



Crown Castle
8020 Katy Freeway
Houston, TX 77024

9/13/2022

Jonathan Mendel
Community Development Director
Village of Clarendon Hills
1 N. Prospect Ave.
Clarendon Hills, IL 60514

RECEIVED
SEP 13 2022
BY:

**Re: Crown Castle Application
Small Wireless Facility on Replacement Wood Utility Pole North of the Intersection
of Ruby Street and Western Ave.**

Dear Mr. Mendel:

We write in response to the July 20, 2022 Village of Clarendon Hills (the “Village”) letter claiming the June 17, 2022 application by Crown Castle Fiber, LLC (“Crown Castle”) for a Small Wireless Facility on a Replacement Wood Utility Pole North of the Intersection of Ruby Street and Western Ave. (the “application”) is deficient.

Crown Castle disputes the legality of the specific requirements indicated by the Village in its July 19, 2022, letter. They violate Illinois’s Small Wireless Facilities Deployment Act (50 ILCS 840/15, *et seq.*) (the “Act”), are preempted by federal law (*see FCC Declaratory Ruling and Third Report and Order – In the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*) (the “FCC Order”), or both. Nonetheless, in the spirit of good faith and cooperation, Crown Castle provides amended application materials with this letter. Crown Castle, however, reserves all rights to challenge the legality of any and all provisions required by the Village’s small cell application process and design requirements. This supplement should not be considered a waiver of any future claims.

Crown Castle trusts that the amended materials address the Village’s concerns on the requirements to which they are addressed. Crown Castle categorically denies the validity of the remaining requirements identified in the Village’s July 20, 2022, letter, as a violation of the Act, preempted by the FCC Order, or both.

The Act mandates that a municipality “not prohibit, regulate, or charge for the collocation of small wireless facilities” except as provided within the Act. 50 ILCS 840/15(b). The Village’s application requirements indicated within its local code (*i.e.*, “Small Wireless Facilities”) far exceed the bounds defined within the State Act. Clarendon Hills Loc. Code. Chp. 60, *et seq.* The Act further provides that application and design requirements must be applied on a non-discriminatory basis. 50 ILCS 840/15(d)(6). As such, Crown Castle is within its rights to object to the legality all of the Village’s application requirements as they are either (1) not expressly permitted under the Act, (2) being applied to small cell wireless providers on a discriminatory basis, or (3) both.

The FCC Order provides that state or local regulations that “prohibit or have the effect of prohibiting [the collocation of small wireless facilities] are unlawful and thus preempted” under 47 U.S.C. §§ 253(a) and 332(c)(7)(B). FCC Order at ¶ 34. An “effective prohibition” exists if an application requirement “materially limits or inhibits the ability of any competitor or potential competitor to compete in a fair and balanced legal and regulatory environment.” *Id.* at ¶ 35; *In the Matter of Ca. Payphone Ass’n*, 12 F.C.C.R. 14191, 14206 (1997). The FCC Order further provides that aesthetic requirements are preempted unless they are “(1) reasonable, (2) no more burdensome than those applied to other types of infrastructure deployments, and (3) objective and published in advance.” FCC Order at ¶ 86. As such, the Village’s aesthetic requirements are preempted by federal law in that they are (1) a material limitation on its ability to compete in the market, (2) unreasonable, (3) applied in a discriminatory fashion, and/or (4) not objective nor published in advance.

Crown Castle responds to each of the Village’s objections using the Village’s numerical system provided on its July 20 letter for ease of reference. The headings and sub-heading descriptors below are used solely for convenience.

We look forward to amicably resolving this dispute.

(I) Application and Documentation Requirements

(1) Requirement that the equipment has the smallest visual profile.

The Village argues that the application does not indicate whether Crown Castle’s equipment has the smallest visual profile technologically compatible with the local network system. The Village’s attempt to dictate which technology Crown Castle uses is preempted by the FCC Order. *See New York SMSA L.P. v. Town of Clarkstown*, 612 F.3d 97 (2nd Cir. 2010).

Nonetheless, Crown Castle hereby certifies that the antenna and other equipment it intends to use has the smallest commercially available visual profile that is compatible with the local network system. Crown Castle reserves all rights.

(2) Certification of compliance with Village design standards and “various other requirements set forth in this chapter and Code.”

The Village argues that Crown Castle’s certification is deficient related to the qualifying language, “to the extent they do not conflict with State or federal law.” For the reasons outlined in this letter, Crown Castle will not remove the language regarding the Village’s requirements in conflict with State and Federal law. Moreover, as the Village does not provide specifics regarding Crown Castle’s alleged deficiencies

related to the Village's vague assertion that it was not in compliance with "various other requirements set forth" in the Village's local code, the requirement is "deemed complete." 50 ILCS 840/15(d)(7). In addition, this requirement is preempted by federal law as an unreasonable material limitation on construction, given its vague nature. Crown Castle reserves all rights.

(3) Requirement that drawings must include illustration of route the power lines will be extended to serve the site.

Here, the Village argues the application requires an updated illustration of the route of the power lines for three reasons (1) due to the possible existence of water and/or sewer lines beneath the right of way (2) Crown Castle has not been granted a right of way permit, and (3) it does not indicate whether boring or aerial installation will be used or whether any driveways will be affected by the construction.

First, water or sewer lines do not appear to be near the proposed pole location. Moreover, as a practical matter, Crown Castle will not be able to confirm the exact location of sanitary sewers or water lines until it consults with JULIE. As you know, such a consultation cannot occur until after the Village has approved the application and construction is ready to proceed. Of course, if the Village has confirmed the exact location of any sewers or water lines, we welcome any and all documentation regarding the same.

In any event, sanitary sewers and water lines are typically buried further underground as opposed to fiber conduit, the fibers will be buried only one foot deep. Thus, a conflict between the fiber and any sewer/water lines is highly unlikely. And, to protect against the unlikely event of a conflict, Crown Castle requires its contractors to hand dig in any area where JULIE indicates the existence of underground utilities. This is similar to how other utilities handle underground installations. Crown Castle is committed to working with the Village to ensure the integrity of any sewer or water lines are not effected once it has approved the application.

Second, Crown Castle, as a practical matter, cannot obtain a right of way permit before the Village approves its application. If Crown Castle obtains a right of way permit before final application approval, the permit will likely expire before Crown Castle begins construction. This is why other utilities working in the right of way seek and obtain construction application approvals *before* applying for a right of way permit. Thus, Village's requirement is discriminatory, unreasonable, and a material limitation to construction. It is therefore invalid under the Act and the FCC Order. Crown Castle will provide the Village proof of the grant of a right of way permit after application approval and prior to construction. Crown Castle, of course, has no objection to the application approval being contingent upon Crown Castle obtaining a right of way permit before beginning construction.

Third, boring will be used for this pole. In addition, Crown Castle confirms that construction will not disturb any driveways.

Crown Castle reserves all rights.

(4) FAA 1-A Certification.

The Village argues that a FAA 1-A certification is required for its application, even though it is not expressly required within its local code. In addition, this requirement is not expressly permitted by the Act, it is therefore unlawful. Further, as the Village has failed to provide specifics regarding Crown Castle's deficiencies in this regard, the requirement is therefore "deemed complete." 50 ILCS 840/15(d)(7). Lastly, this requirement is preempted as it is an unreasonable material limitation on construction considering the onerous nature of obtaining an FAA 1-A Certification.

Nonetheless, Crown Castle provides the FAA 1-A Certification, it is attached hereto as Ex. A. Crown Castle reserves all rights.

(5) Statement regarding the frequencies of the facility.

The Village argues that Crown Castle is required to provide a statement that the frequencies of the facility will not interfere with those used by public safety departments.

Crown Castle provides the requested statement. It is attached hereto as Exhibit B. Crown Castle reserves all rights.

(6) Copies of all licenses, permits, and approvals required by Village and all units of government with respect to design, construction, location and operation of the small wireless facility.

The Village argues that the application is required to provide all "licenses, permits, and approvals" by all "units of government with jurisdiction over the design, construction, location and operation" of the facility. This requirement is extremely vague and duplicative of requirement (I)(2) above (note that Crown Castle has provided a certification of compliance). This requirement is not permissible under the Act and is being applied in a discriminatory fashion. In addition, the requirement is preempted considering its lack of specificity amounts to a material limitation on construction. Crown Castle reserves all rights.

(7) Proof of consent of owner of existing pole.

The Village argues that the application is required to provide proof that the owner of the existing pole has consented to the collocation. This requirement is invalid considering it is not permitted by the Act.

Nonetheless, Crown Castle will obtain consent from the owner of the pole and it has no objection to the application approval being contingent upon Crown Castle providing proof of such consent. Such consents take time and are usually provided after the project is approved. Thus, to the extent the Village will not approve the facility contingent on proof of consent, the requirement is applied in a discriminatory fashion and is unreasonable. Crown Castle reserves all rights. Crown Castle reserves all rights.

(8) Pre-application review with Village staff.

As noted by the Village, this is not required by the local code, therefore, Crown Castle is not obligated to comply. Moreover, if this were a requirement, it is not permitted by the Act and is a material limitation on construction. It is therefore invalid under state law and preempted by federal law. Crown Castle reserves all rights.

(9) Detailed information on compliance with FCC related to radio frequencies.

The Village argues that Crown Castle is required to provide “information on compliance” with certain FCC standards including “compliance with radio frequency emissions, technical data reasonably necessary to evaluate compliance with maximum permissible exposure levels . . . and a monitoring plan relative to radio frequency emissions.” The Village asserts that this requirement implicates public safety, but provides no support for the same. As such, this requirement is invalid under the Act and is likely applied in a discriminatory fashion. In addition, this requirement is preempted as it is onerous and is an infeasible material limitation on construction.

Nonetheless, Crown Castle will provide a Maximum Permissible Exposure (“MPE”) Study, which supplies the requested information on compliance with radio frequency emissions and provides technical data to evaluate compliance with maximum permissible exposure levels. It is attached hereto as Ex. C. Crown Castle reserves all rights.

(10) Proof of licenses required by FCC pursuant to the National Environmental Policy Act (“NEPA”).

The Village argues that Crown Castle is required to provide an environmental assessment and review under NEPA. The Village asserts that this requirement implicates public safety, but provides no support for the same. As such, this requirement is invalid under the Act and is likely applied in a discriminatory fashion. In addition, this requirement is preempted as it is onerous and an infeasible material limitation. Crown Castle will obtain this proof of license as a matter of course as it progresses to construction. This is how such projects normally proceed. Crown Castle will provide the Village with a copy at that time. Crown Castle, of course, has no objection to the application approval being contingent upon Crown Castle providing such proof. Crown Castle reserves all rights.

(11) Written report that analyzes acoustic levels for the facility to show compliance with Village noise regulations.

The Village argues that Crown Castle is required to proactively provide a report analyzing the anticipated acoustic levels of the facility that is not yet installed. This requirement is not expressly included within the Act and is therefore invalid. In addition, this requirement is preempted as it is practically infeasible, as it is impossible to analyze the acoustic levels of the facility prior to construction. Crown Castle reserves all rights.

(12) Written description and/or map identifying the geographic service area for the facility.

The Village argues that Crown Castle is required to provide a written description and/or map identifying the geographic service area for the facility. This requirement is not permitted under the Act and is thus invalid. In addition, this requirement is preempted as it is onerous and amounts to a material limitation on construction. Crown Castle reserves all rights.

(13) Information indicating whether the facility is claimed to be located in an easement for compatible use.

The Village argues that Crown Castle is required to indicate whether the facility is located in an easement for compatible use. This requirement is not permitted under the Act and is thus invalid. In addition, this requirement is preempted as it amounts to a material limitation on construction. Crown Castle reserves all rights.

(14) Master plan identifying the location of the facility in relation to all existing and potential locations within the Village that are reasonably anticipated for construction within two years of submittal of the application.

The Village argues that Crown Castle is required to provide a “master plan which identifies the location of the proposed small wireless facility in relation to all existing and potential locations in the Village that are reasonably anticipated for construction within two (2) years of submittal of the application.” This requirement is invalid under the Act as it is being applied in a discriminatory fashion and is not expressly permitted. In addition, this requirement is preempted by federal law considering it amounts to a material limitation and is completely unreasonable to the Village to expect a provider to provide each and every location “reasonably anticipated” for construction within two years.

Nonetheless, Crown Castle will provide an existing map of the nodes it plans in the current project. See Ex. D attached hereto. Crown Castle reserves all rights.

(15) The name of the wireless provider.

The Village argues that Crown Castle is required to provide the name of its wireless service provider customer. This requirement is invalid considering it is not expressly permitted by the Act.

Nonetheless, Crown Castle states that the provider is Verizon Wireless. Crown Castle reserves all rights.

(16) Proposed notice of mailing to occupants of nearby properties.

The Village argues that Crown Castle is required to provide notice of mailing to occupants of “nearby properties” within three days of submission of an application. This requirement is invalid as it is not expressly permitted by the Act and is being applied in a discriminatory fashion. In addition, the requirement is preempted by federal law, as it is an unreasonable material limitation.

Nonetheless, Crown Castle will send notice to all residences within 200 feet of the subject node within 60 days of construction. A proposed notice is attached hereto as Ex. E. Crown Castle reserves all rights.

(17) Statement of Compliance with local, federal, and state regulations and safety standards.

The Village argues that Crown Castle is required to provide a “statement of compliance with local, federal, and safety regulations standards. . . .” This requirement is invalid from the outset, as it is not

included within the Village's local code. In addition, the requirement appears to be duplicative of the statement of compliance referenced in (I)(2) above. The Village cites Section 15(d)(6) of the Act in support of its position, but Section 15(d)(6) does not indicate that a certificate of compliance with all safety standards at all government levels may be required.

Crown Castle further notes this requirement is vague with respect to the Village's reference to "local, federal, and safety regulations standards" without specifying them and, thus, is not permitted by the Act. Moreover, the Village has not specifically identified Crown Castle's alleged deficiencies concerning these items and, therefore, this portion of the requirement is "deemed complete." 50 ILCS 840/15(d)(7). This requirement is invalid under the Act. Crown Castle reserves all rights.

(18) Information regarding the contractor for the project.

The Village argues that Crown Castle must provide information regarding all contractors that will work on the project. As is standard, once the construction is approved, the project will be put out for contractor bid. Crown Castle will provide all contractor information to the Village at that time. To the extent the Village is requiring Crown Castle to identify its contractors before it has put the project out for contractor bid, the requirement is applied in a discriminatory fashion and is unreasonable. Crown Castle, of course, has no objection to the application approval being contingent upon Crown Castle identifying its contractors before beginning construction. Crown Castle reserves all rights.

(19) Entity providing backhaul network.

The Village argues that Crown Castle must provide information regarding the entity providing the backhaul network for the facility. This requirement is invalid as it is not expressly permitted under the Act.

Nonetheless, Crown Castle states that it is providing connectivity to the site through its own fiber-optic network. Crown Castle reserves all rights.

(20) Completion of FCC OET forms.

The Village argues that Crown Castle is required to complete the FCC Office of Engineering and Technology (OET) forms. This requirement is not explicitly provided within the Village's local code. In addition, the requirement is invalid as it is not expressly permitted by the Act. The requirement is, therefore, invalid. Crown Castle reserves all rights.

(21) Affirmation of compliance with local building codes.

The Village argues that Crown Castle is required to “affirm” that it will comply with the “various building codes adopted by the Village.” This requirement is invalid from the outset, as it is not included within the Village’s local code. In addition, the requirement appears to be duplicative of the statement of compliance referenced in (I)(2) above. Moreover, a requirement that a provider must provide a statement “affirming” compliance with municipality building codes is not permitted by the Act. Therefore, this requirement is invalid. Further, the Village has not specifically identified Crown Castle’s alleged deficiencies concerning this requirement and, therefore, the requirement is “deemed complete” under the Act. 50 ILCS 840/15(d)(7). Crown Castle reserves all rights.

(II) Design Requirements

(1) Requirement that equipment be painted the same color as the proposed pole.

The Village argues that Crown Castle is required to paint its equipment the exact same color as the pole. This requirement is preempted by federal law as it is unreasonable and amounts to a material limitation. It is practically infeasible to paint all equipment the exact same shade as a distressed and weathered wooden pole. In addition, this requirement would force Crown Castle to continually check the equipment’s paint wear to ensure it remained the same as the wooden pole. Further, the Village does not appear to require other utilities to paint or repaint their equipment to exactly match the pole. Thus, the requirement is discriminatory and unreasonable. Crown Castle reserves all rights.

(2) Placement of 4” x 6” plate with wireless provider’s name.

The Village argues that Crown Castle is required to place a plate with the wireless provider’s name location and an emergency telephone number. This requirement is invalid from the outset as it is not explicitly required by the local code. In addition, the requirement is not expressly permitted by the Act and is, therefore, invalid. Nonetheless, Crown Castle will install the requested plate providing its own name and contact information. Crown Castle reserves all rights.

(3) Village’s assertion that proposed pole does not “minimize the visual or aesthetic impact of the new vertical element.”

The Village argues without specificity that the pole does not “minimize the visual or aesthetic impact of the new vertical element and its associated small wireless facilities upon the surrounding area and does not blend in with the surrounding streetscape.” This requirement is incredibly vague and appears completely arbitrary. The requirement is preempted as it is a material limitation and unreasonable. Further, the Village has not specifically identified Crown Castle’s alleged deficiencies concerning these items and,

therefore, this portion of the requirement is “deemed complete.” 50 ILCS 840/15(d)(7). Crown Castle reserves all rights.

(4) Support for pole.

The Village argues that Crown Castle is required to support its wooden pole with a concrete foundation. This requirement is not technically feasible for a wooden pole. Only metal poles are reinforced with a concrete foundation. Wooden poles are buried according to a specific formula, which is two feet plus 10% of the overall height of the pole. For these reasons, the requirement amounts to a material limitation and is unreasonable under federal law. The requirement is therefore preempted. In addition, the requirement is invalid under the Act as it is being applied in a discriminatory fashion, considering ComEd uses the same formula for burying wooden poles and is not subject to the requirement to use a concrete foundation. Crown Castle reserves all rights

(5) Concealment measures beyond painting equipment to match the pole.

The Village argues that Crown Castle is required to propose additional concealment measures beyond painting the equipment to match the pole. This requirement is invalid under the Act as it is extremely vague and is applied in a discriminatory fashion. Moreover, the Village has not specifically identified Crown Castle’s alleged deficiencies concerning this requirement and, therefore, the requirement is “deemed complete” under the Act. 50 ILCS 840/15(d)(7). In addition, the requirement is preempted considering requiring the provider to experiment and come up with additional concealment measures outside those required by local code is unreasonable and amounts to a material limitation on construction. Crown Castle reserves all rights.

(6) Illustration of Quazite box and handhole for underground fiber conduit and interface.

The Village argues that Crown Castle is required to propose or illustrate a Quazite box and handhole for an underground fiber conduit and interface. However, the box and handhole for the underground fiber conduit are one and the same as the box and handhole for the power conduit and connection. Thus, Crown Castle has already shown these items to the Village. Crown Castle reserves all rights.

(7) Regarding Crown Castle’s arguments that design standards are preempted by State Act.

Please see Crown Castle’s responses throughout this letter.

(8) Requirement that various equipment has UL listing that provides for painting without voiding listing.

Crown Castle hereby confirms that its equipment has UL listing that provides for painting without voiding listing. Crown Castle reserves all rights.

(III) Other

(1) Liability insurance limits requirements.

Please see an updated Certificate of Insurance attached hereto as Ex. F. Crown Castle reserves all rights.

(2) Liability insurance additional insureds requirements.

Please see an updated Certificate of Insurance attached hereto as Ex. F. Crown Castle reserves all rights.

Processing Deadlines

Crown Castle has submitted the information requested by the Village that is not barred by the Act, preempted by the FCC Order, or both. Thus, the processing deadlines for the Application are no longer tolled. The Village has until November 14, 2022, to approve or deny this Application or it shall be deemed approved under 50 ILCS 840/15(d)(8)(B).

Sincerely,

Maureen Whitfield

Director, Network Permitting & Utilities

T: (630) 480-5227

westernsuburbs@crowncastle.com

Ex. A, FAA 1-A Certification

Ex. B, Statement Regarding Frequencies of the Facility

Ex. C, MPE Study

Ex. D, Map of Planned Nodes in Project

Ex. E, Proposed Notice of Mailing

Ex. F, Certificate of Insurance

Exhibit A, FAA 1-A Certification



5101 Thatcher Road, Downers Grove, IL 60515

P: (630) 572-9999

FAA 1A Certification Letter

Date: May 11, 2022

Applicant: Crown Castle
3025 Highland Parkway
Suite 400
Downers Grove, IL 60515

Site Name: **CTRL_HINSDALEA_11**

Customer SCU: **507683**

PS Loc: **539618**

Site Location: 55th Street and Western Avenue
Clarendon Hills, IL 60514

Horizontal Datum Source: GPS, NAD 83 (North American Datum of 1983)

Vertical Datum Source: GPS, NAVD 88 (North American Vertical Datum of 1988)

Latitude: N 041° 47' 24.85" (Degrees, Minutes, Seconds)
N 41.79024 (Decimal)

Longitude: W 087° 57' 44.74" (Degrees, Minutes, Seconds)
W 87.96243 (Decimal)

Ground Elevation: 738.20 feet AMSL

Structure Type: Proposed Wood Pole (replace existing)

Top of Structure: ±772.20 feet AMSL

Center of Antenna (RCL): ±770.20 feet AMSL

Top of Antenna: ±770.80 feet AMSL

I certify that the latitude and longitude for the location of the structure is accurate to within ±20 feet horizontally and that the ground elevation is accurate to within ±3 feet vertically.

Owen L. Stamm
Illinois Professional Engineer
License No. 062-060931

Exhibit B, Statement Regarding Frequencies of the Facility

Statement of Compliance with paragraph (6) of Illinois Public Act 100-0585

On behalf of Crown Castle Fiber LLC ("Applicant"), I hereby certify that the frequencies of the Small Wireless Facility will not interfere with those used by public safety providers, including the Village of Clarendon Hills Police and Fire Departments, in accordance with Section 60.9 of the Village's Small Cell Ordinance:

The Applicant certifies that the collocations proposed in its application will operate within all applicable FCC standards to the best of the applicant's knowledge. The information provided by Applicant in this application is hereby certified as true and correct as of the date submitted.

The Applicant certifies that the collocation proposed in its application complies with FCC OET Bulletin 65.

On behalf of Crown Castle Fiber LLC:

 8/9/2022

Shawn P. Dugan
Manager of RF Engineering, Central Region
T: (724) 416-9129
Shawn.Dugan@crowncastle.com

Exhibit C, MPE Study

RF Emissions Compliance Report

(next page)



WATERFORD

RF EMISSIONS COMPLIANCE REPORT

Prepared for:

Crown Castle
947 Parkview Boulevard
Lombard, IL 60148

Site:

Hinsdale Verizon 3x 6705 28GHz
53RD ST & LAWN AVE SC
WESTERN SPRINGS, COOK, IL
41.79339, -87.89946

August 16, 2022

**This site will be in compliance with
FCC Regulations and MPE Limits:**

**Crown Castle Is 0.718% of General Population (GP) Limit
(0.144% of Occupational (Occ) Limit)**

Certification

I have reviewed this RF Emissions assessment report and believe it to be both true and accurate to the best of my knowledge.



David Charles Cotton, Jr.
Licensed Professional Engineer
State of Illinois, 062.062055

Analysis completed using Waterford's NIERTool© software

Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives warrant the accuracy of all input data. Waterford Consultants, LLC attests to the accuracy of the engineering calculations. Waterford also attests that the results of those engineering calculations are correctly summarized in this report.

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7430 New Technology Way, Suite 150

Frederick, Maryland 21703

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Control # 95915

RF EMISSIONS COMPLIANCE STATEMENT

Site:

Hinsdale Verizon 3x 6705 28GHz
53RD ST & LAWN AVE SC
WESTERN SPRINGS, COOK, IL

Compliance Statement

Subject site COMPLIES with Radiofrequency Radiation Exposure Limits of 47 C.F.R. §§ 1.1307(b)(3) and 1.1310.

Ground Level Site Summary

Predicted cumulative RF power density at ground level as a percentage of the FCC General Population limits. This result is the sum of the maximum ground level MPE for each RF emitter by band of operation. Sites below 100% are in full compliance.

Source	Predicted Power Density, % of Limit (GP)
Verizon 28000 MHz	0.718 %
Sum of Listed Sources	0.718%

Antenna Level Site Summary

Predicted cumulative RF power density at elevated levels near the antenna(s) has been evaluated with respect to the FCC General Population limits. The mitigation measures recommended herein are necessary to achieve and maintain compliance at the site based on the following assessment:

Antenna Level Assessment

Signage directives for this report are specified in the Elevation Detail Plot which depicts predicted RF power density near the antenna as a percentage of the FCC General Population limits. Areas exceeding 100% of the General Population limits are depicted as blue. Any work required within areas exceeding 100% of the limits should be coordinated with wireless operators or performed by personnel trained in RF safety and equipped with personal protection equipment. Workers in areas depicted as green or clear will not be exposed to hazardous levels of RF energy and no action is required to maintain a safe working environment.

As shown in the Elevation Detail Plot, the following keep-back distances to the FCC limits have been determined:

Reference Level	Maximum Level: General Population (%)	Maximum Level: Occupational (%)
Ground Level	0.718	0.144
Antenna Level	193.403	38.681

Distance to FCC 100% MPE Limits at Antenna Level

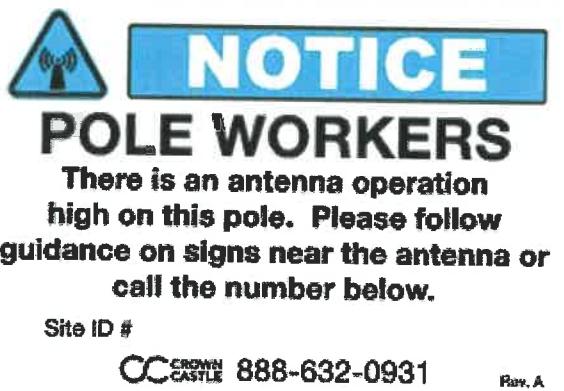
- Vertical Stand Off Distance (General Population) 3 feet
- Vertical Stand Off Distance (Occupational) N/A
- Horizontal Stand Off Distance (General Population) 3 feet
- Horizontal Stand Off Distance (Occupational) N/A

Distance to FCC 100% MPE Limits at Ground Level

- Horizontal Stand Off Distance (General Population) N/A
- Horizontal Stand Off Distance (Occupational) N/A

RF Alerting Signage

The "Notice" sign must be posted near the bottom of the pole or on the shroud any time there is a zone near the antenna that exceeds the General Population limit. This sign should be mounted where it is easily visible to workers on the ground as they approach the pole. Suggested locations include on the pole about 8-10' from the ground or on the front of the equipment shroud if it is mounted on the pole.



The "Caution" sign must be posted on the antenna any time there is an area that exceeds the FCC General Public exposure limit. The keep-back distance for the General Population limit must be filled in on the sign as depicted below. This sign must be mounted on or just below the radiating antenna so that it is maximally visible to workers approaching the antenna in a lift or bucket truck. If there is more than one radiating antenna and they are less than 5' apart then the sign should be mounted on or near the lower antenna. If there are multiple radiating antennas and they are >5' apart then separate signs should be mounted on or near each antenna.



Technical Framework: Basis for Compliance Statement

The compliance framework is derived from the Federal Communications Commission (FCC) Rules and Regulations for preventing human exposure in excess of the applicable Maximum Permissible Exposure (“MPE”) limits listed in Table 1 of 47 C.F.R. § 1.1310. Calculations using input data provided to Waterford by client or client's representative numerically confirm the subject site can operate at a 100% duty cycle without exceeding the FCC MPE limits in areas of uncontrolled access.

At this site, the radio frequency (RF) power density resulting from each transmitter at any location may be expressed as a percentage of the frequency-specific limits and added to determine if 100% of the exposure limit has been exceeded. The FCC Rules define two tiers of permissible exposure differentiated by the situation in which the exposure takes place and/or the status of the individuals who are subject to exposure. General Population / Uncontrolled exposure limits apply to those situations in which persons may not be aware of the presence of electromagnetic energy, where exposure is not employment related, or where persons cannot exercise control over their exposure. Occupational / Controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment, have been made fully aware of the potential for exposure, and can exercise control over their exposure. Based on the criteria for these classifications, continuous exposure to RF power density levels below the FCC General Population limits is not hazardous. The FCC General Population limits are 5 times more restrictive than the Occupational limits.

	<i>Limits for General Population/ Uncontrolled Exposure</i>		<i>Limits for Occupational/ Controlled Exposure</i>	
Frequency (MHz)	Power Density (mW/cm ²)	Averaging Time (minutes)	Power Density (mW/cm ²)	Averaging Time (minutes)
30-300	0.2	30	1	6
300-1500	f/1500	30	f/300	6
1500-100,000	1.0	30	5.0	6

In situations where the predicted MPE exceeds the General Population threshold in an accessible area because of emissions from multiple transmitters, FCC licensees that contribute greater than 5% of the aggregate MPE share responsibility for mitigation.

For any location where radiofrequency (RF) power densities exceed 100% MPE of the General Population limits, access controls with appropriate RF alerting signage must be available to be visible upon approach from any direction to provide notification of potential conditions within these areas. Subject to other site security requirements, occupational personnel should be trained in RF safety and equipped with personal protective equipment (e.g. RF personal monitor) designed for safe work in the vicinity of RF emitters. Waterford Consultants, LLC recommends that any work activity in these designated areas or in front of any transmitting antennas be coordinated with the wireless operators.

Predictive Modeling

Based on the computational guidelines set forth in FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), Waterford Consultants, LLC has developed software to predict the overall MPE possible at any particular location given the spatial orientation and operating parameters of multiple RF sources. These theoretical results represent worst-case predictions as emitters are assumed to be operating at 100% duty cycle.

The tabular analysis in this report calculates the spatial peak power density produced at ground level from each RF emitter. The far field power density in milliWatts per square centimeter is expressed as $S_{ff} = 33.4 \times \text{ERP} / R^2$ where ERP is the Effective Radiated Power along a specific azimuth in Watts and R is the distance from the antenna radiation center in meters. The antenna manufacturer's horizontal and vertical radiation patterns have been considered in determining the ERP in any direction. This computation is based on the maximum ERP and includes a 1.6-fold increase in field strength due to ground reflection. The result provides a conservative estimate of spatially averaged power density at ground level and may be higher than predicted MPE in the graphical plots described below.

As the limits are frequency dependent, the contribution of any RF source at a specific location may be expressed as a percentage of the FCC General Population MPE limits at the associated operating frequency. The percentage contributions from all RF sources are added to determine the overall exposure level. If this result is less than 100%, the predicted cumulative exposure level is below the General Population limits set forth in the FCC Rules. The cumulative MPE depicted on the summary page is the summation of maximum MPE values for each emitter regardless of antenna orientation.

A graphical plot of calculated spatially averaged RF power density, based on the Cylindrical Model as described in OET65, predicts spatially averaged MPE conditions at areas in near proximity to the antenna. In the vertical display, predicted MPE is depicted at the center of the 6 ft vertical zone that a person could occupy.

Qualifications of Waterford

With more than 100 team-years of experience, Waterford Consultants, LLC [Waterford] provides technical consulting services to clients in the radio communications and antenna locating industry. Waterford retains professional engineers who are placed in responsible charge of the processes for analysis.

Waterford is familiar with 47 C.F.R. §§ 1.1307(b)(3) and 1.1310 along with the general Rules, Regulations and policies of the FCC. Waterford work processes incorporate all specifications of FCC Office of Engineering and Technology, Bulletin 65 ("OET65"), from the website: www.fcc.gov/oet/rfsafety and follow criteria detailed in 47 CFR § 1.1310 "Radiofrequency radiation exposure Limits".

Within the technical and regulatory framework detailed above, Waterford developed tools according to recognized and generally accepted good engineering practices. Permissible exposure limits are band specific, and the Waterford computerized modeling tools correctly calculate permissible exposure based on the band(s) specified in the input data. Only clients and client representatives are authorized to provide input data through the Waterford web portal. In securing that authorization, clients and client representatives attest to the accuracy of all input data.

Waterford Consultants, LLC attests to the accuracy of the engineering calculations computed by those modeling tools. Furthermore, Waterford attests that the results of those engineering calculations are correctly summarized in this report.

Certification

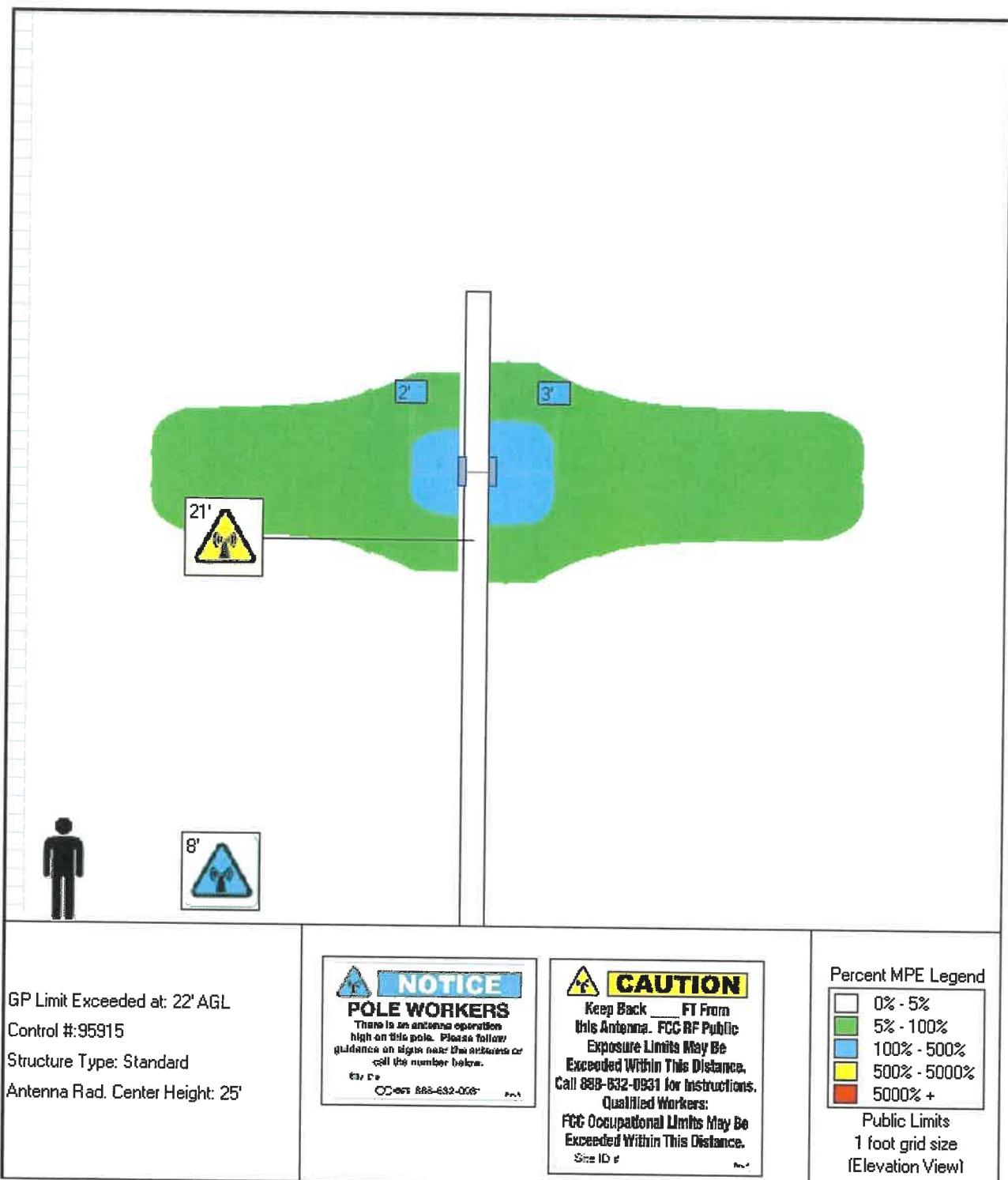
My stamp and signature on the cover indicates that I am fully aware of and familiar with the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation, specifically in accordance with FCC's OET Bulletin 65. I have reviewed this Radio Frequency Exposure Assessment report and believe it to be both true and accurate to the best of my knowledge.

Antenna Inventory

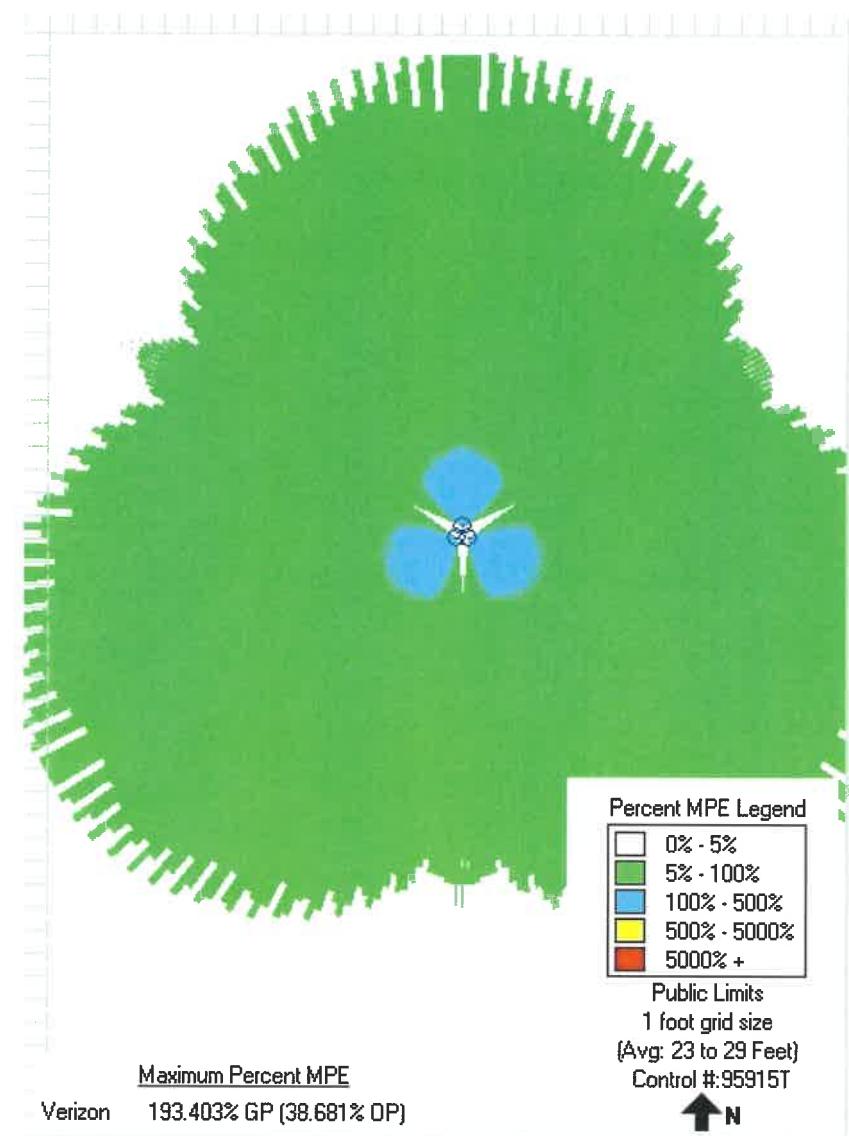
#	Operator	Make	Model	Freq (MHz)	Az (deg)	Tilt (deg)	HorBW (deg)	Ant (ft)	TPO (w)	Paths	Loss (db)	Ant Gain	Radiated Power (W)	RC AGL (ft)
1	Verizon	ERICSSON	SON_SM6705 CM2 02.07.22 28GHz VZW	28000	0	0	4	1.312	10	2	0	29.49dBd	794.000 EIRP	25
2	Verizon	ERICSSON	SON_SM6705 CM2 02.07.22 28GHz VZW	28000	120	0	4	1.312	10	2	0	29.49dBd	794.000 EIRP	25
3	Verizon	ERICSSON	SON_SM6705 CM2 02.07.22 28GHz VZW	28000	240	0	4	1.312	10	2	0	29.49dBd	794.000 EIRP	25

ELEVATION DETAIL

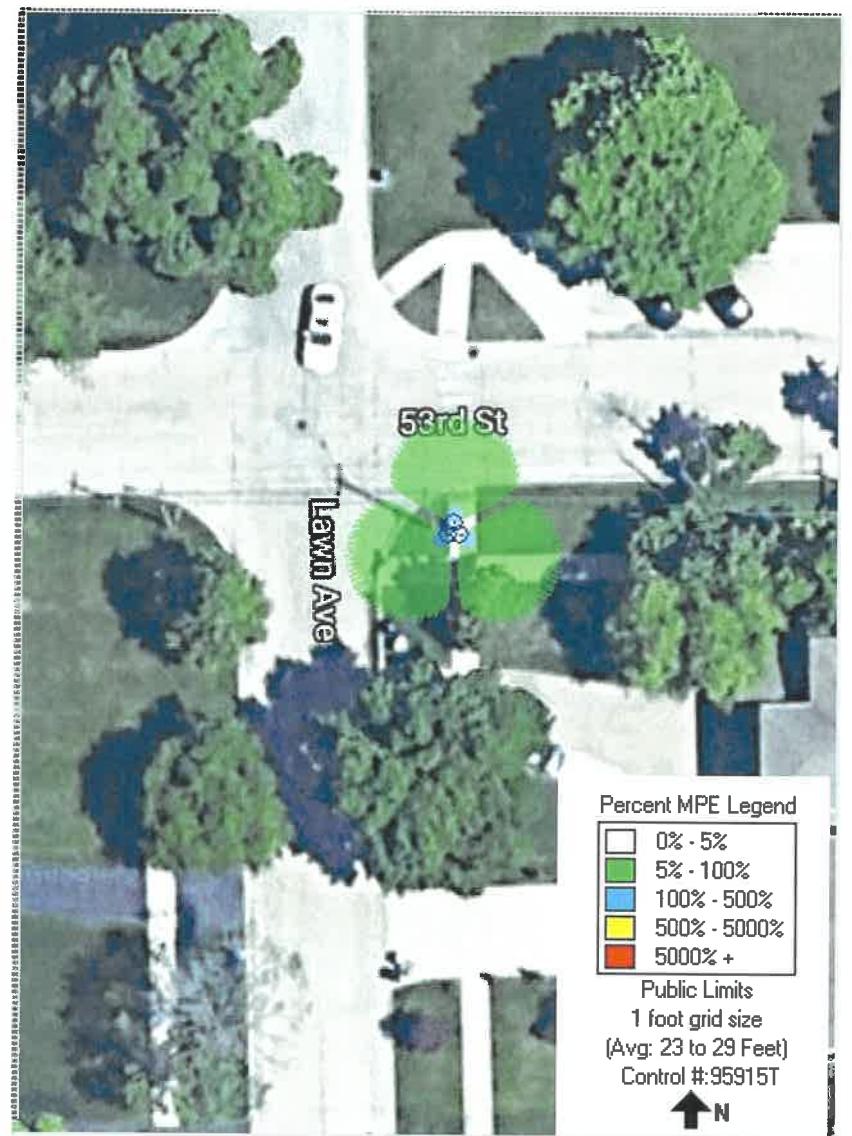
Predicted MPE depicted at the center of the 6 ft vertical zone that a person could occupy



TOP DOWN DETAIL



TOP DOWN DETAIL



GROUND LEVEL MPE BY RF EMITTER

The maximum ground level MPE along the azimuth of orientation for each RF emitter by band of operation is listed below. The computational approach is described in the Predictive Modeling section. The maximum MPE by operator and band is contributive to the cumulative ground level MPE summary table presented above.

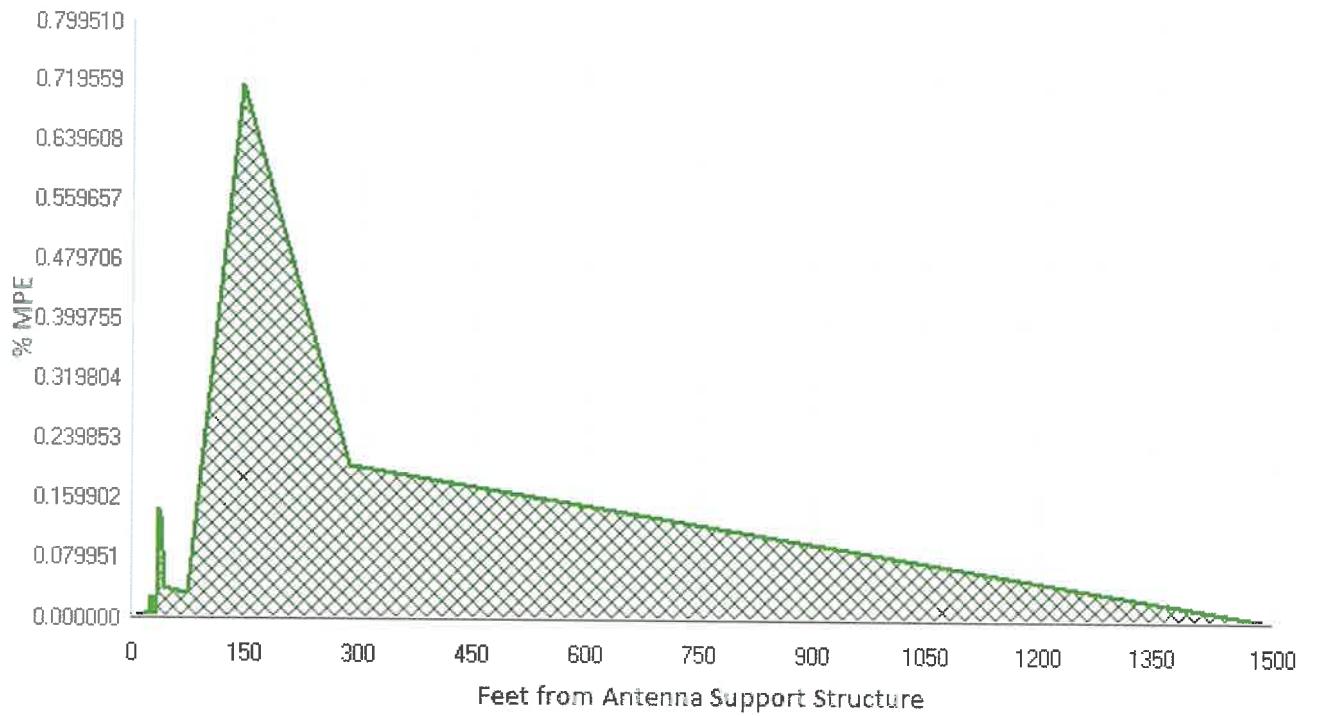
Verizon
Hinsdale Verizon 3x 6705 28GHz
ERICSSON - SON_SM6705 CM2 02.07.22 28GHz VZW 0° Sector

Maximum Exposure Limit - 28000 MHz

Limit (GP): 1000.000 $\mu\text{W}/\text{cm}^2$

EiRP (Watts)	Height (feet)	Downtilt (Degrees)
794.000	25.000	0

Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level:

7.175 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Exposure Limit:

0.718 %

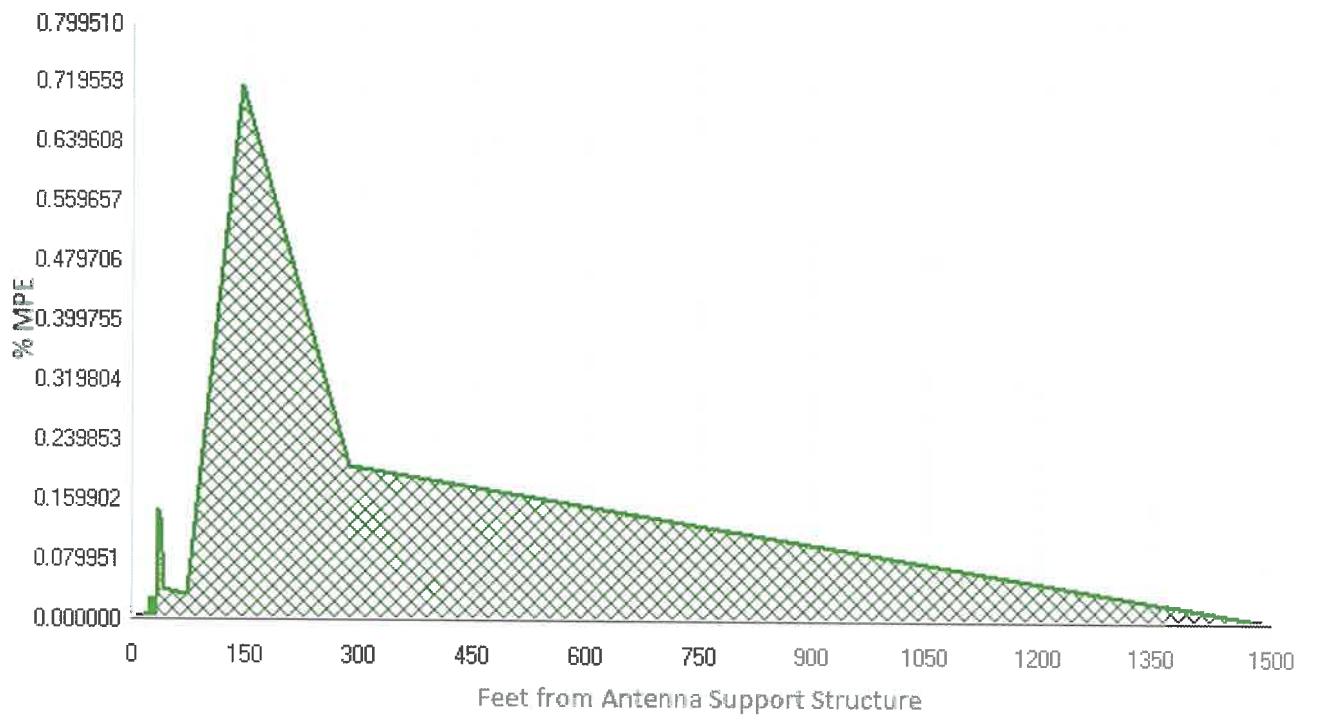
Verizon
Hinsdale Verizon 3x 6705 28GHz
ERICSSON - SON_SM6705 CM2 02.07.22 28GHz VZW 120° Sector

Maximum Exposure Limit - 28000 MHz

Limit (GP): 1000.000 $\mu\text{W}/\text{cm}^2$

EiRP (Watts)	Height (feet)	Downtilt (Degrees)
794.000	25.000	0

Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level:

7.175 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Exposure Limit:

0.718 %

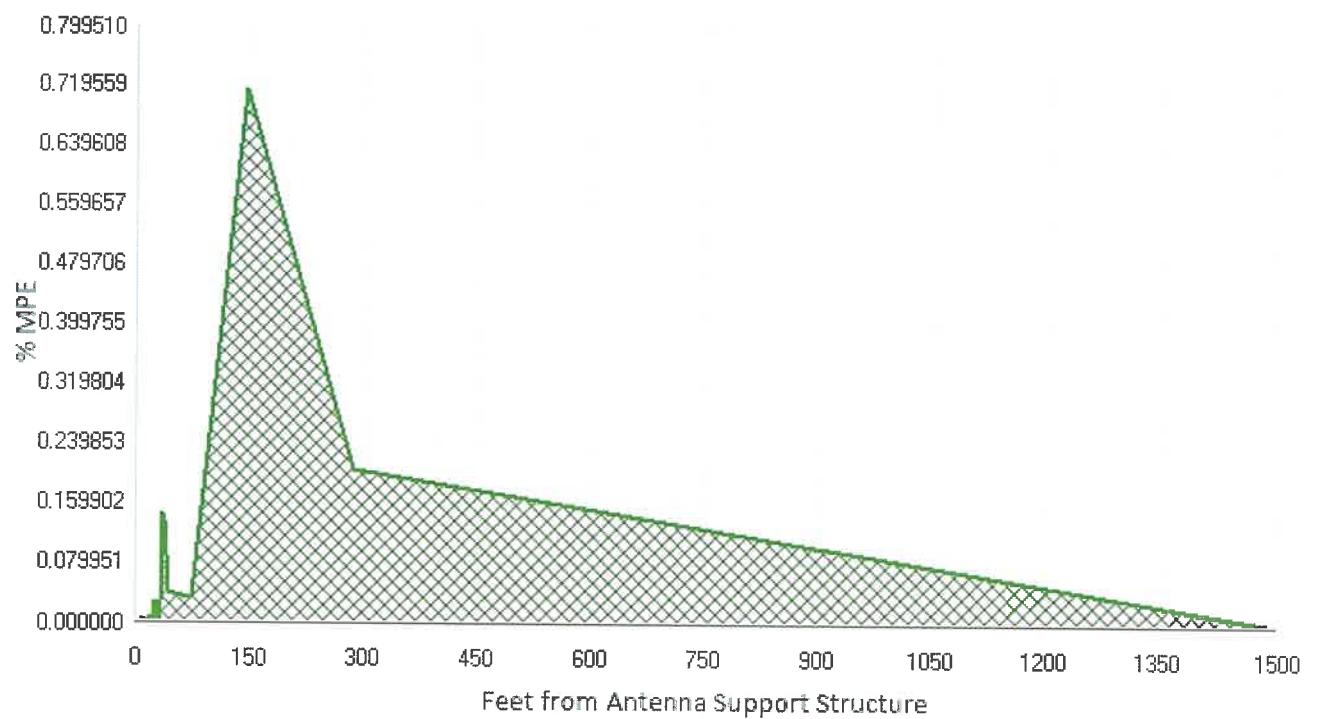
Verizon
Hinsdale Verizon 3x 6705 28GHz
ERICSSON - SON_SM6705 CM2 02.07.22 28GHz VZW 240° Sector

Maximum Exposure Limit - 28000 MHz

Limit (GP): 1000.000 $\mu\text{W}/\text{cm}^2$

EiRP (Watts)	Height (feet)	Downtilt (Degrees)
794.000	25.000	0

Ground Level MPE as Percent of FCC General Population Limits



Maximum power density at ground level: 7.175 $\mu\text{W}/\text{cm}^2$

Highest percentage of Maximum Exposure Limit: 0.718 %

Exhibit D, Map of Planned Nodes in Project

Master Plan

(next page)

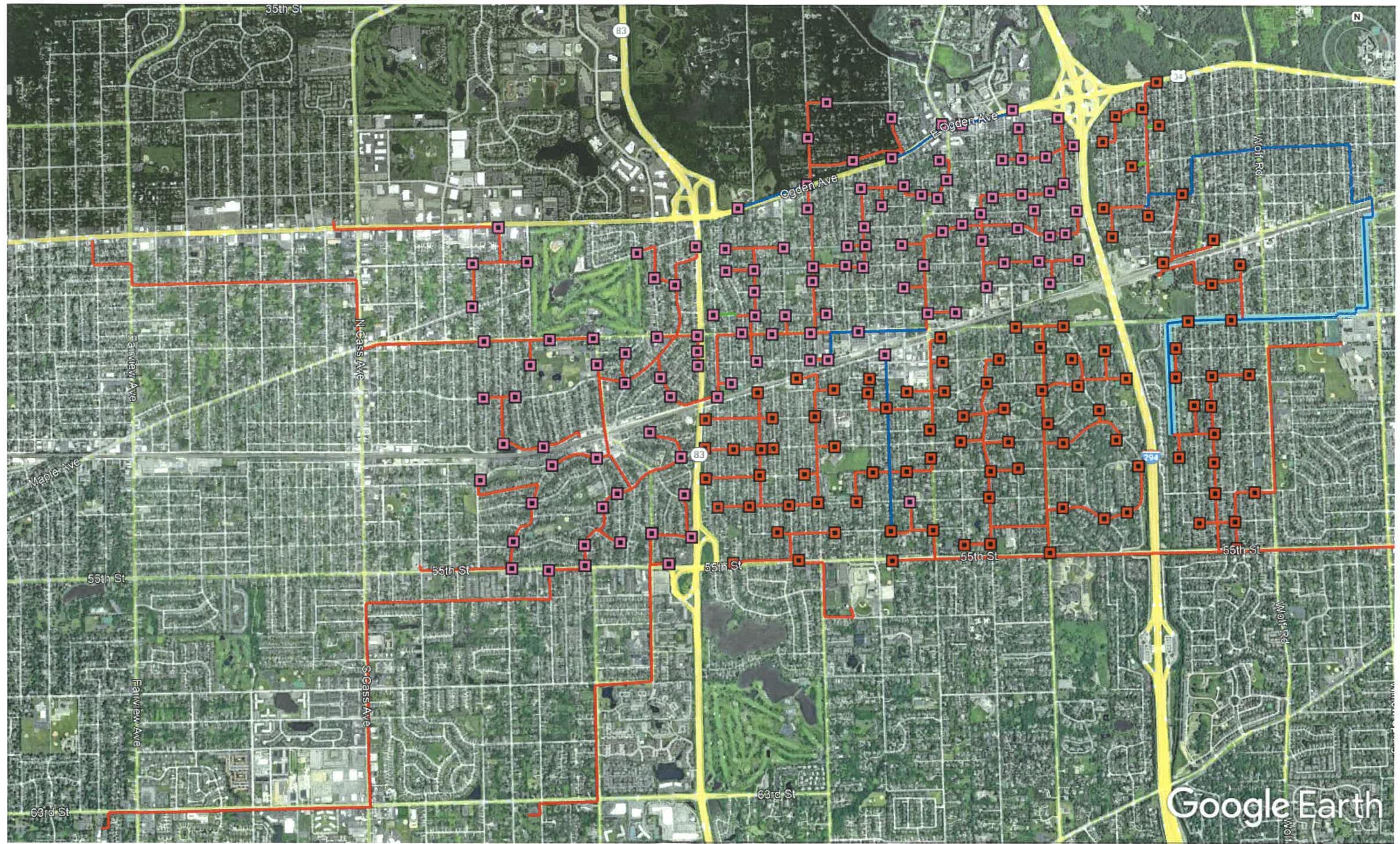


Exhibit E, Proposed Notice of Mailing

We're making vital infrastructure updates in your neighborhood.

To help improve connectivity in your area, we are making important communications infrastructure improvements. Wireless infrastructure ensures your community will be ready for the future and that you can stay connected to what matters most.

To learn more, visit <https://www.villageofhinsdale.org/index.php> or scan the QR code below.

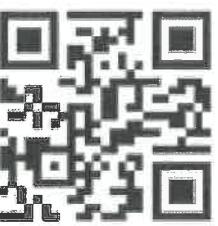


Exhibit F, Certificate of Insurance

Crown Castle Certificate of Insurance

(next page)



CERTIFICATE OF LIABILITY INSURANCE

Page 1 of 2
DATE (MM/DD/YYYY)
08/16/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERs NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT	
	NAME: Crown Castle International	
Willis Towers Watson Northeast, Inc.	PHONE	FAX
c/o 26 Century Blvd	(A/C, No. Ext):	(A/C, No.):
P.O. Box 305191		
Nashville, TN 372305191 USA	E-MAIL	
	ADDRESS: COIRequest@crowncastle.com	
INSURER(S) AFFORDING COVERAGE		
INSURED	INSURER A: Continental Casualty Company	NAIC # 20443
Crown Castle International	INSURER B: Berkshire Hathaway Specialty Insurance Com	22276
See Attached Named Insured List	INSURER C: Continental Insurance Company	35289
8020 Katy Freeway	INSURER D: Travelers Property Casualty Company of Ame	25674
Houston, TX 77024	INSURER E:	
	INSURER F:	

COVERAGES CERTIFICATE NUMBER: W25674763 REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVO	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	COMMERCIAL GENERAL LIABILITY					
	CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/>					
		Y Y	7018331477	04/01/2022	04/01/2023	
	GEN'L AGGREGATE LIMIT APPLIES PER:					
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO- JECT <input type="checkbox"/> LOC					
	OTHER:					
	AUTOMOBILE LIABILITY					
A	ANY AUTO					
	OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> Hired AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input type="checkbox"/>	Y Y	BUA 7018331432	04/01/2022	04/01/2023	
B	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/>					
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/>	Y Y	47-UMO-303445-08	04/01/2022	04/01/2023	
	DED <input checked="" type="checkbox"/> RETENTION \$ 25,000					
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY					
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> Y/N <input type="checkbox"/> No	N/A Y	WC7018331446	04/01/2022	04/01/2023	
D	All Risk Personal Property					
	100% Replacement Cost	QT-630-5D736475-TIL-22	04/01/2022	04/01/2023	Limit:	\$250,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

This Voids and Replaces Previously Issued Certificate Dated 08/16/2022 WITH ID: W25672481.

Re: 61620970 - SEC 10, T38N-R11E.

Clarendon Hills, DuPage County, Illinois (ROW approx. 110' north of the intersection of Ruby St. & Western Ave.)

The Village of Clarendon Hills and its appointed and elected officials, officers, president and trustees, employees,

CERTIFICATE HOLDER	CANCELLATION
Village of Clarendon Hills, IL Attn: Zachary Creer Assistant to the Village Administrator 1 N Prospect Avenue Clarendon Hills, IL 60514	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE



ADDITIONAL REMARKS SCHEDULE

Page 2 of 2

AGENCY Willis Towers Watson Northeast, Inc.		NAMED INSURED Crown Castle International See Attached Named Insured List 8020 Katy Freeway Houston, TX 77024
POLICY NUMBER See Page 1		
CARRIER See Page 1	NAIC CODE See Page 1	EFFECTIVE DATE: See Page 1

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

attorneys, engineers and agents are Additional Insureds on the Commercial General Liability, Automobile Liability and Umbrella Liability policies on a Primary and Non-contributory basis.

General Liability, Auto Liability, Umbrella/Excess Liability and Workers Compensation policies include a Waiver of Subrogation in favor of the Additional Insured when agreed in written contract prior to the loss, but always subject to the policy terms, conditions and exclusions as permitted by law.

Umbrella policy is following form.

Crown Castle Inc.

Edition Date: 8/01/22

Named Insured	Named Insured (cont.)
AirComm of Avon, LLC	Crown Castle Solutions LLC
Assurable Insurance LLC	Crown Castle South LLC
Atlantic Coast Communications LLC	Crown Castle Towers 05 LLC
CC Edge LLC	Crown Castle Towers 06-2 LLC
CC Holdings GS V LLC	Crown Castle Towers 09 LLC
CC Site Acquisitions II LLC	Crown Castle Towers LLC
CC Strategic Investment Corp.	Crown Castle USA Inc.
CC TM PA LLC	Crown Communication LLC
CC Towers Guarantor LLC	Crown Communication New York, Inc.
CC Towers Holding LLC	Fibertech Facilities Corp.
CCATT Holdings LLC	Global Signal Acquisitions II LLC
CCATT LLC	Global Signal Acquisitions III LLC
CCATT PR LLC	Global Signal Acquisitions IV LLC
CCGS Holdings Corp.	Global Signal Acquisitions LLC
CCPR VI Tower Newco LLC	Global Signal GP LLC
CCS & E LLC	Global Signal Holdings III LLC
CCTM Holdings LLC	Global Signal Operating Partnership, LP
CCTM1 LLC	GoldenState Towers LLC
CCTM2 LLC	GS Savings Inc.
CCTMO LLC	GSPN Intangibles LLC
ComSite Venture, Inc.	High Point Management Co. LLC
Coverage Plus Antennas Systems LLC	ICB Towers LLC
Crown Atlantic Company LLC	Interstate Tower Communications LLC
Crown Castle AS LLC	Intracoastal City Towers LLC
Crown Castle Atlantic LLC	Light Tower Clearinghouse LLC
Crown Castle CA Corp.	Md7 Capitol One, LLC
Crown Castle Fiber Enterprise LLC	MW Cell Reit 1 LLC
Crown Castle Fiber Holdings Corp.	MW Cell TRS 1 LLC
Crown Castle Fiber LLC	OP LLC
Crown Castle GS III Corp.	OP 2 LLC
Crown Castle GT Company LLC	Pinnacle Towers Acquisition Holdings LLC
Crown Castle GT Corp.	Pinnacle Towers Acquisition LLC
Crown Castle GT Holding Sub LLC	Pinnacle Towers Asset Holding LLC
Crown Castle Inc. f/k/a Crown Castle International Corp	Pinnacle Towers Canada Inc.
Crown Castle International LLC	Pinnacle Towers III LLC
Crown Castle Investment Corp.	Pinnacle Towers Limited
Crown Castle Investment II Corp.	Pinnacle Towers LLC
Crown Castle MU LLC	Pinnacle Towers V Inc.
Crown Castle MUPA LLC	PR Site Development Corporation
Crown Castle NG East LLC	Radio Station WG LD LLC
Crown Castle Operating Company	Shaffer & Associates, Inc.
Crown Castle Operating LLC	Sidera Networks UK Limited (UK)
Crown Castle Orlando Corp.	Sierra Towers, Inc.
Crown Castle PR LLC	Tower Development Corporation
Crown Castle PR Solutions LLC	Tower Systems LLC
Crown Castle Puerto Rico Corp.	Tower Technology Company of Jacksonville LLC

Crown Castle Inc.

Edition Date: 8/01/22

Named Insured	Named Insured (cont.)
Tower Ventures III LLC	Fiber Technologies Networks, L.L.C. (NY)
TowerOne Partners, LLC	Fibernet Direct Florida LLC
TriStar Investors LLC	Fibernet Direct Holdings LLC
TVHT LLC	Fibernet Direct TEL LLC
WCP Wireless Lease Subsidiy, LLC	Fibernet Direct Texas LLC
WCP Wireless Site Funding LLC	Fibertech Holdings Corp.
WCP Wireless Site Holdco LLC	Fibertech Networks, LLC
WCP Wireless Site Non-RE Funding LLC	Freedom Telecommunications, LLC
WCP Wireless Site Non-RE Holdco LLC	Global Signal Services LLC
WCP Wireless Site RE Funding LLC	InfraSource FI, LLC
WCP Wireless Site RE Holdco LLC	InSITE Fiber of Virginia LLC
Merged Entities to Crown Castle Fiber LLC	InSITE Solutions LLC
24/7 Chesapeake Holdings, LLC	IX2 Center, LLC
24/7 Mid-Atlantic Network of Virginia, LLC	IX2 Wilshire, LLC
24/7 Mid-Atlantic Network, LLC	JBCM Towers LLC
Access Fiber Group Holdings LLC	Light Tower Fiber New York, Inc. (NY)
Access Fiber Group, Inc.	Light Tower Holdings LLC
CA - CLEC LLC	Light Tower Management, Inc.
CC Castle International LLC	Light Tower Metro Fiber LLC
CC Edge Solutions LLC	Lightower Fiber Infrastructure Corp.
CC Finance LLC	Lightower Fiber Networks I, LLC
CC FN Holdings LLC	Lightower Fiber Networks II, LLC n/k/a Crown Castle Fiber LLC
CC Sunesys Fiber Networks LLC	LL Q1-18, LLC
CC TS LLC	LTS Buyer LLC
CCPE Acquisitions LLC	LTS Group Holdings LLC n/k/a Crown Castle Fiber Holdings Corp
CCT2 Holdings LLC	LTS Intermediate Holdings A LLC
Chesapeake Fiber, LLC	LTS Intermediate Holdings B LLC
Coastal Antennas LLC	LTS Intermediate Holdings C LLC
Cross Connect Solutions, Inc. (PA)	Mobile Media California LLC
Crown Castle Atlantic LLC	Mobile Media National LLC
Crown Castle Augusta LLC	Modeo LLC
Crown Castle BP ATT LLC	NEON Transcom, Inc.
Crown Castle International Corp. de Puerto Rico	NewPath Networks Holding LLC
Crown Castle MM Holding Corp.	NewPath Networks LLC
Crown Castle MM Holding LLC	NY - CLEC LLC
Crown Castle NG Atlantic LLC	P3 CHB-1, LLC
Crown Castle NG Central LLC	P3 Holdings 2014 LLC
Crown Castle NG Networks LLC	P3 OASA-1, LLC
Crown Castle NG West LLC	P3 PBA-1, LLC
Crown Castle PT Inc.	PA - CLEC LLC
Crown Castle Services LLC	Pinnacle San Antonio L.L.C.
Crown Castle TDC LLC	Pinnacle St. Louis LLC
Crown Castle TLA LLC	PR TDC Corporation
Crown Mobile Systems, Inc.	Princeton Ancillary Services II LLC
DAS Development Corporation	Princeton Ancillary Services III LLC

Crown Castle Inc.

Edition Date: 8/01/22

Named Insured	Named Insured (cont.)
RGP Tower Group, LLC	
Sidera Networks, Inc.	
Sunesys Enterprise LLC n/k/a Crown Castle Fiber	
Enterprise LLC	
Sunesys of Massachusetts, LLC	
Sunesys of Virginia, Inc.	
Sunesys, LLC	
Thunder Towers LLC	
TowerOne 2012, LLC	
TowerOne Allentown 001, LLC	
TowerOne Bethlehem 001, LLC	
TowerOne Doylestown, LLC	
TowerOne East Rockhill 001, LLC	
TowerOne Marple, LLC	
TowerOne Middletown 001, LLC	
TowerOne Middletown 002, LLC	
TowerOne Middletown 003, LLC	
TowerOne North Coventry, LLC	
TowerOne Richland, LLC	
TowerOne Upper Pottsgrove 002, LLC	
TowerOne Upper Pottsgrove, LLC	
TowerOne Warminster 001, LLC	
TowerOne Warrington 002, LLC	
Towers Finco II LLC	
Towers Finco III LLC	
Towers Finco LLC	
WA - CLEC LLC	
Wilcon Holdings LLC	
Wilcon Operations LLC	
Wilshire Connection, LLC	
Wilshire Services, LLC	
Wireless Funding, LLC	
Wireless Realty Holdings II, LLC	
Wireless Revenue Properties, LLC	
Yankee Metro Parent, Inc.	

Fiber Design

(proposed underground fiber route)

(existing underground utilities)

(next page)

PLAN VIEW



DRAWING SCALE:
1" = 20'

ENGINEER:
CCSI
NETWORKS

A NETWORK-CONNEX COMPANY
5101 THATCHER RD.
DOWNERS GROVE, IL 60515
OFFICE 630.572.9999 • FAX 630.572.9998

OWNER:
CROWN CASTLE
CROWN CASTLE FIBER
3025 HIGHLAND PARKWAY
SUITE 400
DOWNERS GROVE, IL 60515

CONTRACTOR:

TBD

TITLE:
PROPOSED FIBER OPTIC
CONDUIT INSTALLATION

55TH ST & WESTERN AVE
CLARENDON HILLS,
DUPAGE, IL 60514

PROJECT
NUMBER: 2211-005-U01

DRAWN BY: DATE DRAWN:
SJP 03/31/2022

1	04/19/22	CLIENT	SJP
03/31/22		PERMIT	SJP
NO.	DATE	DESCRIPTION	BY

REVISIONS

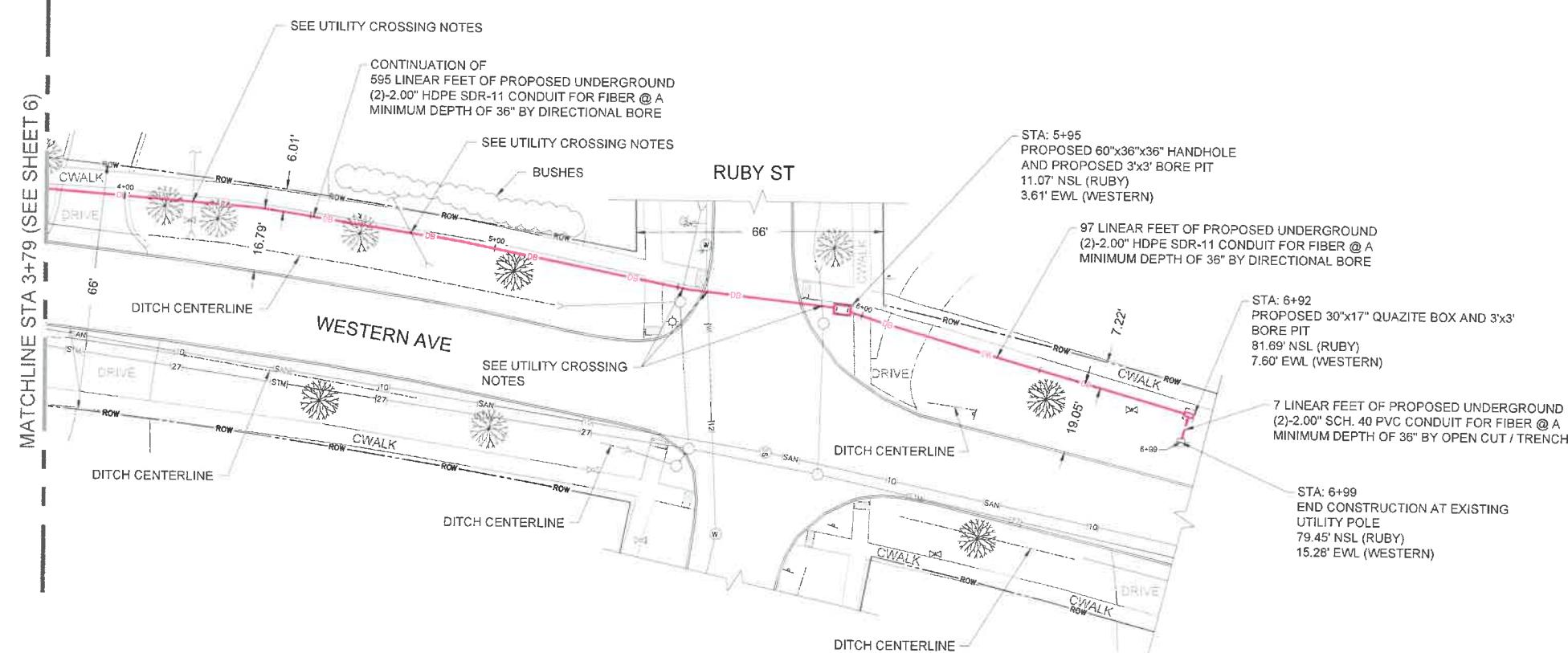
SHEET NUMBER

7



THIS DRAWING IS INTENDED TO BE PLOTTED AT 22" x 34".
IF PLOTTED AT 11" x 17" THE SCALE WOULD BE 1" = 40".

7 OF 8



NOTE:

THIS DRAWING WAS CREATED BASED UPON THE UTILITY INFORMATION OBSERVED AT THE TIME OF THE SURVEY.

A JULIE DESIGN TICKET WAS NOT REQUESTED.

Specifications and Drawing Plans

(includes photographs of site location)

(equipment types and model numbers)

(next page)



PROPOSED SMALL CELL NODE

SCU:
507683

CROWN CASTLE ID:
CTRL_HINSDALEA_11

PSLOC:
539618

HUB:
CH VZB DOWNERS GROVE

SEC 10, T38N-R11E,
CLARENDON HILLS, DuPAGE COUNTY, ILLINOIS



INDEX OF DRAWINGS:

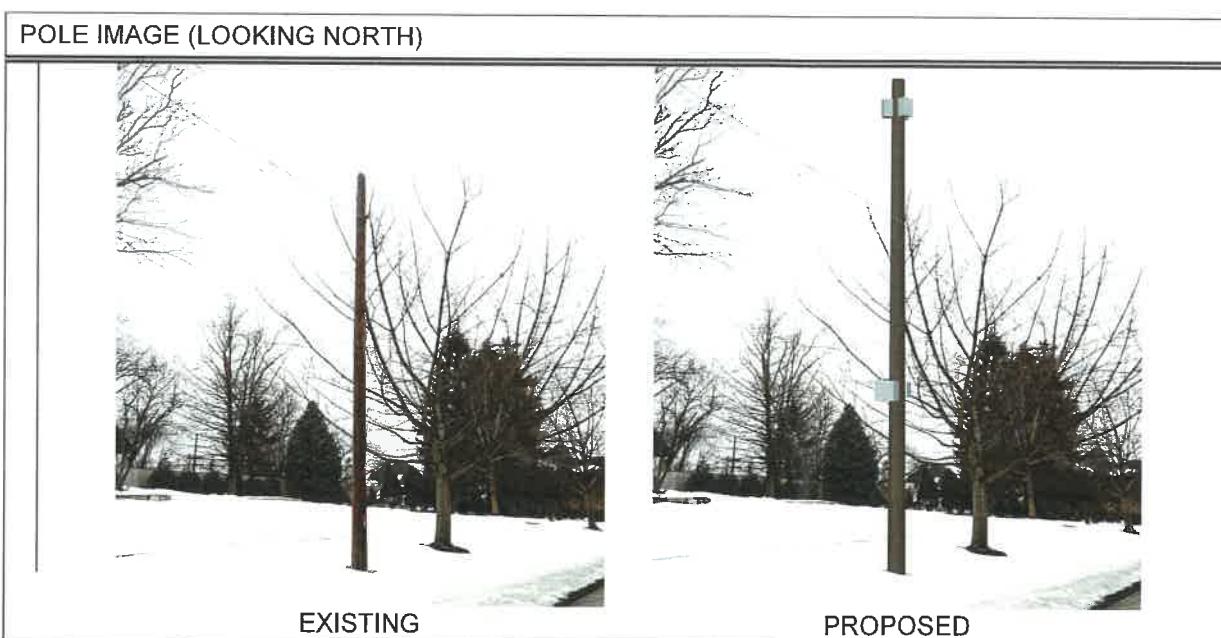
SHEET	TITLE
SWF-1	COVER
SWF-2	EXISTING & PROPOSED POLE IMAGE
SWF-3	TRAFFIC CONTROL - TYPICALS
SWF-4	EXISTING & PROPOSED EAST ELEVATION
SWF-5	EXISTING & PROPOSED SOUTH ELEVATION
SWF-6	WIRING DIAGRAM & EQUIPMENT DETAILS
SWF-7	OVERHEAD POLE DETAIL & RF SIGNAGE
SWF-8	BREAKER PANEL W/ MAIN DISCONNECT SCHEMATIC
SWF-9	GROUNDING RISER DIAGRAM
SWF-10	COMED STANDARD C7526 NOTES & SPECS
SWF-11	COMED STANDARD C7526 DIAGRAMS
SWF-12	GENERAL AND SPECIFIC PROJECT NOTES

EQUIPMENT SPECIFICATIONS SUPPLEMENT
SWF-S.1 6705 ERICSSON NR ANTENNA SPECIFICATIONS

PROJECT DESCRIPTION:

PROJECT NO: 2211-005-U01-N011
PROPOSED INSTALLATION OF SMALL CELL EQUIPMENT AND ANTENNAS ON NEW WOOD POLE. NEW POLE IS TO REPLACE EXISTING. FIBER AND POWER CABLES VIA NEW CONDUIT (UNDER SEPERATE PERMIT SUBMISSION).

SITE COORDINATES:
LATITUDE: N 041° 47' 24.85" (DEGREE, MINUTES, SECONDS)
N 41.79024 (DECIMAL)
LONGITUDE: W 087° 57' 44.74" (DEGREE, MINUTES, SECONDS)
W 87.96243 (DECIMAL)
SITE ELEV.: 738.20' ± 3.0'
FAA 1A CERTIFICATION: MAY 11, 2022



ENGINEER CERTIFICATION

Owen L. Stamm, P.E.
IL. P.E. No. 062-080931
Expires: November 30, 2023

ENGINEER:
CCSI
A NETWORK CONNEX COMPANY
5101 THATCHER RD.
DOWNERS GROVE, IL 60515
OFFICE 630.572.9999 • FAX 630.572.9998

ENGINEER: CCSI A NETWORK CONNEX COMPANY 5101 THATCHER RD. DOWNERS GROVE, IL 60515 OFFICE 630.572.9999 • FAX 630.572.9998	OWNER: CC CROWN CASTLE CROWN CASTLE FIBER 7220 N. SAM HOUSTON PARKWAY WEST SUITE 500 HOUSTON, TX 77604
CONTRACTOR: TBD	
TITLE: PROPOSED SMALL CELL NODE 55TH ST & WESTERN AVE SC CLARENDON HILLS, DuPAGE, IL 60514	
CROWN CASTLE ID: CTRL_HINSDALEA_11	
HUB: CH VZB DOWNERS GROVE	
SCU: 507683	PSLOC: 539618
PROJECT NUMBER: 2211-005-U01-N011	
DRAWN BY: JCS	DATE DRAWN: 05/03/2022
08/18/22 PERMIT JCS NO. DATE DESCRIPTION BY	
REVISIONS	
SHEET NUMBER SWF-1	



① EXISTING POLE
SCALE: NONE



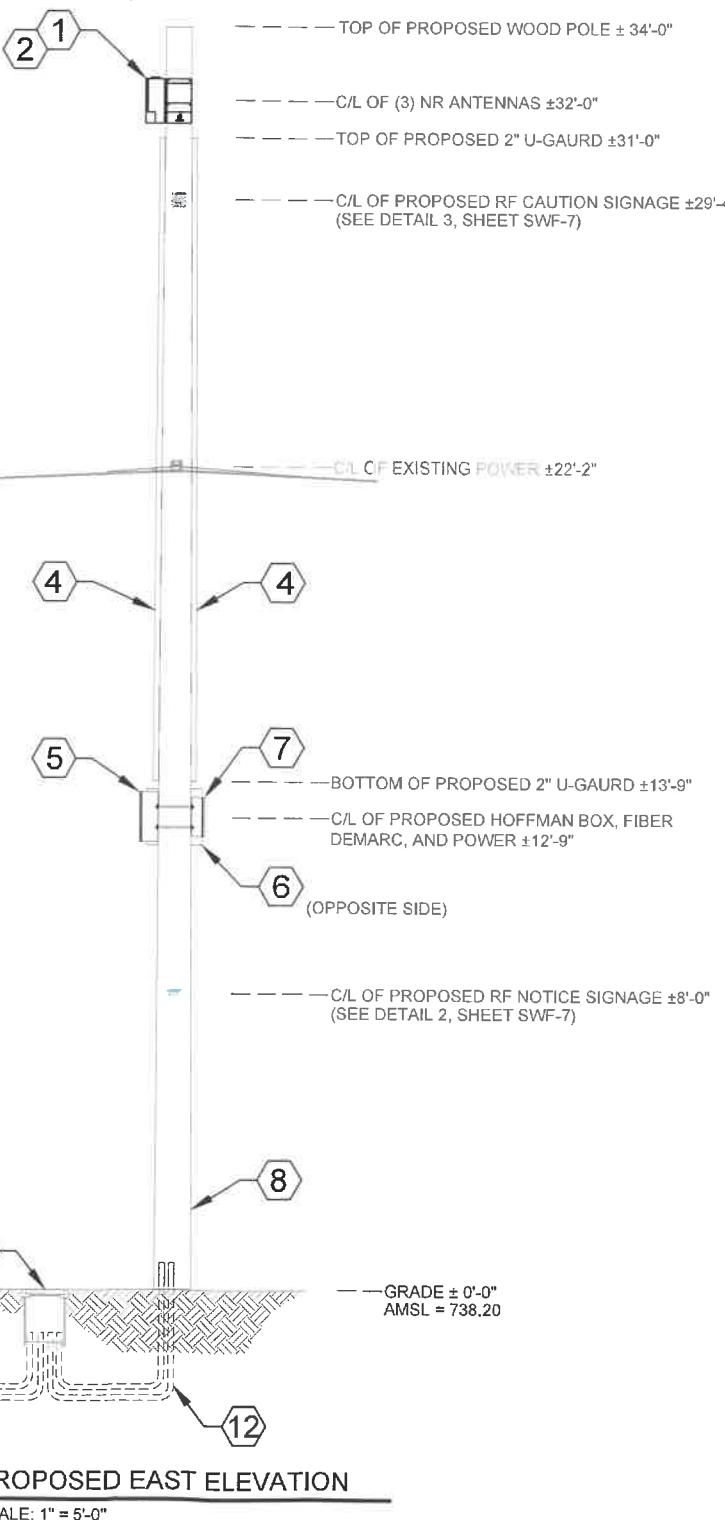
② PROPOSED POLE
SCALE: NONE

ENGINEER:	
CCSI NETWORKS	
A NETWORK CONNEX COMPANY	
5101 THATCHER RD. DOWNERS GROVE, IL 60515 OFFICE 630.572.9999 • FAX 630.572.9998	
OWNER:	
CROWN CASTLE	
CROWN CASTLE FIBER 7220 N. SAM HOUSTON PARKWAY WEST SUITE 500 HOUSTON, TX 77604	
CONTRACTOR:	
TBD	
TITLE: PROPOSED SMALL CELL NODE	
55TH ST & WESTERN AVE SC CLARENDON HILLS, DuPAGE, IL 60514	
CROWN CASTLE ID: CTRL_HINSDALEA_11	
HUB: CH VZB DOWNERS GROVE	
SCU:	PSLOC: 507683 539618
PROJECT NUMBER: 2211-005-U01-N011	
DRAWN BY: JCS	DATE DRAWN: 05/03/2022
08/18/22 PERMIT JCS	
NO. DATE	DESCRIPTION BY
REVISIONS	
SHEET NUMBER	
SWF-2	
2 OF 12	

POLE TO BE REPLACED WITH
40 FOOT, CLASS 2 POLE

FOR NORMAL SOIL CONDITIONS THE MINIMUM
POLE EMBEDMENT DEPTH WOULD BE 6-FEET
BELOW GRADE

x3 (MOUNTED AROUND
POLE PER AZIMUTHS ON
DETAIL 1, SHEET SWF-7)



1 EXISTING EAST ELEVATION
SCALE: 1" = 5'-0"

2 PROPOSED EAST ELEVATION
SCALE: 1" = 5'-0"

PROPOSED EQUIPMENT KEY:

- 1 (3) ERICSSON 6705 NR RADIOS w/ ANTENNAS, MODEL NO. 6705 14.40" x 7.90" x 5.90" (HxWxD) - 31.00 lbs. ea.
- 2 (3) AIRSCALE - HORIZONTAL RADIO MOUNT BRACKET PART NO. ERICSSON - AIR BRACKET 3.9" x 7.9" x 11.8" (HxWxD) - 13.7 lbs.
- 3 NOT USED
- 4 2" NON-METALLIC U-GAURD ATTACHMENT FOR FIBER/COAXIAL CABLES
- 5 HOFFMAN BOX PART NO. A161606 (OR EQUIVALENT) 16.0" x 10.0" x 6.0" (HxWxD) - 13.7 lbs.
- 6 CHARLES FIBER DEMARC PART NO. CFIT-C (OR EQUIVALENT) 18.00" x 18.00" x 6.00" (HxWxD) - 15.0 lbs.
- 7 AC DISCONNECT BOX PART NO. BA206 (OR EQUIVALENT) 12.60" x 8.90" x 4.30" (HxWxD) - 9.70 lbs.
- 8 PROPOSED 40' CLASS 2 WOOD POLE (TO REPLACE EXISTING)
- 9 PROPOSED BURIED QUAZITE ENCLOSURE TO HOUSE GROUND ROD AND IN-LINE FUSES FOR SMALL CELL POWER DISCONNECT (QUAZITE COVER SHALL CORRECTLY IDENTIFY OWNER ON LID "ID PLACARD") (TO BE INSTALLED BY OTHERS)
- 10 (1) PROPOSED UNDERGROUND POWER CONDUIT (TO BE INSTALLED BY OTHERS)
- 11 (1) PROPOSED FIBER CONDUIT (TO BE INSTALLED BY OTHERS)
- 12 (2) PROPOSED 2" RIGID CONDUIT FOR POWER & FIBER (TO BE INSTALLED BY OTHERS)

PROPOSED RF:

RADIO	AZIMUTH		
	A	B	C
5G	0°	120°	240°

TOTALS:

TOTAL WEIGHT 172.5 LBS
TOTAL VOLUME OF EQUIPMENT 3.75 ft³

EXISTING EQUIPMENT KEY:
(EQUIPMENT TO REMAIN)

- A EXISTING COMED WOOD POLE (TO BE REPLACED)
- B EXISTING SECONDARY POWER SUPPLY FEED ATTACHMENTS (RELOCATED AS SHOWN)

ENGINEER:
CCSI
NETWORKS

A NETWORK CONNEkT COMPANY

5101 THATCHER RD.
DOWNERS GROVE, IL 60515
OFFICE 630.572.9999 • FAX 630.572.9998

OWNER:

CC CROWN
CASTLE

CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
SUITE 500
HOUSTON, TX 77064

CONTRACTOR:

TBD

TITLE:
PROPOSED
SMALL CELL NODE

55TH ST & WESTERN AVE SC
CLARENDON HILLS,
DuPAGE, IL 60514

CROWN CASTLE ID:
CTRL_HINSDALEA_11

HUB:
CH VZB DOWNERS GROVE

SCU: 507683 PSLOC: 539618

PROJECT NUMBER:
2211-005-U01-N011

DRAWN BY: JCS DATE DRAWN: 05/03/2022

08/18/22 PERMIT JCS
NO. DATE DESCRIPTION BY

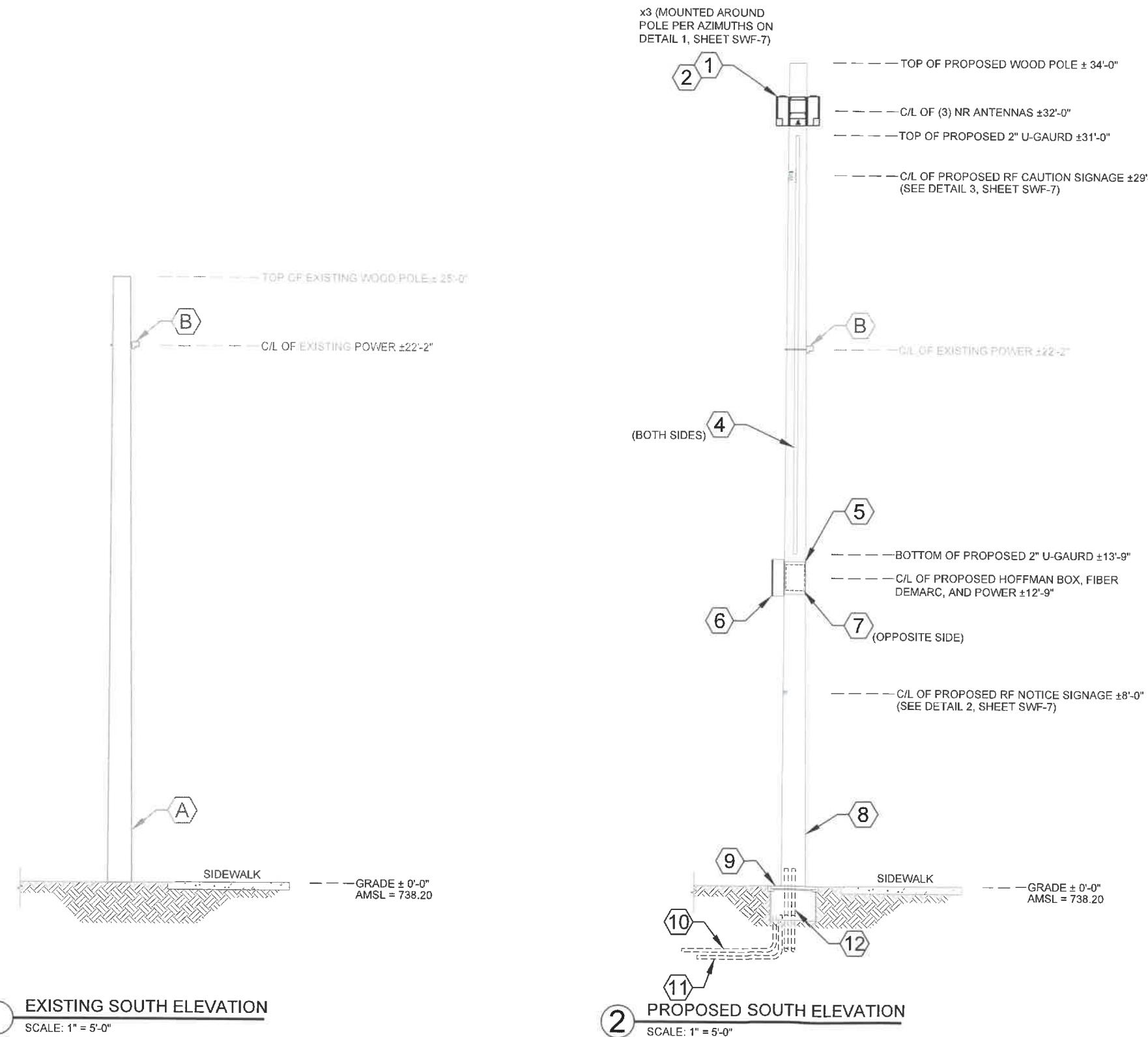
REVISIONS

SHEET NUMBER

SWF-4

POLE TO BE REPLACED WITH
40 FOOT, CLASS 2 POLE

FOR NORMAL SOIL CONDITIONS THE MINIMUM
POLE EMBEDMENT DEPTH WOULD BE 6-FEET
BELOW GRADE



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PROPOSED RF:

RADIO	AZIMUTH		
	A	B	C
5G	0°	120°	240°

TOTALS:

TOTAL WEIGHT 172.5 LBS
TOTAL VOLUME OF EQUIPMENT 3.75 ft³

EXISTING EQUIPMENT KEY:
(EQUIPMENT TO REMAIN)

(A) EXISTING COMED WOOD POLE (TO BE REPLACED)

(B) EXISTING SECONDARY POWER SUPPLY FEED ATTACHMENTS (RELOCATED AS SHOWN)

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NETWORKS

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OWNER:

CROWN CASTLE

CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
SUITE 500
HOUSTON, TX 77064

CONTRACTOR:

TBD

TITLE:
PROPOSED
SMALL CELL NODE

55TH ST & WESTERN AVE SC
CLARENDON HILLS,
DuPAGE, IL 60514

CROWN CASTLE ID:
CTRL_HINSDALEA_11

HUB:
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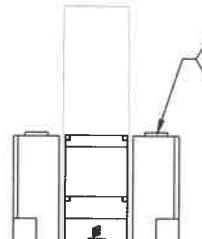
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SHEET NUMBER

SWF-5

PROPOSED EQUIPMENT DETAILS



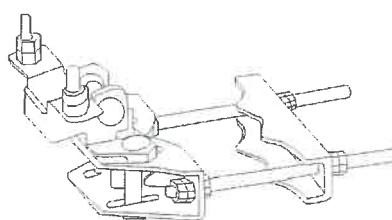
7.90"

5.90"

FRONT

SIDE

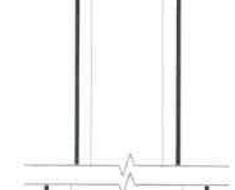
1 "ERICSSON" NR ANTENNA
SCALE: 1" = 2'-0"



WEIGHT: 13.7 LBS
SIZE (HxWxD): 3.9x7.9x11.8 IN.

2 "ERICSSON" AIR BRACKET
SCALE: NONE

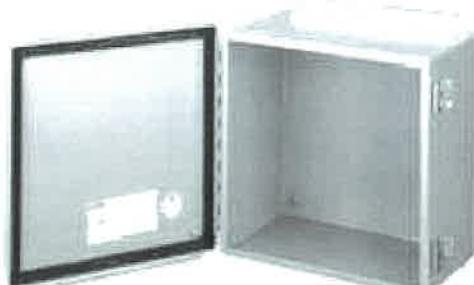
NOT USED
NONE



NOT USED
NONE

NOT USED
NONE

NOT USED
NONE



OUTDOOR RATED
(2) CONDUCTOR
12AWG SO-CABLE

E

F

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5 "HOFFMAN" JUNCTION BOX
SCALE: NONE

8.9"
12.6"
4.3"
8.9"
12.6"
4.3"

FRONT

SIDE

TOP

1 WIRING DIAGRAM
SCALE: N.T.S.

7 AC DISCONNECT BOX
SCALE: 1" = 2'-0"

NOT USED
NONE

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- 8 PROPOSED 40' CLASS 2 WOOD POLE (TO REPLACE EXISTING)

VOLUME TABLES:

CALL OUT	DESCRIPTION OF ELEMENT	CUBIC VOLUME OF ELEMENT	VILLAGE USE ONLY
1	5G RADIO	1.16 ft ³	

CALL OUT	DESCRIPTION OF ELEMENT	CUBIC VOLUME OF ELEMENT	VILLAGE USE ONLY
2	RADIO MOUNT BRACKET	0.63 ft ³	
5	HOFFMAN BOX	0.55 ft ³	
6	CHARLES FIBER DEMARC	1.12 ft ³	
7	AC DISCONNECT	0.27 ft ³	

PROPOSED CONCEALMENT NOTES:

ALL PROPOSED ITEMS ARE TO BE PAINTED TO MATCH THE POLE.

ENGINEER:
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A NETWORK CONNE COMPANY
5101 THATCHER RD.
DOWNERS GROVE, IL 60515
OFFICE 630.572.9999 • FAX 630.572.9998
OWNER:

CROWN CASTLE

CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
SUITE 500
HOUSTON, TX 77604

CONTRACTOR:

TBD

TITLE:
PROPOSED
SMALL CELL NODE

55TH ST & WESTERN AVE SC
CLARENDON HILLS,
DuPAGE, IL 60514

CROWN CASTLE ID:
CTRL_HINSDALEA_11

HUB:
CH VZB DOWNERS GROVE

SCU: 507683 PSLOC: 539618

PROJECT NUMBER:
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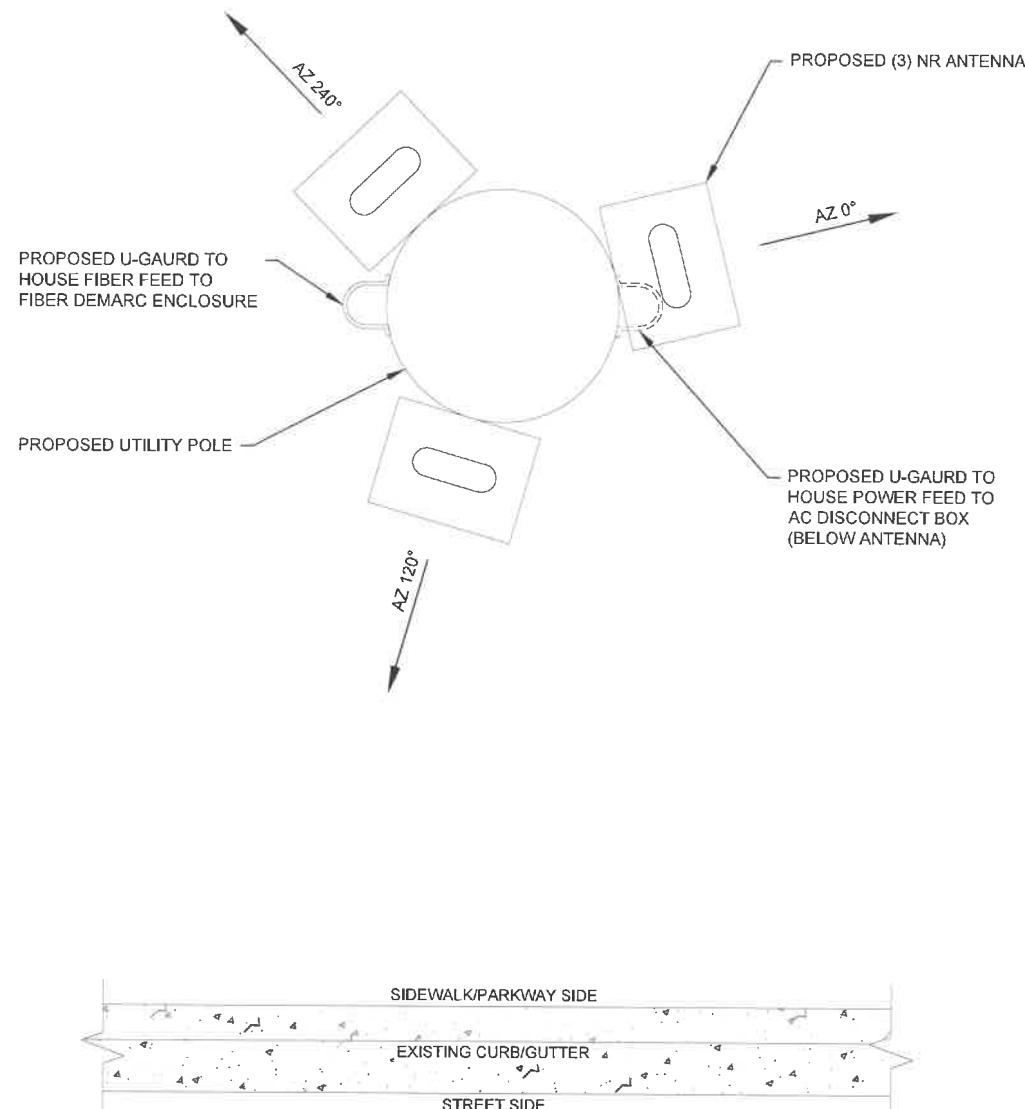
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REVISIONS

SHEET NUMBER

SWF-6

NOTES:

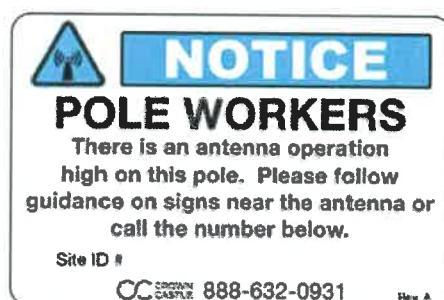
1. ANY AND ALL DAMAGE TO POLE DUE TO CONSTRUCTION & INSTALLATION OF THIS APPLICATION SHALL BE REPAIRED AT THE COST OF THE CONTRACTOR
2. CONTRACTOR SHALL RESTORE OR REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION
3. FIBER DESIGN BY OTHERS



1 OVERHEAD POLE DETAIL
SCALE: N.T.S.



3 RF CAUTION SIGNAGE
SCALE: N.T.S.



2 RF NOTICE SIGNAGE
SCALE: N.T.S.

ENGINEER:
CCSI
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REVISIONS
SHEET NUMBER

SWF-7

-48 VDC POWER CABLE	
CONDUCTOR	COLOR CODE
POSITIVE	RED
NEGATIVE	BLACK

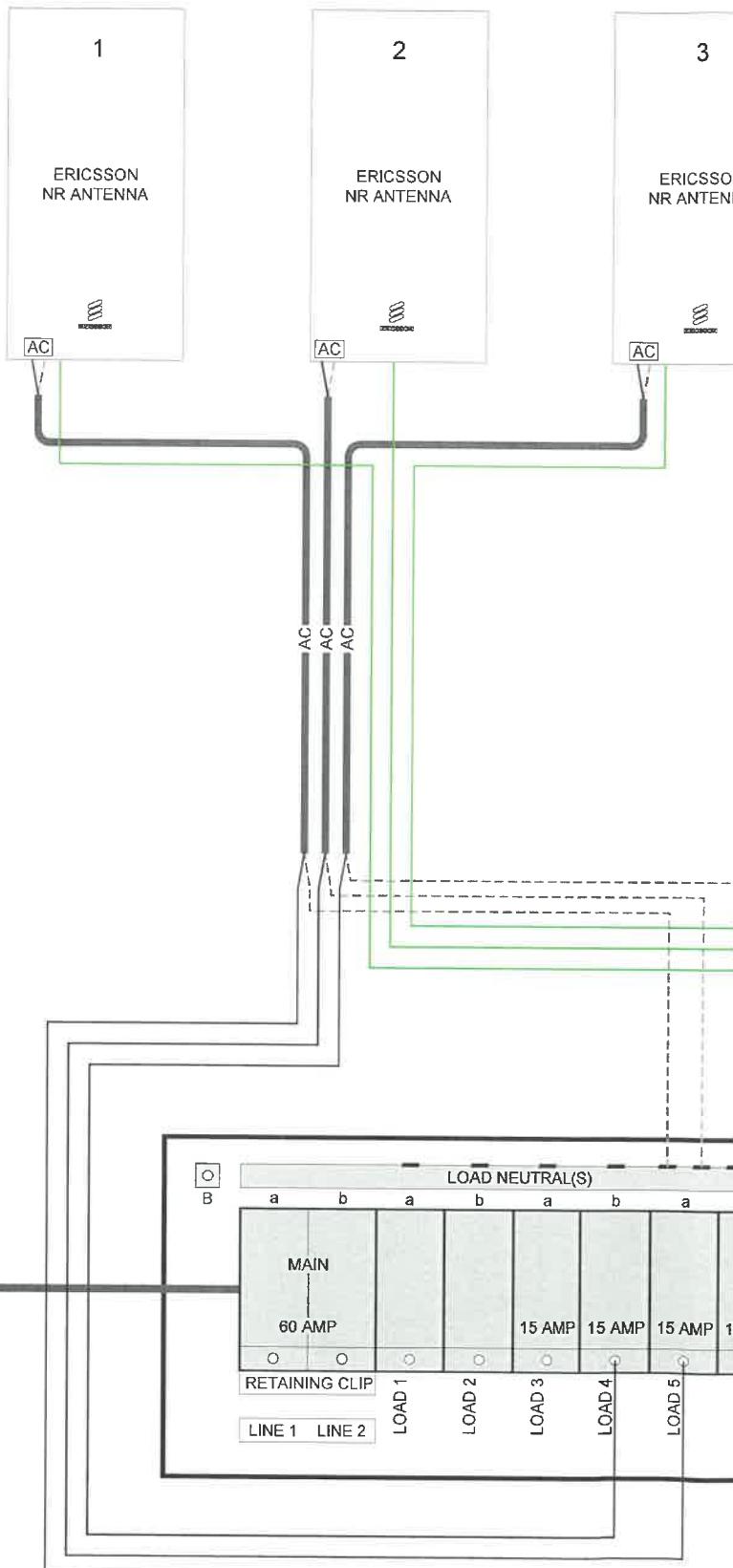
A/C POWER CABLE	
CONDUCTOR	COLOR CODE
POSITIVE	BLACK
NEUTRAL	WHITE (DASHED)

CABLE TYPE	COLOR CODE
GROUND CABLE	GREEN

NOTES:

1. ALL INSTALLED CABLES TO BE RUN WITHIN EXISTING POLE WHEREVER POSSIBLE
2. ALL INSTALLED CABLES TO HAVE PROPER TAGGING IDENTIFICATION ASSIGNED

ERICSSON NR w/ ANTENNAS SECTOR



12/2 SOOW SPECIFICATIONS:

AWG SIZE: 12
NO. OF CONDUCTORS: 2
CONDUCTOR STRANDING: 65/30
NO. OF STRANDS: 65
STRAND SIZE: 30
NOMINAL INSULATION THICKNESS (in): 0.045
JACKET THICKNESS (in): 0.090
NOMINAL O.D. OF CABLE (in): 0.570
AMPS: 25
APPROXIMATE LBS/MFT: 195
UL STYLE: SOOW
CSA TYPE: SOOW
VOLTAGE: 600
MAXIMUM TEMPERATURE: 90°C
CONDUCTOR MATERIAL: BARE COPPER
INSUL. MATERIAL: ETHYLENE PROPYLENE DIENE MONOMER RUBBER (EPDM)
JACKET MATERIAL: CHLORINATED POLYETHYLENE (CPE)
JACKET COLOR: BLACK

LOAD CENTER EQUIPMENT SCHEDULE

EQUIPMENT	RATING	PART NO.
LOAD CENTER BOX	N/A	QC6-12L-100RB
RETAINING CLIP	N/A	PK2MB
MAIN BREAKER	60 AMP	Q0260
INDIVIDUAL BREAKER	15 AMP	Q0115

ENGINEER:



A NETWORK CONNEX COMPANY

5101 THATCHER RD.
DOWNERS GROVE, IL 60515
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OWNER:



CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
SUITE 500
HOUSTON, TX 77604

CONTRACTOR:

TBD

TITLE:
PROPOSED
SMALL CELL NODE

55TH ST & WESTERN AVE SC
CLARENDON HILLS,
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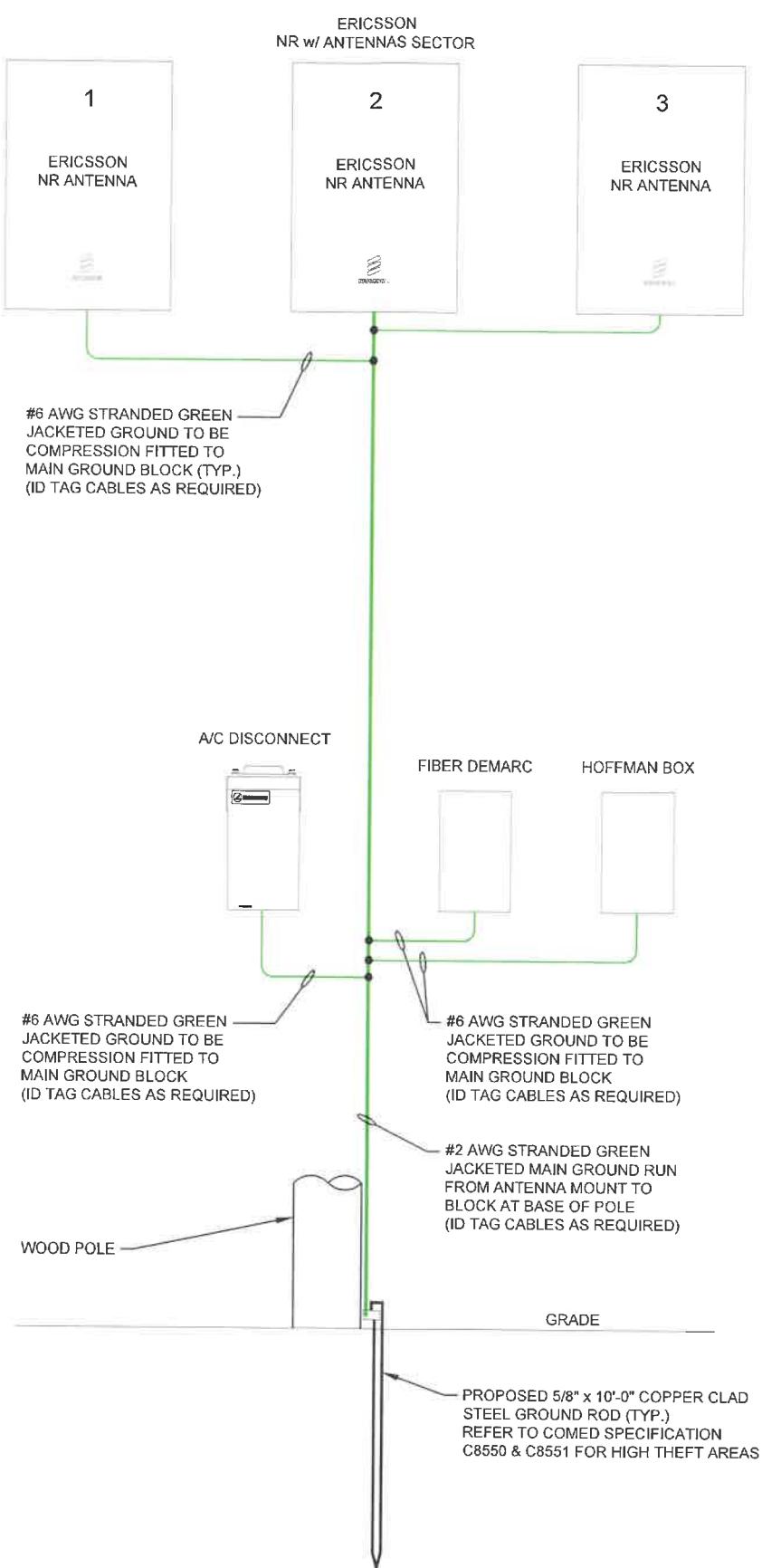
REVISIONS

SHEET NUMBER

SWF-8

NOTES:

1. GROUNDING RISER FOR DIAGRAMMATIC PURPOSES ONLY. SEE ELEVATION DRAWINGS FOR ACTUAL EQUIPMENT AND ANTENNA LOCATIONS.
2. ALL GROUNDING CONDUCTORS TO BE PROTECTED FROM TAMPERING.



① GROUNDING RISER DIAGRAM
SCALE: N.T.S.

GROUNDING LEGEND:

- MECHANICAL CONNECTION
- COMPRESSION CONNECTION

CABLE TYPE	COLOR CODE
GROUND CABLE	GREEN

ENGINEER:
CCSI
NETWORKS

A NETWORK CONNEC COMPANY
5101 THATCHER RD.
DOWNERS GROVE, IL 60515
OFFICE 630.572.9999 • FAX 630.572.9998

OWNER:

CROWN CASTLE

CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
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SWF-9

GENERAL NOTES:

1. THESE NOTES SHALL BE CONSIDERED A PART OF THE WRITTEN SPECIFICATIONS.
2. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED IN THE CONTRACT DOCUMENTS.
3. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR(S) SHALL VISIT THE JOB SITE(S) AND BE RESPONSIBLE FOR ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED PER THE CONTRACT DOCUMENTS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE IMPLEMENTATION CONSTRUCTION/PROJECT MANAGER AND ENGINEER/CONSTRUCTION/PROJECT MANAGER.
4. THE CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED ON ANY WORK NOT CLEARLY DEFINED OR IDENTIFIED IN THE CONSTRUCTION DOCUMENTS BEFORE STARTING ANY WORK.
5. ALL WORK PERFORMED AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES, INCLUDING APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. IF THESE RECOMMENDATIONS ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS AND/OR APPLICABLE CODES OR REGULATIONS, REVIEW THE CONFLICT FOR DIRECTION WITH THE IMPLEMENTATION CONSTRUCTION/PROJECT MANAGER AND ENGINEER/CONSTRUCTION/PROJECT MANAGER PRIOR TO PROCEEDING.
7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER THE CONTRACT INCLUDING CONTACT AND COORDINATION WITH THE IMPLEMENTATION CONSTRUCTION/PROJECT MANAGER AND WITH THE AUTHORIZED REPRESENTATIVE OF ANY OUTSIDE POLE OR PROPERTY OWNER.
8. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, PAVING, CURBS, SIDEWALKS, ADA RAMPS, VEGETATION, GALVANIZED SURFACE OR OTHER EXISTING ELEMENTS AND UPON COMPLETION OF THE WORK, REPAIR ANY DAMAGE THAT OCCURRED DURING CONSTRUCTION TO THE SATISFACTION OF MUNICIPALITY OR PROPERTY OWNER.
9. KEEP THE GENERAL AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH, AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. LEAVE PREMISES IN CLEAN CONDITION DAILY.
10. PLANS ARE INTENDED TO BE DIAGRAMMATIC ONLY AND SHOULD NOT BE SCALED UNLESS OTHERWISE NOTED. RELY ONLY ON ANNOTATED DIMENSIONS AND REQUEST INFORMATION IF ADDITIONAL DIMENSIONS ARE REQUIRED.
11. THE EXISTENCE AND LOCATION OF UTILITIES AND OTHER AGENCY'S FACILITIES ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. OTHER FACILITIES MAY EXIST BEYOND WHAT IS NOTED. CONTRACTOR SHALL VERIFY LOCATIONS PRIOR TO START OF CONSTRUCTION AND USE EXTREME CARE AND PROTECTIVE MEASURES TO PREVENT DAMAGE TO THESE FACILITIES. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES OR OTHER AGENCY'S FACILITIES WITHIN THE LIMITS OF THE WORK, WHETHER THEY ARE IDENTIFIED IN THE CONTRACT DOCUMENTS OR NOT.
12. ALL MOUNTING HARDWARE SUCH AS BOLTS, NUTS, LAG SCREWS, CLEVIS, CONDUIT STRAPS, STAPLES, (ANYTHING EXPOSED AND CONNECTING EQUIPMENT TO THE POLE) SHALL BE HOT DIPPED GALVANIZED, UNLESS OTHERWISE STATED. ANY DAMAGE CAUSED TO PAINTED AREAS SHALL BE TOUCHED-UP AS REQUIRED.

WIRELESS CARRIER CONSTRUCTION NOTES:

1. CONTRACTOR IS TO FOLLOW MOST CURRENT WIRELESS CARRIER NADV/STANDARDS DOCUMENTS PROVIDED TO COMPLETE THIS INSTALLATION.
2. CONTRACTOR TO REFER TO THE MOST CURRENT WIRELESS CARRIER NADV FOR APPROVED COAXIAL PROVIDERS AND LINE SWEEP TESTING PROCEDURES.
3. CONTRACTOR SHALL INCLUDE AT LEAST ONE "ANRITSU" CERTIFIED LINE SWEEP TECHNICIAN ON SITE DURING ANY WIRELESS CARRIER JOB RELATED TO INSTALLATION OR MAINTENANCE OF COAXIAL CABLE, ANTENNAS, TT-LNA, RF CONNECTORS, JUMPERS, OR DIPLEX FILTERS.
4. CONTRACTOR SHALL COMPLETE WIRELESS CARRIER PROVIDED "SMALL CELL SWEEP REPORT" WITH ALL INFORMATION FILLED IN ACCURATELY AND COMPLETELY.
5. CONTRACTOR TO REFER TO THE MOST CURRENT WIRELESS CARRIER NADV FOR APPROVED "PIM" TEST EQUIPMENT AND GUIDELINES.
6. CONTRACTOR IS TO USE BATTERY POWERED "PIM" EQUIPMENT TO VALIDATE THE FINAL LOCATION OF THE COAXIAL JUMPER AND ANTENNA ARE FREE OF INTERNAL AND EXTERNAL "PIM" SOURCES.
7. CONTRACTOR SHALL PROVIDE AT LEAST ONE TECHNICAL LEAD THAT IS CERTIFIED AND PROFICIENT IN EXECUTING, INTERPRETING, AND RECORDING "PIM" MEASUREMENTS.
8. ALL CABLE AND CABLE EQUIPMENT IDENTIFICATION TAGGING SHALL BE PLASTIC TAGS WITH WAX STRINGS FOR "FIBER" AND "POWER" WITHIN THE QUAZITE ENCLOSURE AND ON THE LIGHT POLE, AND SHALL COMPLY WITH THE LATEST WIRELESS CARRIER STANDARDS.
9. THE LOGO PLACARD ON THE COVER OF THE QUAZITE ENCLOSURE SHALL CLEARLY IDENTIFY OWNER.

ROW POWER CONSTRUCTION NOTES:

1. 120/240 POWER OR 120/208 SECONDARY REQUIRED FOR 3-WIRE SERVICE.
2. SECONDARY POWER SHALL BE DEPENDANT ON CURRENT AVAILABILITY(@ 3% DROP MIN. 60 AMPS), OR ESTABLISHED BY LOCAL POWER COMPANY DURING ACTUAL POWER WALK.
3. POWER ROUTE, WIRE, AND RACEWAY SIZE WILL BE DETERMINED DURING UNDERGROUND OR OVERHEAD ENGINEERING PROCESS.
4. GENERAL CONTRACTOR TO REMOVE/CLEAN ALL DEBRIS, NAILS, STAPLES, OR NON-USED VERTICALS OFF THE POLE.
5. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MUNICIPAL, COUNTY, STATE, AND FEDERAL REGULATIONS.
6. CALL CHICAGO DIGGERS HOTLINE AT 1-312-744-7000 48 HOURS PRIOR TO EXCAVATING.
7. ALL LANDSCAPING TO BE RESTORED TO ORIGINAL CONDITION OR BETTER.
8. ALL EQUIPMENT TO BE BONDED AS REQUIRED BY LOCAL CODES AND CLIENT REQUIREMENTS.
9. ALLOW 3' CLEARANCE AT METERING CABINET DOOR OPENING (IF REQUIRED).

ENGINEER:
 **CCSI**
NETWORKS

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OWNER:
 **CROWN**
CASTLE
CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
SUITE 500
HOUSTON, TX 77604

CONTRACTOR:

TBD

TITLE:
PROPOSED
SMALL CELL NODE
55TH ST & WESTERN AVE SC
CLARENDON HILLS,
DuPAGE, IL 60514

CROWN CASTLE ID:
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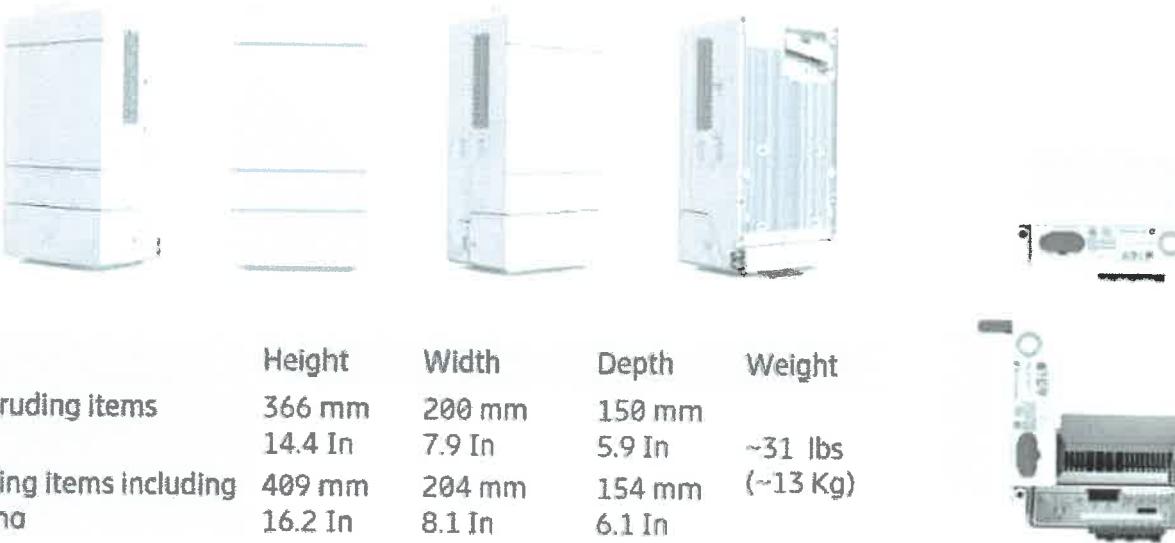
SHEET NUMBER

SWF-12

PROPOSED CONCEALMENT NOTES:

ALL PROPOSED ITEMS ARE TO BE PAINTED TO MATCH THE POLE.

Streetmacro 6705 Mechanical



SM 6705	Height	Width	Depth	Weight
without protruding items	366 mm 14.4 In	200 mm 7.9 In	150 mm 5.9 In	~31 lbs (~13 Kg)
with protruding items including GNSS antenna	409 mm 16.2 In	204 mm 8.1 In	154 mm 6.1 In	

Streetmacro 6705

Spectrum	28GHz (n261/257) 39 GHz (n260) 24GHz (n258)
IBW	Full band
Total Carrier BW	800 MHz, continuous/non-continuous carriers
EIRP	59 dBm (CM1, 800MHz config), 62dBm (CM2, 400MHz)
EIS	-116/-113 dBm (CM1, 800MHz config)
Layers:	2@800 MHz, 4@400MHz
Modulation	64/64 (256) QAM UL/DL
Service Angular Range:	± 60°, ±15°
Total Antenna BW	1600 MHz
Throughput	~ 5 Gbps DL / 1 Gbps UL
Synchronization	1588v2, GNSS
Power Consumption	<350 W typical, <500 W Max
Weight	~ 13 kg
Dimensions	366x150x200 mm wo protrusions 409x154x204 mm w protrusions (eg GNSS)
Operational conditions	-40 to +55 degrees
Cooling	Active
Power	AC, 100-250 V
IP Class	IP 65



EQUIPMENT SPECIFICATIONS SUPPLEMENT
INDEX OF DRAWINGS:

SHEET TITLE
SWF-S.1 6705 ERICSSON NR ANTENNA SPECIFICATIONS

ENGINEER:
CCSI
NETWORKS

A NETWORK-CONNEX COMPANY

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DOWNERS GROVE, IL 60515
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OWNER:
CROWN CASTLE
CROWN CASTLE FIBER
7220 N. SAM HOUSTON PARKWAY WEST
SUITE 500
HOUSTON, TX 77604

CONTRACTOR:
TBD

TITLE:
PROPOSED
SMALL CELL NODE

55TH ST & WESTERN AVE SC
CLARENDON HILLS,
DuPAGE, IL 60514

CROWN CASTLE ID:
CTRL_HINSDALEA_11

HUB:
CH VZB DOWNERS GROVE

SCU: 507683 PSLOC: 539618

PROJECT NUMBER:
2211-005-U01-N011

DRAWN BY: DATE DRAWN:
JCS 05/03/2022

08/18/22 PERMIT JCS
NO. DATE DESCRIPTION BY

REVISIONS

SHEET NUMBER

SWF-S.1