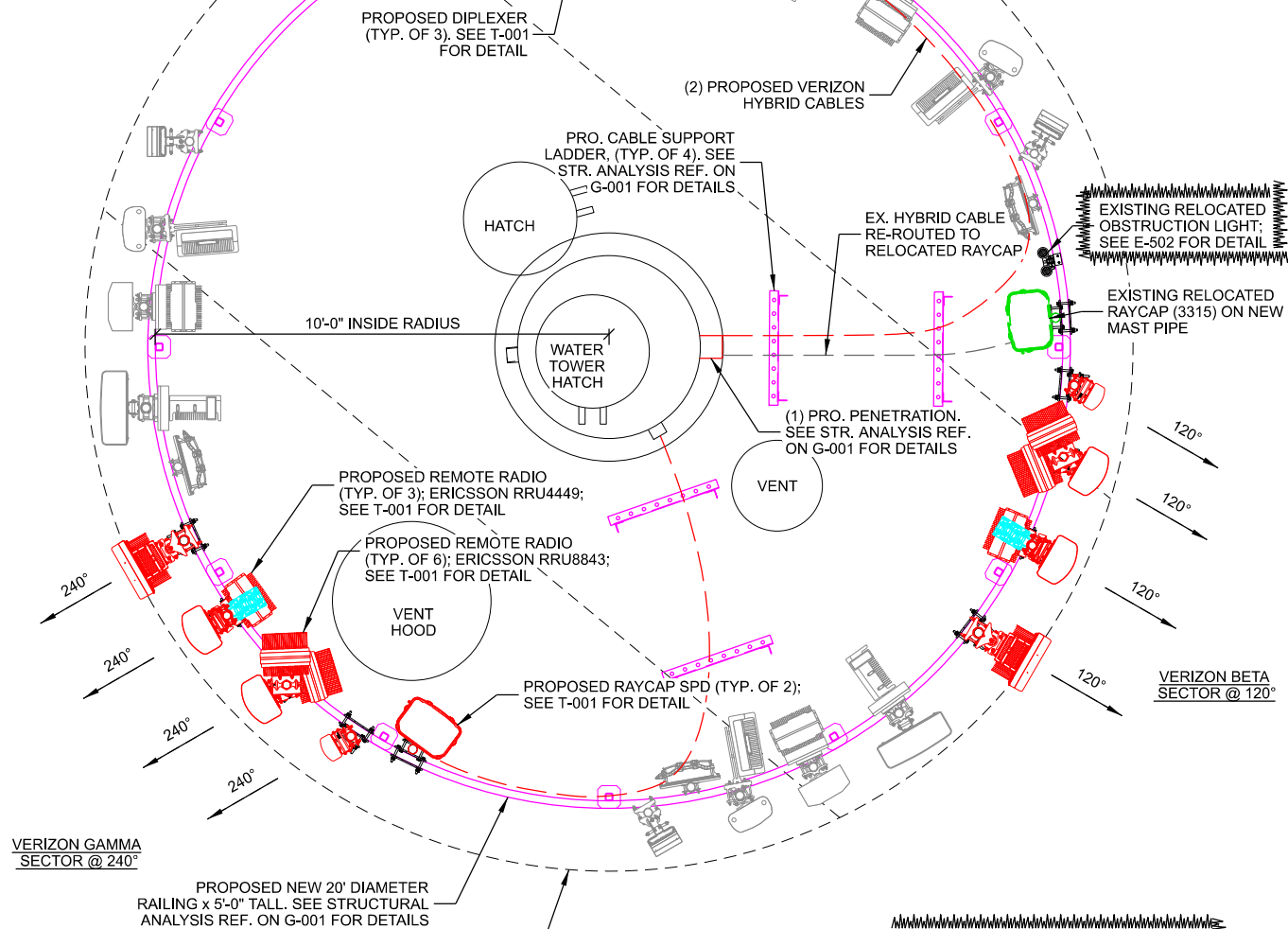
PROPOSED PANEL ANTENNA ON NEW MAST PIPE (TYP. OF 3); ANDREW # HBX-6516DS-VTM. SEE T-004 FOR SPECIFICATIONS

PROPOSED MAST PIPES TO BE ATTACHED TO RAILING WITH CROSS-OVER BRACKETS. SEE STRUCTURAL ANALYSIS REF. ON G-001 FOR DETAILS

PROPOSED DIPLEXER (TYP. OF 3). SEE T-001 FOR DETAIL

PROPOSED PANEL ANTENNA WITH BUILT-IN REMOTE RADIO ON NEW MAST PIPE (TYP. OF 3); ERICSSON AIR 6449. SEE T-001 FOR DETAILS

FUTURE RELOCATED U.S. CELLULAR PANEL ANTENNAS (TYP. OF 12). AZIMUTHS OF 30°, 150°, 270°



NOTE:

EXISTING VERIZON HYBRID CABLE TO BE PULLED THROUGH NEW ACCESS TUBE PENETRATION & ROUTED TO RELOCATED RAYCAP
(6) EXISTING 1-5/8" COAX TO REMAIN. NEW 1/2" JUMPERS TO BE INSTALLED

NOTES:

1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.
2. CONTRACTOR TO ROTATE ANTENNAS AS NECESSARY TO MATCH PROPOSED ANTENNA AZIMUTHS.

B PROPOSED ANTENNA LAYOUT

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

CONSULTANT:

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TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

**ANTENNA AND EQUIPMENT CONFIGURATION
JACKSON WT-B (11385)
JACKSON, WISCONSIN**

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED BY:	PCM
PLOT DATE:	6/2/2021
PROJECT NUMBER:	28155
SET TYPE:	DRAFT
SHEET NUMBER:	T-301

Antenna Summary

Added																			
700	850	1900	AWS	AWS3	28 GHz	31 GHz	39 GHz	CBRS	LAA	L-Sub	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
			CDMA								ANDREW	HBX-6516DS-VTM	159	161.1	0(D1) 120(D2) 240(D3)	false	false	PHYSICAL	3
LTE		LTE 5G	LTE	LTE							ANDREW	NHH-65B-R2B	159	162	0(01) 120(02) 240(03)	false	false	PHYSICAL	6
											TBD	nL-Sub6 Antenna	159	160.3	0(0001) 120(0002) 240(0003)	false	false	PHYSICAL	3
Removed																			
700	850	1900	AWS	AWS3	28 GHz	31 GHz	39 GHz	CBRS	LAA	L-Sub	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
LTE			CDMA	LTE							AMPHENOL	CWWX063X19X00	159	162.1	0(01) 120(02) 240(03)	false	false	PHYSICAL	6
Retained																			
700	850	1900	AWS	AWS3	28 GHz	31 GHz	39 GHz	CBRS	LAA	L-Sub	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity
No data available.																			

Added: 12 Removed: 6 Retained: 0



GLS > Upper Midwest > Illinois/Wisconsin > Wisconsin > JACKSON WT-B

Kim, Brian - brian.kim@verizonwireless.com - 12/8/2020 16:51:19

A ANTENNA SUMMARY

Equipment Summary

Added																		
Equipment Type	Location	700	850	1900	AWS	AWS3	28 GHz	31 GHz	39 GHz	CBRS	LAA	L-Sub	Make	Model	Cable Length	Cable Size	Install Type	Quantity
Diplexer	Tower												Commscope	CDX1923Q-DS-43			PHYSICAL	3
RRU	Tower	LTE											Ericsson	4449			PHYSICAL	3
RRU	Tower			LTE 5G	LTE	LTE							Ericsson	8843			PHYSICAL	6
RRU	Tower												Ericsson	VZE01			PHYSICAL	3
OVP Box	Tower												Raycap	3300			PHYSICAL	2
Hybrid Cable	Tower													6x12			PHYSICAL	2
OVP Box	Shelter												Raycap	4520			PHYSICAL	1
Removed																		
Equipment Type	Location	700	850	1900	AWS	AWS3	28 GHz	31 GHz	39 GHz	CBRS	LAA	L-Sub	Make	Model	Cable Length	Cable Size	Install Type	Quantity
Diplexer	Tower												CSS	DBC-7CAP			PHYSICAL	6
RRU	Tower				LTE								Ericsson	RRUS12 B4+A2			PHYSICAL	3
TMA	Tower												Westell	AWC-TTMA-700C-VG			PHYSICAL	6
Coaxial Cables	Tower															1-5/8"	PHYSICAL	6
Diplexer	Shelter												Commscope	CBC-721DF			PHYSICAL	6
RRU	Shelter	LTE											Ericsson	RUL01 B13			PHYSICAL	6
Retained																		
Equipment Type	Location	700	850	1900	AWS	AWS3	28 GHz	31 GHz	39 GHz	CBRS	LAA	L-Sub	Make	Model	Cable Length	Cable Size	Install Type	Quantity
OVP Box	Tower												Raycap	3315			PHYSICAL	1
Hybrid Cable	Tower													6x12			PHYSICAL	1
Coaxial Cables	Tower															1-5/8"	PHYSICAL	6
OVP Box	Shelter												Raycap	2260			PHYSICAL	1

B EQUIPMENT SUMMARY

CONSULTANT:

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608.644.1549 FAX
www.edgesconsult.com

CLIENT:

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d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

ANTENNA AND EQUIPMENT SUMMARY
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

NOTE:
1. RF DESIGN DETAILED ON THIS SHEET PROVIDED BY VERIZON AND IS INCLUDED FOR CONVENIENCE ONLY. FINAL RF DESIGN TO BE VERIFIED WITH VERIZON PRIOR TO CONSTRUCTION. IF SIGNIFICANT CHANGES OR DISCREPANCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

CHECKED BY	PCM
PLOT DATE	6/2/2021
PROJECT NUMBER	28155
SET TYPE	DRAFT
SHEET NUMBER	T-501

HYBRID CABLE LENGTH			
	ALPHA RAYCAP	BETA RAYCAP	GAMMA RAYCAP
EXISTING HYBRID CABLE QUANTITY	-	1	-
PROPOSED HYBRID CABLE QUANTITY	1	-	1
LENGTH FROM SHELTER SOURCE TO COAX PORT	20 FT	-	20 FT
LENGTH ALONG BURIED CONDUIT TO TOWER CENTER	60 FT	-	60 FT
LENGTH FROM T.O.C. TO TOWER TOP HATCH PENETRATION	160 FT	-	160 FT
LENGTH FROM HATCH PENETRATION TO RAYCAP SPD	30 FT	-	20 FT
TOTAL LENGTH OF CABLE	270 FT	-	260 FT
** HYBRID CABLE LENGTH NOT TO EXCEED 367			
EXISTING HYBRID CABLE TO BE PULLED THROUGH NEW COAX PENETRATION AND ROUTED TO NEW RAYCAP LOCATION AT BETA. LENGTH OF EXISTING HYBRID NOT KNOWN			

JUMPER CABLE LENGTH CHECK	
IS THE DISTANCE FROM SURGE PROTECTOR TO RADIO UNIT LESS THAN 30'?	
ALPHA SECTOR	YES
BETA SECTOR	YES
GAMMA SECTOR	YES

NOTE:	
1.	IF CABLING LENGTH EXCEEDS MAXIMUM ALLOWED LENGTH CONTRACTOR SHALL CONTACT CLIENT AND ENGINEER TO RESOLVE PRIOR TO CONSTRUCTION.

A CABLE LENGTHS

Raycap Layout - (6) OVP per Sector					
POWER					
3	HB/FD MIMO			6	Spare
2	HB			5	CBRS
1	LB			4	C-Band
FIBER					
1	2	3	4	5	6
LB	HB	HB / FD MIMO	Spare	CBRS	Spare
7	8	9	10	11	12
C-Band (1)	C-Band (2)	C-Band (3)	Spare	Spare	Spare

B SURGE PROTECTOR LAYOUT

CONSULTANT:



624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

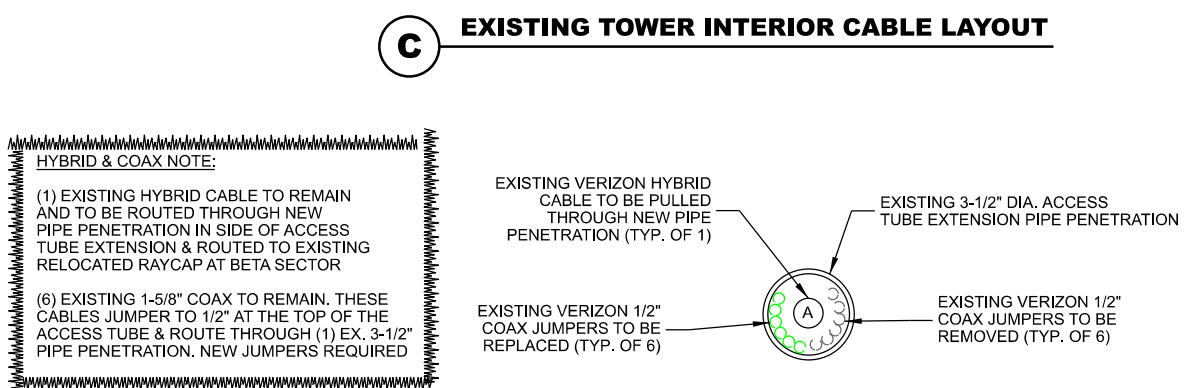
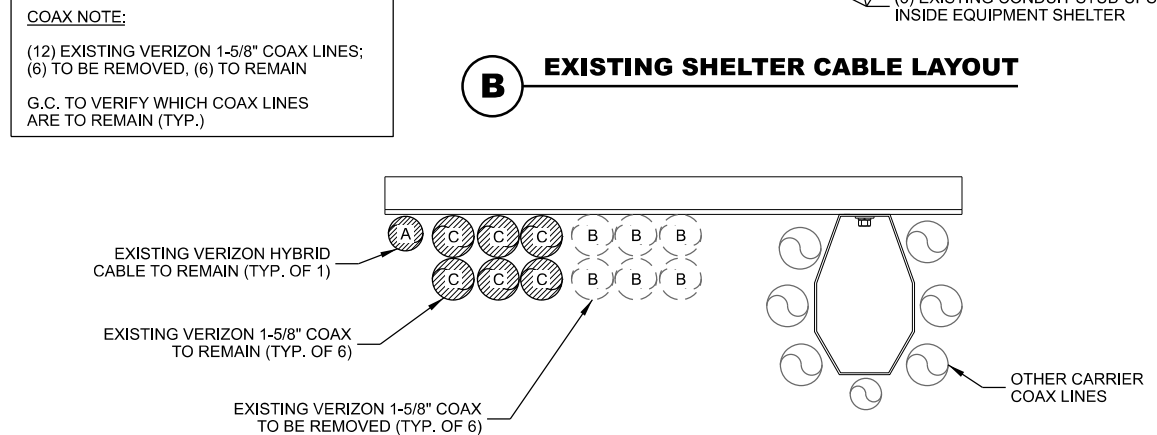
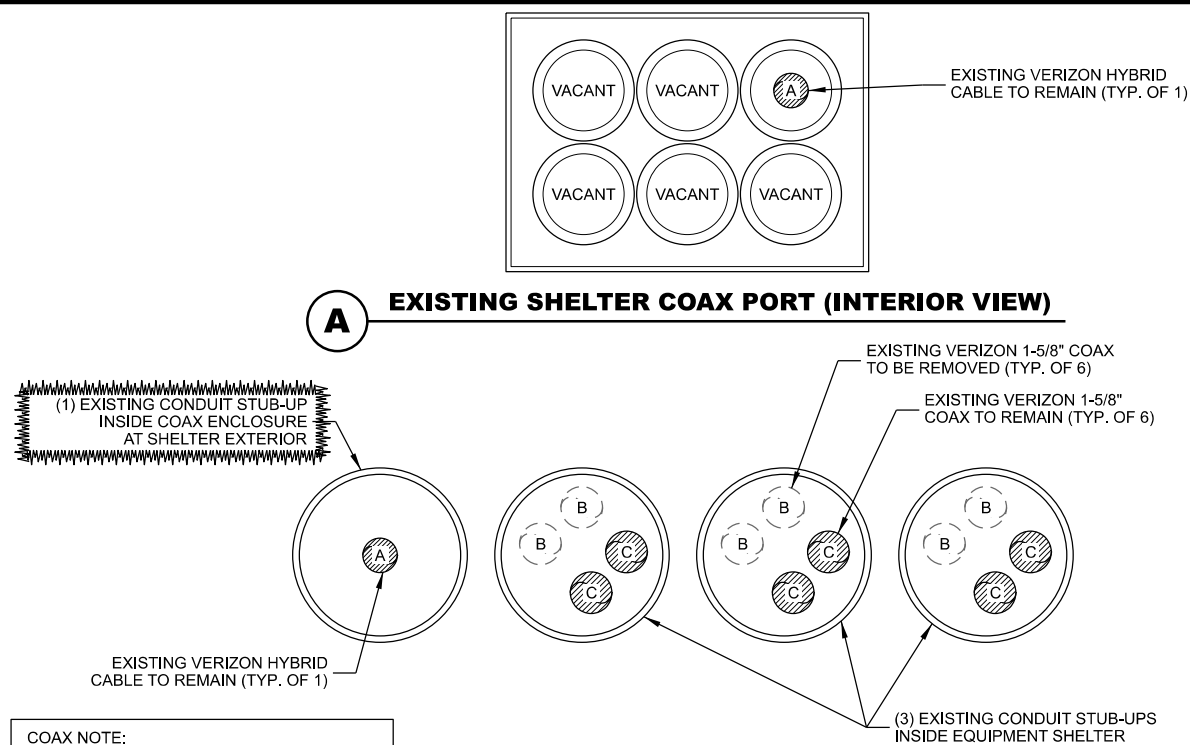


CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

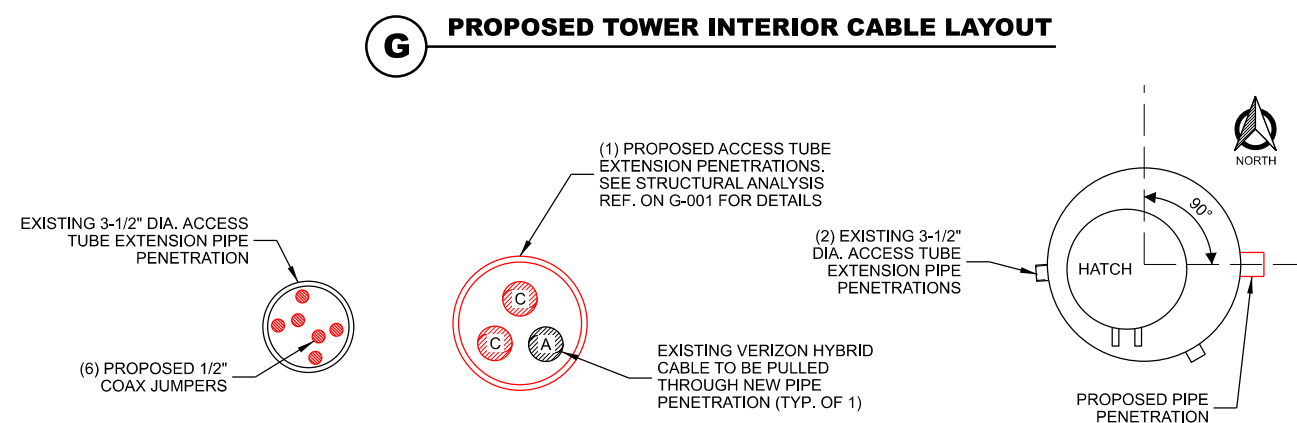
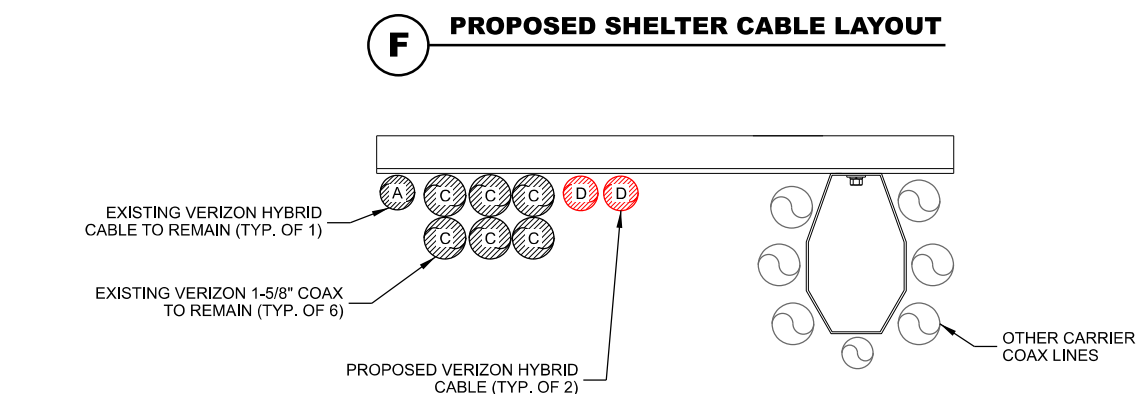
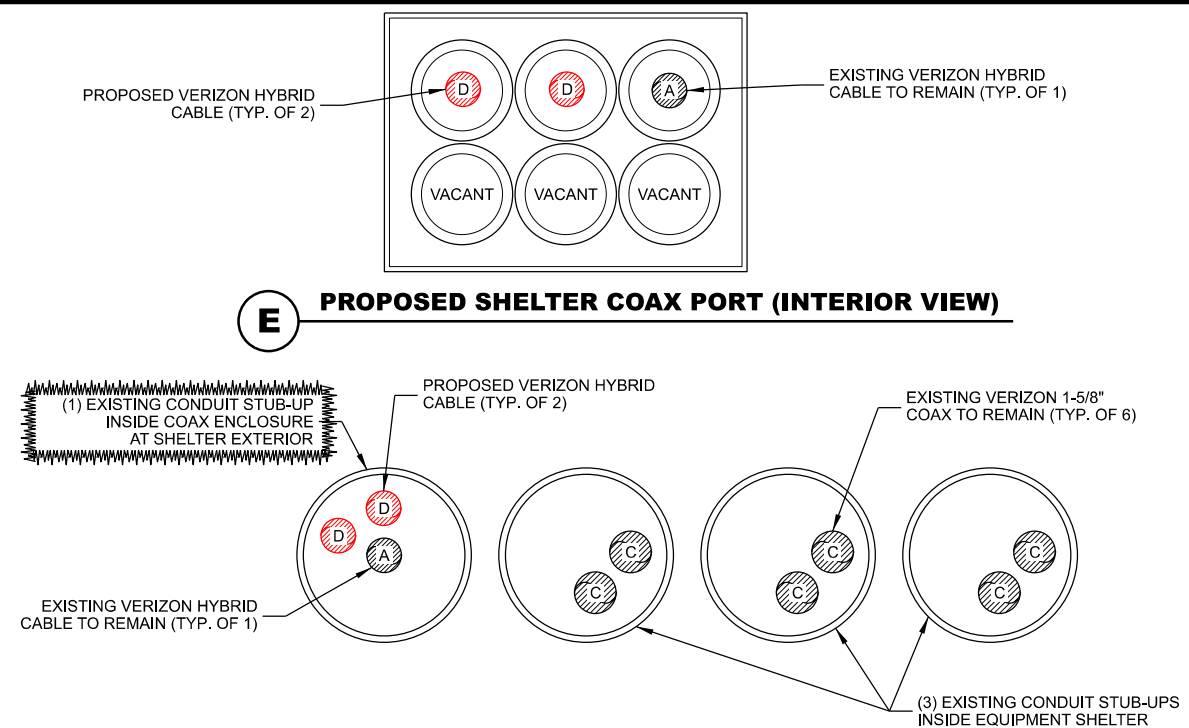
CABLING DETAILS
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A
CHECKED BY:		PCM
PLOT DATE:		6/2/2021
PROJECT NUMBER:		28155
SET TYPE:		DRAFT
SHEET NUMBER:		T-503

THIS SPACE INTENTIONALLY LEFT BLANK



COAX SYMBOL	(#) SIZE	MOUNTING TYPE	CARRIER / OWNER	TECHNOLOGY
A	(1) HYBRID	SNAP-INS	VERIZON	HYBRID
B	(6) 1-5/8"	SNAP-INS	VERIZON	LTE
C	(6) 1-5/8"	SNAP-INS	VERIZON	CDMA



COAX SYMBOL	(#) SIZE	MOUNTING TYPE	CARRIER / OWNER	TECHNOLOGY
A	(1) HYBRID	SNAP-INS	VERIZON	HYBRID
B	-	-	-	-
C	(6) 1-5/8"	SNAP-INS	VERIZON	CDMA
D	(2) HYBRID	SNAP-INS	VERIZON	HYBRID

[illegible]

CHECKED BY	PCM
PLOT DATE	6/2/2021
PROJECT NUMBER	28155
SET TYPE	DRAFT
SHEET NUMBER	T-504



MANUFACTURER: SITE PRO 1
MODEL: SCX7-U (CROSSOVER PLATE KIT)
MODEL: SCX7 (BACKING PLATE)
 CONNECTS 1-1/2" TO 3-1/2" PIPE TO 1-1/2" TO 4-1/2" PIPE
 ASSEMBLY HARDWARE INCLUDED
 MOUNTING PIPES SOLD SEPARATELY
 SUPPLIED BY GENERAL CONTRACTOR



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CONSULTANT:

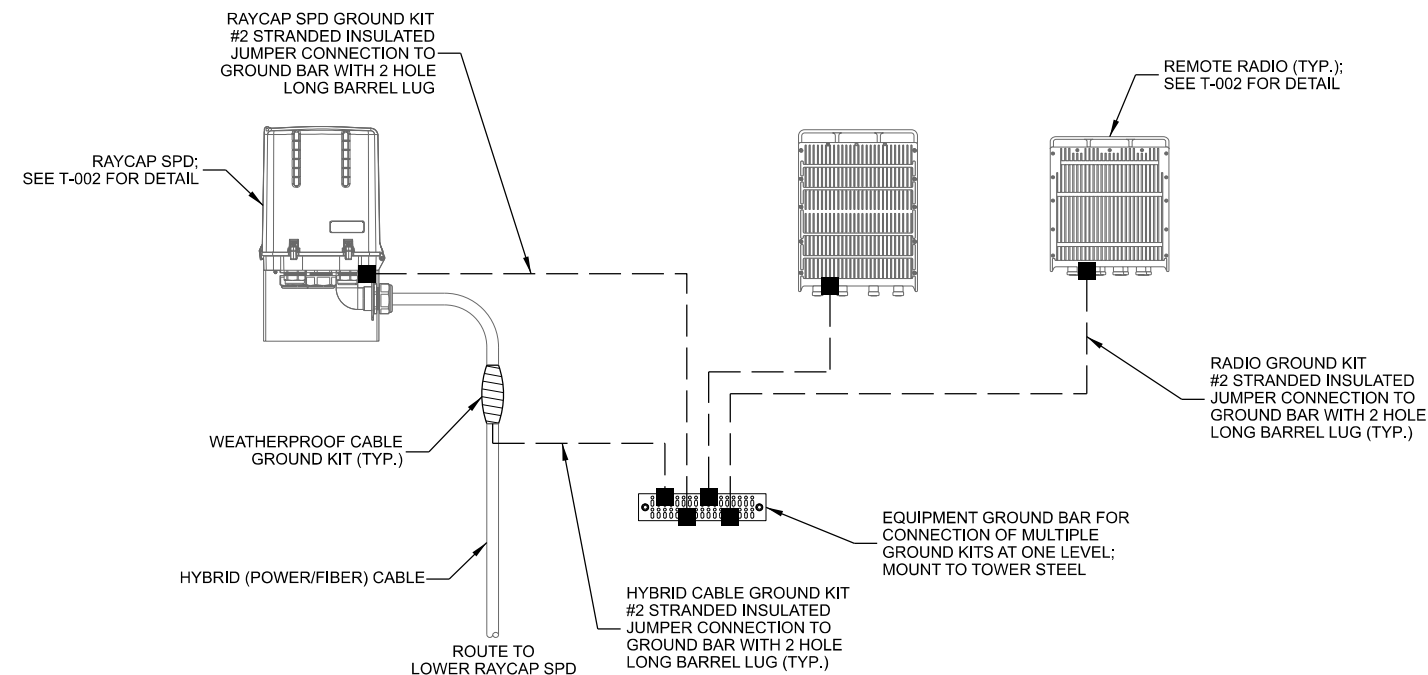


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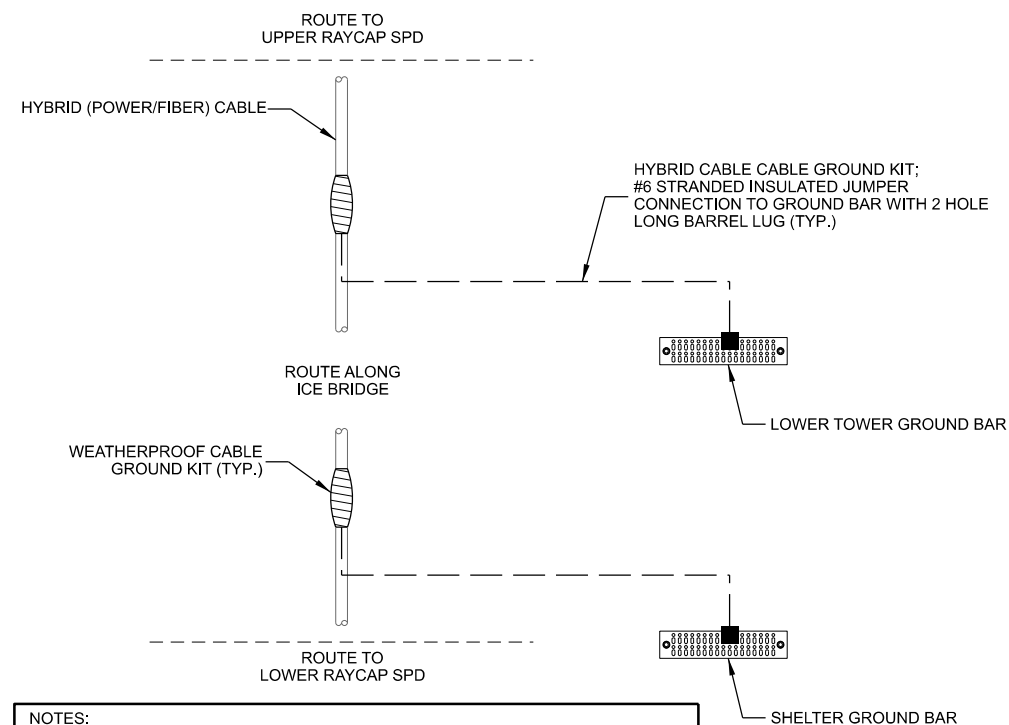
ANTENNA MOUNT AND INSTALLATION DETAILS
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A
CHECKED BY	PCM	
PLOT DATE	6/2/2021	
PROJECT NUMBER	28155	
SET TYPE	DRAFT	
SHEET NUMBER	T-505	



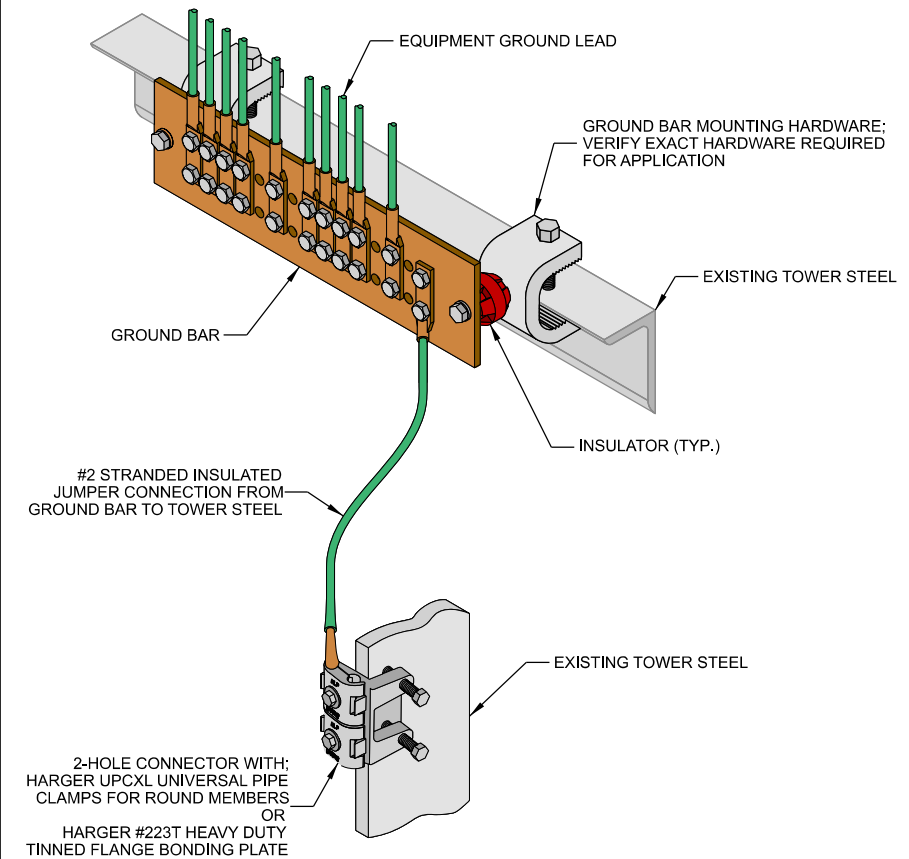
- | | |
|--------|---|
| NOTES: | |
| 1. | ALL CABLING AND/OR GROUNDING RUNS SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION AS DICTATED BY EXISTING CONDITIONS. |
| 2. | CONTRACTOR SHALL INSTALL PER LATEST EDITION OF THE N.E.C. |
| 3. | SCHEMATIC DETAIL ONLY. REFER TO ANTENNA AND EQUIPMENT CONFIGURATION FOR EQUIPMENT QUANTITY AND LOCATION. CONTRACTOR TO VERIFY GROUND BAR CAPACITY AND DETERMINE IF NEW GROUND BAR REQUIRED PRIOR TO CONSTRUCTION. |

A UPPER EQUIPMENT GROUNDING

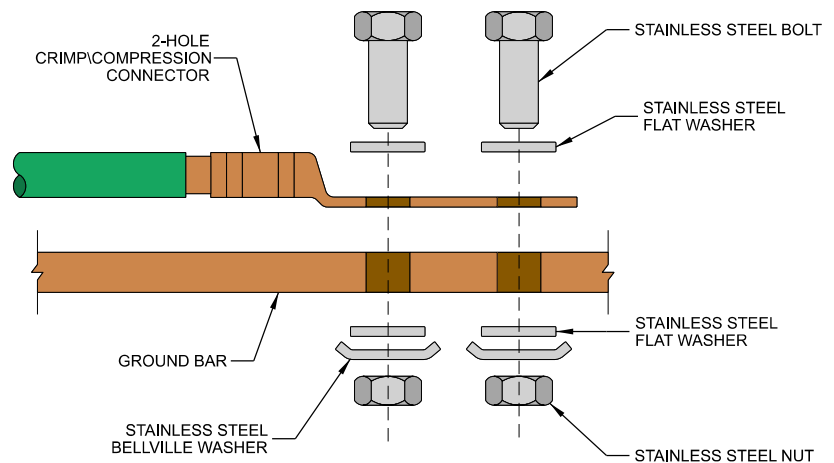


- | | |
|--------|---|
| NOTES: | |
| 1. | ALL CABLING AND/OR GROUNDING RUNS SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION AS DICTATED BY EXITING CONDITIONS. |
| 2. | CONTRACTOR SHALL INSTALL PER LATEST EDITION OF THE N.E.C. |
| 3. | SCHEMATIC DETAIL ONLY. CONTRACTOR TO VERIFY GROUND BAR CAPACITY AND DETERMINE IF NEW GROUND BAR REQUIRED PRIOR TO CONSTRUCTION. |

B LOWER CABLE GROUNDING



C **GROUND BAR**



- | | |
|--------|---|
| NOTES: | |
| 1. | ALL OUTDOOR HARDWARE (BOLTS, SCREWS, NUTS, WASHERS) SHALL BE 18-8 STAINLESS STEEL TYPE GRADE. INDOORS, GRADE 5 STEEL HARDWARE MAY BE USED. |
| 2. | CHOOSE BOLT LENGTH TO ALLOW THE EXPOSURE OF AT LEAST TWO THREADS. |
| 3. | BACK TO BACK LUG CONNECTIONS ARE AN ACCEPTABLE PRACTICE WHEN BONDED TO A GROUND BAR OR STEEL OBJECTS. |
| 4. | AT CONNECTIONS MADE TO STEEL OR ANY OTHER DISSIMILAR METALS, A DRAGON TOOTH WASHER MEETING VZW PRACTICES SHALL BE USED BETWEEN THE CONNECTOR AND STEEL. |
| 5. | IF NOT USING DRAGON TOOTH WASHERS, THOROUGHLY REMOVE A SECTION OF PAINT OR COATING APPROXIMATELY THE SAME SIZE AS CONNECTOR. REMOVE THE PAINT FROM SURFACE USING A DREMEL TYPE TOOL. |
| 6. | USE AN APPROVED ANTI-OXIDATION COMPOUND ON ALL GROUNDING CONNECTIONS. A COPPER COSMOLINE GREASE BASED COMPOUND (NO OX-ID) SHALL BE USED ON ALL COPPER TO COPPER CONNECTIONS. A ZINC BASED (GREY COLORED) COMPOUND SHALL BE USED ON ALL COPPER TO STEEL CONNECTIONS. |
| 7. | WHEN BONDING TO A METALLIC OBJECT WHERE ACCESS IS LIMITED TO ONLY ONE SURFACE, DRILLING & TAPPING OR SELF DRILLING SCREWS ARE THE PREFERRED AND ACCEPTABLE MEANS OF CONNECTION. SHEET METAL SCREWS SHALL NOT BE USED. |

D GROUNDING LUG

CONSULTANT:



CLIENT:



CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

GROUNDING DETAILS
JACKSON WT-B (113385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED	DO
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BCM

PLOT

01/01/2024

PROJECT

20455

SET

DRAFT

[illegible]

FOURTH AMENDMENT TO TOWER/LAND LEASE AGREEMENT

THIS FOURTH AMENDMENT TO TOWER/LAND LEASE AGREEMENT (the "Fourth Amendment") is made this ____ day of _____, 2021, between the Village of Jackson, a Wisconsin corporation ("Lessor") and Cellco Partnership d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Mailstop 4AW100, Basking Ridge, New Jersey 07920 ("Lessee").

WHEREAS, there is now in full force and effect between Lessor and Verizon Wireless Personal Communications LP d/b/a Verizon Wireless that certain Tower/Land Lease Agreement dated March 11, 1997, as amended by the Amendment to Land Lease Agreement dated June 12, 2008, the Second Amendment to Tower/Land Lease Agreement dated January 28, 2013 and the Third Amendment to Tower/Land Lease Agreement dated July 23, 2015 (collectively the "Lease") which provides for the location, installation and operation of Lessee's communications equipment at the real property and on the water tower ("Tower") owned by Lessor and located at W227 N16551 Cedar Parkway, Jackson, Wisconsin ("Property"); and

WHEREAS, Lessee is the successor in interest to Verizon Wireless Personal Communications LP d/b/a Verizon Wireless; and

WHEREAS, Lessee wishes to modify and/or add communications equipment to the Tower and at the Property ("Additional Equipment"); and

WHEREAS, Lessor and Lessee wish to amend the Lease in order to address the equipment modifications at the Property, extend the term of the Lease as well as other considerations; and

NOW THEREFORE, for good and valuable consideration including the mutual covenants and agreements hereinafter set forth, Lessor and Lessee agree as follows:

1. **Recitals.** The recitals set forth above are incorporated herein by reference.
2. **Additional Equipment.** Exhibits B-3, B-4 and B-5 of the Lease are hereby deleted and replaced with the attached Exhibits B-6, B-7 and B-8, which depict Lessee's equipment on the Tower. Exhibits B-7 and B-8 reference the manner of installation of the Additional Equipment which Lessee may install. Provided that Lessee has received all necessary permits and approvals from appropriate governing bodies, Lessee may immediately commence installation of the Additional Equipment as depicted on Exhibit B-6. Lessor agrees that the installation plan in the attached Exhibits B-6, B-7 and B-8, depicting the location and manner of Lessee's installation, is acceptable. The facilities described in Exhibit A, Exhibit B, Exhibit B-6, Exhibit B-7 and Exhibit B-8 together shall constitute the Antenna Facilities as that term is used with the Lease and its Amendments.
3. **Term.** Section 2 of the Lease is modified to include the following:

"Beginning March 14, 2022, Lessee shall have the right to extend this Lease for four (4) additional five (5) year terms, subject to all the terms and

conditions of this Lease. This Lease shall automatically be renewed for each successive renewal term unless Lessee shall notify Lessor of Lessee's intention not to renew this Lease at least six (6) months prior to the expiration of the renewal term."

4. **Extension Rent.** Section 3(c) of the Lease is hereby amended to provide that beginning on March 14, 2022, the annual rent for each five (5) year extension term shall increase by ten percent (10%) over the annual rent in effect for the immediately preceding term.

5. **Reimbursement.** Lessee shall reimburse Lessor for all costs and expenses of any type that Lessor incurs in connection with any aspect of work conducted in relation to this Fourth Amendment, which amount in total may not exceed Nine Thousand and No/100 Dollars (\$9,000.00), including the costs of professional services incurred by Lessor (including engineering, legal, planning, and other consulting fees), for preparation of this Fourth Amendment, for review of the plans and specifications necessary for installing the Additional Equipment as well as all on-site inspections and written approvals necessary to ensure the Additional Equipment does not conflict with Lessor's use of the Tower, or attendance at meetings or other related professional services for this application, as well as for any actions Lessor is required to take to enforce the conditions of this Fourth Amendment due to a violation of these conditions. Village Staff time shall be reimbursed at the staff hourly rate, plus thirty percent (30%) for overhead and benefits, and Village Consultant charges shall be reimbursed at actual cost to the Village. Such reimbursement payments shall be made within thirty (30) days of detailed billing by Lessor, and failure to make timely payment shall constitute a breach of the Lease that is subject to all remedies available to Lessor, including possible cause for termination of the Lease.

6. **Lessee's Notice Address.** The address for notice to Lessee as contemplated in Section 14 of the Lease is hereby deleted and replaced with the following:

Lessee:

Cellco Partnership d/b/a Verizon Wireless
180 Washington Valley Road
Bedminster, NJ 07921
Attn: Network Real Estate

7. Other than as specifically amended herein, all other terms and conditions of the Lease shall remain in full force and effect. Where there is conflict between the terms of the Lease and this Fourth Amendment, the terms of this Fourth Amendment shall control. Unless otherwise indicated or introduced in this Fourth Amendment, all defined terms referenced in this Fourth Amendment shall have the same meaning as those found in the Lease.

[Signatures continue on next page]

IN WITNESS WHEREOF, the parties hereto have executed in duplicate this Fourth Amendment on the day and year first above written.

Lessor:

Village of Jackson

By: _____

Name: _____

Title: _____

Date: _____

Lessee:

Cellco Partnership d/b/a Verizon Wireless

By: _____

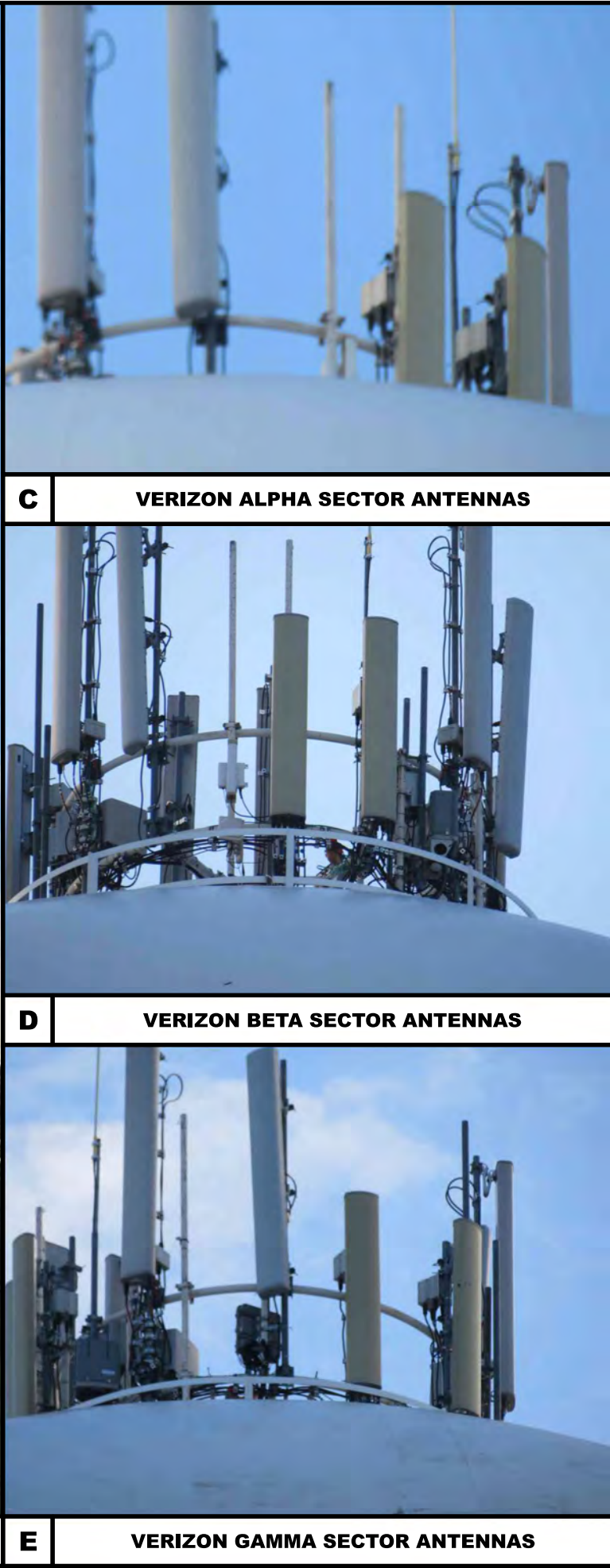
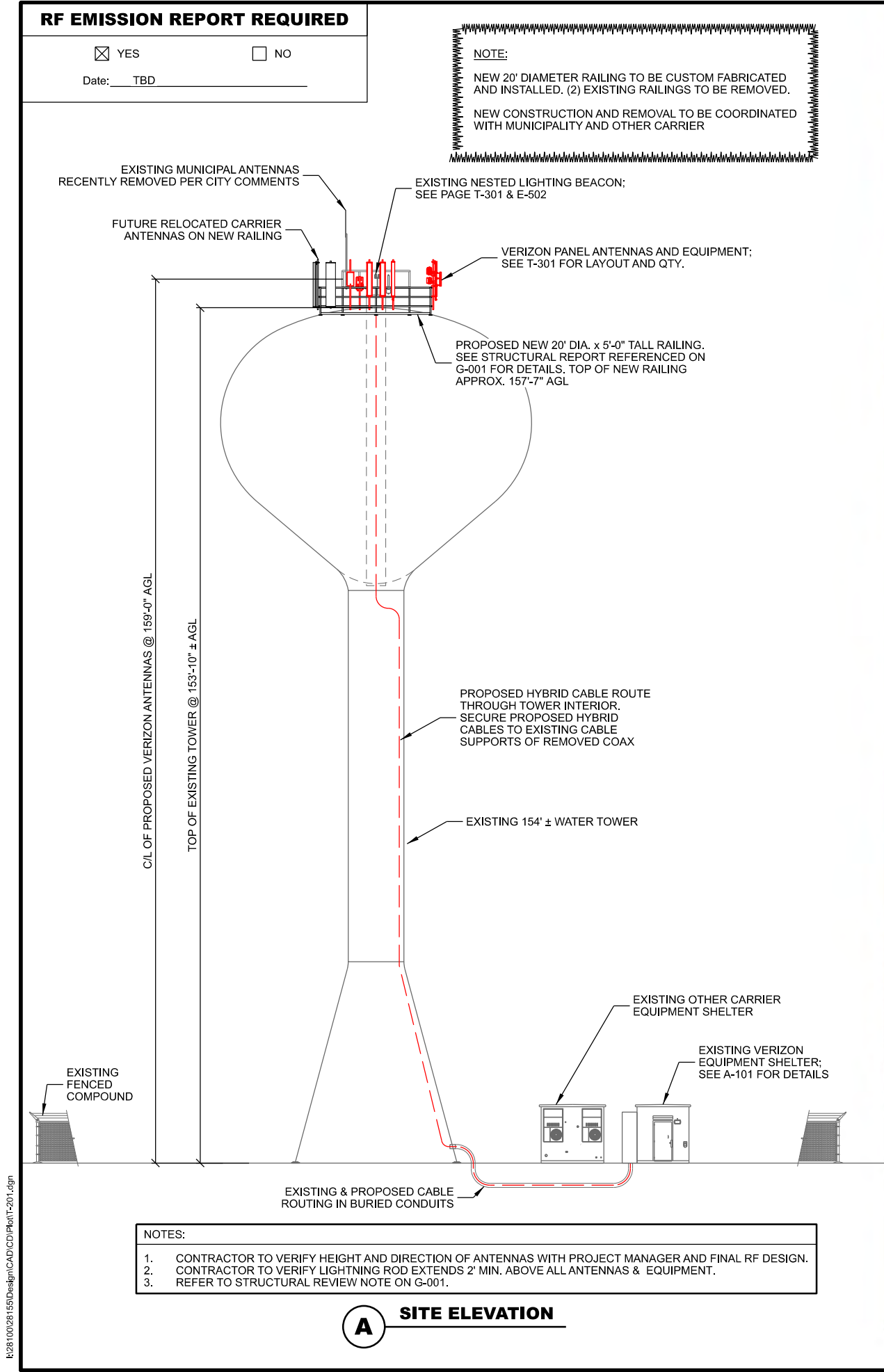
Name: _____

Title: _____

Date: _____

EXHIBIT B-6

(See attached)



CONSULTANT:

Edge

Consulting Engineers, Inc.

624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

verizon

CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

SITE ELEVATION
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED BY:

PCM

PLOT DATE:

6/2/2021

PROJECT NUMBER:

28155

SET TYPE:

DRAFT

SHEET NUMBER:

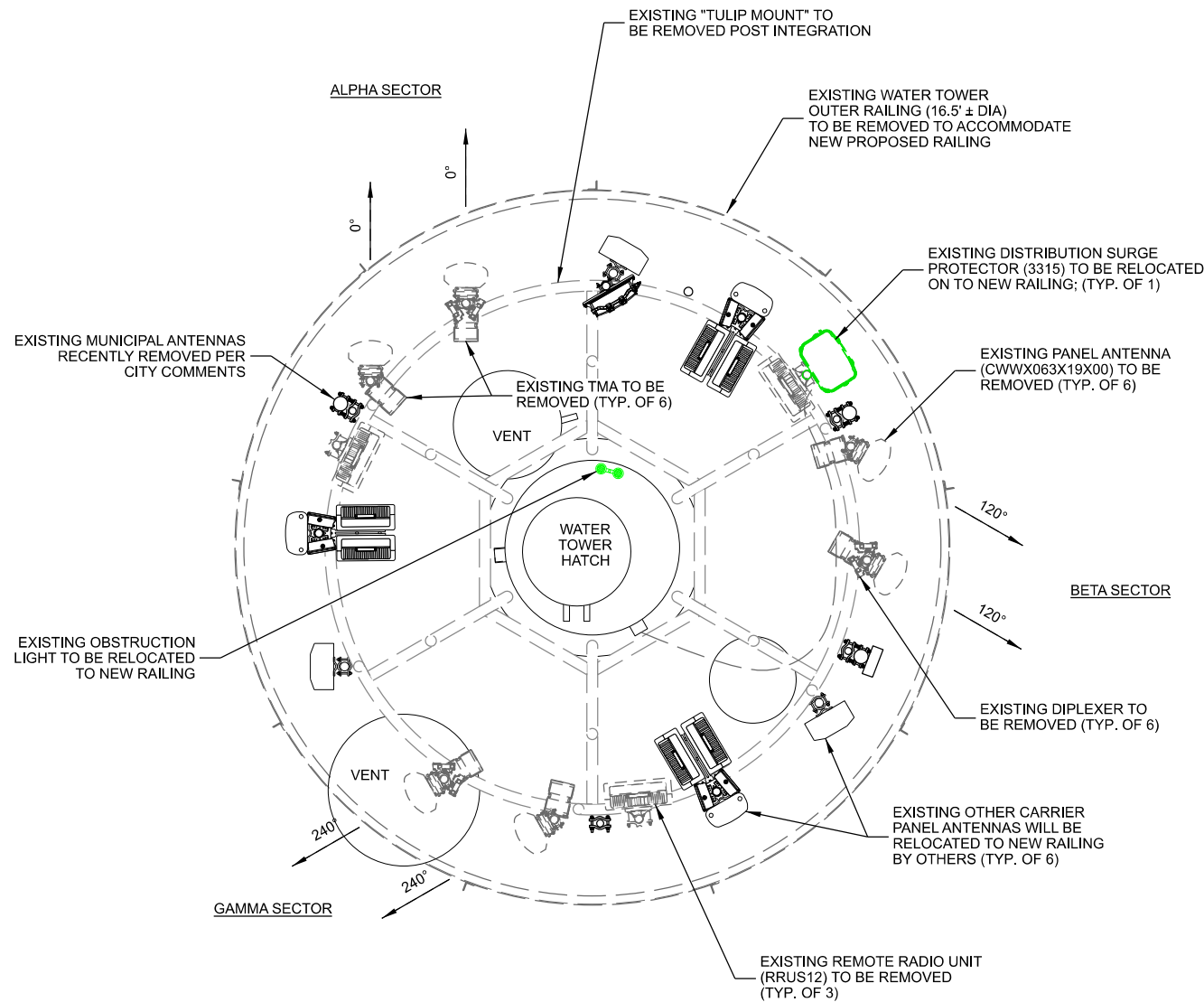
T-201

© EDGE CONSULTING ENGINEERS, INC.



NOTE:

EXISTING OUTER RAILING TO BE REMOVED AND REPLACED WITH NEW 20" DIA. x 5'-0" TALL RAILING



NOTE:

1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.

A EXISTING ANTENNA LAYOUT

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"



PROPOSED PANEL ANTENNA ON NEW MAST PIPE (TYP. OF 6); ANDREW # NHH-65B-R2B. SEE T-003 FOR SPECIFICATIONS

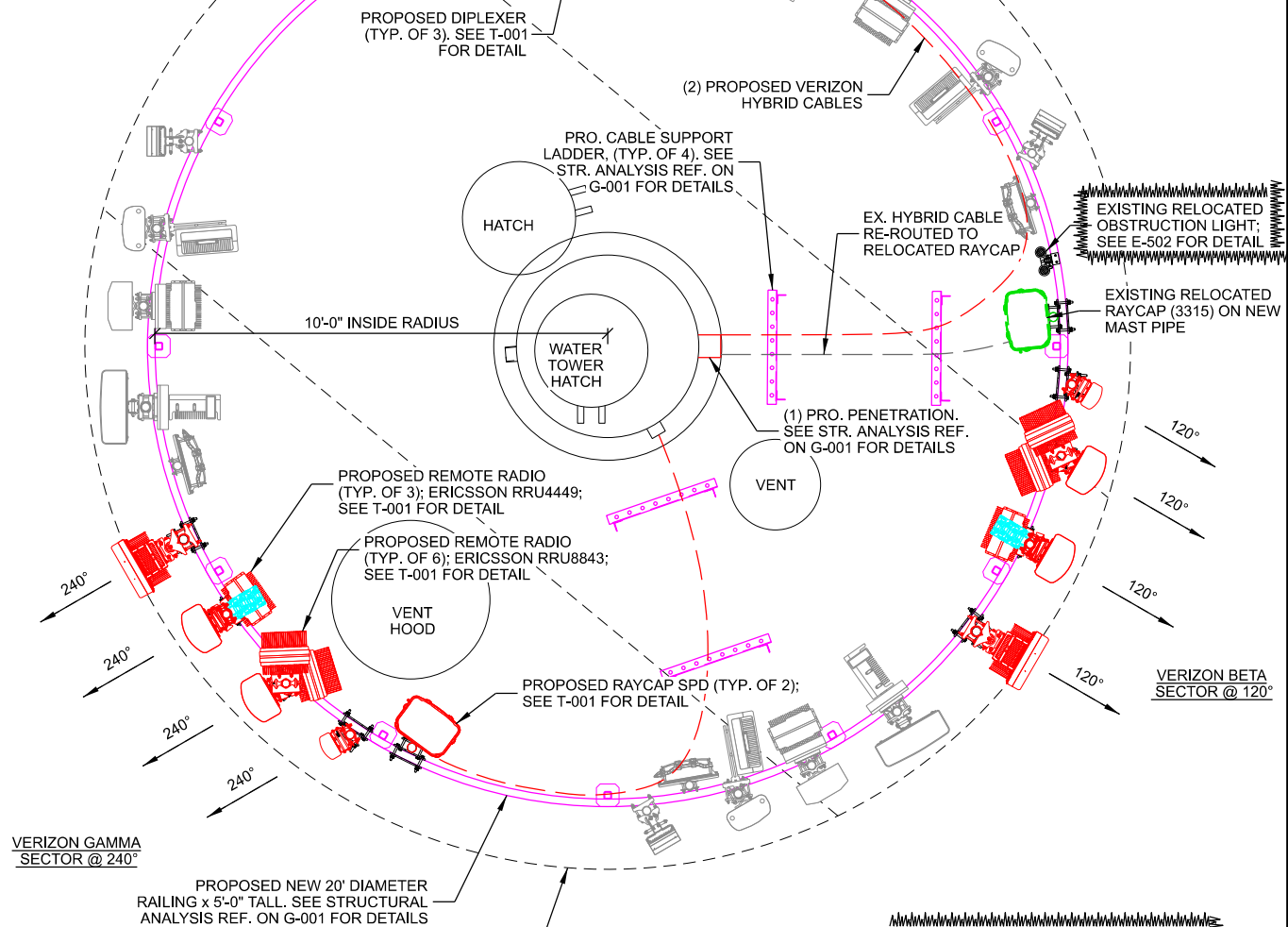
PROPOSED PANEL ANTENNA ON NEW MAST PIPE (TYP. OF 3); ANDREW # HBX-6516DS-VTM. SEE T-004 FOR SPECIFICATIONS

PROPOSED MAST PIPES TO BE ATTACHED TO RAILING WITH CROSS-OVER BRACKETS. SEE STRUCTURAL ANALYSIS REF. ON G-001 FOR DETAILS

VERIZON ALPHA SECTOR @ 0°

PROPOSED PANEL ANTENNA WITH BUILT-IN REMOTE RADIO ON NEW MAST PIPE (TYP. OF 3); ERICSSON AIR 6449. SEE T-001 FOR DETAILS

FUTURE RELOCATED U.S. CELLULAR PANEL ANTENNAS (TYP. OF 12). AZIMUTHS OF 30°, 150°, 270°



APPROX. LOCATION OF PLATE WELD SEAMS. DO NOT PLACE NEW RAILING BASE PLATES ON WELD SEAMS

NOTES:

1. ALL ANTENNA AZIMUTHS TO BE FROM TRUE NORTH.
2. CONTRACTOR TO ROTATE ANTENNAS AS NECESSARY TO MATCH PROPOSED ANTENNA AZIMUTHS.

B PROPOSED ANTENNA LAYOUT

SCALE: 11" x 17" - 1/4" = 1'-0"
22" x 34" - 1/2" = 1'-0"

NOTE:

EXISTING VERIZON HYBRID CABLE TO BE PULLED THROUGH NEW ACCESS TUBE PENETRATION & ROUTED TO RELOCATED RAYCAP
(6) EXISTING 1-5/8" COAX TO REMAIN. NEW 1/2" JUMPERS TO BE INSTALLED

CONSULTANT:

Edge
Consulting Engineers, Inc.
624 WATER STREET
PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
www.edgeconsult.com

CLIENT:

verizon
CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

**ANTENNA AND EQUIPMENT CONFIGURATION
JACKSON WT-B (11385)
JACKSON, WISCONSIN**

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED BY:	PCM
PLOT DATE:	6/2/2021
PROJECT NUMBER:	28155
SET TYPE:	DRAFT
SHEET NUMBER:	T-301

EXHIBIT B-7

(See attached)



MANUFACTURER: SITE PRO 1
MODEL: SCX7-U (CROSSOVER PLATE KIT)
MODEL: SCX7 (BACKING PLATE)
 CONNECTS 1-1/2" TO 3-1/2" PIPE TO 1-1/2" TO 4-1/2" PIPE
 ASSEMBLY HARDWARE INCLUDED
 MOUNTING PIPES SOLD SEPARATELY
 SUPPLIED BY GENERAL CONTRACTOR



THIS SPACE INTENTIONALLY LEFT BLANK

CONSULTANT:

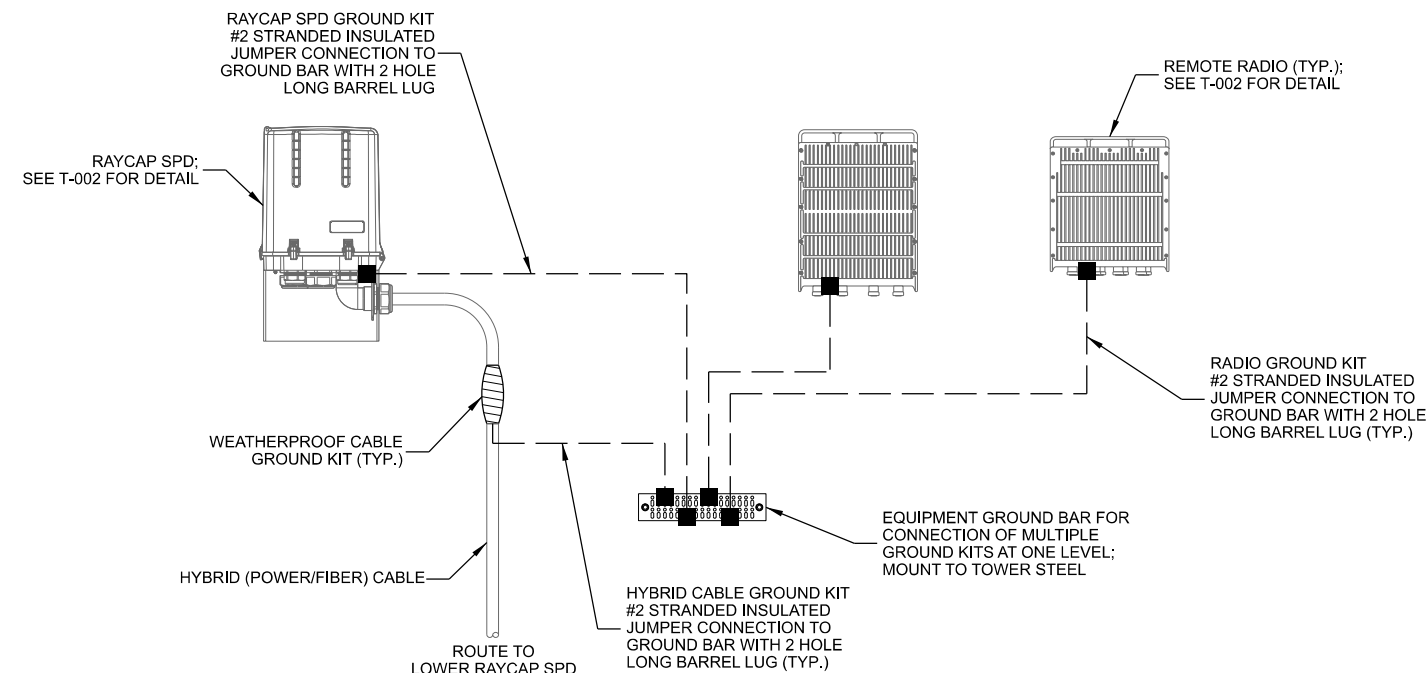


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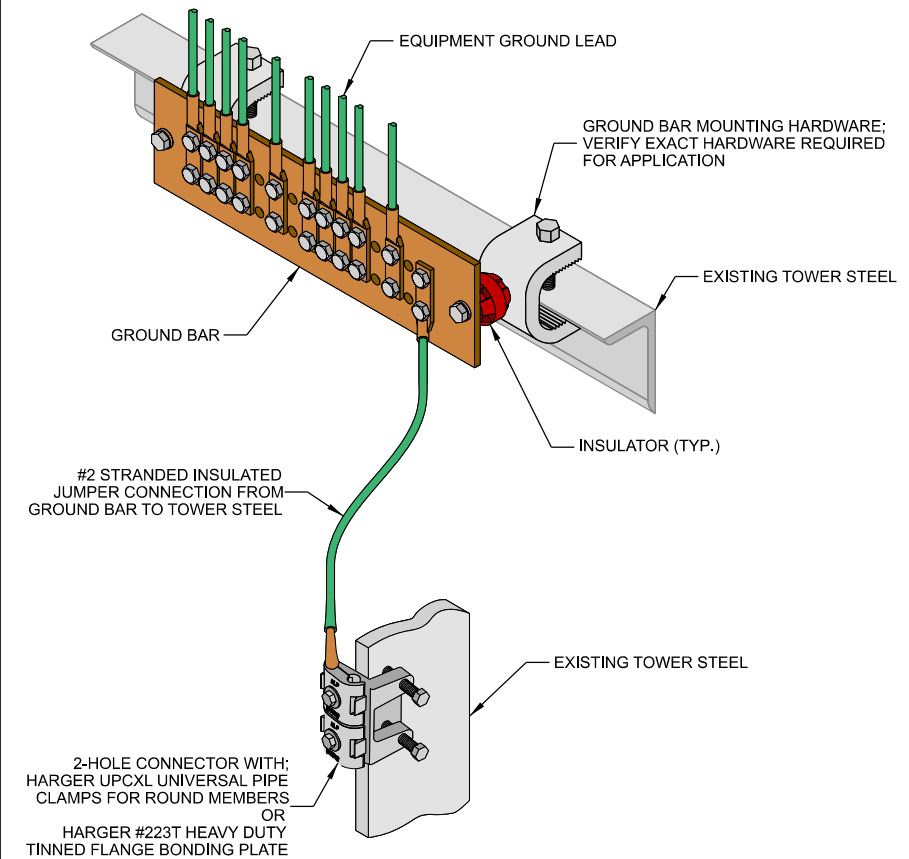
ANTENNA MOUNT AND INSTALLATION DETAILS
JACKSON WT-B (11385)
JACKSON, WISCONSIN

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A
CHECKED BY	PCM	
PLOT DATE	6/2/2021	
PROJECT NUMBER	28155	
SET TYPE	DRAFT	
SHEET NUMBER	T-505	

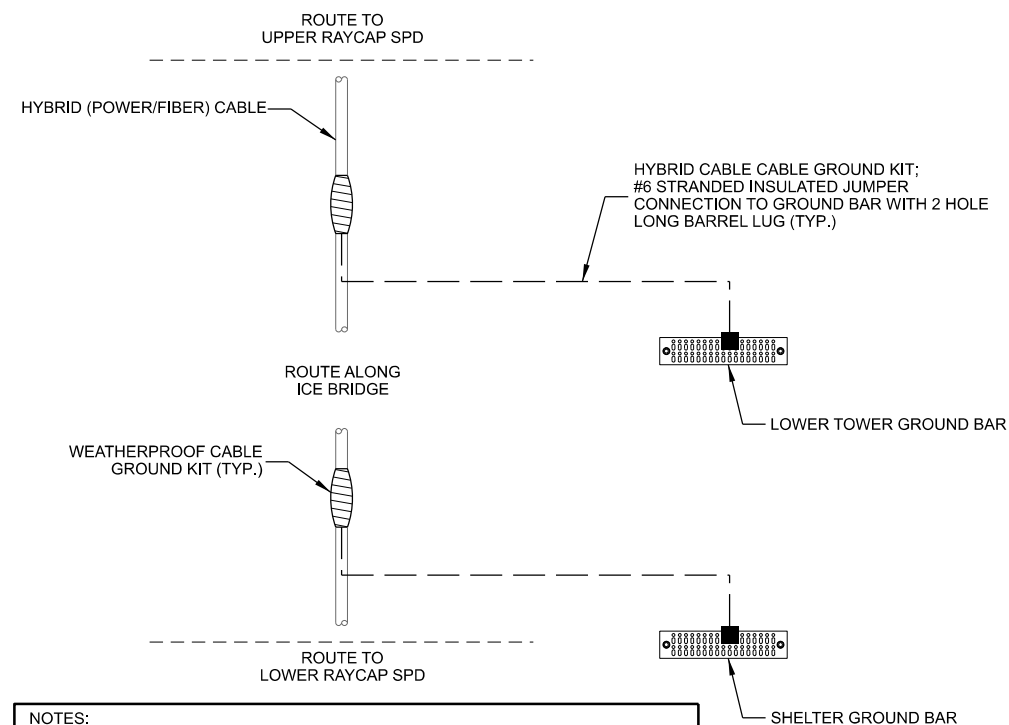


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|--------|---|
| NOTES: | |
| 1. | ALL CABLING AND/OR GROUNDING RUNS SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION AS DICTATED BY EXISTING CONDITIONS. |
| 2. | CONTRACTOR SHALL INSTALL PER LATEST EDITION OF THE N.E.C. |
| 3. | SCHEMATIC DETAIL ONLY. REFER TO ANTENNA AND EQUIPMENT CONFIGURATION FOR EQUIPMENT QUANTITY AND LOCATION. CONTRACTOR TO VERIFY GROUND BAR CAPACITY AND DETERMINE IF NEW GROUND BAR REQUIRED PRIOR TO CONSTRUCTION. |

A UPPER EQUIPMENT GROUNDING

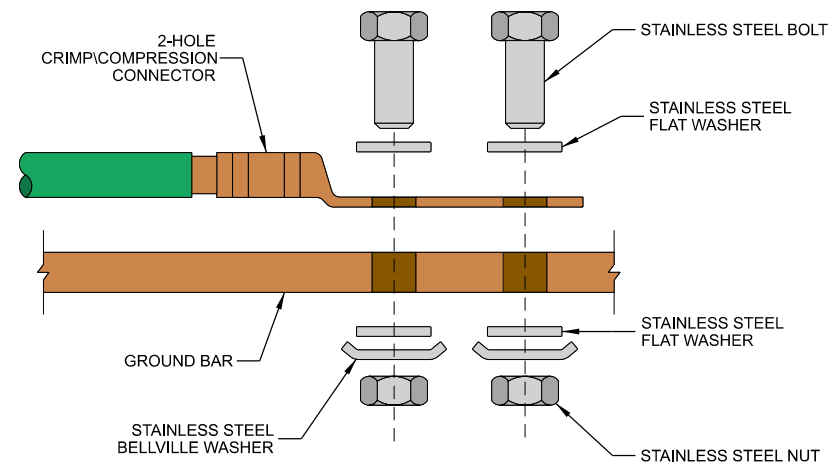


C **GROUND BAR**



- | | |
|--------|---|
| NOTES: | |
| 1. | ALL CABLING AND/OR GROUNDING RUNS SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION AS DICTATED BY EXITING CONDITIONS. |
| 2. | CONTRACTOR SHALL INSTALL PER LATEST EDITION OF THE N.E.C. |
| 3. | SCHEMATIC DETAIL ONLY. CONTRACTOR TO VERIFY GROUND BAR CAPACITY AND DETERMINE IF NEW GROUND BAR REQUIRED PRIOR TO CONSTRUCTION. |

B LOWER CABLE GROUNDING



- | | |
|--------|---|
| NOTES: | |
| 1. | ALL OUTDOOR HARDWARE (BOLTS, SCREWS, NUTS, WASHERS) SHALL BE 18-8 STAINLESS STEEL TYPE GRADE. INDOORS, GRADE 5 STEEL HARDWARE MAY BE USED. |
| 2. | CHOOSE BOLT LENGTH TO ALLOW THE EXPOSURE OF AT LEAST TWO THREADS. |
| 3. | BACK TO BACK LUG CONNECTIONS ARE AN ACCEPTABLE PRACTICE WHEN BONDED TO A GROUND BAR OR STEEL OBJECTS. |
| 4. | AT CONNECTIONS MADE TO STEEL OR ANY OTHER DISSIMILAR METALS, A DRAGON TOOTH WASHER MEETING VZW PRACTICES SHALL BE USED BETWEEN THE CONNECTOR AND STEEL. |
| 5. | IF NOT USING DRAGON TOOTH WASHERS, THOROUGHLY REMOVE A SECTION OF PAINT OR COATING APPROXIMATELY THE SAME SIZE AS CONNECTOR. REMOVE THE PAINT FROM SURFACE USING A DREMEL TYPE TOOL. |
| 6. | USE AN APPROVED ANTI-OXIDATION COMPOUND ON ALL GROUNDING CONNECTIONS. A COPPER COSMOLINE GREASE BASED COMPOUND (NO OX-ID) SHALL BE USED ON ALL COPPER TO COPPER CONNECTIONS. A ZINC BASED (GREY COLORED) COMPOUND SHALL BE USED ON ALL COPPER TO STEEL CONNECTIONS. |
| 7. | WHEN BONDING TO A METALLIC OBJECT WHERE ACCESS IS LIMITED TO ONLY ONE SURFACE, DRILLING & TAPPING OR SELF DRILLING SCREWS ARE THE PREFERRED AND ACCEPTABLE MEANS OF CONNECTION. SHEET METAL SCREWS SHALL NOT BE USED. |

D GROUNDING LUG

CONSULTANT:



CLIENT:



GROUNDING DETAILS
JACKSON WT-B (113385)
JACKSON, WISCONSIN

SUBMITTAL:

INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A

CHECKED	DOM
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PLOT	0/0/0001
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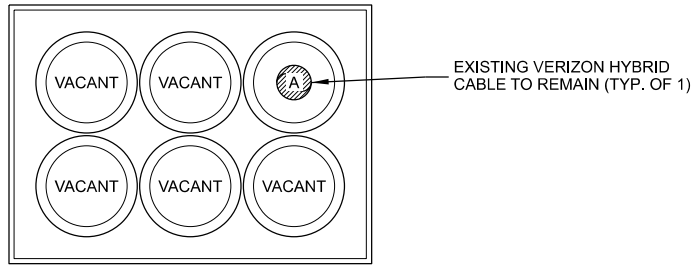
PROJECT	28155
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SET	DRAFT
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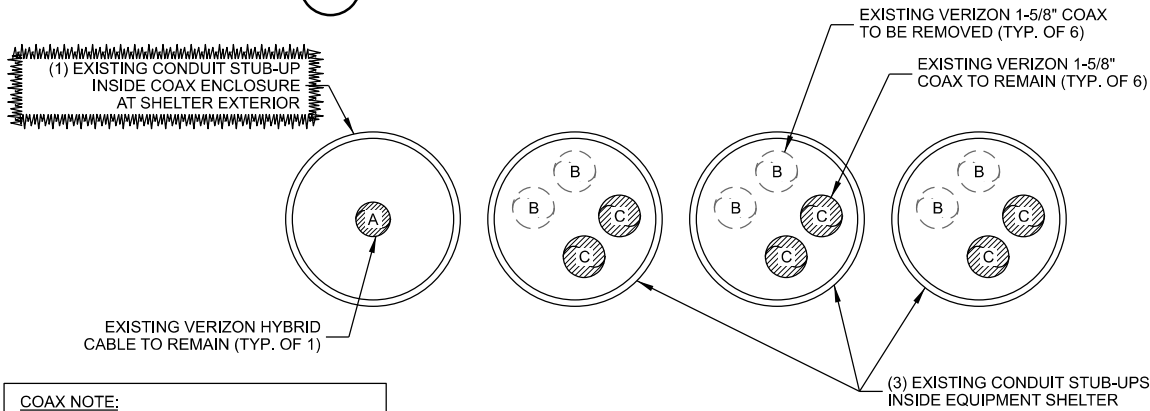
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EXHIBIT B-8

(See attached)

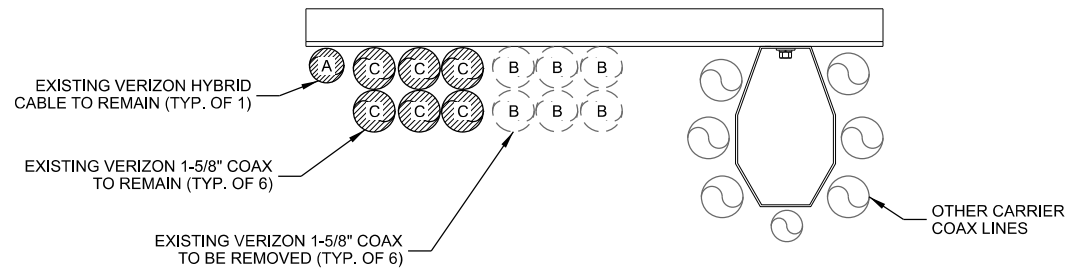


A EXISTING SHELTER COAX PORT (INTERIOR VIEW)



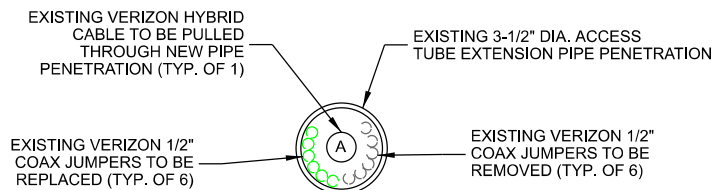
COAX NOTE:
(12) EXISTING VERIZON 1-5/8" COAX LINES;
(6) TO BE REMOVED, (6) TO REMAIN
G.C. TO VERIFY WHICH COAX LINES
ARE TO REMAIN (TYP.)

B EXISTING SHELTER CABLE LAYOUT



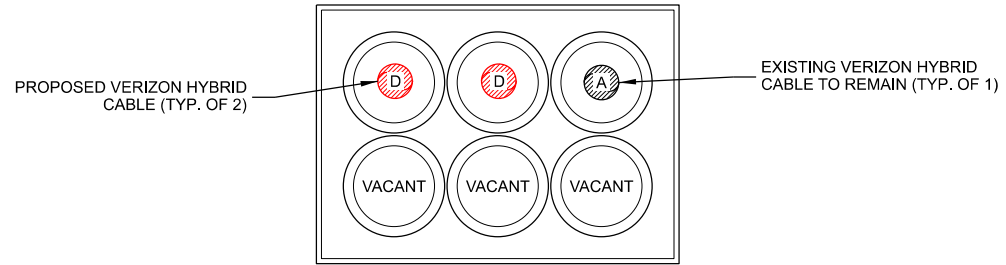
C EXISTING TOWER INTERIOR CABLE LAYOUT

HYBRID & COAX NOTE:
(1) EXISTING HYBRID CABLE TO REMAIN
AND TO BE ROUTED THROUGH NEW
PIPE PENETRATION IN SIDE OF ACCESS
TUBE EXTENSION & ROUTED TO EXISTING
RELOCATED RAYCAP AT BETA SECTOR
(6) EXISTING 1-5/8" COAX TO REMAIN. THESE
CABLES JUMPER TO 1/2" AT THE TOP OF THE
ACCESS TUBE & ROUTE THROUGH (1) EX. 3-1/2"
PIPE PENETRATION. NEW JUMPERS REQUIRED

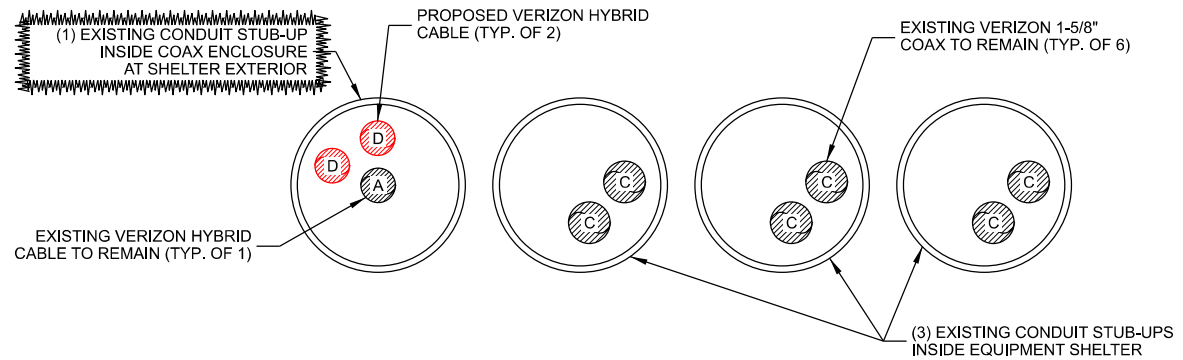


D EXISTING ACCESS TUBE PENETRATION LAYOUT

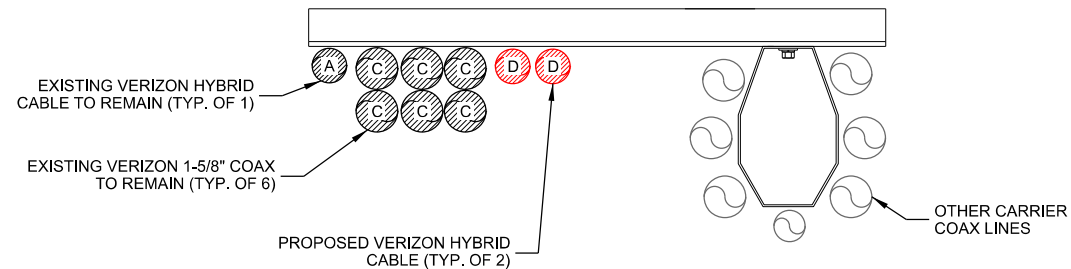
COAX SYMBOL	(#) SIZE	MOUNTING TYPE	CARRIER / OWNER	TECHNOLOGY
A	(1) HYBRID	SNAP-INS	VERIZON	HYBRID
B	(6) 1-5/8"	SNAP-INS	VERIZON	LTE
C	(6) 1-5/8"	SNAP-INS	VERIZON	CDMA



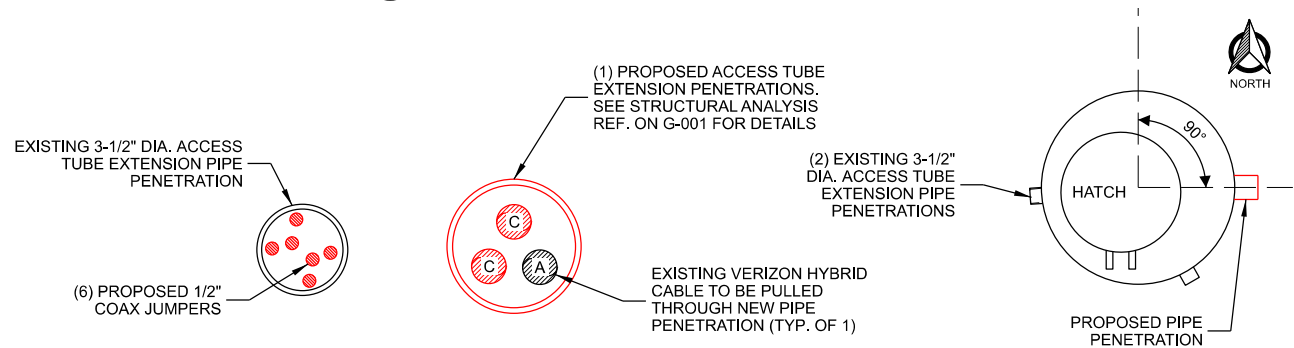
E PROPOSED SHELTER COAX PORT (INTERIOR VIEW)



F PROPOSED SHELTER CABLE LAYOUT



G PROPOSED TOWER INTERIOR CABLE LAYOUT



H EXISTING ACCESS TUBE PENETRATION LAYOUT

COAX SYMBOL	(#) SIZE	MOUNTING TYPE	CARRIER / OWNER	TECHNOLOGY
A	(1) HYBRID	SNAP-INS	VERIZON	HYBRID
B	-	-	-	-
C	(6) 1-5/8"	SNAP-INS	VERIZON	CDMA
D	(2) HYBRID	SNAP-INS	VERIZON	HYBRID

CONSULTANT:
Edge
Consulting Engineers, Inc.
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PRAIRIE DU SAC, WI 53578
608.644.1449 VOICE
608.644.1549 FAX
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CLIENT:
verizon
CHICAGO SMSA LIMITED PARTNERSHIP
d/b/a VERIZON WIRELESS
1701 GOLF ROAD
TOWER 2, SUITE 400
ROLLING MEADOW, IL 60008

**CABLE ROUTING
JACKSON WT-B (11385)
JACKSON, WISCONSIN**

SUBMITTAL:		
INT.	DATE:	DESCRIPTION:
CV	06/02/21	REV. A
CHECKED BY:	PCM	
PLOT DATE:	6/2/2021	
PROJECT NUMBER:	28155	
SET TYPE:	DRAFT	
SHEET NUMBER:	T-504	

Public Works Report

July 27, 2021

Treatment Plant - Designed Capacity – 1.67 million gallons per day
 Peak Flow Capacity – 6.0 million gallons per day

Year 2019

January	Avg. Flow 1.270 MGD	Min. Flow 900,000 g.p.d.	Max. 2.660 MGD
February	Avg. Flow 1.229 MGD	Min. Flow 850,000 g.p.d.	Max. 1.980 MGD
March	Avg. Flow 1.379 MGD	Min. Flow 910,000 g.p.d.	Max. 2.790 MGD
April	Avg. Flow 1.483 MGD	Min. Flow 1.020 MGD	Max. 2.660 MGD
May	Avg. Flow 1.542 MGD	Min. Flow 1.320 MGD	Max. 1.960 MGD
June	Avg. Flow 2.144 MGD	Min. Flow 1.300 MGD	Max. 2.700 MGD
July	Avg. Flow 1.251 MGD	Min. Flow 970,000 g.p.d.	Max. 1.850 MGD
August	Avg. Flow 1.098 MGD	Min. Flow 830,000 g.p.d.	Max. 1.470 MGD
September	Avg. Flow 1.253 MGD	Min. Flow 800,000 g.p.d.	Max. 2.050 MGD
October	Avg. Flow 1.699 MGD	Min. Flow 1.060 MGD	Max. 4.010 MGD
November	Avg. Flow 1.499 MGD	Min. Flow 1.14 MGD	Max. 2.26 MGD
December	Avg. Flow 1.372 MGD	Min. Flow 910,000 g.p.d.	Max. 2.14 MGD

Year 2020

January	Avg. Flow 1.280 MGD	Min. Flow 1.055 MGD	Max. 1.720 MGD
February	Avg. Flow 1.221 MGD	Min. Flow 1.000 MGD	Max. 1.630 MGD
March	Avg. Flow 1.581 MGD	Min. Flow 1.010 MGD	Max. 2.290 MGD
April	Avg. Flow 1.283 MGD	Min. Flow 940,000 g.p.d.	Max. 2.210 MGD
May	Avg. Flow 1.607 MGD	Min. Flow 1.010 MGD	Max. 4.090 MGD
June	Avg. Flow 1.178 MGD	Min. Flow 980,000 g.p.d.	Max. 1.510 MGD
July	Avg. Flow 1.269 MGD	Min. Flow 800,000 g.p.d.	Max. 2.370 MGD
August	Avg. Flow 1.042 MGD	Min. Flow 760,000 g.p.d.	Max. 1.510 MGD
September	Avg. Flow 1.148 MGD	Min. Flow 810,000 g.p.d.	Max. 1.850 MGD
October	Avg. Flow 1.172 MGD	Min. Flow 870,000 g.p.d.	Max. 2.210 MGD
November	Avg. Flow 1.122 MGD	Min. Flow 860,000 g.p.d.	Max. 1.770 MGD
December	Avg. Flow 1.164 MGD	Min. Flow 940,000 g.p.d.	Max. 1.480 MGD

Year 2021

January	Avg. Flow 1.075 MGD	Min. Flow 880,000 g.p.d.	Max. 1.460 MGD
February	Avg. Flow 1.015 MGD	Min. Flow 830,000 g.p.d.	Max. 1.590 MGD
March	Avg. Flow 1.525 MGD	Min. Flow 1.160 MGD	Max. 1.970 MGD
April	Avg. Flow 1.264 MGD	Min. Flow 1.020 MGD	Max. 1.950 MGD
May	Avg. Flow 1.108 MGD	Min. Flow 880,000 g.p.d.	Max. 1.450 MGD
June	Avg. Flow 1.091 MGD	Min. Flow 810,000 g.p.d.	Max. 1.670 MGD

Years Summary of Water Consumption

2006 Total Pumpage 207,719,000 gallons	2007 Total Pumpage 217,224,000 gallons
2008 Total Pumpage 229,613,000 gallons	2009 Total Pumpage 231,160,000 gallons
2010 Total Pumpage 239,326,000 gallons	2011 Total Pumpage 240,268,000 gallons
2012 Total Pumpage 253,492,000 gallons	2013 Total Pumpage 228,371,000 gallons
2014 Total Pumpage 230,973,000 gallons	2015 Total Pumpage 222,621,000 gallons
2016 Total Pumpage 254,531,000 gallons	2017 Total Pumpage 251,387,000 gallons
2018 Total Pumpage 241,322,000 gallons	2019 Total Pumpage 253,427,000 gallons
2020 Total Pumpage 259,413,000 gallons	

Year 2019

Jan.	Avg.	638,230 g.p.d.	Highest Day 791,000 gals.	Total	19,785,000 gallons
Feb.	Avg.	605,820 g.p.d.	Highest Day 758,000 gals.	Total	16,963,000 gallons
March	Avg.	616,230 g.p.d.	Highest Day 946,000 gals.	Total	19,103,000 gallons
April	Avg.	697,800 g.p.d.	Highest Day 1.112 MGD	Total	20,934,000 gallons
May	Avg.	707,810 g.p.d.	Highest Day 889,000 gals.	Total	21,942,000 gallons
June	Avg.	766,200 g.p.d.	Highest Day 969,000 gals.	Total	22,986,000 gallons
July	Avg.	843,710 g.p.d.	Highest Day 1.174 MGD	Total	26,155,000 gallons
August	Avg.	747,230 g.p.d.	Highest Day 1.061 MGD	Total	23,164,000 gallons
Sept	Avg.	689,300 g.p.d.	Highest Day 830,000 gals.	Total	20,679,790 gallons
Oct.	Avg.	696,520 g.p.d.	Highest Day 1.116 MGD	Total	21,592,000 gallons
Nov.	Avg.	643,970 g.p.d.	Highest Day 830,000 gals.	Total	19,319,000 gallons
Dec.	Avg.	671,100 g.p.d.	Highest Day 875,000 gals.	Total	20,805,000 gallons

Year 2020

Jan.	Avg.	662,650 g.p.d.	Highest Day 769,000 gals.	Total	20,542,000 gallons
Feb	Avg.	682,280 g.p.d.	Highest Day 886,000 gals.	Total	19,786,000 gallons
March	Avg.	702,030 g.p.d.	Highest Day 837,000 gals.	Total	21,763,000 gallons
April	Avg.	731,070 g.p.d.	Highest Day 1.153 MGD	Total	21,932,000 gallons
May	Avg.	691,030 g.p.d.	Highest Day 915,000 gals.	Total	21,422,000 gallons
June	Avg.	806,030 g.p.d.	Highest Day 1.057 MGD	Total	24,181,000 gallons
July	Avg.	841,970 g.p.d.	Highest Day 1.431 MGD	Total	26,101,000 gallons
August	Avg.	878,710 g.p.d.	Highest Day 1.437 MGD	Total	27,240,000 gallons
Sept	Avg.	696,370 g.p.d.	Highest Day 1.058 MGD	Total	20,891,000 gallons
October	Avg.	677,160 g.p.d.	Highest Day 963,000 gals.	Total	20,992,000 gallons
Nov	Avg.	567,100 g.p.d.	Highest Day 850,000 gals.	Total	17,013,000 gallons
Dec	Avg.	566,130 g.p.d.	Highest Day 815,000 gals.	Total	17,550,000 gallons

Year 2021

Jan.	Avg.	565,650 g.p.d.	Highest Day 789,000 gals.	Total	17,535,000 gallons
Feb	Avg.	517,650 g.p.d.	Highest Day 913,000 gals.	Total	16,047,000 gallons
March	Avg.	583,770 g.p.d.	Highest Day 1.303 MGD	Total	18,097,000 gallons
April	Avg.	642,770 g.p.d.	Highest Day 1.190 MGD	Total	19,283,000 gallons
May	Avg.	659,610 g.p.d.	Highest Day 1.103 MGD	Total	20,448,000 gallons
June	Avg.	825,730 g.p.d.	Highest Day 1.311 MGD	Total	24,772,000 gallons

Pump Capacity - Well #1- 400 g.p.m. Well #3 -900 g.p.m. Well #4 - 1200 g.p.m. Well #5 – 1,100 g.p.m. Well #6 – 800 g.p.m.

WWTP – Holding & Septage Receiving

2005	\$ 87,562.01	2006	\$101,115.11	2007	\$152,201.07	2008	\$210,441.47
2009	\$183,815.34	2010	\$197,653.66	2011	\$220,576.28	2012	\$236,224.70
2013	\$235,336.46	2014	\$203,938.32	2015	\$210,644.47	2016	\$220,473.17
2017	\$232,358.23	2018	\$245,767.74	2019	\$219,822.80	2020	\$204,656.11

2019	Holdings (gals)	Grease (gals)	G Decant (gals)	Septage (gals)	S Decant (gals)	Total Billings
January	1,230,000			2,000	77,700	\$11,872.50
Feb	1,432,250			1,000	70,100	\$13,255.50
March	1,614,450			11,750	161,800	\$17,489.35
April	1,485,950			48,700	335,350	\$22,462.85
May	1,589,200			27,600	349,400	\$22,690.60
June	1,338,900			36,950	243,400	\$18,458.95
July	1,504,450			17,000	302,900	\$20,373.10
August	1,599,950			27,800	293,200	\$21,380.60
September	1,405,900			14,000	217,450	\$17,313.45
October	1,517,950			19,500	335,900	\$21,418.60
November	1,265,950			11,500	256,950	\$17,071.10
December	1,647,650			6,500	102,500	\$16,036.20

2020	Holdings (gals)	Grease (gals)	G Decant (gals)	Septage (gals)	S Decant (gals)	Total Billings
January	1,426,900				71,000	\$11,872.50
February	1,310,500			2,250	88,500	\$12,786.50
March	1,471,600	900		5,000	173,650	\$16,429.05
April	1,263,950			29,000	326,170	\$19,570.85
May	1,168,670			4,450	308,250	\$17,255.86
June	1,253,900			9,900	196,550	\$15,390.45
July	1,459,700			16,450	212,650	\$17,734.10
August	1,148,750			4,250	168,530	\$13,594.50
September	1,276,950			22,700	299,450	\$18,723.35
October	1,372,200	2,200		39,750	456,000	\$24,386.35
November	1,231,850			33,650	301,700	\$18,911.55
December	1,489,450			16,950	160,200	\$16,683.35

2021	Holdings (gals)	Grease (gals)	G Decant (gals)	Septage (gals)	S Decant (gals)	Total Billings
January	1,284,600			6,650	77,250	\$12,507.30
February	1,386,475			3,000	44,450	\$12,338.05
March	1,633,050			27,600	206,050	\$19,457.65
April	1,425,850			38,000	268,500	\$19,829.30
May	1,297,900			34,550	232,100	\$17,740.45
June	1,392,350			52,800	258,500	\$19,977.30

CTH P and STH 60 Intersection Project and old Park-n-Lot Property

Ownership has been determined to be WisDOT. An appraisal was completed by WisDOT, and the Village of Jackson is preparing a reply for the purchase of land. Virtual meeting has been canceled and being rescheduled. WisDOT is using the area for a job trailer location during the STH 45 resurfacing project this year. Due to limited power on the site, the contractor has requested to move the job trailers to the new park-n-ride lot on Apple Lane.

Jackson Park Alley Project

We are finalizing the numbers to close out the project. August 2021 meeting will have the final pay request.

Morning Meadows Subdivision

In order to complete Phase 2 soil needs to be moved into the phase 3 location. Houses are being constructed in Phase 1. Review plans for Phase 3.

Trilogy Consulting - Study / Impact Fees

We are working on collection the necessary items for the study. The Park and Open Space Plan, and the bids from the new Police and Fire Building portion are items necessary for the impact fee study.

Jackson Municipal Complex

On schedule for a September 2021 completion, and open house on October 5th. Mid-west Fiber has started the installation of fiber to connect all Village owned buildings.

Willow Ridge Drive Reconstruction Project

Willow Ridge Drive Reconstruction Project preconstruction meeting was held on Wednesday, July 21, 2021. A proposed start date is scheduled for Monday, August 16, 2021. A completion date is scheduled for October 1, 2021.

Spruce Street/Ridgeway Drive Extension Project

We are working with WisDOT for the permits to access STH 60 for Ridgeway Drive. WisDOT approval is being completed through the Coffee Connection Trail project. The remaining item is paving the apartment building driveway on Spruce Street. The Village will remove the item from the contract and have another company pave the driveway.

Hunters Road Reconstruction Project and Highland Road Storm Sewer Project

Landscaping and punch list items are being addressed. We will address in the Fall season before closing out the project.

Coffee Connection Trail Project

A preconstruction meeting was held on Wednesday, July 21, 2021, with a start date in August 2021. Working with WisDOT for approval to start project.

Mid-West Fiber – Fiber to the Home Project

Along with the Village's private fiber network connecting all Village owned buildings, Mid-west Fiber is installing fiber in the public right of way throughout the Village to sell fiber connection to the home.

Respectfully submitted, Brian W. Kober, P.E.