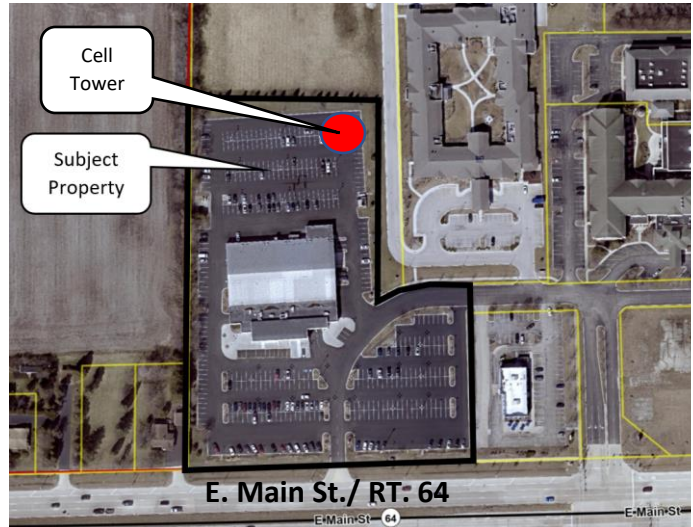




Staff Report  
Plan Commission Meeting – March 7, 2023

<b>Applicant:</b>	Melissa Olson, DRA Properties
<b>Property Owner:</b>	St. Charles VW Real Estate
<b>Location:</b>	4050 E. Main St./ RT. 64
<b>Purpose:</b>	Construct Communication Tower on site
<b>Applications:</b>	Special Use for Communication Tower
<b>Public Hearing:</b>	Yes, required
<b>Zoning:</b>	BR Regional Business
<b>Current Land Use:</b>	Commercial
<b>Comprehensive Plan:</b>	Corridor/ Regional Commercial

VW Site – Verizon Cell Tower



Subject Property

<b>Summary of Proposal:</b>	<p>Application for Special Use has been submitted to construct a Communication Tower on the northeast portion of the property. A Communication Tower is a permitted Special Use in the BR- Regional Business District. A Site Plan has been provided, proposing the following:</p> <ul style="list-style-type: none"> <li>• 145ft communication tower located at the northeast corner of the property</li> <li>• Removal of 6 parking spaces</li> <li>• 20'x 30' fenced lease area for tower and equipment</li> </ul>
<b>Info / Procedure on Application:</b>	<p><b>Special Use:</b></p> <ul style="list-style-type: none"> <li>• Per Sec. 17.04.330, the purpose of a Special Use is as follows: “Special Uses listed within the various zoning districts include those uses that may be acceptable if established in an appropriate manner and location within a zoning district, but may not be acceptable if established in a different manner or location. Special Uses may include, but are not limited to, public and quasi-public uses affected with the public interest, and uses that may have a unique, special or unusual impact upon the use or enjoyment of neighboring property.”</li> <li>• Public hearing is required, with a mailed notice to surrounding property owners.</li> <li>• 6 findings of fact – ALL findings must be in the affirmative to recommend approval.</li> </ul>
<b>Suggested Action:</b>	See Section V “Suggested Action” for the Commission’s options regarding action on this application, given an issue regarding a restriction on cell towers in the subdivision’s Declaration of Covenants.
<b>Staff Contact:</b>	Rachel Hitzemann, Planner

I. PROPERTY INFORMATION

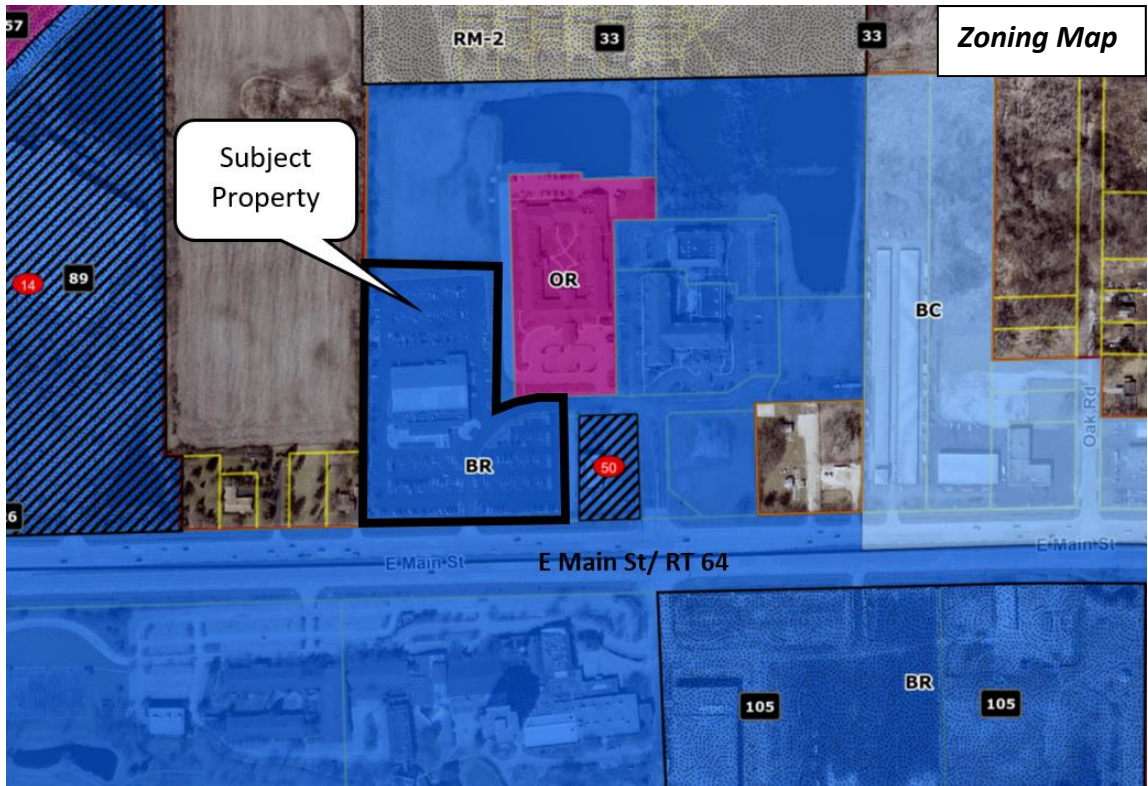
**A. History / Context**

The subject property, 4050 E. Main St., is located on the East side of town across from the Pheasant Run property. The parcel is approx. 6.86 acres in size. The existing building on the site is home to a Volkswagen Dealership. The Dealership will remain operating at this location, and the applicant will just lease a small portion of the site. A Verizon communication tower was previously located on the Pheasant Run resort tower, but due to the circumstances surrounding that property Verizon is looking to relocate the tower.

**B. Zoning**

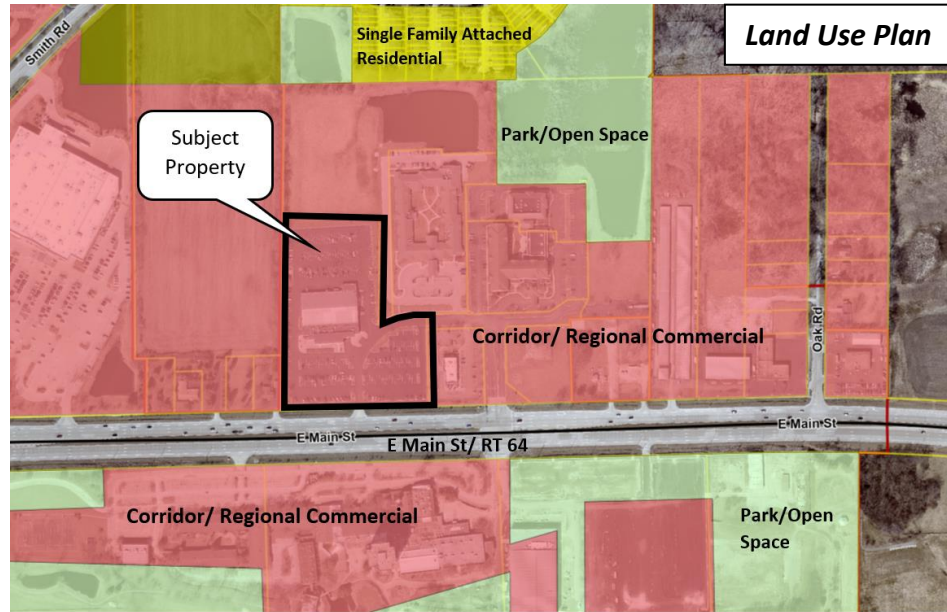
The subject property is zoned BR Regional Business District. The same zoning designation exists adjacent to the property on the north, south and east along Main St. East of the property there is also an OR-Office Research parcel. West of the property is unincorporated DuPage County, which is zoned R-3 Single family and O-R Office Research.

	Zoning	Land Use
<b>Subject Property</b>	BR Regional Business	Volkswagen Dealership
<b>North</b>	BR Regional Business	Vacant Lot
<b>East</b>	BR Regional Business & OR-Office Research	Commercial – Culvers Residential- Silverado Memory Care
<b>South</b>	BR- Regional Business	Commercial- Pheasant Run
<b>West</b>	Unincorporated (R-3 Single Family & O-R Office Research)	Residential & Agriculture



**C. Comprehensive Plan**

The subject property is designated Corridor/ Regional Commercial in the Land Use Plan adopted as part of the 2013 Comprehensive Plan. All adjacent properties have the same designation, which is intended for larger shopping centers and developments that have a more regional draw.



The Corridor/Regional Commercial land use category is described as follows:

*Areas designated as corridor/regional commercial are intended to accommodate larger shopping centers and developments that serve a more regional function, drawing on a customer base that extends beyond the City limits. These areas often have a mix of “big box” stores, national retailers, and a “critical mass” of multiple stores and large shared parking areas. Areas designated for corridor/regional commercial are located primarily in larger consolidated areas along the City’s heavily traveled corridors and intersections. Commercial service uses can also have an appropriate place in corridor/ regional commercial areas, but must be compatible with adjacent and nearby retail and commercial shopping areas and be located as to not occupy prime retail locations. (p.39)*

**II. PLANNING ANALYSIS**

Staff has analyzed the submitted application and plans for conformance with the standards established in applicable sections of the Zoning Ordinances, including:

- Ch. 17.22 General Provisions
- Ch. 17.24 Off-Street Parking, Loading & Access
- Ch. 17.14 Business & Mixed Use Districts

**A. Proposed Use**

Verizon is looking to lease a 20’ X 30’ portion in the northeast corner of this property to construct a 145’ communication tower and install necessary ground equipment.

“Communication Tower” is a Special Use in the BR Regional Business zoning district.

The Zoning Code defines a Communication Tower as;

*“A structure designed and constructed primarily for the purpose of supporting one or more Communication Antennas, including self-supporting lattice towers, guy towers*

*and monopole towers. This use includes radio and television transmission towers, personal communications service (PCS), microwave towers, common-carrier towers, cellular telephone towers, and the like. This use does not include any structure erected solely for a residential, non-commercial individual use, such as television reception antennas, satellite dishes or non-commercial wireless antennas (amateur radio). This use includes Wireless Support Structures supporting Small Wireless Facilities, as defined in and regulated by Chapter 13. 24 " Small Cell Wireless Facilities", when designed and constructed primarily for the purpose of supporting one or more Small Wireless Facilities."*

Per Sec. 17.04.330, the purpose of a Special Use is as follows:

*"Special Uses listed within the various zoning districts include those uses that may be acceptable if established in an appropriate manner and location within a zoning district, but may not be acceptable if established in a different manner or location. Special Uses may include, but are not limited to, public and quasi-public uses affected with the public interest, and uses that may have a unique, special or unusual impact upon the use or enjoyment of neighboring property."*

There are no specific Use Standards in the Zoning Ordinance for Communication Towers. There are six Findings of Fact for Special Uses, all of which must be found in the affirmative for the Plan Commission to recommend approval. The applicant has provided responses to the Findings of Fact, attached to the application.

**B. Bulk Standards**

The table below compares the proposed Site Plan with the applicable requirements of the BR District. Section 17.22.020 contains additional requirements for Communication Tower height and setbacks from residential districts, which are also noted in the table. All bulk standards appear to be met.

Category	BR District	Site Plan
<b>Min. Lot Area</b>	1 acre	6.86
<b>Max. Building Coverage</b>	30%	12% (existing)
<b>Max. GFA per Building</b>	None	36,323 (existing)
<b>Max. Tower Height</b>	150ft	145ft
<b>Tower Setbacks:</b>		
<i>Front (Main St.)</i>	20 ft.	631 ft.
<i>Interior Side (west)</i>	20 ft.	301 ft.
<i>Interior Side (east)</i>	15 ft.	41ft
<i>Rear (south)</i>	30 ft.	41 ft.
<i>From Residential Properties</i>	500 ft	538 ft and 542 ft

The Monopine tower and fenced enclosure meet all bulk requirements. Please note that the applicant chose to propose a monopine tower, which has the appearance of a pine tree, and that it was not something suggested or required by staff.



The parking spaces removed for this project are not required for the Dealership use and no changes to the dealership are proposed at part of this project.

### **C. Site Access**

The property is currently accessed via a driveway off of Main St./ RT. 64. No changes will be made to this drive as part of the proposed plan. An access easement over the site will be provided to the applicant from the property owner to conduct repair and maintenance on the tower.

### **III. DEPARTMENTAL REVIEWS**

City Staff reviewed the plans and provided technical comments to the applicant.

### **IV. DECLARATION OF COVENANTS**

This property is located within the Pheasant Run Crossing Subdivision which has a Declaration of Covenants, Conditions and Restrictions. Under that document, cell towers are not permitted. However, there is an appeal process that the applicant and property owner intend to initiate.

City staff has asked for clarification from the owner of the property on the appeal process and what exact steps are being taken to allow Cell Towers. The applicant has asked that the zoning approval process move forward with a condition of approval that the Declaration of Covenants, Conditions and Restrictions shall be amended to allow cell towers.

### **V. SUGGESTED ACTION**

The applicant has provided responses to the Findings of Fact for Special Use as part of the application. All six findings must be in the affirmative for the Commission to recommend approval.

Based on the outstanding item regarding the cell tower restriction in the subdivision Declaration of Covenants, the Plan Commission may choose to:

- a. Open the public hearing on the Special Use and immediately continue the item until clarification on resolution to the Declaration of Covenants can be provided.

OR

- b. Conduct the public hearing on the Special Use and continue the item until further clarification on resolution to the Declaration of Covenants can be provided.

*Due to the outstanding issue with the Declaration of Covenants, staff does not recommend closing the public hearing and making a recommendation. Part of the resolution to the Declaration may require a change in the plans, which would be easier to address as part of the current public hearing process.*

### **VI. ATTACHMENTS**

- Applications for Special Use; received 12/19/2022
- Plans
- Airspace Map & Study dated 10/6/2022

City of St. Charles  
 Community Development Division  
 2 E. Main Street  
 St. Charles, IL 60174



Phone: (630) 377-4443  
 Email: [cd@stcharlesil.gov](mailto:cd@stcharlesil.gov)

### SPECIAL USE APPLICATION

(To request a Special Use or Amendment, or a Special Use for PUD or Amendment)

<b>For City Use</b>	
Project Name:	VW SITE - VERIZON CELL TOWER
Project Number:	2022 -PR- 017
Cityview Project Number:	PLSU202200086



- File this application to request a Special Use for a property, or to request to amend an existing Special Use Ordinance for a property
- Complete the application and submit with all required attachments to the Community Development Division.
- The information you provide must be complete and accurate. If you have a question please contact the Community Development Division.
- City staff will review the submittal for completeness and for compliance with applicable requirements prior to establishing a public hearing date.

<b>1. Property Information:</b>	Location:	4050 E. Main Street, St. Charles, IL 60174	
	Parcel Number (s):	0130102045	0130102045
	Proposed Name:	Verizon Cell Tower	Verizon Cell Tower
<b>2. Applicant Information:</b>	Name:	DRA Properties, LLC	Phone: 314-890-8566
	Address:	343 S. Kirkwood Rd., #5, Box 220130 Kirkwood, MO 63122	Email: molson@dolanrealtyadvisors.com
<b>3. Record Owner Information:</b>	Name:	St. Charles VW Real Estate	Phone: 630-818-4150
	Address:	1421 E. Main Street, St. Charles, IL 60174	Email: emir@foxvalleyag.com

**4. Identify the Type of Application:**

- Special Use for Planned Unit Development - PUD Name:**
  - New PUD
  - Amendment to existing PUD- Ordinance #:
  - PUD Preliminary Plan filed concurrently
  
- Other Special Use (from list in the Zoning Ordinance): 17.22.020**
  - Newly established Special Use
  - Amendment to an existing Special Use Ordinance #:

**5. Information Regarding Special Use:**

Comprehensive Plan designation of the property: Neighborhood Commercial

Is the property a designated Landmark or in a Historic District? No

What is the property's current zoning? BR Regional Business District

What is the property currently used for? Car dealership

If the proposed Special Use is approved, what improvements or construction are planned?

Install a 145' cell tower on a leased area measuring 20' x 60'

**6. For Special Use Amendments only:**

Why is the proposed change necessary?

N/A

What are the proposed amendments? (Attach proposed language if necessary)

N/A

**Note for existing buildings:** If your project involves using an existing building, whether you plan to alter it or not, please contact the St. Charles Fire Department (630-377-4458) and the Building and Code Enforcement Division (630-377-4406) for information on building, life safety and other code requirements. Depending on the proposed use, size of structure and type of construction, these requirements can result in substantial costs.



**7. Required Attachments:**

If multiple zoning or subdivision applications will be submitted concurrently, do not submit duplicate checklist items or plans. Fee must be paid for each application.

**APPLICATION FEE:** Special Use for PUD: \$1,000  
All other Special Use requests: \$750

**REIMBURSEMENT OF FEES AGREEMENT:** An original, executed Reimbursement of Fees Agreement and deposit of funds in escrow with the City, as provided by Appendix B of the Zoning Ordinance.

**REIMBURSEMENT OF FEES INITIAL DEPOSIT:** Deposit of funds in escrow with the City. Required deposit is based on review items (number of applications filed) and the size of the subject property:

Number of Review Items	Under 5 Acres	5-15 Acres	16-75 Acres	Over 75 Acres
1	\$1,000	\$2,000	\$3,000	\$4,000
2 or 3	\$2,000	\$4,000	\$5,000	\$7,000
4 or more	\$3,000	\$5,000	\$7,000	\$10,000

**PROOF OF OWNERSHIP:** a) A current title policy report; or  
b) A deed and a current title search

*NOTE: Private covenants and deed restrictions can limit private property rights with respect to the use of land even though the City's Zoning Ordinance may authorize the use or a less restrictive use. We strongly advise that you perform a title search on the property to determine if there any private covenants containing use restrictions or other deed restrictions. As those private covenants and deed restrictions may conflict with the City's Zoning Ordinance, it is further recommended that you consult with an attorney to obtain an opinion with respect to whether your intended use is compatible with those restrictions.*

**OWNERSHIP DISCLOSURE:** Use the appropriate disclosure form (attached), if the owner or applicant is a Partnership, Corporation, Trust, or LLC.

**LETTER OF AUTHORIZATION:** If the property owner is not the applicant, an original letter of authorization from the property owner permitting the applicant to file the zoning application with the City of St. Charles for the subject property.

**LEGAL DESCRIPTION:** For entire subject property, on 8 1/2 x 11 inch paper and Microsoft Word file.

**PLAT OF SURVEY:** A current plat of survey for the subject property showing all existing improvements on the property, prepared by a registered Illinois Professional Land Surveyor.

**FINDINGS OF FACT:** Fill out the attached "Criteria for Planned Unit Developments (PUDs)" form for any PUD application and the "Findings of Fact – Special Use" form for all other Special Use applications.

**LIST OF PROPERTY OWNERS WITHIN 250 FT.:** Fill out the attached form or submit on a separate sheet. The form or the list must be signed and notarized. Property ownership information may be obtained using Kane County's interactive GIS mapping tool: [http://gistech.countyofkane.org/gisims/kanemap/kanegis4\\_AGOx.html](http://gistech.countyofkane.org/gisims/kanemap/kanegis4_AGOx.html)

**SOIL AND WATER CONSERVATION DISTRICT LAND USE OPINION APPLICATION:** As required by State law, submit a Land Use Opinion application and required fee directly to the Kane-DuPage Soil and Water Conservation District. Provide a copy of completed Land Use Opinion application to the City. The Land Use Opinion application can be found on the Kane-DuPage SWCD website: <http://www.kanedupageswcd.org/>



- ENDANGERED SPECIES REPORT:** As required by State law, file an Endangered Species Consultation Agency Action with the Illinois Department of Natural Resources. Provide a copy of the report to the City. The online Ecological Compliance Assessment Tool (EcoCAT) should be utilized: <https://dnr2.illinois.gov/EcoPublic/>
- TRAFFIC STUDY:** If applicable. Staff will advise you whether a traffic study is recommended based on the project. Regardless, the Plan Commission or City Council may request a traffic study as a part of the review process.
- PLANS:** All required plans shall be drawn on sheets no larger than 24" x 36", unless the Director of Community Development permits a larger size when necessary to show a more comprehensive view of the project. All required plans shall show north arrow and scale, and shall be drawn at the same scale (except that a different scale may be used to show details or specific features). All plans shall include the name of the project, developer or owner of site, person or firm preparing the plan, and the date of plan preparation and all revisions.

**Copies:** Ten (10) full size copies, one (1) 11" by 17", and PDF electronic file emailed to: [cd@stcharlesil.gov](mailto:cd@stcharlesil.gov)

**Site Plan or plans shall show the following information:**

1. Accurate boundary lines with dimensions
2. Streets on and adjacent to the tract: Name and right-of-way width
3. Location, size, shape, height, and use of existing and proposed structures
4. Location and description of streets, sidewalks, and fences
5. Surrounding land uses
6. Date, north point, and scale
7. Ground elevation contour lines
8. Building/use setback lines
9. Location of any significant natural features
10. Location of any 100-year recurrence interval floodplain and floodway boundaries
11. Location and classification of wetland areas as delineated in the National Wetlands Inventory
12. Existing zoning classification of property
13. Existing and proposed land use
14. Area of property in square feet and acres
15. Proposed off-street parking and loading areas
16. Number of parking spaces provided, and number required by ordinance
17. Angle of parking spaces
18. Parking space dimensions and aisle widths
19. Driveway radii at the street curb line
20. Width of driveways at sidewalk and street curb line
21. Provision of handicapped parking spaces
22. Dimensions of handicapped parking spaces
23. Depressed ramps available to handicapped parking spaces
24. Location, dimensions and elevations of freestanding signs
25. Location and elevations of trash enclosures
26. Provision for required screening, if applicable
27. Exterior lighting plans showing:
  - a. Location, height, intensity and fixture type of all proposed exterior lighting
  - b. Photometric information pertaining to locations of proposed lighting fixtures

**(Note- For a Special Use for PUD, submit PUD Preliminary Plan Application In lieu of Site Plan)**

**I (we) certify that this application and the documents submitted with it are true and correct to the best of my (our) knowledge and belief.**

---

Record Owner

Date

*Y. Melissa Olson*

*12/14/22*

---

Applicant or Authorized Agent

Date

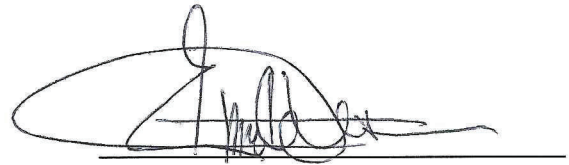
## Zoning Letter of Authorization

To: Rachel Hitzemann

City of St. Charles IL Planning & Zoning

I, Emir Abinion, am the authorized signer for St. Charles VW Real Estate LLC, owner of the property located at 4050 E. Main Street in St. Charles, IL.

I give Melissa Olson with DRA Properties, LLC permission to file this zoning application with the City of St. Charles for a proposed communications tower.

A handwritten signature in black ink, appearing to read 'Emir Abinion', is written over a solid horizontal line.

Emir Abinion

Date: 1/5/23

OWNERSHIP DISCLOSURE FORM  
LIMITED LIABILITY COMPANY (L.L.C.)

Missouri (M)  
STATE OF ILLINOIS )  
St. Louis ) SS.  
KANE COUNTY )

I, Douglas Dolan, being first duly sworn on oath depose and say that I am  
Manager of DRA Properties, an Illinois Limited Liability  
Company (L.L.C.), and that the following persons are all of the members of the said L.L.C.:

Douglas Dolan \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

By: Douglas Dolan, Manager

Subscribed and Sworn before me this 14<sup>th</sup> day of  
December, 20 22.

Margie D. Oliver  
Notary Public





## FINDINGS OF FACT – SPECIAL USE

**\*Use this form for all Special Uses, except for PUDs or PUD Amendments\***

*The St. Charles Zoning Ordinance requires the Plan Commission to consider the factors listed below in making a recommendation to the City Council. As the applicant, the "burden of proof" is on you to show how your proposed Special Use will comply with each of the applicable standards. Therefore, you need to "make your case" by explaining specifically how your project meets each of the following standards.*

**Project Name or Address:** DRA Properties, LLC

**From the St. Charles Zoning Ordinance, Section 17.04.430.C.2:**

No Special Use or amendment to Special Use shall be recommended by the Plan Commission unless it finds that the proposed Special Use or amendment to Special Use will conform with each of these standards. The Plan Commission shall submit its written findings together with its recommendations to the City Council after the conclusion of the Public Hearing, and also may recommend such conditions as it may deem necessary to ensure conformance with these standards.

On the basis of the evidence presented at the public hearing, the Plan Commission shall record its reasons for recommending approval or denial of the petition (findings of fact) in accordance with the following standards:

**A. Public Convenience: The Special Use will serve the public convenience at the proposed location.**

This tower will improve coverage and capacity to the City of St. Charles. It will also enhance E-911 services.

**B. Sufficient Infrastructure: That adequate utilities, access roads, drainage and/or necessary utilities have been, or are being, provided.**

The adequate utilities will be provided.

- C. **Effect on Nearby Property:** That the Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish or impair property values within the neighborhood.

The Special Use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor will substantially diminish or impair property values within the neighborhood.

- D. **Effect on Development of Surrounding Property:** That the establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

The establishment of the Special Use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.

- E. **Effect on General Welfare:** That the establishment, maintenance or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

The establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort, or general welfare. A cell tower is equivalent to a home wi-fi system or a baby monitor.

The establishment, maintenance, or operation of the Special Use will not be detrimental to or endanger the public health, safety, comfort or general welfare. A cell tower is equivalent to a home wi-fi system or baby monitor and falls within FCC regulations.

- F. **Conformance with Codes:** That the proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title, except as may be varied pursuant to a Special Use for Planned Unit Development.

The proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title.

The proposed Special Use conforms to all applicable provisions of the St. Charles Municipal Code and meets or exceeds all applicable provisions of this Title.



## NONRESIDENTIAL ZONING COMPLIANCE TABLE

Name of Development: *St. Charles VW Real Estate*

	Zoning District Requirement	Existing PUD Requirement (if applicable)	Proposed
	District: BR <input checked="" type="checkbox"/>	Ordinance #: Main Street, St. Charles	
Minimum Lot Area	1 acre		1,200 sqft.
Minimum Lot Width	None		20x60ft.
Maximum Building Coverage	30%		Outdoor cabinets
Maximum Gross Floor Area per Building	None		N/A
Maximum Building Height	40 ft.		145'
Front Yard	Min. 20ft.		42'
Interior Side Yard	Min. 15ft.		30'
Exterior Side Yard	Min 20ft.		30'
Minimum Rear Yard	30 ft.		15'
Landscape Buffer Yard <sup>2</sup>	40 ft.		N/A
% Overall Landscaped Area	75%		N/A
Building Foundation Landscaping	N/A		N/A
Public Street Frontage Landscaping	Yes		Yes
Parking Lot Landscaping			N/A
# of Parking Spaces			6
Drive-through Stacking Spaces (if applicable)	N/A		N/A.

<sup>2</sup> Within the zoning districts specified, a Landscape Buffer Yard shall be provided along any lot line that abuts or is across a street from property in any RE, RS, RT or RM District. See Chapter 17.26 for planting and screening requirements for Landscape Buffers. Landscape Buffer Yards may include or overlap with other required yards.

### **Documentation that lead to this location**

The city has a 500' setback from residential property. This is the only location based on the search ring we were given.

The DuPage airport is in close proximity to our location and we needed to stay out of the protected airspace.





# FULL RELO SMITH & MAIN CELL SITE

LOCATION NO. 711056  
PROJECT NO. 20222341126

IL-64  
ST CHARLES, IL 60174  
DUPAGE COUNTY

145' MONOPINE TOWER  
WITH COMMUNICATIONS EQUIPMENT



CERTIFICATION:  
**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-29-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-23	90% CDs

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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

PROJECT INFORMATION,  
LOCATION MAPS,  
AND DRAWING INDEX

A&E PROJECT NO.:

SHEET NO.:

T-1



**APPLICANT**  
VERIZON WIRELESS  
DAVID HENDRIXSON  
1701 GOLF ROAD, TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PH: (231) 578-8860  
EMAIL: DAVID.HENDRIXSON@  
VERIZONWIRELESS.COM

**SITE ACQUISITION**  
DOLAN REALTY ADVISORS, LLC  
DOUG DOLAN  
343 S. KIRKWOOD ROAD #5  
BOX# 220130  
KIRKWOOD, MO 63122  
PH: (314) 963-7700  
EMAIL:  
DDOLAN@DOLANREALTYADVISORS.COM

**SURVEYOR**  
WILLIAMS & WORKS  
BILL MCCLURE  
549 OTTAWA AVE NW  
GRAND RAPIDS, MI 49503  
PH: (616) 224-1500  
EMAIL:  
MCCLURE@WILLIAMS-WORKS.COM

**ARCHITECTURAL AND ENGINEERING**  
MISSION 1 COMMUNICATIONS  
MARK ALLEN  
6202 CONSTITUTION DRIVE, SUITE C  
FORT WAYNE, IN 46804  
PH: (260) 436-3922  
EMAIL: M.ALLEN@M1COMM.COM

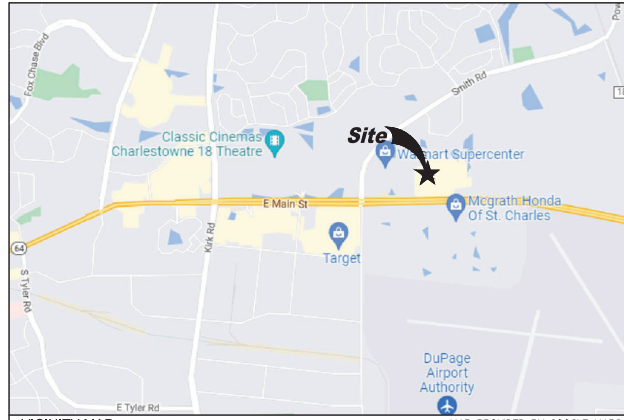
**UTILITIES - ELECTRIC**  
TBD

**UTILITIES - FIBER**  
TBD  
FIBER PROVIDER NOT SELECTED  
AT THE TIME OF RELEASE

**POLICE DEPARTMENT**  
ST CHARLES POLICE DEPT  
1515 W MAIN ST,  
ST. CHARLES, IL 60174  
PH: (630) 377-4435

**FIRE DEPARTMENT**  
ST CHARLES FIRE DEPT  
112 N RIVERSIDE AVE,  
ST. CHARLES, IL 60174  
PH: (630) 377-4458

**LANDLORD**  
ST CHARLES VW REAL ESTATE  
4050 E MAIN ST,  
ST. CHARLES, IL 60174  
PH: (630) 818-4150



**CONSULTANT TEAM**

**PROJECT DESCRIPTION**  
INSTALLATION OF PANEL ANTENNA, ASSOCIATED APPLIANCES, COAXIAL CABLE AND MOUNTS ON AN 145' MONOPINE TOWER.  
INSTALLATION OF A 4'-0" X 11'-0" UNMANNED EQUIPMENT PAD ON CONCRETE FOUNDATION. INSTALLATION OF GENERAC SD030-1PE-190UT 30KW DIESEL GENERATOR ON EQUIPMENT CONCRETE FOUNDATION.  
NEW TELEPHONE (FIBER) SERVICE TO SITE AND EQUIPMENT SKID. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

**SITE COORDINATES AND ELEVATION**  
LATITUDE - N41° 55' 24.08"  
LONGITUDE - W88° 15' 23.01"  
GRD. ELEV. - ±764' AMSL

**PROJECT DESCRIPTION**



DIRECTIONS TO SITE



**DRAWING INDEX**

**TOWER DEVELOPMENT OWNER CONSTRUCTION SECTION**

- T-1 PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX
- 1 OF 2 SITE SURVEY
- 2 OF 2 SITE SURVEY
- GN-1 GENERAL CONSTRUCTION NOTES
- C-1 SITE LOCATION PLAN
- C-2 DEVELOPED SITE PLAN
- C-3 ENLARGED SITE PLAN
- C-4 SITE CIVIL DETAILS
- C-5 TYPICAL FENCE DETAILS
- A-1 TOWER ELEVATION
- E-1 UTILITY SITE PLAN, AND NOTES
- E-2 ELECTRIC AND TELCO UTILITY DETAILS
- E-3 ENLARGED GROUNDING PLAN
- E-4 GROUNDING DETAILS

FIBER COORDINATION IS NOT COMPLETE (PENDING FIBER CONTACT). PRIOR TO CONSTRUCTION, CONTACT DESIGNER FOR UPDATE.

**SURVEYOR'S NOTE**

THE PARENT PARCEL BOUNDARY OF THIS DRAWING IS ILLUSTRATED FROM RECORD INFORMATION AND IS APPROXIMATE. THE TOPOGRAPHICAL SURVEY FOR THIS MAP WAS PERFORMED ON NOVEMBER 14, 2022.

NOT TO BE USED AS CONSTRUCTION DRAWINGS. UNDERGROUND UTILITY MARKING WAS REQUESTED OF THE JULIE ONE-CALL SYSTEM ON NOVEMBER 04, 2022 AS TICKET NUMBER X223080343

**ELEVATION DATUM**

ALL ELEVATIONS ARE BASED ON NAVD 88 DATUM. CONTOURS ARE ILLUSTRATED AT 1.0' INTERVALS.

**BM#1) ELEV. 766.00**

DESCRIPTION: BOX CUT EAST SIDE OF CONCRETE BASE ON NORTHEAST LIGHT POLE AT FOX MOTORS PARKING LOT.

**ZONING DATA**

ACCORDING TO THE SITE CANDIDATE INFORMATION PACKAGE THIS SITE IS ZONED:

FRONT?:  
REAR?:  
SIDE?:

**FLOOD PLAIN INFORMATION**

WE HAVE CONSULTED THE FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE MAP AS PREPARED FOR THE CITY OF ST. CHARLES, DUPAGE COUNTY, ILLINOIS, COMMUNITY PANEL NUMBER 1704300174 DATED AUGUST 01, 2019, AND FIND THAT THE PROJECT SITE IS ZONED X (UNSHADED) (AREA OF MINIMAL FLOOD HAZARD)

**BASIS OF BEARINGS**

LATITUDE AND LONGITUDE OF SITE REFERENCE POINT ARE BASED ON NAD83(2011)

BEARINGS ARE BASED ON ILLINOIS STATE PLANE, IL EAST 1201 TO ORIENT DRAWING TO TRUE NORTH, ROTATE CLOCKWISE 00°03'04.84".

**EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS**

THE TITLE COMMITMENT ISSUED BY NEAR NORTH TITLE GROUP AS COMMITMENT NO. IL2209789, DATED OCTOBER 25, 2022, LISTS THE FOLLOWING EASEMENTS, COVENANTS, CONDITIONS, AND RESTRICTIONS, THAT ARE MATTERS OF SURVEY, AFFECTING THE PARENT PARCEL UNDER "SCHEDULE B-II":

8. Unrecorded lease to Fox Valley Volkswagen dated July 30, 2015, and all rights thereunder of, and all acts done or suffered thereunder by, said lessee or by any party claiming by, through, or under said lessee. As disclosed and affected by: Subordination and attornment agreement recorded February 24, 2016 as document R2016-017346, and the terms and provisions contained therein. **AFFECTS THE SUBJECT PROPERTY, BLANKET IN NATURE.**

9. Notations and Illinois Department of Transportation legends on plot of Pheasant Run Crossing recorded August 19, 2015 as document R2015-092580, as to access limits as to Illinois Route 64. **AFFECTS THE SUBJECT PROPERTY, BLANKET IN NATURE.**

10. Easements for public utilities over, upon and under the Land as shown on the Plot of Easement recorded June 11, 2012 as document R2012-074422. **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

11. Temporary Construction Easement per order document R2012-017755 in Case # 10ED114 in favor of Illinois Department of Transportation. **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

12. Easements, building setback lines, parking setback lines, access note and other provisions on the plot of Pheasant Run Crossing recorded August 19, 2015 as document R2015-092580. **AFFECTS THE SUBJECT PROPERTY AS SHOWN.**

13. Covenants and Restrictions (but omitting any such covenant or restriction based on race, color, religion, sex, handicap, familial status or national origin unless and only to the extent that said covenant (A) is exempt under Chapter 42, Section 3607 of the United States Code or (B) relates to handicap but does not discriminate against handicapped person), relating to Pheasant Run Crossing Property Association, assessments, buildings, uses, easements, maintenance and other matters contained in the document recorded August 19, 2015 as document R2015-092581 which does not contain a reversionary or forfeiture clause. **AFFECTS THE SUBJECT PROPERTY, BLANKET IN NATURE.**

14. (A) Terms, provisions and conditions relating to the easement described as Parcel 1A contained in the plat recorded August 19, 2015 as document R2015-092580 creating said easement. (B) Rights of the adjoining owner or owners to the concurrent use of said easement. **AFFECTS THE SUBJECT PROPERTY, BLANKET IN NATURE.**

PARCEL NO. 039102019  
PETKUS, BARBARA

PARCEL NO. 039102019  
SEECK-CHITWOOD,  
JEAN E. & G.

**LEGAL DESCRIPTION**

**PARENT PARCEL**

PARCEL 1:

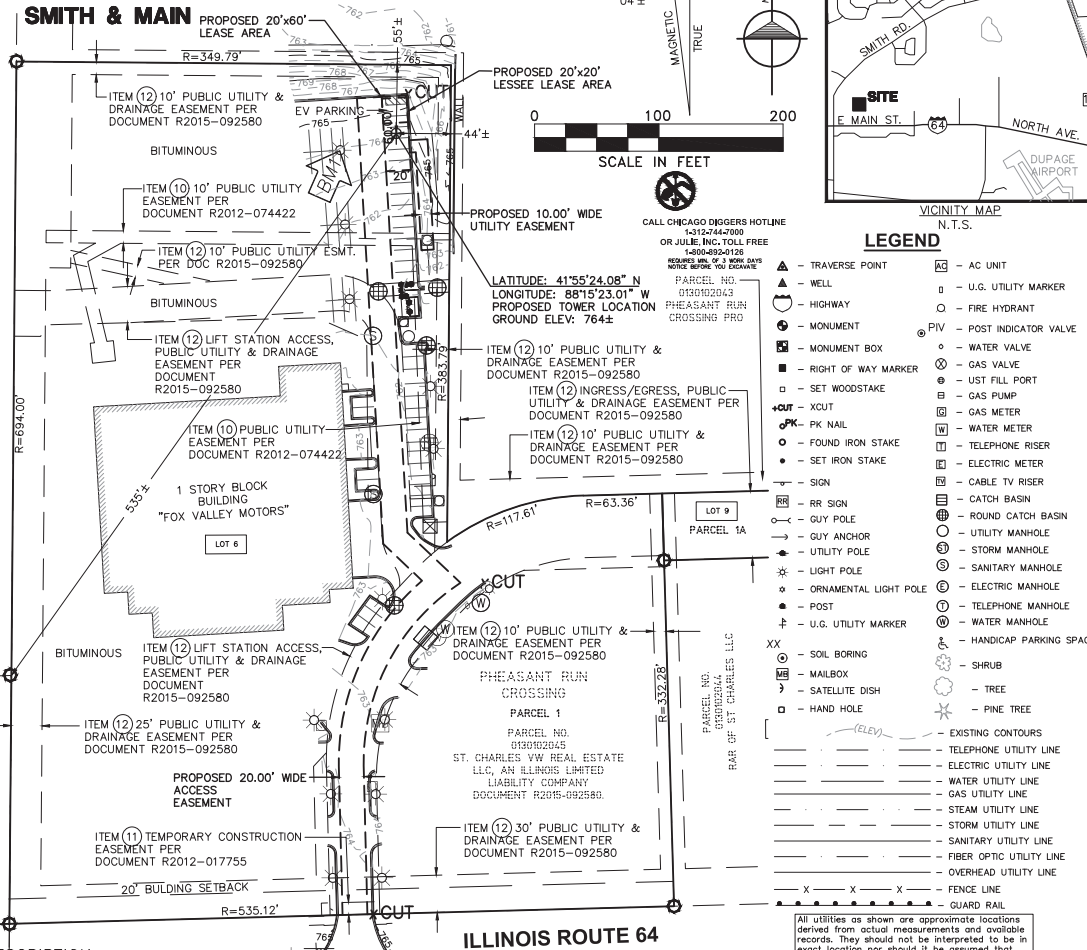
LOT 6 OF PHEASANT RUN CROSSING BEING A SUBDIVISION OF PART OF THE SOUTH 1/2 OF LOT 1 (ACCORDING TO THE GOVERNMENT SURVEY) OF THE NORTHWEST 1/4 OF SECTION 30, TOWNSHIP 40 NORTH, RANGE 9 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN WAYNE TOWNSHIP, DUPAGE COUNTY, ILLINOIS, ACCORDING TO THE PLAT THEREOF RECORDED AUGUST 19, 2015, AS DOCUMENT R2015-092580.

PARCEL 1A:

EASEMENT FOR INGRESS AND EGRESS AS PER PLAT RECORDED AUGUST 19, 2015, AS DOCUMENT R2015-092580 FOR BENEFIT OF PARCEL 1 OVER LOT 9 OF PHEASANT RUN CROSSING AFORESAID. (ACCESS ROAD)

This map was made from the above description which was given to us as an independent description of the property and no other description should be compared with the Assessor's Map of this Property for any discrepancies, omissions or differences in description.

**LOC. #711056  
SMITH & MAIN**



- LEGEND**
- ▲ - TRAVERSE POINT
  - ▲ - WELL
  - - HIGHWAY
  - ⊕ - MONUMENT
  - ⊕ - MONUMENT BOX
  - - RIGHT OF WAY MARKER
  - ⊕ - SET WOODSTAKE
  - + - XCUT
  - PK - PK NAIL
  - - FOUND IRON STAKE
  - - SET IRON STAKE
  - - SIGN
  - RR - RR SIGN
  - - GUY POLE
  - - GUY ANCHOR
  - - UTILITY POLE
  - - UTILITY MANHOLE
  - - STORM MANHOLE
  - - SANITARY MANHOLE
  - - ELECTRIC MANHOLE
  - - TELEPHONE MANHOLE
  - - WATER MANHOLE
  - - HANDICAP PARKING SPACE
  - - SOIL BORING
  - - MAILBOX
  - - SATELLITE DISH
  - - HAND HOLE
  - - EXISTING CONTOURS
  - - TELEPHONE UTILITY LINE
  - - ELECTRIC UTILITY LINE
  - - WATER UTILITY LINE
  - - GAS UTILITY LINE
  - - STEAM UTILITY LINE
  - - STORM UTILITY LINE
  - - SANITARY UTILITY LINE
  - - FIBER OPTIC UTILITY LINE
  - - OVERHEAD UTILITY LINE
  - - FENCE LINE
  - - GUARD RAIL

All utilities as shown are approximate locations derived from actual measurements and available records. They should not be interpreted to be in exact location nor should it be assumed that they are the only utilities in the area.

I, Samuel A. Miles, do hereby certify that the drawing shown herein is a correct representation of a survey performed at and under my direction. All dimensions shown are in feet and decimal parts thereof. Given under my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

**PRELIMINARY**

Samuel A. Miles  
Illinois Professional Land Surveyor No. 035.003984  
Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

ILLINOIS REGISTERED DESIGN FIRM  
LICENSE NUMBER 184.007034-0008  
LICENSE EXPIRES: APRIL 30, 2023

DATE: 11/14/22  
SCALE: 1"=100'  
UPDATE: WMB121422  
PROJECT NO.: 215249.062



**LOC. #711056  
SMITH & MAIN**  
Survey Prepared For:  
Mission 1 Communications  
6202 Constitution Drive  
Suite C  
Fort Wayne, IN 46804  
(260) 436-3922  
Project Manager: Mark J. Allen

NO.	DESCRIPTION	DATE
1	REVISED LEASE AREA	11/29/22
2	REVISED LEASE AREA, TOWER AND EASEMENT LOCATION	11/30/22
3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
4	REVISED LEASE AREA, AND TOWER LOCATION	12/14/22

**williams&works**  
engineers surveyors | planners  
616.224.1500 phone  
http://williams-works.com  
549 Ottawa Ave NW | Grand Rapids, MI 49503

**SMITH & MAIN**

SITE NAME

SITE NUMBER

LOC. #711056

SITE ADDRESS

**4060 E MAIN ST.  
ST. CHARLES, IL  
60714**

SHEET TITLE

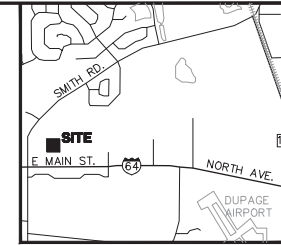
**S1**

SHEET 1 OF 2

**SURVEYOR'S NOTE**

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 NOT TO BE USED AS CONSTRUCTION DRAWINGS.

**LOC. #711056  
 SMITH & MAIN**



**LOC. #711056  
 SMITH & MAIN**

Survey Prepared for:  
 Mission 1 Communications  
 6202 Constitution Drive  
 Suite C  
 Fort Wayne, IN 46804  
 (260) 439-3022  
 Project Manager: Mark J. Allen

REVISIONS		
NO.	DESCRIPTION	DATE
1	REVISED LEASE AREA	11/29/22
2	REVISED LEASE AREA, TOWER AND EASEMENT LOCATION	11/30/22
3	REVISED LEASE AREA, AND TOWER LOCATION	12/12/22
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**williams & works**  
 engineers | surveyors | planners  
 616.224.1500 phone  
 http://williams-works.com  
 549 Ottawa Ave NW | Grand Rapids, MI 49503

SURVEYED BY:  
 [Signature]

SITE NAME  
**SMITH & MAIN**

SITE NUMBER

LOC. #711056

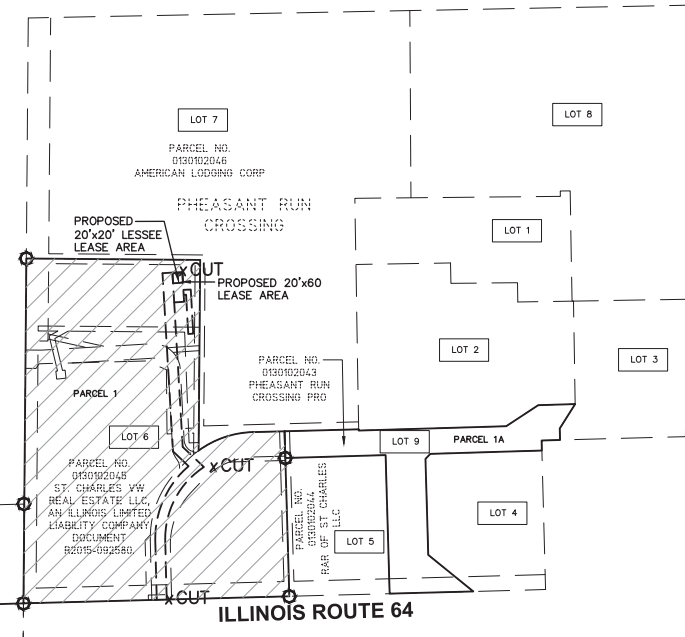
SITE ADDRESS

**4060 E MAIN ST.  
 ST. CHARLES, IL  
 60174**

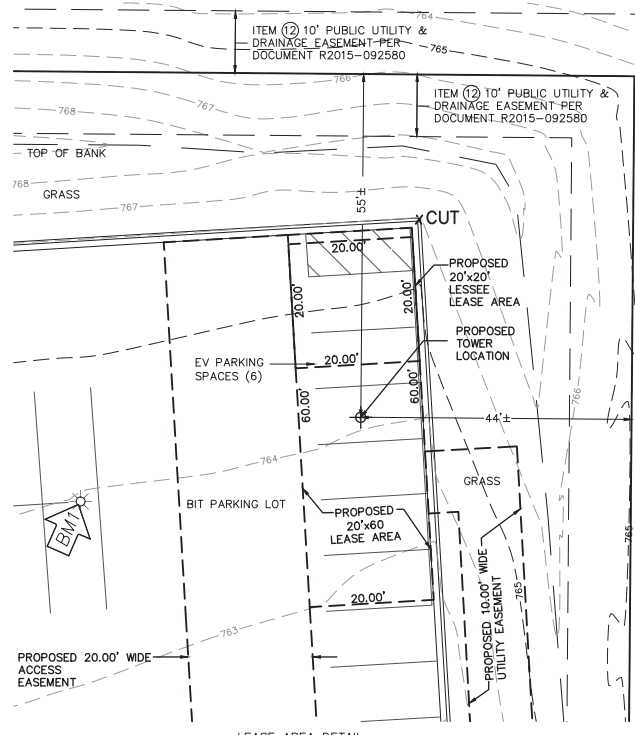
SHEET TITLE

**S2**

SHEET 2 OF 2



PROPERTY DETAIL  
 SCALE 1"=250'



LEASE AREA DETAIL  
 SCALE 1"=20'

**LEGEND**

- ▲ - TRAVERSE POINT
- △ - WELL
- - HIGHWAY
- ⊕ - MONUMENT
- ⊕ - MONUMENT BOX
- - RIGHT OF WAY MARKER
- ⊙ - SET WOODSTAKE
- + - XCUT
- PK - PK NAIL
- - FOUND IRON STAKE
- - SET IRON STAKE
- - SIGN
- RR - RR SIGN
- - GUY POLE
- - GUY ANCHOR
- - UTILITY POLE
- ⊙ - LIGHT POLE
- ⊙ - ORNAMENTAL LIGHT POLE
- ⊙ - POST
- ⊙ - U.G. UTILITY MARKER
- XX - SOIL BORING
- ⊕ - MAILBOX
- ⊕ - SATELLITE DISH
- ⊕ - HAND HOLE
- AC - AC UNIT
- - U.G. UTILITY MARKER
- - FIRE HYDRANT
- ⊕ - POST INDICATOR VALVE
- - WATER VALVE
- ⊕ - GAS VALVE
- ⊕ - UST FILL PORT
- ⊕ - GAS PUMP
- ⊕ - GAS METER
- ⊕ - WATER METER
- ⊕ - TELEPHONE RISER
- ⊕ - ELECTRIC METER
- ⊕ - CABLE TV RISER
- ⊕ - CATCH BASIN
- ⊕ - ROUND CATCH BASIN
- ⊕ - UTILITY MANHOLE
- ⊕ - STORM MANHOLE
- ⊕ - SANITARY MANHOLE
- ⊕ - ELECTRIC MANHOLE
- ⊕ - TELEPHONE MANHOLE
- ⊕ - WATER MANHOLE
- ⊕ - HANDICAP PARKING SPACE
- - SHRUB
- - TREE
- - PINE TREE
- - - - - EXISTING CONTOURS
- - - - - TELEPHONE UTILITY LINE
- - - - - ELECTRIC UTILITY LINE
- - - - - WATER UTILITY LINE
- - - - - GAS UTILITY LINE
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All dimensions shown are in feet and decimal parts thereof.

Given under my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

**PRELIMINARY**

Samuel A. Miles  
 Illinois Professional Land Surveyor No. 035.003984  
 Expires November 30, 2024

Note: This certification only applies to improvements within the lease site and easements as shown hereon.

DATE: 11/14/22	DWG. BY: A.G.G.
SCALE: N/A	SURVEYED: D.S./N.S.
UPDATE: WEM121422	CHKD BY: S.A.M.
LICENSE NUMBER 184.007034-0008	PROJECT NO.: 215249.062
LICENSE EXPIRES: APRIL 30, 2023	



## Abbreviations and Symbols

A/C	AIR CONDITIONING	N	NORTH
ADJ	ADJUSTABLE	N/A	NOT APPLICABLE
APP	APPROXIMATELY	NIC	NOT IN CONTRACT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NTS	NOT TO SCALE
AWG	AMERICAN WIRE GAUGE	O/C.O.C.	ON CENTER
		OD	OUTSIDE DIAMETER
		OPG	OPENING
		OPP	OPPOSITE
BLDG	BUILDING	PLYWD	PLYWOOD
BLK	BLOCK	PR	PAIR
BMR	BASE MOBILE RADIO	PROJ	PROJECT
B/S	BUILDING STANDARD	PROP	PROPERTY
		PT	PRESSURE TREATED
CLG	CEILING	REQ'D	REQUIRED
CLF	CLEAR	RM	ROOM
CND,C	CONDUIT	RO	ROUGH OPENING
CONC	CONCRETE		
CONST	CONSTRUCTION		
CONT	CONTINUOUS		
		S	SOUTH
DBL	DOUBLE	SHT	SHEET
DIA.#	DIAMETER	SM	SIMILAR
DIAG	DIAGONAL	SPEC	SPECIFICATION
DM	DIMENSION	SQ	SQUARE
DN	DOWN	SS	STAINLESS STEEL
DTL,DET	DETAIL	STL	STEEL
DWG	DRAWING	STRUC	STRUCTURAL
		SUSP	SUSPENDED
E	EAST	SV	SHEET VINYL
EA	EACH		
ELELEV	ELEVATION	THRU	THROUGH
ELECT	ELECTRICAL	TNND	TINNED
EQ	EQUAL	TOC	TOP OF CONCRETE
EQUIP	EQUIPMENT	TOM	TOP OF MASONRY
EW	EACH WAY	TYP	TYPICAL
EXIST	EXISTING		
EXT	EXTERIOR	UBC	UNIFORM BUILDING CODE
		UNO	UNLESS NOTED OTHERWISE
FIN	FINISH	VERT	VERTICAL
FLUOR	FLUORESCENT	VF	VERIFY IN FIELD
FLR	FLOOR	VT	VINYL TILE
FT	FOOT		
		W	WEST
GA	GAUGE	W/	WITH
GALV	GALVANIZE(D)	WIN	WINDOW
GC	GENERAL CONTRACTOR	W/O	WITHOUT
GRND	GROUND	WP	WATERPROOF
GWB	GYP/SUM WALL BOARD		
GYP BD	GYP/SUM BOARD		
HARDWD	HARDWOOD		
HORIZ	HORIZONTAL		
HR	HOUR		
HT	HEIGHT		
HVAC	HEATING, VENTING & AIR CONDITIONING		
		A	ANGLE
		&	AND
		C	CENTER LINE
		F	PROPERTY LINE
		I	INSULATION
		INT	INTERIOR
		#	NUMBER
LB(S)	POUND(S)		
MAX	MAXIMUM		
MECH	MECHANICAL		
MET,MTL	METAL		
MFR	MANUFACTURER		
MGR	MANAGER		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

## Symbols

△	REVISION	①	DETAIL REFERENCE
◁	KEY NOTE	①	ELEVATION REFERENCE
100	ROOM NUMBER	①	SECTION REFERENCE
22	KEYED NOTE		

## General Notes

- SCHEDULE: THE CONSTRUCTION OF THE SITE REQUIRES A CERTAIN SEQUENCE OF EVENTS TO MINIMIZE CONSTRUCTION TIME REQUIRED UNTIL AVAILABILITY OF CELLULAR TELEPHONE SERVICE.
- CONSTRUCTION STAKING: THE GENERAL CONTRACTOR SHALL CONTACT THE SURVEYOR TO SCHEDULE CONSTRUCTION STAKING. SURVEYOR TO STAKE LEASE AREA CORNERS, EQUIPMENT PAD CORNERS, CENTER OF THE 3 TOWER LEGS (VERIFY LEG CENTER LINE DIMENSION WITH TOWER DRAWINGS) AND CENTERLINE OF ALL ACCESS AND UTILITY EASEMENTS.
- SITE CLEARING - EXCAVATION AND FILL: ALL NEW EQUIPMENT PAD AND TOWER LOCATIONS SHALL BE CLEARED OF ALL TOPSOIL AND VEGETATION. CONTRACTOR SHALL USE EXCAVATED MATERIAL FROM FOUNDATION EXCAVATION AND SHALL PROVIDE, SPREAD AND COMPACT BANK RUN GRAVEL AS REQUIRED TO BRING EQUIPMENT PAD UP TO ELEVATIONS AS INDICATED BY THE FINAL SUB-GRADE ELEVATIONS AS SHOWN ON THE PLANS.
- EQUIPMENT SKID FOUNDATIONS: THE CONTRACTOR SHALL INSTALL THE EQUIPMENT EQUIPMENT PAD FOUNDATION AND TOWER FOUNDATION(S) INCLUDING THE ANCHOR BOLTS AS FURNISHED BY THE TOWER MANUFACTURER (TOWER FABRICATION, ERECTION, AND ANTENNA INSTALLATION SHALL BE BY OTHERS). CONTRACTOR SHALL CONTACT THE GEOTECHNICAL CONSULTANT FOR ON SITE INSPECTIONS PRIOR TO POURING CONCRETE FOR TOWER AND EQUIPMENT PAD FOUNDATIONS. CONCRETE CORES (THREE (3) CYLINDERS PER TRUCK) TO BE TAKEN AND TESTED BY THE CONSULTANT AND PROVIDE THREE (3) COPIES OF THE TESTING RESULTS TO THE VERIZON WIRELESS PROJECT MANAGER.
- PREFABRICATED EQUIPMENT PAD: THE GENERAL CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS FOR THE PROPER LIFTING OF THE EQUIPMENT PAD FROM THE TRANSPORT TRUCK BED TO THE FINAL POSITION ON THE CONCRETE FOUNDATION. THE EQUIPMENT PAD SHALL BE LIFTED INTO PLACE BY USING EIGHT (8) LIFTING EYELETS PROVIDED BY THE EQUIPMENT PAD MANUFACTURER. THE EQUIPMENT PAD MANUFACTURER REQUIRES EIGHT (8) 3/4" DIA., 15' LONG STEEL CABLES CONNECTED TO THE SPREADER BAR. IF THE SPREADER BAR IS AT LEAST TWO FEET WIDER THAN THE EQUIPMENT PAD, CORNER PROTECTORS WILL NOT NEED TO BE USED. THE APPROXIMATE WEIGHT OF THE EQUIPMENT PAD WITH THE TELEPHONE EQUIPMENT IS 72,000 LBS (REFER TO EQUIPMENT PAD LIFTING INSTRUCTIONS ON SHEET B-1). THE CONTRACTOR SHALL ANCHOR THE EQUIPMENT PAD TO THE CONCRETE SLAB WITH STEEL PLATES AND ANCHOR BOLTS PROVIDED BY THE EQUIPMENT PAD MANUFACTURER. THE VERIZON WIRELESS EQUIPMENT PAD SHALL NOT BE USED FOR THE STORAGE OF ANY MATERIALS, TOOLS, ETC. USED BY THE CONTRACTOR OR SUB-CONTRACTORS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE ELECTRICAL DISCONNECT, EXTERIOR LIGHT FIXTURE, DOOR CANOPIES (WITH CAULKING), MUFFLER AND LOOSE SHIP MATERIALS, INCLUDING FUELING, START UP AND TESTING (COORDINATE WITH OPERATIONS TO SET GENERATOR ROUTINE RUN DATE).
- THE GENERAL CONTRACTOR SHALL INSTALL THE TOWER FOUNDATION, INCLUDING THE ANCHOR BOLTS AS FURNISHED BY THE TOWER MANUFACTURER. TOWER FABRICATION, ERECTION, AND ANTENNA INSTALLATION SHALL BE BY OTHERS.
- ACCESS DRIVEWAY: THE GENERAL CONTRACTOR SHALL CONSTRUCT THE ACCESS DRIVEWAY PER THE ALIGNMENT AND CROSS SECTION ON THE DRAWINGS. IF ANY AREA OF CONSTRUCTION REQUIRES MORE FILL OF AGGREGATE STONE THAN SHOWN ON THE DRAWINGS, THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT FOR APPROVAL OF THE SIZE, TYPE AND QUANTITY OF STONE/FILL NECESSARY, AND SHALL NOT BE USED UNTIL APPROVAL BY THE ARCHITECT/ENGINEER.
- UTILITIES: THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXCAVATION AND PROPER BACK FILLING OF TRENCHES REQUIRED FOR UNDERGROUND TELEPHONE AND ELECTRICAL UTILITIES. REFER TO ELECTRICAL SHEETS FOR THE UTILITY TRENCH PLAN AND DETAILS COORDINATE, SERVICE DATE WITH THE RESPECTIVE UTILITY COMPANIES.
- ANTENNAS INSTALLATION: ALL ANTENNAS AND LINES AND ICE BRIDGE SHALL BE INSTALLED BY ANTENNA CONTRACTOR. DURING THIS WORK THE GENERAL CONTRACTOR SHALL BE LIMITED TO THE WORK WHICH CAN BE PERFORMED IN THE VICINITY OF THE WATER TOWER.
- HERBICIDE: AFTER PLACEMENT AND COMPACTING OF FILL AROUND THE PREFABRICATED EQUIPMENT PAD AND BEFORE PLACEMENT OF LIMESTONE SURFACE, A WEED BARRIER SHALL BE PLACED AND HERBICIDE SHALL BE SPRAYED OVER ALL DISTURBED AREAS.
- TRASH REMOVAL: THE GENERAL CONTRACTOR SHALL REMOVE ALL TRASH AS CREATED BY HIMSELF AND HIS SUBCONTRACTORS AND ALSO BY OTHER CONTRACTORS INCLUDING CABLE REELS, CARDBOARD BOXES, AND PACKAGING. THE GENERAL CONTRACTOR SHALL PROVIDE A TRASH DUMPSTER (40 YARD ROLL OFF) ON THE SITE UNTIL ALL CONSTRUCTION WORK AND EQUIPMENT INSTALLATION WORK HAS BEEN COMPLETED. ALL TRASH SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL AREA. FAILURE TO PROVIDE A DUMPSTER ON SITE WILL RESULT IN A \$1000.00 REDUCTION IN THE CONTRACT AMOUNT.
- FINAL CLEAN UP: UPON COMPLETION OF ALL WORK BY THE GENERAL CONTRACTOR AND ALL OTHER CONTRACTORS ON THIS PROJECT, THE GENERAL CONTRACTOR SHALL STRIP AND CLEAN THE FLOOR OF THE EQUIPMENT PAD, USING AN INDUSTRIAL STRIPPING MACHINE. THE FINISHED FLOOR SHALL BE CLEAN AND DUST FREE. NO SURFACE FINISHES SHALL BE APPLIED. THE GENERAL CONTRACTOR IS ALSO RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS MATERIALS FROM INSIDE THE EQUIPMENT PAD ALONG WITH SHIPMENT OF NOTED MATERIALS BACK TO THE OWNER.
- GENERAL CONTRACTOR SHALL REQUEST DELIVERY OF VERIZON WIRELESS ANTENNAS AND MISCELLANEOUS MATERIALS WHEN READY TO RECEIVE AND INVENTORY. ANY SHORTAGES MUST BE REPORTED TO THE VERIZON WIRELESS PROJECT MANAGER WITHIN 48 HOURS OF DELIVERY. REQUEST FOR FINAL CLEAN UP WILL BE AT THE DIRECTION OF THE VERIZON WIRELESS PROJECT MANAGER.
- THE GENERAL CONTRACTOR SHALL PROVIDE AND MAINTAIN A PORTABLE TOILET ON SITE DURING THE DURATION OF THE CONSTRUCTION PROJECT.
- INDIANA PROTECTION SERVICE: CONTACT IUPS (800) 382-5544 IN INDIANA OR (800) 428-5200 OUTSIDE INDIANA AT LEAST 48 HOURS PRIOR TO DIGGING.
- THE GENERAL CONTRACTOR SHALL NOTIFY THE PROJECT ADMINISTRATOR 48 HOURS PRIOR TO POURING CONCRETE FOR EQUIPMENT PAD FOUNDATION.
- THE CONTRACTOR WILL, UPON BECOMING AWARE OF SUBSURFACE OR LATENT PHYSICAL CONDITIONS DIFFERING FROM THOSE DISCLOSED BY THE ORIGINAL SOIL INVESTIGATION WORK, PROMPTLY NOTIFY THE OWNER VERBALLY TO PERMIT VERIFICATION OF THE CONDITIONS, AND IN WRITING, AS TO THE NATURE OF THE DIFFERING CONDITIONS. NO CLAIM BY THE CONTRACTOR FOR ANY CONDITIONS DIFFERING FROM THOSE ANTICIPATED IN THE PLANS AND SPECIFICATIONS AND DISCLOSED BY THE STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.
- BEFORE AND DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE EROSION CONTROL AS NECESSARY IN THE FORM OF SILT FENCES FOR THE SITE AND BALES AROUND ANY EXISTING MANHOLES, INLETS, OR CATCHBASINS (WHEN PRESENT) SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVED, CONCRETE, OR GRAVEL PARKING AREAS AND DRIVES. CONTRACTORS SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PARKING AREAS AND DRIVES PRIOR TO CONSTRUCTION, ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.
- GRADE ALL AREAS DISTURBED DURING CONSTRUCTION TO MATCH EXISTING SURROUNDINGS AFTER WORK IS COMPLETE OR AS WEATHER PERMITS WITH APPROVAL FROM THE PROPERTY OWNER.

SOME NOTES MAY NOT APPLY

## Geotechnical Information

- REFER TO THE PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS RELATED TO CONSTRUCTION.
- THE OWNER HAS CAUSED A GEOTECHNICAL EXPLORATION TO BE PERFORMED AT THE SITE BY:  
TBD
- THE CONTRACTOR SHALL NOTIFY THE CLIENT'S GEOTECHNICAL ENGINEER TO COORDINATE HAVING A FIELD REPRESENTATIVE ON SITE FOR TESTING AND INSPECTION. COPIES OF THE REPORT ARE ISSUED TO THE CONTRACTOR FOR CONVENIENCE ONLY. THE REPORT IS NOT A PART OF THE CONTRACT DOCUMENTS. NEITHER THE OWNER NOR THE ENGINEER/ARCHITECT GUARANTEE THE ACCURACY OR VALIDITY OF THE DATA CONTAINED THEREIN, NOR DO THEY ASSUME ANY RESPONSIBILITY FOR THE CONTRACTOR'S USE OR INTERPRETATION OF THE DATA CONTAINED THEREIN.

GEOTEXTILE PARAMETERS		
PROPERTY	MINIMUM VALUE (g)	TEST METHOD
TENSILE STRENGTH	200 LBS.	ASTM D-4632
PUNCTURE STRENGTH	90 LBS.	ASTM D-4833
MULLEN BURST	400 LBS.	ASTM D-3786
TRAPEZOIDAL TEAR	75 LBS.	ASTM D-4533
(g) ALL VALUES REPRESENT MINIMUM ROLL VALUES		

### NOTES:

THE FABRIC SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. INTERSECTIONS OF SHEETS MUST BE SEWN OR SUFFICIENTLY OVERLAPPED (AT LEAST 24 INCHES) OR AS SPECIFIED BY THE MANUFACTURER). THE GEOTEXTILE SHEETS SHOULD ALSO BE PLACED TAUT TO REDUCE WRINKLES OR FOLDS. CARE MUST BE EXERCISED TO PREVENT PHYSICAL DAMAGE OF THE GEOTEXTILE PRIOR TO, DURING, AND AFTER INSTALLATION. UTILITIES SHOULD BE INSTALLED BEFORE PLACING THE GEOTEXTILE FABRIC.



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09-29-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-22	90% CDs

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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:

FULL RELO  
SMITH & MAIN  
CELL SITE

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

GENERAL CONSTRUCTION  
NOTES

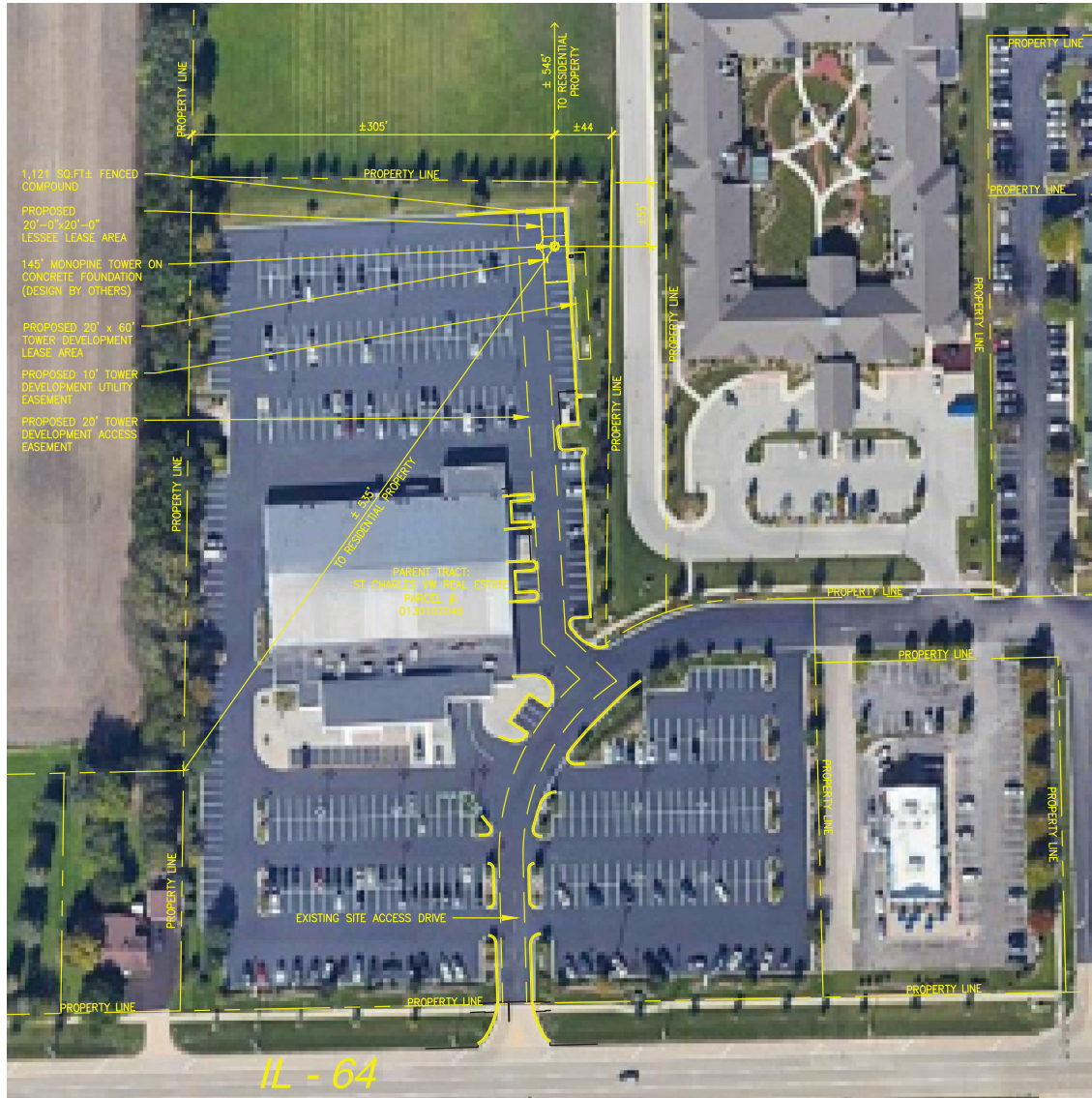
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SHEET NO.:

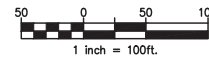
GN-1







Site Location Plan



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SITE NAME:

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SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

SITE LOCATION PLAN

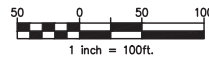
A&E PROJECT NO.:

SHEET NO.:

C-1



Site Location Plan



IL - 64

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12-09-22	LEASE EXHIBIT
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SHEET TITLE:

SITE LOCATION PLAN

A&E PROJECT NO.:

SHEET NO.:

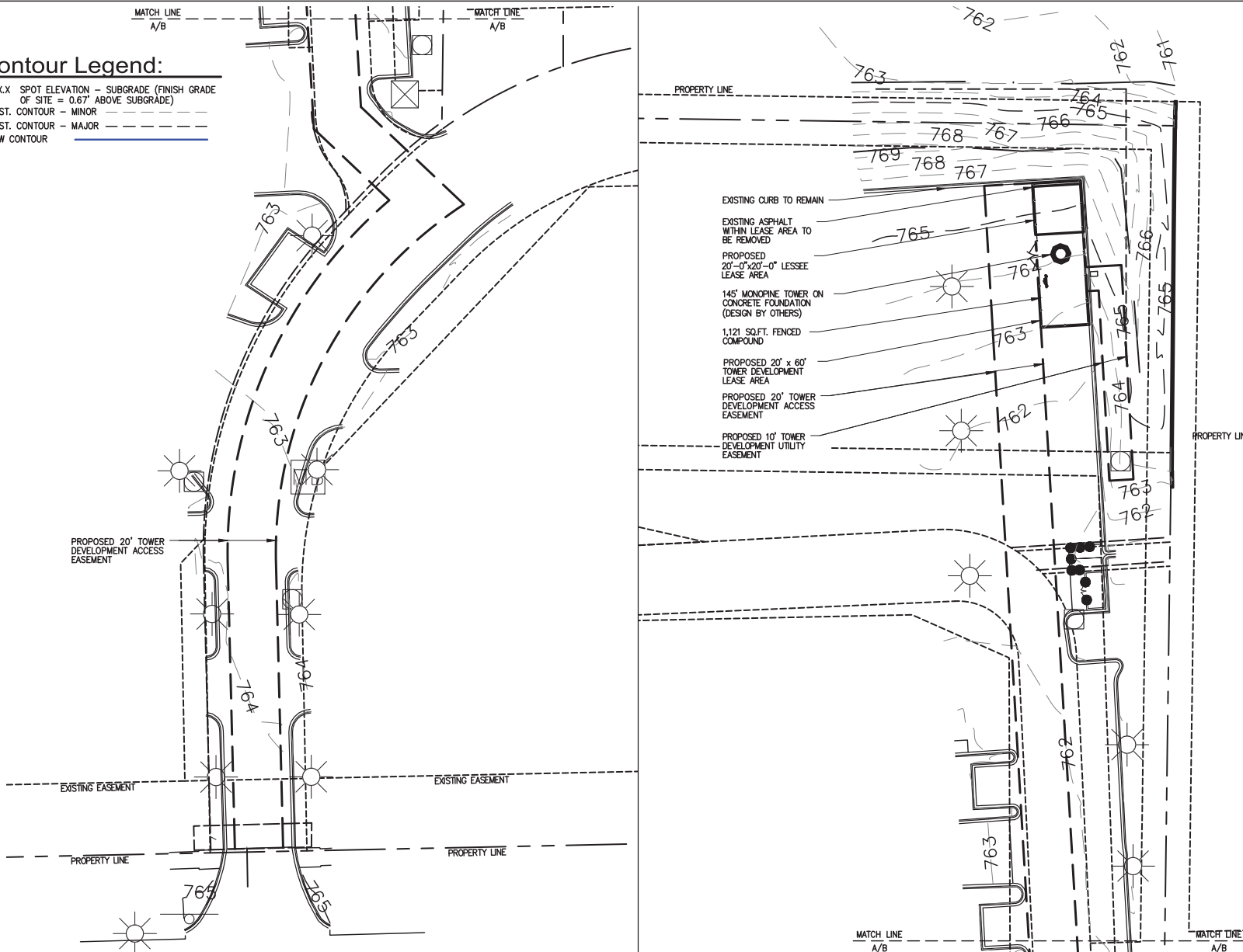


C-1.1



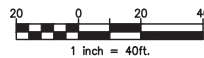
**Contour Legend:**

- +XXX.X SPOT ELEVATION - SUBGRADE (FINISH GRADE OF SITE = 0.67' ABOVE SUBGRADE)
- EXIST. CONTOUR - MINOR
- EXIST. CONTOUR - MAJOR
- NEW CONTOUR



IL-64

**Developed Site Plan**



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12-09-22	LEASE EXHIBIT
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01-30-23	90% CDs

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SITE ADDRESS:

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SHEET TITLE:

DEVELOPED SITE PLAN

A&E PROJECT NO.:

SHEET NO.:

**C-2**

CERTIFICATION:

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RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
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SITE NAME:

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SITE ADDRESS:

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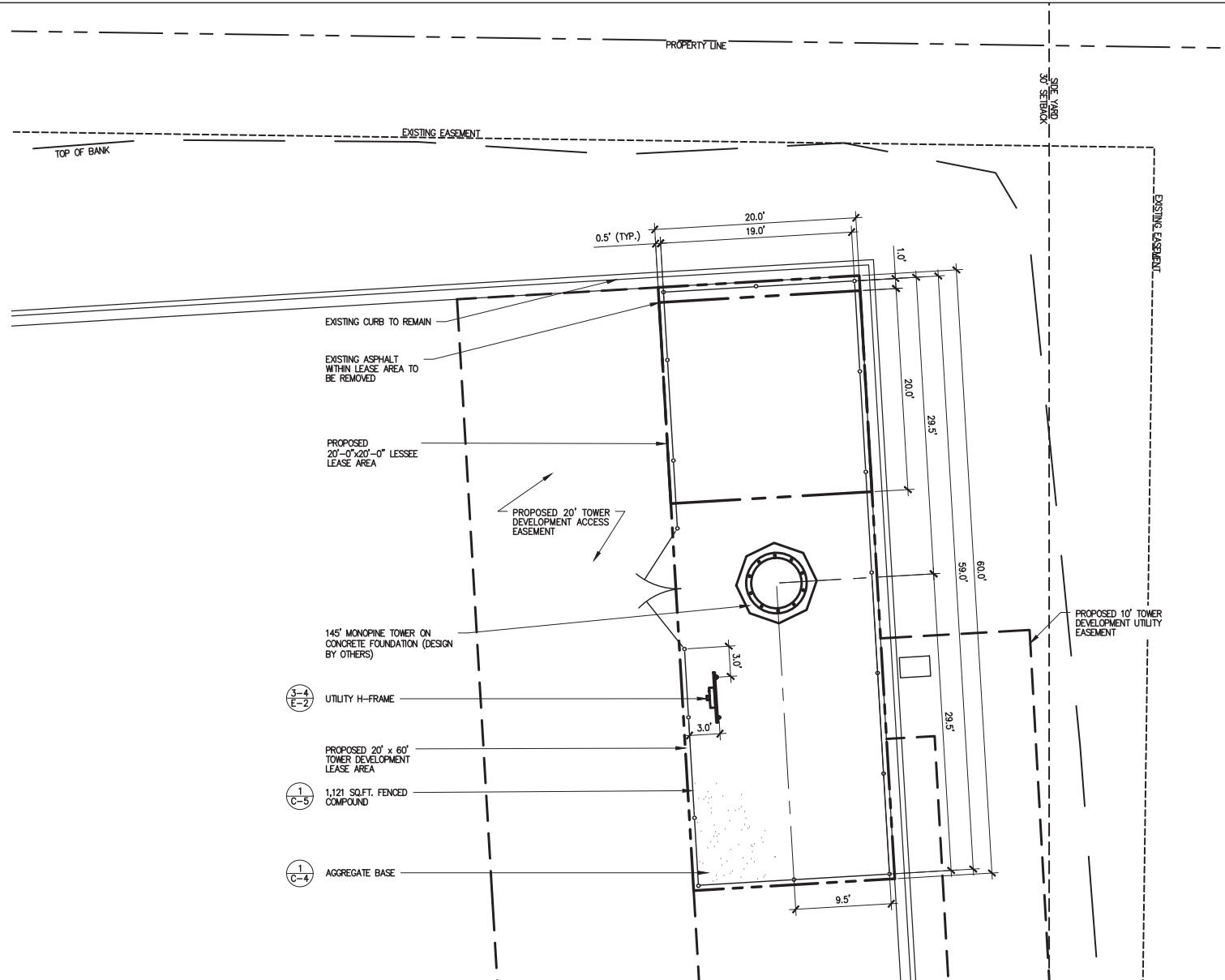
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ENLARGED SITE PLAN

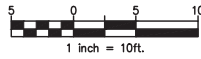
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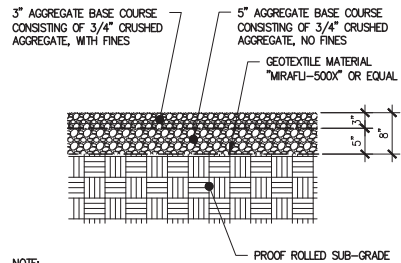
**C-3**



**Enlarged Site Plan**







NOTE:  
IT IS THE RESPONSIBILITY OF THE G.C.  
TO VERIFY THE LIMESTONE IS UNIFORMLY  
WHITE IN COLOR AFTER PLACEMENT

# 1 Aggregate Base

SCALE: 1/2" = 1'-0"

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12-29-22	LEASE EXHIBIT
01-30-23	90% CDs

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SITE NAME:

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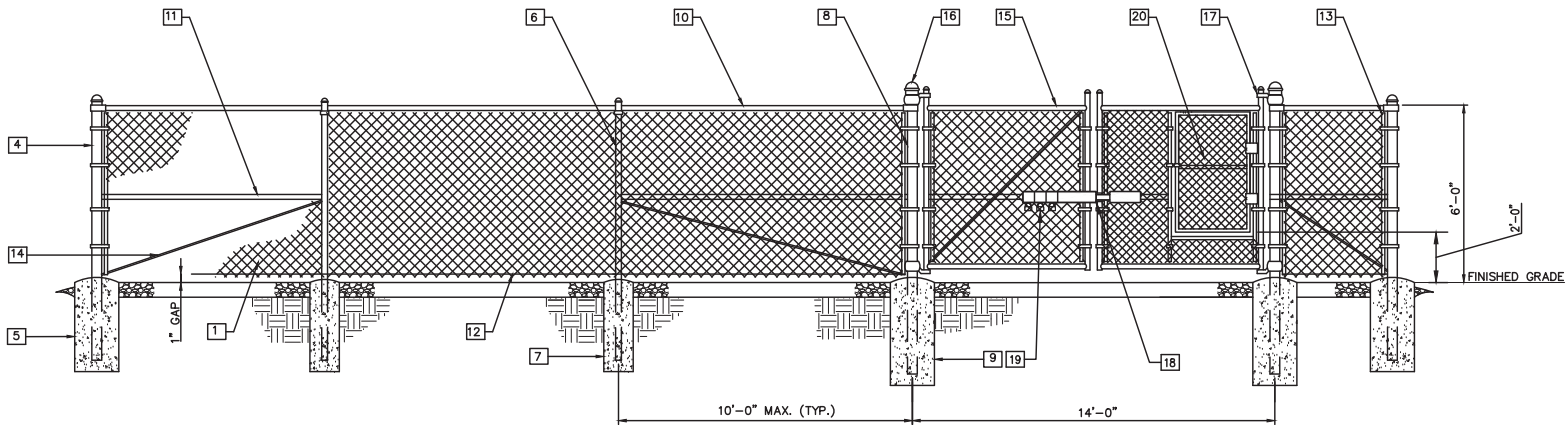
SHEET TITLE:

SITE CIVIL DETAILS

A&E PROJECT NO.:

SHEET NO.:

**C-4**



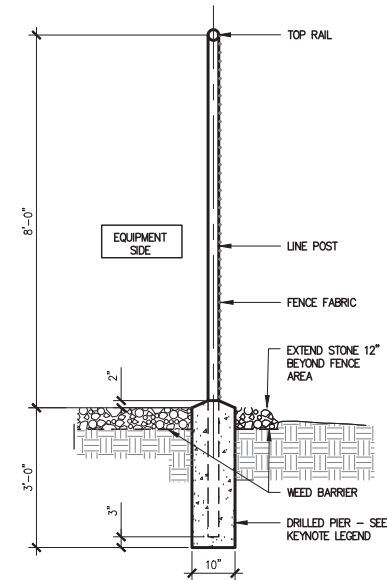
**1 Typical Fence Elevation**  
SCALE: 1/4" = 1'-0"

**Keynote Legend**

- 1 FABRIC: 9 GAUGE, 2" BLACK VINYL MESH, ASTM A392 (SEE FENCE SECTION FOR HEIGHT).
- 2 NOT USED
- 3 NOT USED
- 4 END AND CORNER POSTS: 3"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 5 CONCRETE FOUNDATION: 36"x12"Ø (3000 PSI)
- 6 LINE POSTS: 2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 7 CONCRETE FOUNDATION: 36"x10"Ø (3000 PSI)
- 8 GATE POSTS: 4"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 9 CONCRETE FOUNDATION: 48"x12"Ø (3000 PSI)
- 10 TOP RAIL & BRACE RAIL: 1-1/2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 11 MIDDLE RAILS: 1-1/2"Ø PIPE SCH. 40 (GALV.) ASTM F1083
- 12 BOTTOM TENSION WIRE: 0.177"Ø METALLIC-COATED STEEL (GALV.), MARCELLED, ASTM A824
- 13 TENSION BARS: 3/16"x3/4", FULL HEIGHT OF FABRIC, FINISH TO MATCH FENCE FRAMEWORK.
- 14 TENSION ROD: 3/8"Ø WITH ADJ. TIGHTENER, FINISH TO MATCH FENCE FRAMEWORK.
- 15 GATE FRAME: 2"Ø SCH. 40 (GALV.) ASTM F1083
- 16 POST CAPS: PER POST DIAMETER.
- 17 GATE HINGES: NON-LIFT-OFF TYPE, OFFSET TO PERMIT 180 DEGREE SWING.
- 18 STYMELOCK SYSTEM
- 19 MARINE-GRADE, PROGRAMMABLE FOUR DIGIT PADLOCK (SESAME BRAND OR APPROVED EQUAL)
- 20 4' WIDE SNOW GATE WITH DOUBLE SWING GATE FRAME

**NOTES:**

- 1. REFER TO PROJECT SPECIFICATIONS FOR INFORMATION NOT SHOWN IN THE DRAWING.
- 2. FENCE FABRIC SHALL CONFORM TO CHAIN LINK FENCE MANUFACTURERS INSTITUTE (CLFMI) PRODUCT MANUAL.
- 3. INSTALL FENCE IN COMPLIANCE WITH ASTM F 567.
- 4. INSTALL SWING GATES IN COMPLIANCE WITH ASTM F 900.
- 5. DO NOT BEGIN INSTALLATION AND ERECTION BEFORE FINAL GRADING IS COMPLETED, UNLESS OTHERWISE PERMITTED. INSTALL FENCING ON BOUNDARY LINES INSIDE OF PROPERTY LINE ESTABLISHED BY SURVEY.
- 6. DRILL OR HAND-EXCAVATE (USING POST-HOLE DIGGER) HOLES FOR POSTS TO DIAMETERS AND SPACINGS INDICATED, IN FIRM, UNDISTURBED OR COMPACTED SOIL. IF NOT INDICATED ON DRAWINGS, EXCAVATE HOLES FOR EACH POST TO MINIMUM DIAMETER RECOMMENDED BY FENCE MANUFACTURER, BUT NOT LESS THAN (4) TIMES LARGEST GROSS-SECTION OF POST.
- 7. REMOVE POST HOLE SPOILS FROM SITE. DO NOT SET SPOILS ON AGGREGATE WITHOUT ADEQUATE PROTECTION.
- 8. PROTECT PORTION OF POSTS ABOVE GROUND FROM CONCRETE SPLATTER. PLACE CONCRETE AROUND POSTS AND VIBRATE OR TAMP FOR CONSOLIDATION. CHECK EACH POST FOR VERTICAL AND TOP ALIGNMENT AND HOLD IN POSITION DURING PLACEMENT AND FINISHING OPERATIONS, UNLESS OTHERWISE SHOWN, EXTEND CONCRETE FOOTING 1 INCH ABOVE GRADE AND TROWEL TO A CROWN TO SHED WATER.
- 9. INSTALL BARBED WIRE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 10. APPLY FABRIC TO OUTSIDE OF FRAMEWORK.



**2 Typical Fence Section**  
SCALE: 3/8" = 1'-0"



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12-09-22	LEASE EXHIBIT
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CHECKED BY: MJA

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SHEET TITLE:

TYPICAL FENCE DETAILS

A&E PROJECT NO.:

SHEET NO.:



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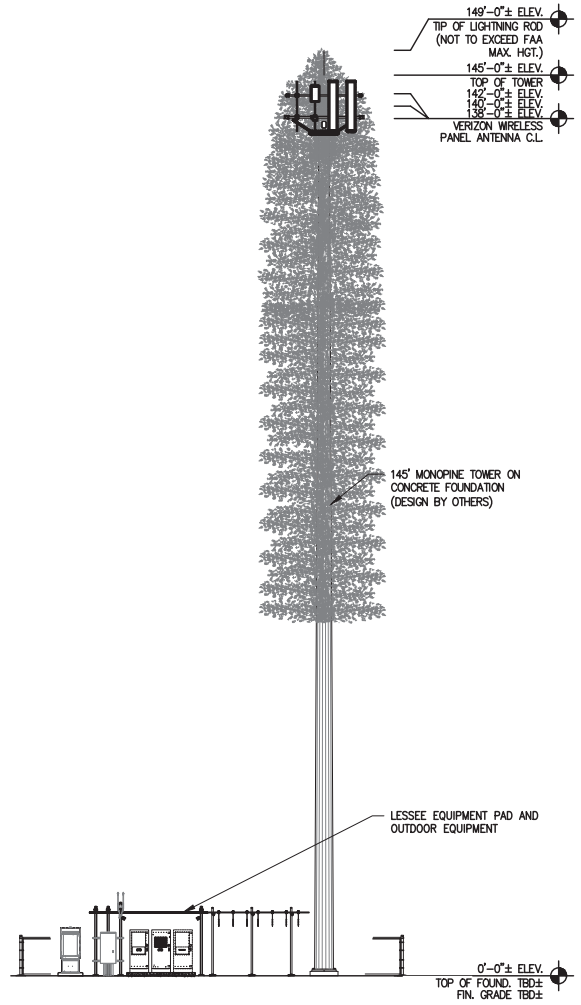
SHEET TITLE:

TOWER ELEVATION

A&E PROJECT NO.:

SHEET NO.:

**A-1**



**1 Tower Elevation**  
SCALE: 1" = 20'-0"

## General Notes

### WORK INCLUDES

THESE NOTES AND ACCOMPANYING DRAWINGS COMPLEMENT THE PROVISIONS AND INSTALLATIONS BY THE ELECTRICAL CONTRACTOR, OF ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO INSTALL THE ELECTRICAL WORK COMPLETE IN CONNECTION WITH THIS VERIZON WIRELESS SITE AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

1. THE PROVISIONS, INSTALLATION, AND CONNECTION OF A GROUNDING ELECTRODE SYSTEM COMPLETE WITH A BUILDING AND SECONDARY GROUNDING, CELLULAR TELEPHONE COMMUNICATIONS TOWER AND CONNECTIONS TO THE INCOMING ELECTRICAL DISTRIBUTION EQUIPMENT.
2. THE PROVISION AND INSTALLATION OF AN OVERHEAD ELECTRICAL SERVICE OR UNDERGROUND ELECTRICAL SERVICE AND ALL ASSOCIATED WIRE AND CONDUIT AS REQUIRED AND/OR INDICATED ON PLANS.
3. THE PROVISION, INSTALLATION OF CONDUIT AND CONNECTIONS FOR LOCAL TELEPHONE SERVICE.
4. THE FURNISHING AND INSTALLATION OF THE ELECTRICAL SERVICE ENTRANCE CONDUITORS, CONDUITS, METER SOCKET, AND CONNECTIONS TO THE SERVICE EQUIPMENT WITHIN THE ENCLOSURE.
5. TWO INCH (2") AND THREE INCH (3") DIAMETER PVC CONDUITS SCHEDULE 40.
6. ALL PVC CONDUITS SHOULD BE LEFT WITH NYLON PULL CORD FOR FUTURE USE.
7. EXCAVATION, TRENCHING, AND BACKFILLING FOR CONDUIT(S), CABLE(S), AND EXTERNAL GROUNDING SYSTEM.

### CODES, PERMITS, AND FEES

1. ALL REQUIRED PERMITS, LICENSES, INSPECTIONS AND APPROVALS SHALL BE SECURED AND ALL FEES FOR SAME PAID BY CONTRACTOR.
2. THE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES: STATE, LOCAL AND NATIONAL, AND THE DESIGN PERFORMANCE CHARACTERISTICS AND METHODS OF CONSTRUCTION OF ALL ITEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE LATEST ISSUE OF THE VARIOUS APPLICABLE STANDARD SPECIFICATIONS OF THE FOLLOWING AUTHORITIES:

N.E.C.	NATIONAL ELECTRIC CODE
A.N.S.I.	AMERICAN NATIONAL STANDARDS INSTITUTE
I.E.E.E.	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
A.S.T.M.	AMERICAN SOCIETY FOR TESTING MATERIALS
N.E.M.A.	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
U.L.	UNDERWRITERS LABORATORIES, INC.
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION

### GROUNDING ELECTRODE SYSTEM

1. CONNECTIONS  
ALL GROUNDING CONNECTIONS SHALL BE MADE BY THE "CADWELD" PROCESS CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, ETC. ALL CABLE TO GROUND RODS, GROUND RODS SPLICES AND LIGHTNING PROTECTION SYSTEM AS INDICATED. GROUND FOUNDATION ONLY AS INDICATED BY PM. ALL MATERIALS USED (MOLDS, WELDING, METAL TOOLS, ETC.) SHALL BE BY "CADWELD" PROCESS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND PROCEDURES. GROUND CONDUCTOR SHALL HAVE A MINIMUM 24" BENDING RADIUS.
2. ALL CADWELD CONNECTIONS ON GALVANIZED SURFACES SHALL BE CLEANED THOROUGHLY AND COLORED TO MATCH SURFACE WITH (2) TWO COATS OF SHERWIN-WILLIAMS GALVITE (WHITE) PAINT B50WS (OR EQUAL) OR SHERWIN-WILLIAMS SILVERBRIT (ALUMINIUM) B59S11 (OR EQUAL).
3. ALL ELECTRICAL & MECHANICAL GROUND CONNECTIONS SHALL HAVE ANTI-OXIDANT COMPOUND APPLIED TO CONNECTION
4. FENCE/GATE:  
GROUND FENCE POSTS WITHIN 6 FEET OF ENCLOSURE AND 25 FEET OF TOWER AS INDICATED ON DRAWINGS. GROUND EACH GATE POST AND CORNER POST. GROUND CONNECTIONS TO FENCE POSTS SHALL BE MADE BY THE "CADWELD" PROCESS AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND PROCEDURES. ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY THE "CADWELD" PROCESS, AND INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND PROCEDURES.

FIBER COORDINATION IS NOT COMPLETE (PENDING FIBER CONTACT). PRIOR TO CONSTRUCTION, CONTACT DESIGNER FOR UPDATE.

## Utility Color Legend

<span style="color: red;">█</span>	ELECTRIC
<span style="color: yellow;">█</span>	GAS, OIL, STEAM
<span style="color: cyan;">█</span>	COMMUNICATIONS
<span style="color: blue;">█</span>	POTABLE WATER
<span style="color: purple;">█</span>	RECLAIMED WATER
<span style="color: green;">█</span>	SEWER/ DRAINAGE
<span style="color: magenta;">█</span>	SURVEY MARKS

5. UTILITY COMPANY COORDINATION:  
ELECTRICAL CONTRACTOR SHALL CONFIRM THAT ALL WORK IS IN ACCORDANCE WITH THE RULES OF THE LOCAL UTILITY COMPANY BEFORE SUBMITTING THE BID, THE CONTRACTOR SHALL CHECK WITH THE UTILITY COMPANIES SUPPLYING SERVICE TO THIS PROJECT AND SHALL DETERMINE FROM THEM ALL EQUIPMENT AND CHARGES WHICH THEY WILL REQUIRE AND SHALL INCLUDE THE COST IN THE BID.
6. GROUND TEST:  
GROUND TESTS SHALL BE PERFORMED AS REQUIRED BY VERIZON STANDARD PROCEDURES. GROUND GRID RESISTANCE SHALL NOT EXCEED 5 OHMS. CONTRACTOR SHALL SUBMIT THE GROUND RESISTANCE TEST REPORT AS FOLLOWS:  
1. ONE (1) COPY TO OWNER REPRESENTATIVE  
2. ONE (1) COPY TO ENGINEER  
3. ONE (1) COPY TO KEEP INSIDE EQUIPMENT ENCLOSURE

### RACEWAYS AND WIRING

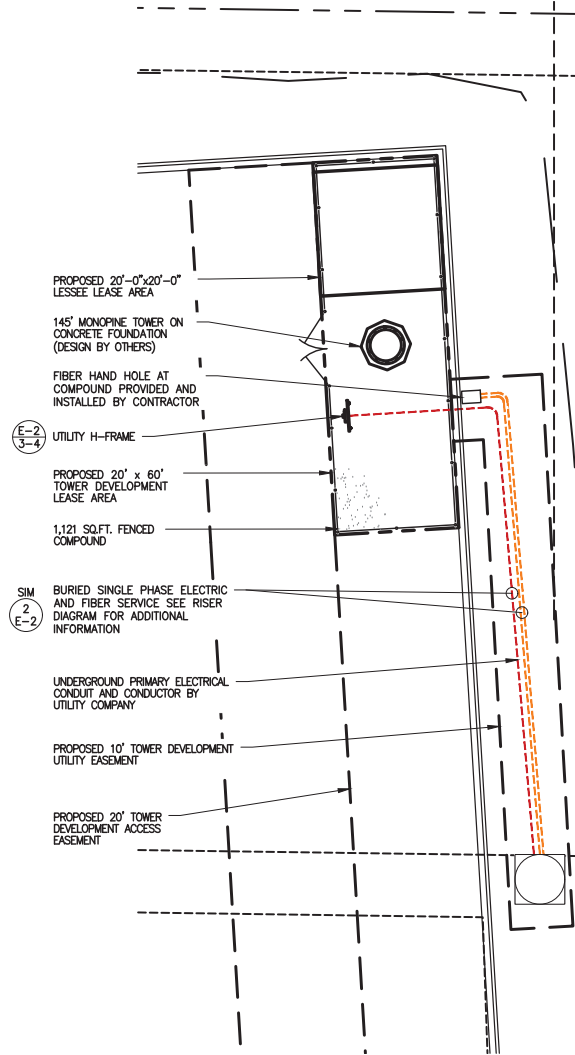
1. WIRING OF EVERY KIND MUST BE INSTALLED IN CONDUIT, UNLESS NOTED OTHERWISE, OR AS APPROVED BY THE ENGINEER.
2. UNLESS OTHERWISE SPECIFIED, ALL WIRING SHALL BE COPPER (CU) TYPE THWN, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. RACEWAYS SHALL BE GALVANIZED STEEL, SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, UNLESS OTHERWISE NOTED. ALL RACEWAYS SHALL BE APPROVED FOR THE INSTALLATION.
4. PULL OR JUNCTION BOXES SHALL BE PROVIDED AS REQUIRED TO FACILITATE INSTALLATION OF RACEWAYS AND WIRING. PROVIDE JUNCTION AND PULLBOXES FOR CONDUIT RUNS WITH MORE THAN (360) DEGREES OF BENDS.
5. PROVIDE A COMPLETE RACEWAY AND WIRING INSTALLATION, PERMANENTLY AND EFFECTIVELY GROUNDING IN ACCORDANCE WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE AND LOCAL CODES.
6. ELECTRICAL PANELBOARD SHALL BE FURNISHED AND INSTALLED BY OTHERS. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
7. ALL STEEL CONDUIT SHALL BE BONDED AT BOTH ENDS WITH GROUNDING BUSHING.

### GENERAL NOTES:

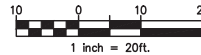
SEE DETAILS AND SCHEDULES ON DRAWINGS AND SPECIFICATIONS FOR MEANING OF ABBREVIATIONS AND ADDITIONAL REQUIREMENTS AND INFORMATION. CHECK ARCHITECTURAL, STRUCTURAL AND OTHER MECHANICAL AND ELECTRICAL DRAWINGS FOR SCALE, SPACE LIMITATIONS, COORDINATION, AND ADDITIONAL INFORMATION, ETC. REPORT ANY DISCREPANCIES, CONFLICTS, ETC. TO ENGINEER BEFORE SUBMITTING BID. ALL EQUIPMENT FURNISHED BY OTHERS (FBO) SHALL BE PROVIDED WITH PROPER MOTOR STARTERS, DISCONNECTS, CONTROLS, ETC. BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND COMPLETELY WIRE ALL ASSOCIATED EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S WIRE DIAGRAMS AND AS REQUIRED FOR A COMPLETE OPERATING INSTALLATION. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF (FBO) EQUIPMENT PRIOR TO ROUGH-IN OF CONDUIT AND WIRING TO AVOID CONFLICTS.

### COORDINATION WITH UTILITY COMPANY

THE ELECTRICAL CONTRACTOR SHALL COORDINATE COMPLETE ELECTRICAL SERVICE WITH LOCAL UTILITY COMPANY FOR A COMPLETE OPERATIONS SYSTEM, INCLUDING TRANSFORMER CONNECTIONS, CONCRETE TRANSFORMER PADS, IF REQUIRED, METER SOCKETS, PRIMARY CABLE RACEWAY REQUIREMENTS, SECONDARY SERVICE, ETC. PRIOR TO SUBMITTING BID TO INCLUDE ALL LABOR AND MATERIALS. THE ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BID ANY OPTIONAL OR EXCESS FACILITY CHARGES ASSOCIATED WITH PROVIDING ELECTRICAL SERVICE FROM LOCAL UTILITY COMPANY. VERIFY BEFORE BIDDING TO INCLUDE ALL COSTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE AVAILABLE FAULT CURRENT WITH THE LOCAL UTILITY COMPANY PRIOR TO SUBMITTING BID. ADJUST A.I.C. RATINGS OF ALL OVERCURRENT PROTECTION DEVICES IN DISTRIBUTION EQUIPMENT AS REQUIRED TO COORDINATE WITH AVAILABLE FAULT CURRENT FROM LOCAL UTILITY COMPANY. ALL GROUNDING RODS PROVIDED BY THE POWER OR TELEPHONE UTILITY COMPANIES MUST BE TIED INTO THE MAIN EXTERNAL GROUND RING.



## Utility Plan



**DOLAN**  
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COMMUNICATIONS

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Fort Wayne, IN 46804

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DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-23	90% CDs

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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

UTILITY PLAN AND  
GENERAL NOTES

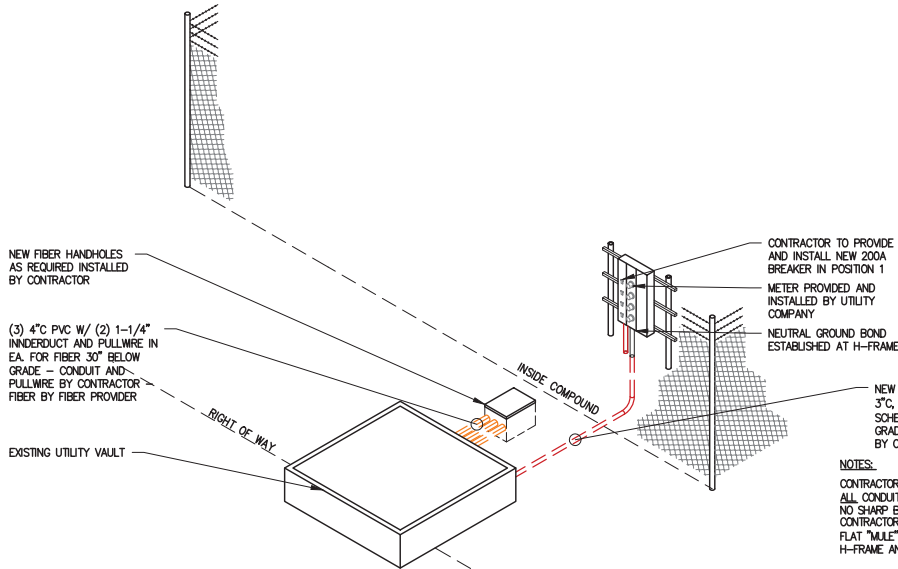
A&E PROJECT NO.:

SHEET NO.:

**E-1**

**JULIE**  
ILLINOIS  
ONE-CALL SYSTEM  
Simply Call 811

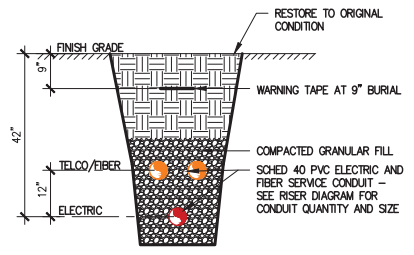




**1 Utility Riser Diagram**  
SCALE: N.T.S.

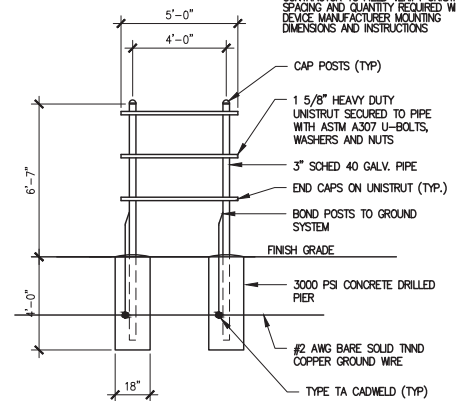
**Utility Color Legend**

- ELECTRIC
- GAS, OIL, STEAM
- COMMUNICATIONS
- POTABLE WATER
- RECLAIMED WATER
- SEWER/ DRAINAGE
- SURVEY MARKS

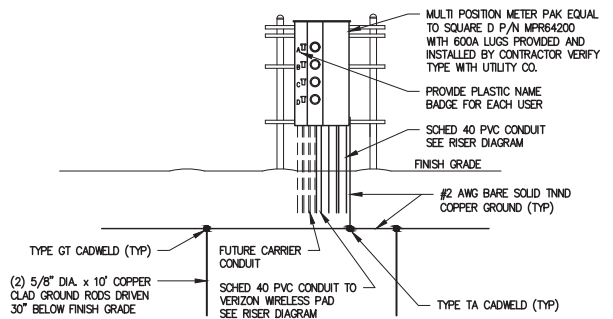


**2 Buried Utility**  
SCALE: 3/8" = 1'-0"

**NOTES:**  
ALL MATERIAL TO BE GALVANIZED UNLESS NOTED OTHERWISE  
CONTRACTOR TO FIELD VERIFY UNISTRUT SPACING AND QUANTITY REQUIRED WITH DEVICE MANUFACTURER MOUNTING DIMENSIONS AND INSTRUCTIONS



**3 Utility H-Frame Unistrut**  
SCALE: 3/16" = 1'-0"



**4 Utility H-Frame - Electrical**  
SCALE: 3/16" = 1'-0"



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12-29-22	LEASE EXHIBIT
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SITE NAME:

**FULL RELO SMITH & MAIN CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

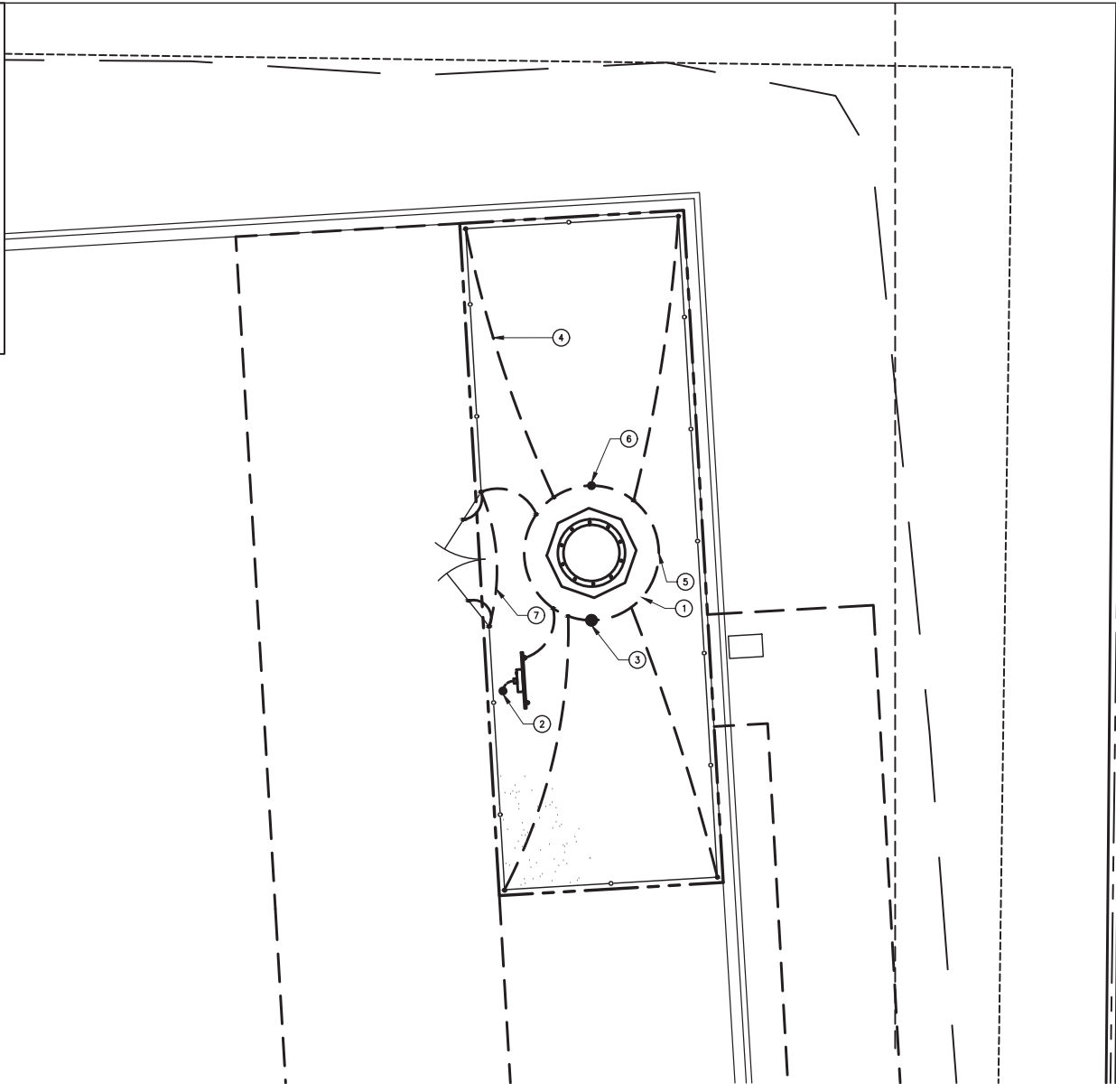
ELECTRICAL AND TELCO UTILITY DETAILS

A&E PROJECT NO.:

SHEET NO.:

**TYPICAL GROUNDING NOTES**

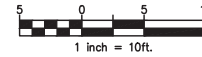
1. #2 AWG TINNED SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
2. DISCONNECT AND ELECTRIC SERVICE GROUND TO GROUND ROD
3. 5/8" X 10' COPPER CLAD GROUND ROD
4. GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION (TYPE VS) GROUND FENCE POSTS WITHIN 6 FEET OF PAD AND 25 FEET OF TOWER. (SEE DETAIL, SHEET E-4)
5. PROPOSED TOWER GROUND RING (V.I.F.)
6. COPPER CLAD GROUND ROD WITH INSPECTION WELL TOP OF GROUND ROD MAX 24" BURY. SEE DETAIL SHEET E-4.
7. GATE JUMPERS SEE DETAIL ON SHEET E-4



**Grounding Legend**

- GROUND ROD
- ⊙ GROUND SYSTEM TEST WELL (HAND HOLE)
- \* CADWELD CONNECTION
- FENCE LINE

**Enlarged Grounding Plan**



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CHECKED BY: MJA

SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

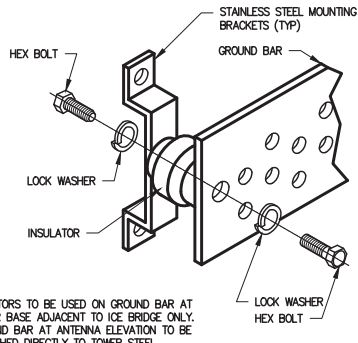
IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

ENLARGED GROUNDING  
PLAN

A&E PROJECT NO.:

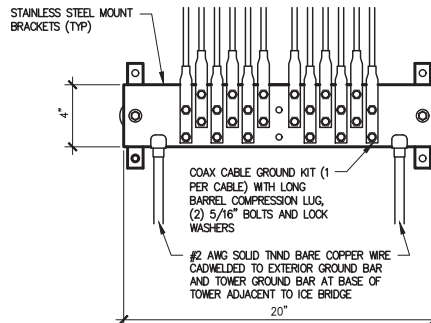
SHEET NO.:



NOTE:  
ISOLATORS TO BE USED ON GROUND BAR AT TOWER BASE ADJACENT TO ICE BRIDGE ONLY. GROUND BAR AT ANTENNA ELEVATION TO BE ATTACHED DIRECTLY TO TOWER STEEL.

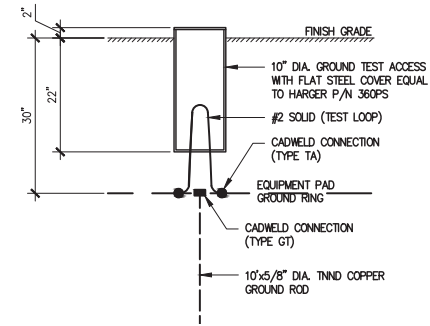
### 1 Ground Bar Installation

SCALE: 3" = 1'-0"



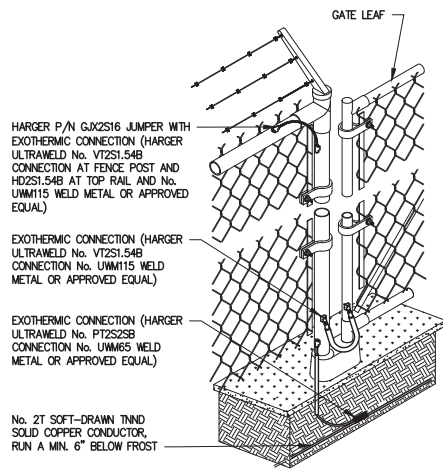
### 2 Tower Ground Bar

SCALE: 1 1/2" = 1'-0"



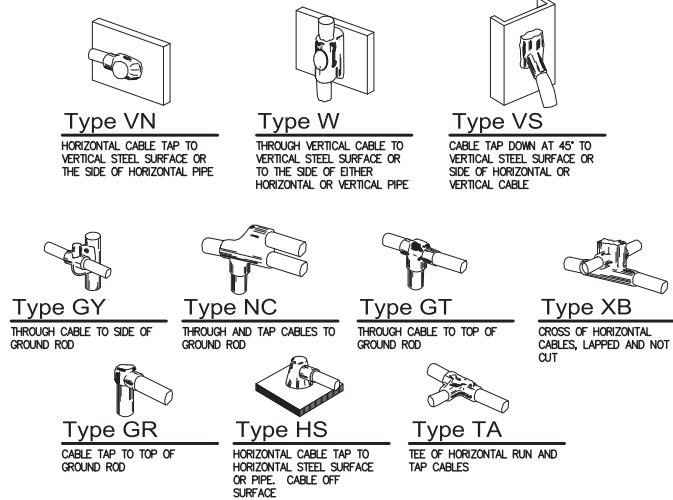
### 3 Grounding Inspection Test Well

SCALE: 1/2" = 1'-0"



### 4 Fence and Gate Grounding

SCALE: N.T.S.



### 5 Exothermic (Cadweld) Details

SCALE: N.T.S.

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CHECKED BY: MJA

SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

GROUNDING DETAILS

A&E PROJECT NO.:

SHEET NO.:

CELLCO PARTNERSHIP d/b/a



# FULL RELO SMITH & MAIN CELL SITE

LOCATION NO. 711056  
PROJECT NO. 20222341126

IL-64  
ST CHARLES, IL 60174  
DUPAGE COUNTY

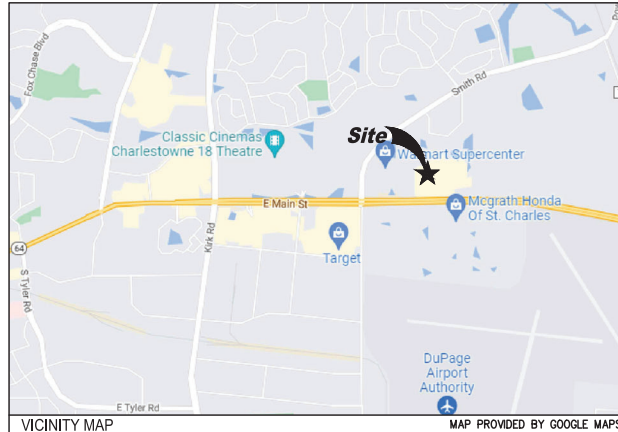
145' MONOPINE TOWER  
WITH COMMUNICATIONS EQUIPMENT

## DRAWING INDEX

### VERIZON WIRELESS CONSTRUCTION SECTION

VZW T-1	PROJECT INFORMATION, LOCATION MAPS, AND DRAWING INDEX
VZW C-1	DEVELOPED SITE PLAN
VZW C-2	ENLARGED SITE PLAN
VZW C-3	ICE BRIDGE, AND FOUNDATION DETAILS
VZW EP-1	4'-0"X11'-0" EQUIPMENT PAD PLAN
VZW EP-2	EQUIPMENT PAD - ELEV VIEW
VZW EP-3	GENERATOR DETAILS
VZW A-1	TOWER ELEVATION AND ANTENNA INFORMATION
VZW A-2	ANTENNA EQUIPMENT INFORMATION
VZW A-3	ANTENNA EQUIPMENT INFORMATION
VZW A-4	ANTENNA EQUIPMENT INFORMATION
VZW E-1	ENLARGED UTILITY PLAN
VZW E-2	ELECTRIC AND TELCO UTILITY DETAILS
VZW E-3	ENLARGED GROUNDING PLAN
VZW E-4	GROUNDING SCHEMATIC
VZW E-5	GROUNDING DETAILS
VZW SP-1	SPECIFICATIONS
VZW SP-2	SPECIFICATIONS

FIBER COORDINATION IS NOT COMPLETE (PENDING FIBER CONTACT). PRIOR TO CONSTRUCTION, CONTACT DESIGNER FOR UPDATE.



**APPLICANT**  
VERIZON WIRELESS  
DAVID HENDRIXSON  
1701 GOLF ROAD, TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PH: (231) 578-8860  
EMAIL: DAVID.HENDRIXSON@VERIZONWIRELESS.COM

**SITE ACQUISITION**  
DOLAN REALTY ADVISORS, LLC  
DOUG DOLAN  
343 S. KIRKWOOD ROAD #5  
BOX# 220130  
KIRKWOOD, MO 63122  
PH: (314) 963-7700  
EMAIL: DDOLAN@DOLANREALTYADVISORS.COM

**SURVEYOR**  
WILLIAMS & WORKS  
BILL MCCLURE  
549 OTTAWA AVE NW  
GRAND RAPIDS, MI 49503  
PH: (616) 224-1500  
EMAIL: MCCLURE@WILLIAMS-WORKS.COM

**ARCHITECTURAL AND ENGINEERING**  
MISSION 1 COMMUNICATIONS  
MARK ALLEN  
6202 CONSTITUTION DRIVE, SUITE C  
FORT WAYNE, IN 46804  
PH: (260) 436-3922  
EMAIL: M.ALLEN@M1COMM.COM

**UTILITIES - ELECTRIC**  
TBD

**UTILITIES - FIBER**  
TBD  
FIBER PROVIDER NOT SELECTED AT THE TIME OF RELEASE

**POLICE DEPARTMENT**  
ST CHARLES POLICE DEPT  
1515 W MAIN ST,  
ST. CHARLES, IL 60174  
PH: (630) 377-4435

**FIRE DEPARTMENT**  
ST CHARLES FIRE DEPT  
112 N RIVERSIDE AVE,  
ST. CHARLES, IL 60174  
PH: (630) 377-4458

**LANDLORD**  
ST CHARLES VW REAL ESTATE  
4050 E MAIN ST,  
ST. CHARLES, IL 60174  
PH: (630) 818-4150

### CONSULTANT TEAM

**PROJECT DESCRIPTION**  
INSTALLATION OF PANEL ANTENNA, ASSOCIATED APPLIANCES, COAXIAL CABLE AND MOUNTS ON AN 145' MONOPINE TOWER.  
INSTALLATION OF A 4'-0" X 11'-0" UNMANNED EQUIPMENT PAD ON CONCRETE FOUNDATION. INSTALLATION OF GENERAC SD030-1PE-190UT 30KW DIESEL GENERATOR ON EQUIPMENT CONCRETE FOUNDATION.  
NEW TELEPHONE (FIBER) SERVICE TO SITE AND EQUIPMENT SKID. NO WATER SUPPLY OR SEWAGE TO/FROM THE SITE.

**SITE COORDINATES AND ELEVATION**  
LATITUDE - N41° 55' 24.08"  
LONGITUDE - W88° 15' 23.01"  
GRD. ELEV. - ±764' AMSL

**PROJECT DESCRIPTION**



CERTIFICATION:  
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CONSTRUCTION**

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CHECKED BY: MJA

SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

PROJECT INFORMATION,  
LOCATION MAPS,  
AND DRAWING INDEX

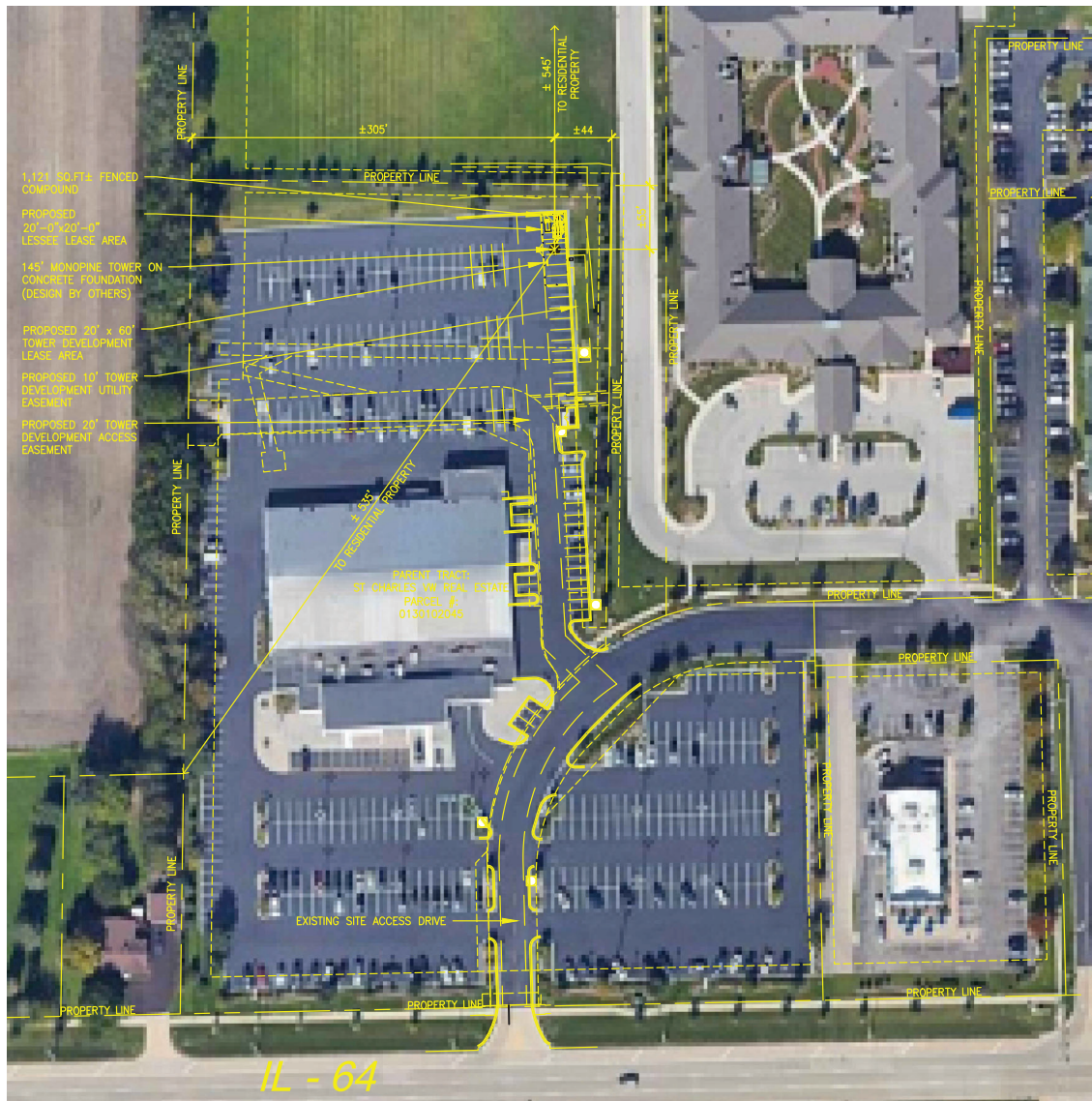
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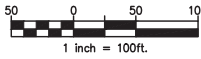


VZW T-1





**Developed Site Plan**



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CHECKED BY: MJA

SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

DEVELOPED SITE PLAN

A&E PROJECT NO.:

SHEET NO.:

**VZW C-1**





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COMMUNICATIONS

6202 Constitution Drive, Suite C  
Fort Wayne, IN 46804

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RELEASE

DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
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12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
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SITE NAME:

**FULL RELO  
SMITH & MAIN  
CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

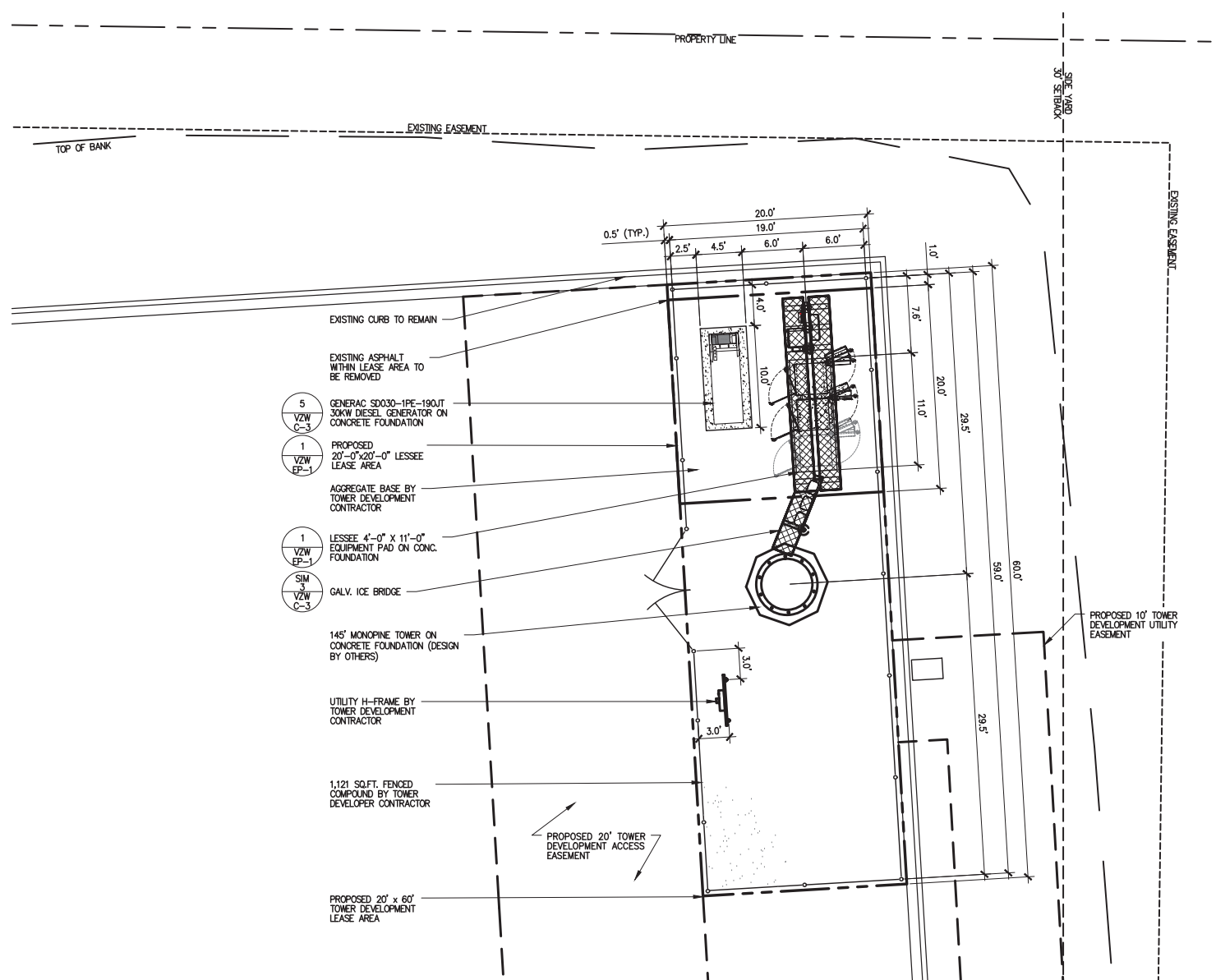
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ENLARGED SITE PLAN

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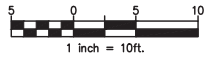
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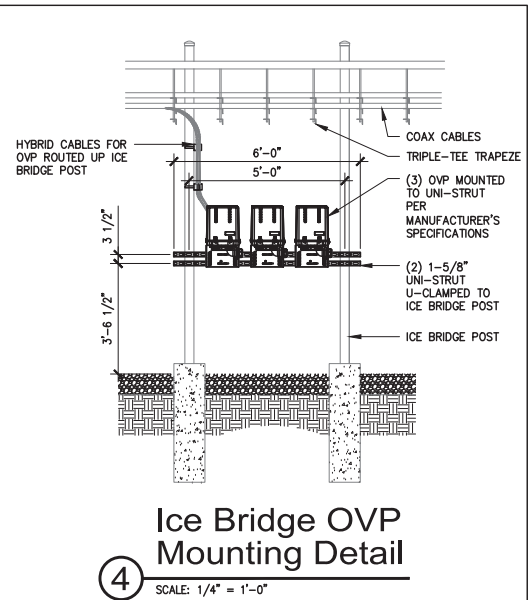
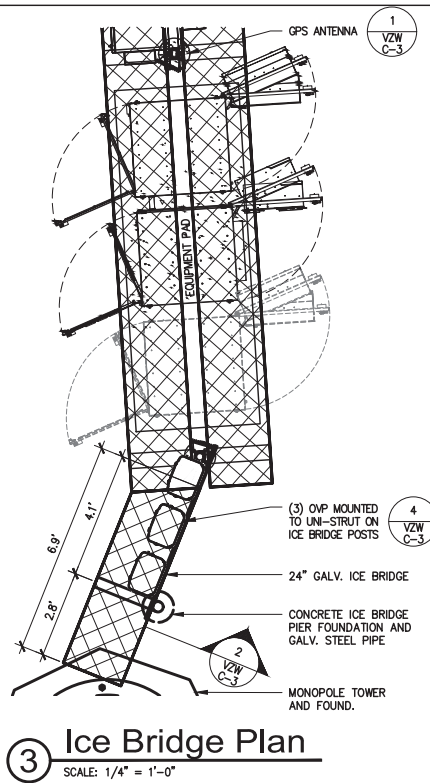
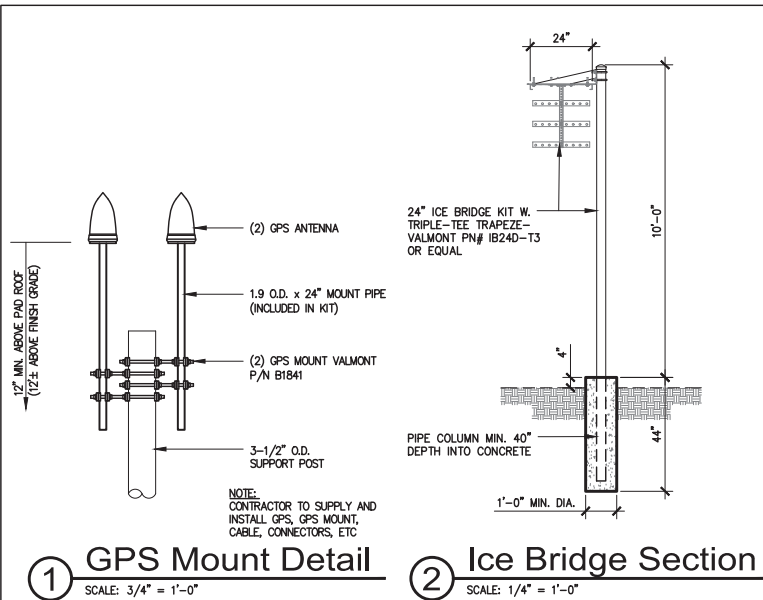
**VZW C-2**



- EXISTING CURB TO REMAIN
- EXISTING ASPHALT WITHIN LEASE AREA TO BE REMOVED
- 5 VZW C-3 GENERAC SD030-1PE-190UT 30KW DIESEL GENERATOR ON CONCRETE FOUNDATION
- 1 VZW EP-1 PROPOSED 20'-0" x 20'-0" LESSEE LEASE AREA
- AGGREGATE BASE BY TOWER DEVELOPMENT CONTRACTOR
- 1 VZW EP-1 LESSEE 4'-0" x 11'-0" EQUIPMENT PAD ON CONC. FOUNDATION
- SIM 3 VZW C-3 GALV. ICE BRIDGE
- 145' MONOPINE TOWER ON CONCRETE FOUNDATION (DESIGN BY OTHERS)
- UTILITY H-FRAME BY TOWER DEVELOPMENT CONTRACTOR
- 1,121 SQ.FT. FENCED COMPOUND BY TOWER DEVELOPER CONTRACTOR
- PROPOSED 20' x 60' TOWER DEVELOPMENT LEASE AREA

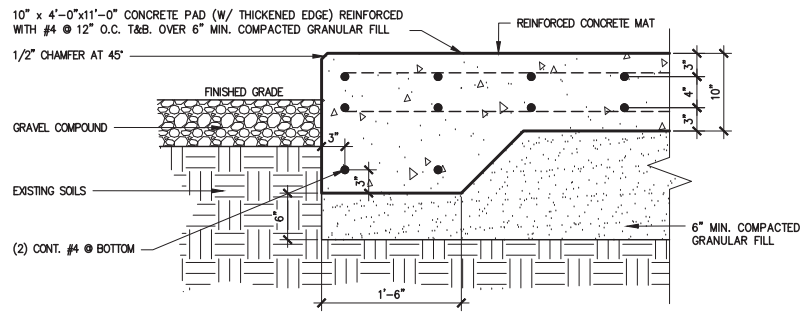
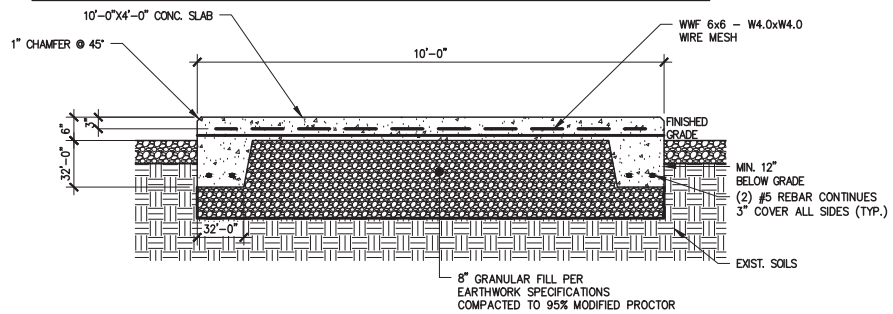
### Enlarged Site Plan





**CONCRETE NOTES:**

- ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 AND ACI 301, LATEST EDITION. THESE DOCUMENTS SHALL BE AVAILABLE IN THE FIELD OFFICE.
- EXCEPT WHERE OTHERWISE INDICATED, CONCRETE SHALL BE NORMAL WEIGHT AND WITH MINIMUM 28-DAY COMPRESSIVE STRENGTHS OF  $F'_c=4000$  PSI. ALL EXTERIOR EXPOSED CONCRETE SHALL BE AIR ENTRAINED WITH 6% AIR CONTENT.
- REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- UNLESS NOTED OTHERWISE, ALL SLABS-ON-GRADE SHALL BE REINFORCED WITH (1) LAYER OF 6x6 W2.1xW2.1 W.W.F..
- ALL PERIMETER WALL AND COLUMN FOOTINGS SHALL BEAR A MINIMUM OF 3'-6" BELOW FINISHED GRADES.
- PLACE ALL SLABS ON GRADE WITH AN APPROVED PATTERN AND SEQUENCE OF CONSTRUCTION AND CONTROL JOINTS (MAXIMUM OF 15'-0" O.C.) TO MINIMIZE SHRINKAGE CRACKS.
- CONCRETE MIX DESIGN SHALL BE SUBMITTED TO ARCHITECT / ENGINEER FOR REVIEW.
- ALL FOOTINGS TO BEAR ON MINIMUM NET ALLOWABLE SOIL BEARING CAPACITY OF 2,000 PSF TO BE VERIFIED IN FIELD.



**verizon**

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6202 Constitution Drive, Suite C  
Fort Wayne, IN 46804

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CHECKED BY: MJA

SITE NAME:

**FULL RELO SMITH & MAIN CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

ICE BRIDGE, AND FOUNDATION DETAILS

A&E PROJECT NO.:

SHEET NO.:

**VZW C-3**



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Fort Wayne, IN 46804

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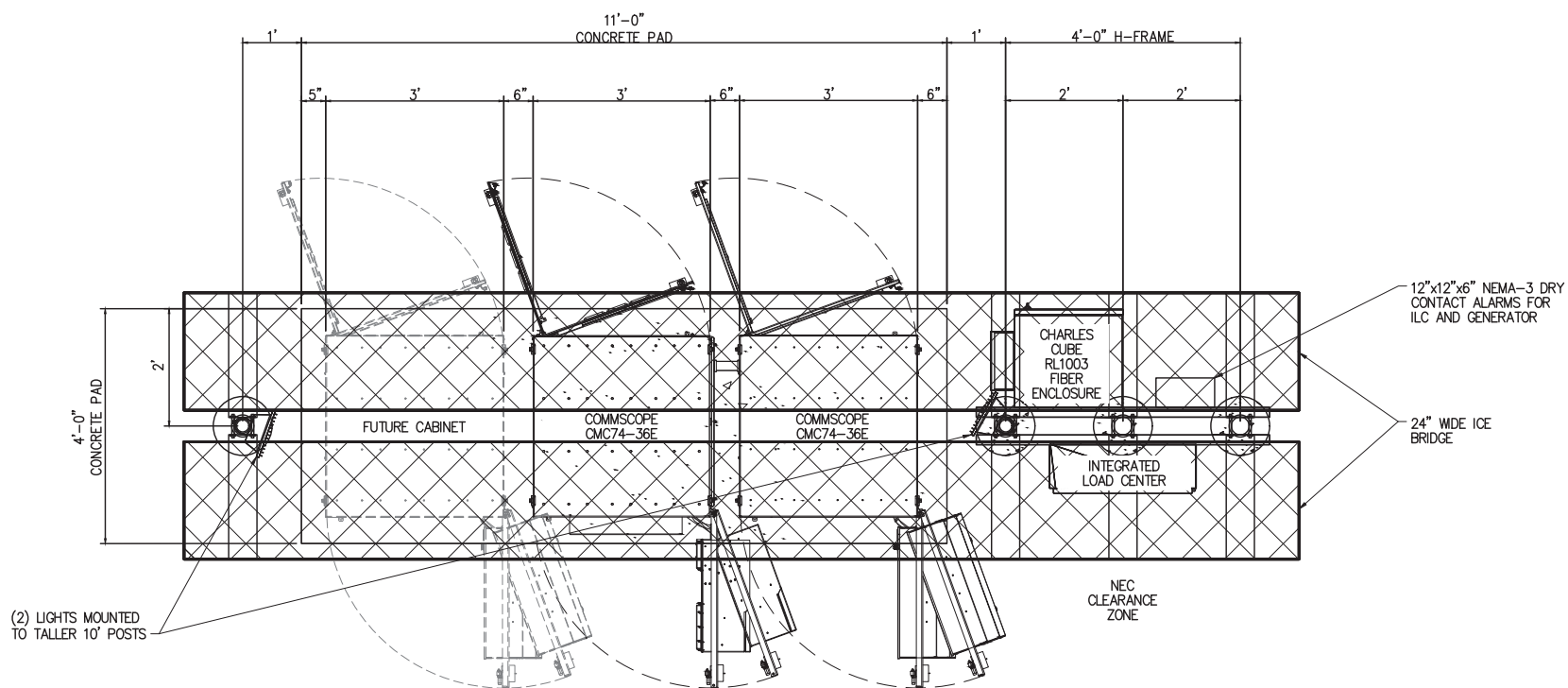
SHEET TITLE:

4'-0"X11'-0" EQUIPMENT  
PAD PLAN

A&E PROJECT NO.:

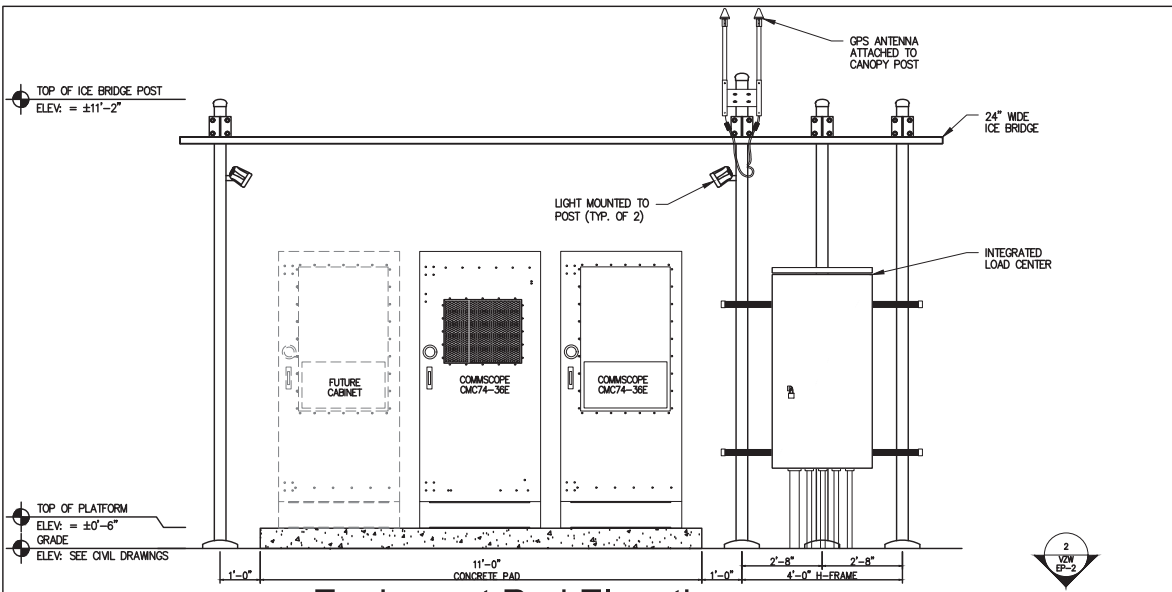
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VZW EP-1

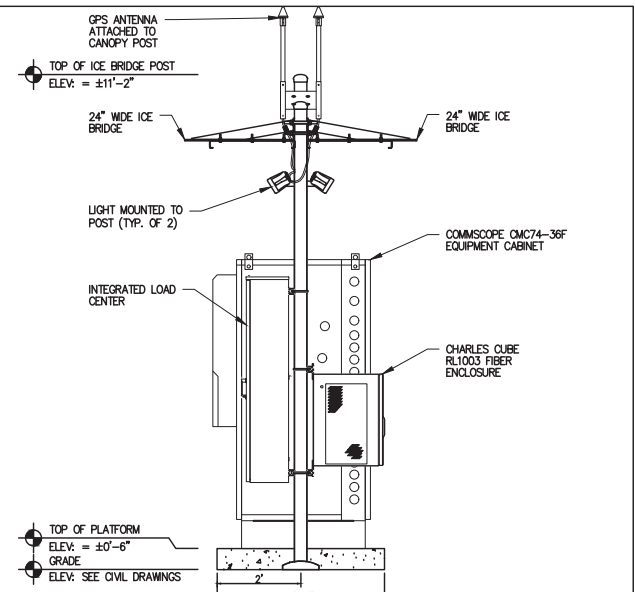


① Equipment Pad - Layout Plan  
SCALE: 1/2" = 1'-0"

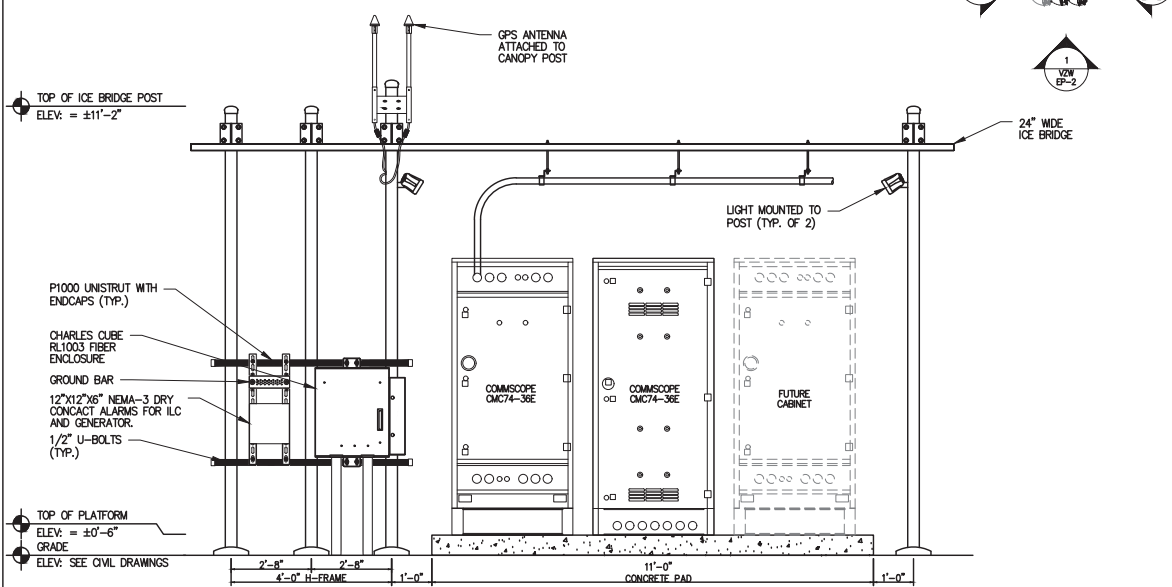




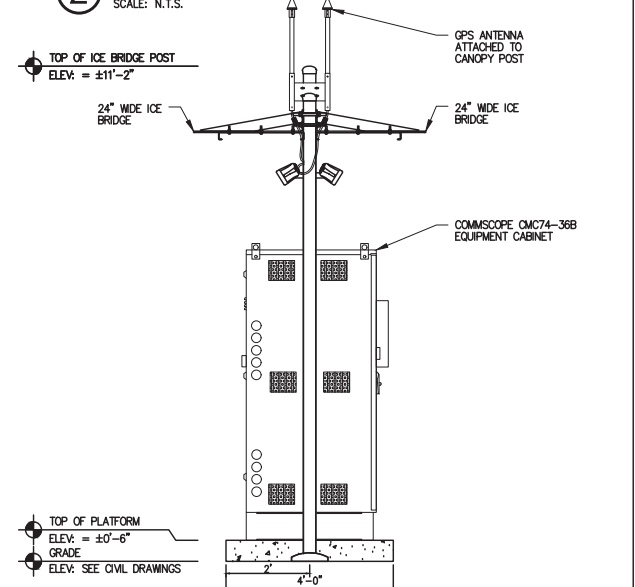
**1 Equipment Pad Elevation**  
SCALE: N.T.S.



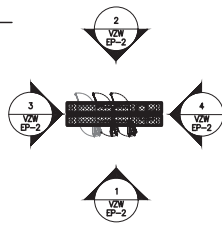
**2 Equipment Pad Elevation**  
SCALE: N.T.S.



**3 Equipment Pad Elevation**  
SCALE: N.T.S.



**4 Equipment Pad Elevation**  
SCALE: N.T.S.



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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:

**FULL RELO SMITH & MAIN CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

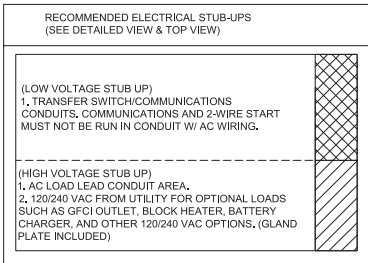
SHEET TITLE:

EQUIPMENT PAD - ELEV VIEW

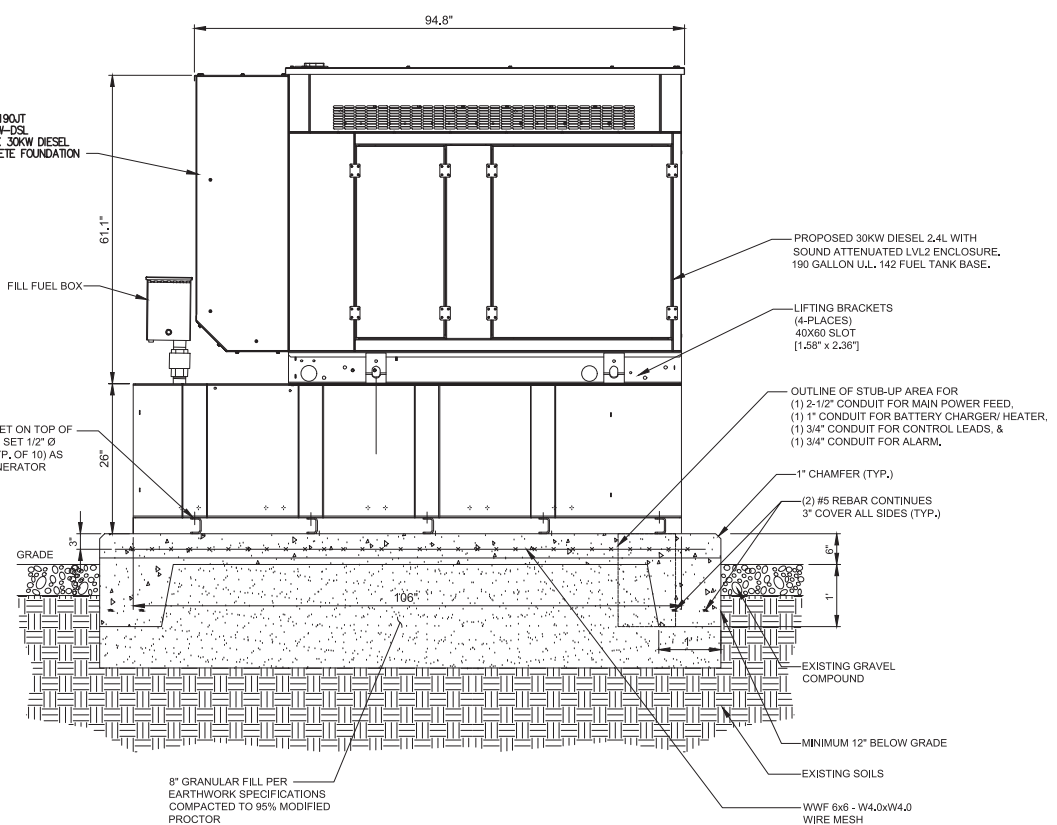
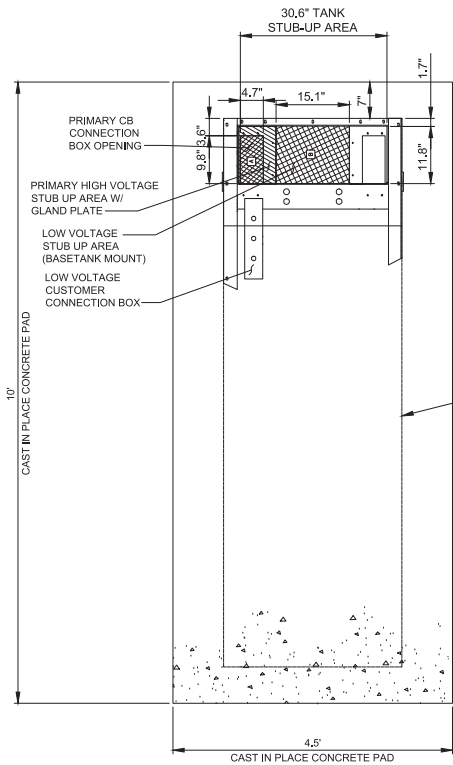
A&E PROJECT NO.:

SHEET NO.:

**VZW EP-2**



- NOTES:
- SEE GENERATOR MANUFACTURE'S DRAWINGS FOR PHYSICAL LOCATION OF FUEL LINES, CONTROL AND POWER INTERCONNECTIONS AND OTHER INTERFACES THAT ARE TO CAST INTO THE CONCRETE. THE PREFERRED METHOD IS TO BRING THE CONDUIT THROUGH THE PAD TO THE UNDERSIDE OF THE GENERATOR (MINIMIZES RODENT DAMAGE). FINISH CONNECTIONS WITH FLEXIBLE CONDUIT PER GENERATOR MANUFACTURES SPECS. RIGID CONDUITS SHALL BE SECURED TO THE EXISTING SLAB, THEN BURIED BETWEEN SLAB AND SHELTER.
  - THE GENERATOR SHALL BE LOCATED A MIN 5' AWAY FROM A COMBUSTIBLE WALL.  
-THE GENERATOR SHALL BE LOCATED A MIN OF 3' AWAY FROM A NON-COMBUSTIBLE WALL.



① Generator Foundation -Plan View  
SCALE: 1/2" = 1'-0"

② Generator Foundation - Side View  
SCALE: 1/2" = 1'-0"



CERTIFICATION:

FOR REFERENCE ONLY

RELEASE DATE	DESCRIPTION
08-11-22	PRELIMINARY SITE PLAN
09-22-22	PRELIMINARY SITE PLAN
11-09-22	LEASE EXHIBIT
12-09-22	LEASE EXHIBIT
12-29-22	LEASE EXHIBIT
01-30-23	90% CDs

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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:  
**FULL RELO SMITH & MAIN CELL SITE**

SITE ADDRESS:  
IL-64  
ST CHARLES, IL 60174

SHEET TITLE:  
**GENERATOR DETAILS**

A&E PROJECT NO.:

SHEET NO.:

**VZW EP-3**

Antenna Summary

700	850	1900	AVS	CBRS	L-Sub	Make	Model	Centroid	Tip Height	Azimuth	RET	4x6	Enc. Type	Quantity	Item ID
LTE	LTE 5G	LTE	LTE			COMMSCOPE	NH4-85C-R2B	140	144	150(001) 150(0) 120(000) 120(0) 240(000) 240(000)	false	false	PHYSICAL	6	NH4-85C-R2B
			LTE			EMERSON	KRE1052811	138	138.3	20(10) 160(00) 270(20)	false	false	PHYSICAL	3	
			5G			Emerson	APR649	142	143.3	160(00) 120(000) 240(000)	false	false	PHYSICAL	3	

Reserved

700	850	1900	AVS	CBRS	L-Sub	Make	Model	Centroid	Tip Height	Azimuth	RET	4x6	Enc. Type	Quantity	Item ID
No data available.															

Reserved

700	850	1900	AVS	CBRS	L-Sub	Make	Model	Centroid	Tip Height	Azimuth	RET	4x6	Enc. Type	Quantity	Item ID
No data available.															

Added: 02    Reserved: 0    Retired: 0

Summary

Item	Description	Quantity	Unit
1	Antenna	12	EA
2	Cable	12	FT
3	Support	12	EA
4	Bracket	12	EA
5	Hardware	12	EA
6	Mounting	12	EA
7	Platform	1	EA
8	Foundation	1	EA
9	Equipment Pad	1	EA
10	Accessories	12	EA
11	Labels	12	EA
12	Documentation	12	EA
13	Tools	12	EA
14	Materials	12	EA
15	Consumables	12	EA
16	Services	12	EA
17	Permits	12	EA
18	Insurance	12	EA
19	Training	12	EA
20	Other	12	EA

Summary

Item	Description	Quantity	Unit
1	Antenna	12	EA
2	Cable	12	FT
3	Support	12	EA
4	Bracket	12	EA
5	Hardware	12	EA
6	Mounting	12	EA
7	Platform	1	EA
8	Foundation	1	EA
9	Equipment Pad	1	EA
10	Accessories	12	EA
11	Labels	12	EA
12	Documentation	12	EA
13	Tools	12	EA
14	Materials	12	EA
15	Consumables	12	EA
16	Services	12	EA
17	Permits	12	EA
18	Insurance	12	EA
19	Training	12	EA
20	Other	12	EA

Summary

Item	Description	Quantity	Unit
1	Antenna	12	EA
2	Cable	12	FT
3	Support	12	EA
4	Bracket	12	EA
5	Hardware	12	EA
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11	Labels	12	EA
12	Documentation	12	EA
13	Tools	12	EA
14	Materials	12	EA
15	Consumables	12	EA
16	Services	12	EA
17	Permits	12	EA
18	Insurance	12	EA
19	Training	12	EA
20	Other	12	EA

Summary

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1	Antenna	12	EA
2	Cable	12	FT
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4	Bracket	12	EA
5	Hardware	12	EA
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9	Equipment Pad	1	EA
10	Accessories	12	EA
11	Labels	12	EA
12	Documentation	12	EA
13	Tools	12	EA
14	Materials	12	EA
15	Consumables	12	EA
16	Services	12	EA
17	Permits	12	EA
18	Insurance	12	EA
19	Training	12	EA
20	Other	12	EA

Summary

Item	Description	Quantity	Unit
1	Antenna	12	EA
2	Cable	12	FT
3	Support	12	EA
4	Bracket	12	EA
5	Hardware	12	EA
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8	Foundation	1	EA
9	Equipment Pad	1	EA
10	Accessories	12	EA
11	Labels	12	EA
12	Documentation	12	EA
13	Tools	12	EA
14	Materials	12	EA
15	Consumables	12	EA
16	Services	12	EA
17	Permits	12	EA
18	Insurance	12	EA
19	Training	12	EA
20	Other	12	EA

Summary

Item	Description	Quantity	Unit
1	Antenna	12	EA
2	Cable	12	FT
3	Support	12	EA
4	Bracket	12	EA
5	Hardware	12	EA
6	Mounting	12	EA
7	Platform	1	EA
8	Foundation	1	EA
9	Equipment Pad	1	EA
10	Accessories	12	EA
11	Labels	12	EA
12	Documentation	12	EA
13	Tools	12	EA
14	Materials	12	EA
15	Consumables	12	EA
16	Services	12	EA
17	Permits	12	EA
18	Insurance	12	EA
19	Training	12	EA
20	Other	12	EA

RF EMISSIONS REPORT REQUIRED

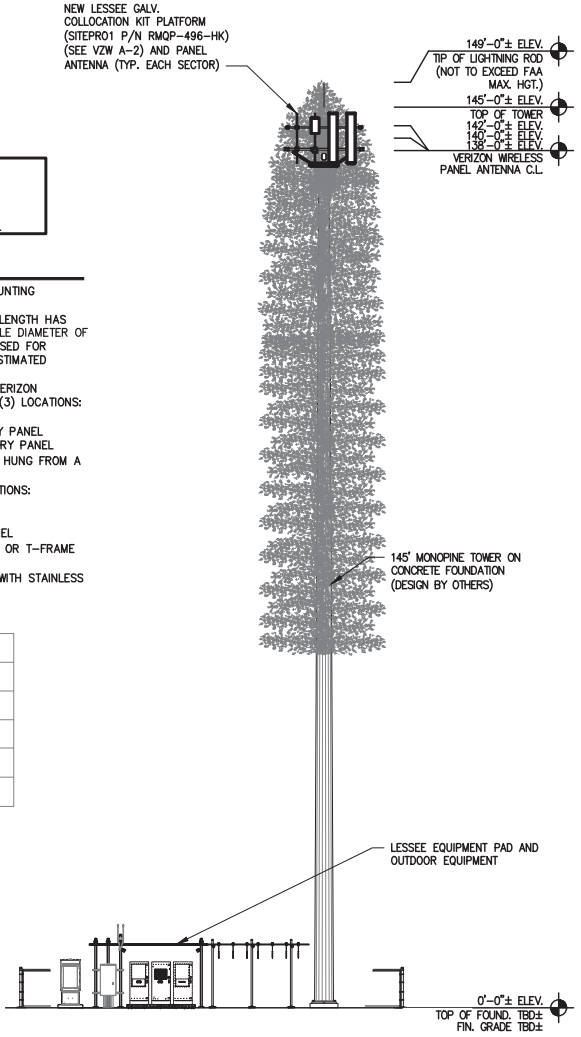
YES     NO

DATE OF REPORT: \_\_\_\_\_

General Notes

- VERIFY EACH COAXIAL CABLE LENGTH, ROUTING, AND ALL MOUNTING APPURTENANCES WITH OWNER PRIOR TO ORDERING.
- THE MAXIMUM COAXIAL CABLE AND DC-FIBER HYBRID CABLE LENGTH HAS BEEN ESTIMATED AT 147.9 FEET WITH A CORRESPONDING CABLE DIAMETER OF 1 5/8". THIS CABLE LENGTH IS APPROXIMATE AND IS NOT USED FOR CONSTRUCTION. ACTUAL CABLE LENGTHS MAY VARY FROM ESTIMATED MAXIMUM LENGTH AND MUST BE VERIFIED.
- COLOR CODE ALL MAIN CABLES, VERIFY COLOR CODES WITH VERIZON CONSTRUCTION MANAGER. CABLES TO BE TAGGED IN THREE (3) LOCATIONS:
  - TOP OF TOWER AT ANTENNA
  - INSIDE EQUIPMENT PAD NEAR THE COAX BUILDING ENTRY PANEL
  - OUTSIDE EQUIPMENT PAD NEAR THE COAX BUILDING ENTRY PANEL
- EACH COAX CABLE SHALL BE SUPPORTED WITH COLUMN GRIP HUNG FROM A J-HOOK AT THE TOP OF THE TOWER.
- EACH COAX CABLE SHALL BE GROUNDED AT THREE (3) LOCATIONS:
  - TOWER PLATFORM OR T-FRAME
  - TOWER BASE
  - OUTSIDE EQUIPMENT PAD AT COAX BUILDING ENTRY PANEL
- COAX CABLE TO BE SUPPORTED EVERY 3' O.C. ON PLATFORM OR T-FRAME WITH STAINLESS STEEL HANGERS.
- COAX CABLES TO BE SUPPORTED ON THE TOWER EVERY 18" WITH STAINLESS STEEL HANGERS.

HYBRID CABLE ESTIMATE	
RAD CENTER	140'
OVP	10'
PORT HEIGHT	-9'
ICE BRIDGE	6.9'
ESTIMATED LENGTH	147.9'



1 Tower Elevation  
SCALE: 1" = 20'-0"



CERTIFICATION:

PRELIMINARY  
NOT FOR  
CONSTRUCTION

RELEASE DATE	DESCRIPTION
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11-09-22	LEASE EXHIBIT
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12-29-22	LEASE EXHIBIT
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DRAWN BY: JUT  
CHECKED BY: MJA

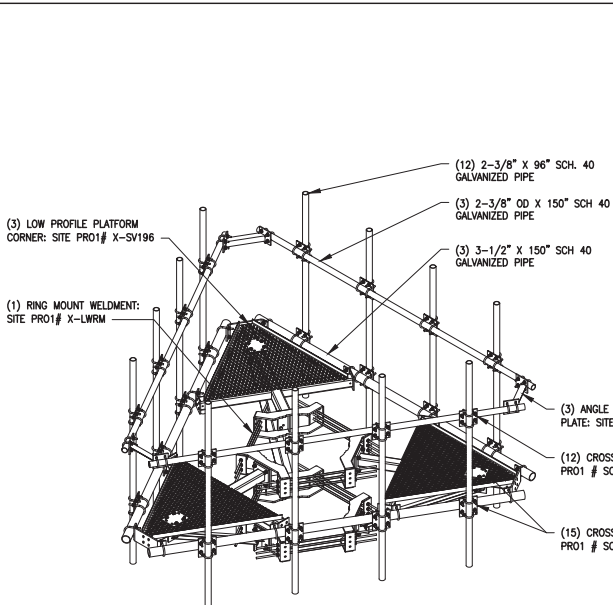
SITE NAME:  
**FULL RELO SMITH & MAIN CELL SITE**

SITE ADDRESS:  
IL-64  
ST CHARLES, IL 60174

SHEET TITLE:  
TOWER ELEVATION, ANTENNA INFORMATION, NOTES AND DETAILS

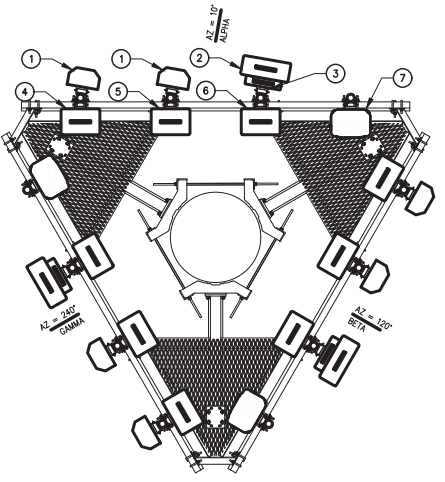
A&E PROJECT NO.:

SHEET NO.:  
**VZW A-1**

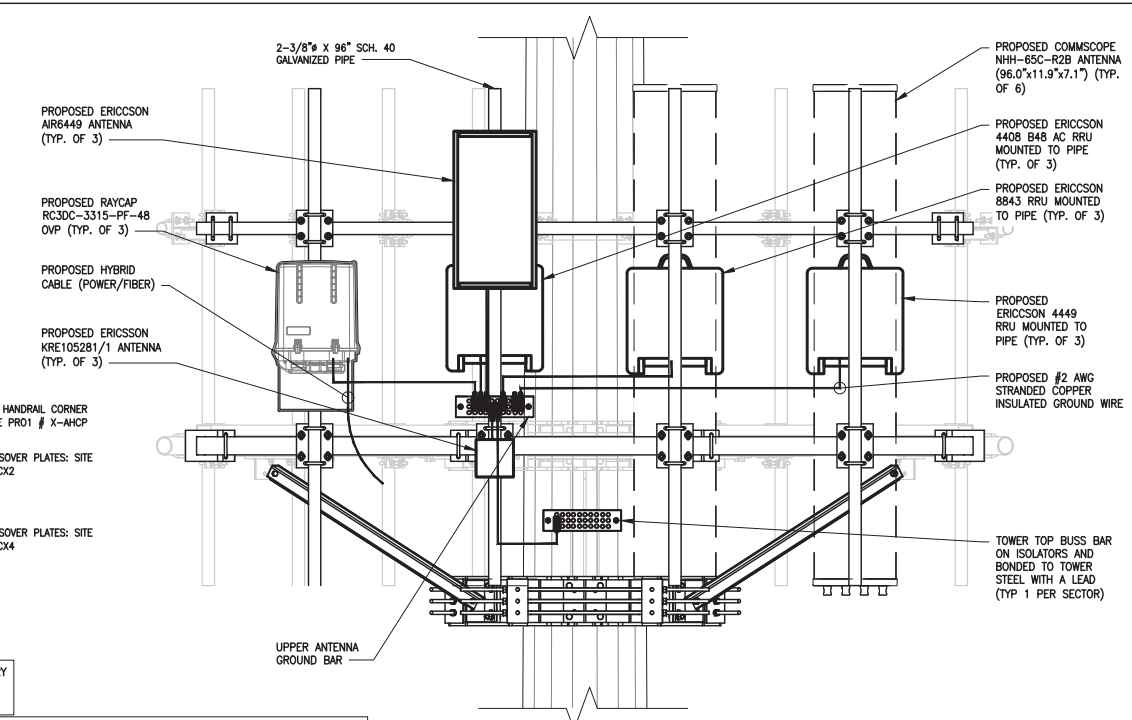


**4 Platform Isometric**  
SCALE: 1/4" = 1'-0"

ACTUAL EQUIPMENT MAY VARY (SEE ECR FOR PROPOSED EQUIPMENT CONFIGURATION)



**3 Antenna Azimuth**  
SCALE: 1/4" = 1'-0"



**2 Antenna, RRU, TMA, & Surge Protector Mounting Detail**  
SCALE: 1/2" = 1'-0"

RMQP-496-HK

Co-Location Platform Kit

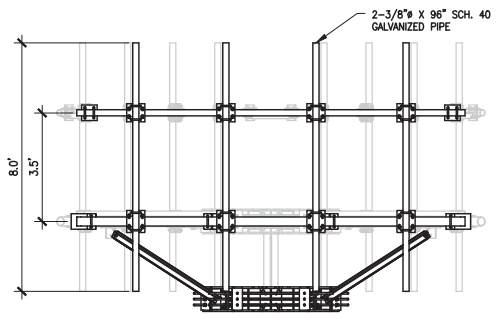
2448.72

**SITE PRO 1**

A valmont COMPANY

PLATFORM ORIENTATION 0°, 120°, 240°

1. PROPOSED COMMSCOPE NIH-65C-R2B ANTENNA (96.0"x11.9"x7.1") (TYP. OF 6)
2. PROPOSED ERICSSON AIR6449 ANTENNA (TYP. OF 3)
3. PROPOSED ERICSSON KRE105281/1 ANTENNA (TYP. OF 3)
4. PROPOSED ERICSSON 4449 RRU MOUNTED TO PIPE (TYP. OF 3)
5. PROPOSED ERICSSON 8843 RRU MOUNTED TO PIPE (TYP. OF 3)
6. PROPOSED ERICSSON 4408 B48 AC RRU (TYP. OF 3)
7. PROPOSED RAYCAP RC3DC-3315-PF-48 OVP WITH RAYCAP 3315-ALM-RS485 ALARM MOUNTED TO PIPE (TYP. OF 3)



**1 Elevation**  
SCALE: 1/4" = 1'-0"



CERTIFICATION:

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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:

**FULL RELO SMITH & MAIN CELL SITE**

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

SHEET TITLE:

PLATFORM MOUNT INFORMATION NOTES & DETAILS

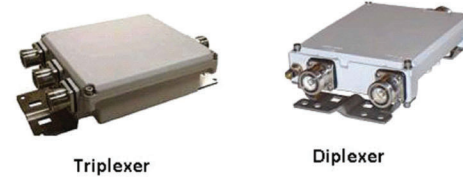
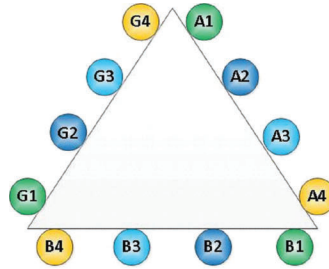
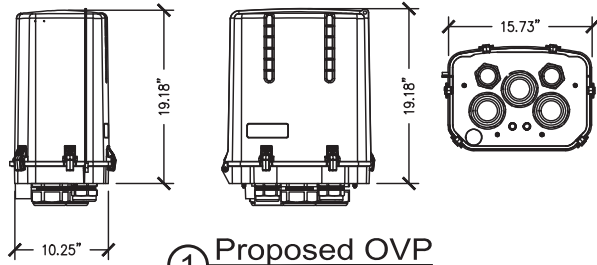
A&E PROJECT NO.:

SHEET NO.:

**VZW A-2**

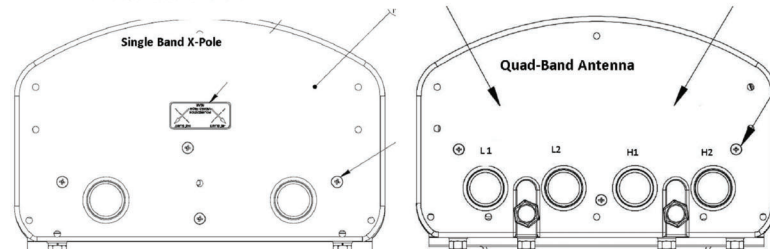


DC Surge Protection for RRH/Integrated Antenna Radio Head  
**RCMDC-3315-PF-48**  
 Tower / Base / Rooftop / Rooftop Distribution Models



RET Portable Control Unit

RET Cable



③ Proposed Components  
N.T.S.

Radio 8843 & 4449

	Radio 8843	Radio 4449
Dual Band	Band 1 (L) 800MHz Band 2 (R) 800MHz	Band 1 (L) 800MHz Band 2 (R) 800MHz
Frequency	UL: 1500-1500MHz UL: 1500-1500MHz	UL: 1500-1500MHz UL: 1500-1500MHz
RF	60 MHz 60 MHz	60 MHz 60 MHz
OSW	60 MHz 60 MHz	60 MHz 60 MHz
Center Bandwidth	5, 10, 15, 20 MHz	5, 10, 15, 20 MHz
Total # of carriers	40 to 200 per radio over both bands	40 to 200 per radio over both bands
RF Chain	4T4R, 2T4R, 2T2R (RWR configurable)	4T4R, 2T4R, 2T2R (RWR configurable)
RF Output Power	300W	300W
RF Technology	Typical: 8T2MIMO, 10S, 1.5dB @ 100%	Typical: 8T2, 10S, 1.5dB @ 100%
Modulation	EVMB, 64QAM-1/2, 256QAM-1/2, 512QAM-1/2	EVMB, 64QAM-1/2, 256QAM-1/2, 512QAM-1/2
Input Power	300-360 VDC	300-360 VDC
Power Consumption	1373 (estimated) Watt @ 100% RF load, typical conditions	1344 (estimated) Watt @ 100% RF load, typical conditions
Size (Height)*	28" x 15" x 10"	28" x 15" x 10"
Weight	85 lbs	85 lbs
Operating Temperature	40°C (-40°F) - 55°C (131°F) (without solar load)	40°C (-40°F) - 55°C (131°F) (without solar load)
Cooling	Natural convection	Natural convection
CRH Controls	10-100-0 ports	10-100-0 ports
CRH Interface	2 CRH ports (2.5, 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100)	2 CRH ports (2.5, 5, 10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100)
RET & TMA Interface	1 AEG/RET port AEG v2.0	1 AEG/RET port AEG v2.0
Mount	Supports 2 RF ports (first port supports one band, second port supports the other band)	Supports 2 RF ports (first port supports one band, second port supports the other band)
NSM-4T	supported	8T2 in-band and guard bands 4 carriers per sector, 8S
Alarm Input	supported	supported

RADIO 8843  
 RADIO 4449  
 Preliminary



April 2017

② Proposed RRU  
N.T.S.



CERTIFICATION:

PRELIMINARY  
 NOT FOR  
 CONSTRUCTION

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01-30-22	90% CDs

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DRAWN BY: JUT  
 CHECKED BY: MJA

SITE NAME:

FULL RELO  
 SMITH & MAIN  
 CELL SITE

SITE ADDRESS:

IL-64  
 ST CHARLES, IL 60174

SHEET TITLE:

ANTENNA EQUIPMENT  
 INFORMATION

A&E PROJECT NO.:

SHEET NO.:

VZW A-3

# Remote Radio Hybrid Cable

## Cell Tower Applications

### Single-Cable Power and Fiber Solution

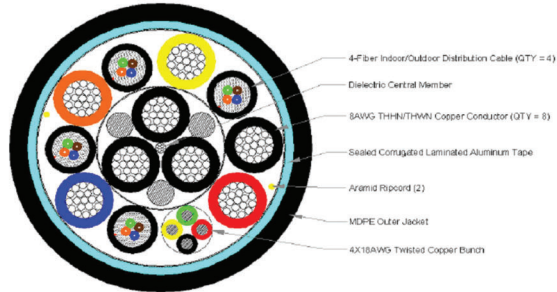
RRH with Corrugated Aluminum Shield

Fiber Cable: Four 4-fiber Subunits

Copper Conductors: 8X8AWG THHN/THHN and a 4X18AWG Twisted Bunch



1100 Commscope Place SE  
P.O. Box 1726  
Hickory, NC 28605-1729  
(800) 655-1709  
(828) 324-2200  
Fax: (828) 323-3400  
Int'l Fax: (828) 323-4989  
www.commscope.com



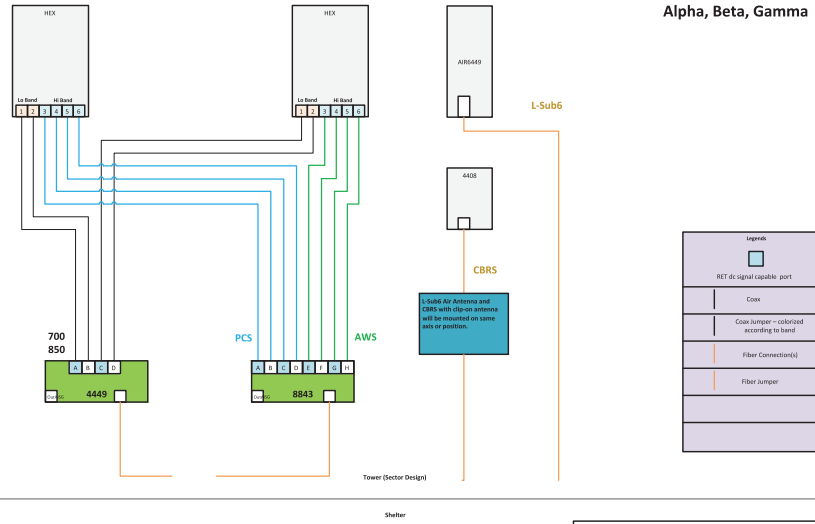
Cable Summary	
Cable Type	JFF-165M-008-418-APE
Outer Jacket	MDPE
Shielding	Corrugated Aluminum
Inner Block	Type
Ripcord	Aramid (QTY = 2)
Conductors	8 x 8AWG and 4X18AWG bunch
Fiber Cables	4 x 4 2M Fibers
Strength Member	KFR
Optical Fiber Details for Fiber Cable	
Fiber Type	Single Mode G.652.D
Fiber Coating Diameter	Ø.9mm Tight Buffer
Number of Fiber Subunits	4
Fiber count (each subunit)	4
Fiber Subunit Diameter (mm)	5.07
Max attenuation, 1310 nm	0.5 dB/km
Max attenuation, 1550 nm	0.5 dB/km
Copper Conductor Details	
Number, Size	8 x 8awg
DC resistance	0.618 (2.96) ohm/kft (ohm/km)
Cable Details	
Outer Diameter	1.09 (27.7) inch (mm)
Weight	0.75 (1.32) lb/ft (kg/m)
Minimum Bend Radius - loaded	21.9 (553) inch (mm)
Minimum Bend Radius - unloaded	10.9 (277) inch (mm)
Max Tensile Load - short term	800 (3560) lb (N)
Max Tensile Load - long term	240 (1070) lb (N)
Operating Temperature Range	-40 to +80 °C
Installation Temperature Range	-30 to +70 °C
Storage Temperature Range	-40 to +80 °C
Crush resistance, FOTP-41	22 N/mm
Impact resistance, FOTP-35	20 impacts of 2.94 Nm
Flexing, FOTP-104	5 cycles
Twisting, FOTP-85	exceeds



Drawings not to scale  
Specifications subject to change  
Revision Date: 6/28/12

### Equipment Summary

Added														
Equipment Type	Location	700	850	1900	AW5	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
Hybrid Cable	Tower							COMMSCOPE-	HFT1206-245V4-xxxG			PHYSICAL	3	
RRU	Tower					LTE		Ericsson	4408 B48 AC			PHYSICAL	3	KRC161740/1
RRU	Tower	LTE	LTE					Ericsson	4449			PHYSICAL	3	KRC161749/1
RRU	Tower					LTE		Ericsson	8843			PHYSICAL	3	KRC161707/2
RRU	Tower					5G		Ericsson	448449			PHYSICAL	3	
Alarm	Tower							RAYCAPINC-001	3315-ALM-RS485			PHYSICAL	3	3315-ALM-RS485
OVP Box	Tower							RAYCAPINC-001	RVZDC-3315-PF-48	1-5/8 inch		PHYSICAL	3	RVZDC-3315-PF-48
Removed														
Equipment Type	Location	700	850	1900	AW5	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
No data available.														
Retained														
Equipment Type	Location	700	850	1900	AW5	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
No data available.														



Notes:  
- Antenna view is from the back of the antenna  
- Colors of connector are just for identification  
- Follow RET cabling standard for non-Smart Box T-As  
- Non-RF path elements like OVP/ITTA Box and hybrid cables not shown  
- Size of objects in drawing doesn't reflect equipment true dimension

## 1 Proposed Configuration



CERTIFICATION:

PRELIMINARY  
NOT FOR  
CONSTRUCTION

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DRAWN BY: JUT  
CHECKED BY: MJA

SITE NAME:

FULL RELO  
SMITH & MAIN  
CELL SITE

SITE ADDRESS:

IL-64  
ST CHARLES, IL 60174

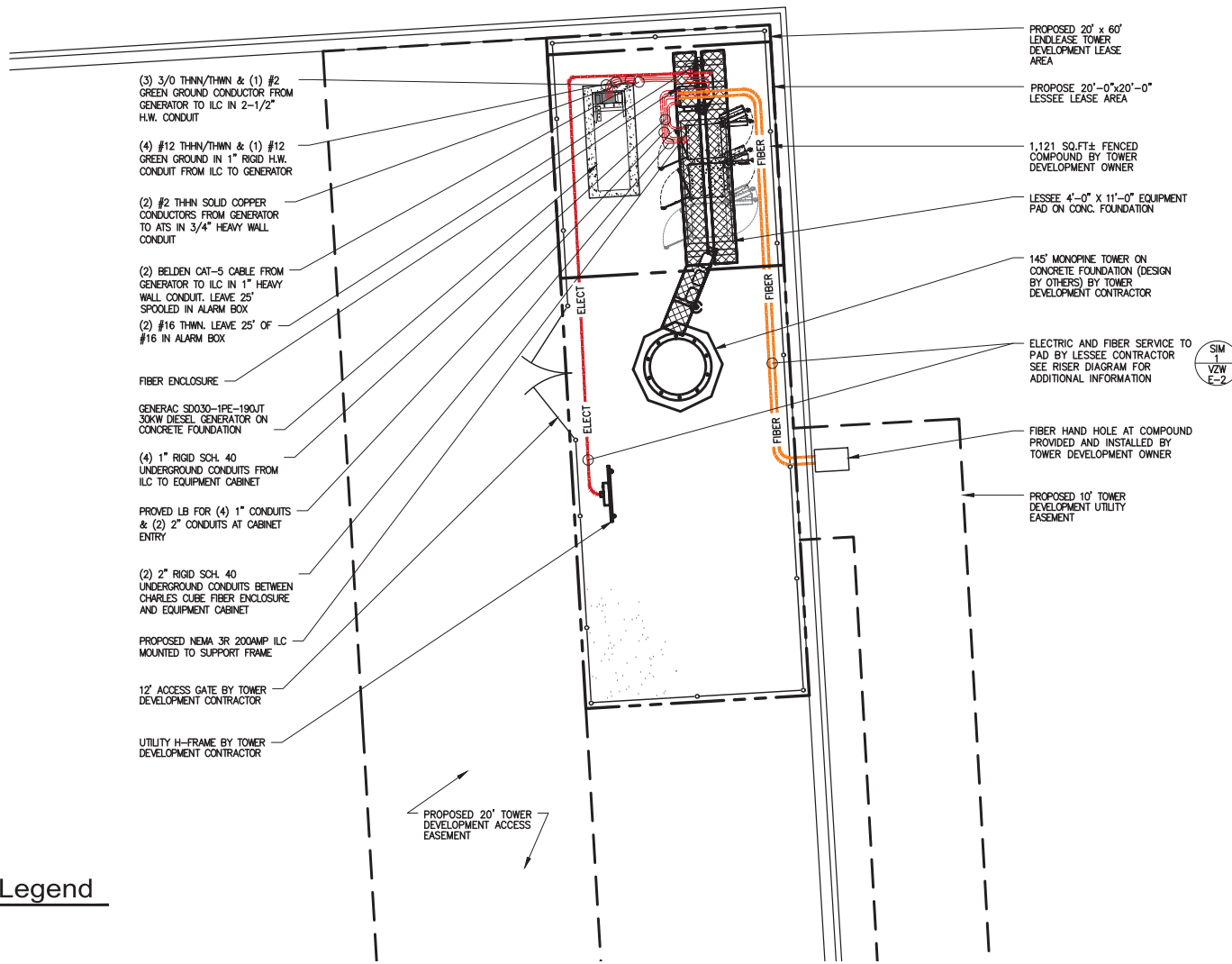
SHEET TITLE:

ANTENNA EQUIPMENT  
INFORMATION

A&E PROJECT NO.:

SHEET NO.:

VZW A-4



(3) 3/0 THHN/THWN & (1) #2 GREEN GROUND CONDUCTOR FROM GENERATOR TO ILC IN 2-1/2\"/>

(4) #12 THHN/THWN & (1) #12 GREEN GROUND IN 1\"/>

(2) #2 THHN SOLID COPPER CONDUCTORS FROM GENERATOR TO ATS IN 3/4\"/>

(2) BELDEN CAT-5 CABLE FROM GENERATOR TO ILC IN 1\"/>

(2) #16 THWN. LEAVE 25' OF #16 IN ALARM BOX

FIBER ENCLOSURE

GENERAC SD030-1PE-19OUT 30KW DIESEL GENERATOR ON CONCRETE FOUNDATION

(4) 1\"/>

PROVIDE LB FOR (4) 1\"/>

(2) 2\"/>

PROPOSED NEMA 3R 200AMP ILC MOUNTED TO SUPPORT FRAME

12\"/>

UTILITY H-FRAME BY TOWER DEVELOPMENT CONTRACTOR

PROPOSED 20' x 60' LENDLEASE TOWER DEVELOPMENT LEASE AREA

PROPOSE 20'-0\"/>

1,121 SQ.FT± FENCED COMPOUND BY TOWER DEVELOPMENT OWNER

LESSEE 4'-0\"/>

145' MONOPINE TOWER ON CONCRETE FOUNDATION (DESIGN BY OTHERS) BY TOWER DEVELOPMENT CONTRACTOR

ELECTRIC AND FIBER SERVICE TO PAD BY LESSEE CONTRACTOR SEE RISER DIAGRAM FOR ADDITIONAL INFORMATION



FIBER HAND HOLE AT COMPOUND PROVIDED AND INSTALLED BY TOWER DEVELOPMENT OWNER

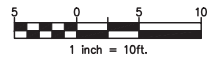
PROPOSED 10' TOWER DEVELOPMENT UTILITY EASEMENT

PROPOSED 20' TOWER DEVELOPMENT ACCESS EASEMENT

**Utility Color Legend**

- █ ELECTRIC
- █ GAS, OIL, STEAM
- █ COMMUNICATIONS
- █ POTABLE WATER
- █ RECLAIMED WATER
- █ SEWER/ DRAINAGE
- █ SURVEY MARKS

**Enlarged Utility Plan**



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08-11-22	PRELIMINARY SITE PLAN
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SHEET TITLE:

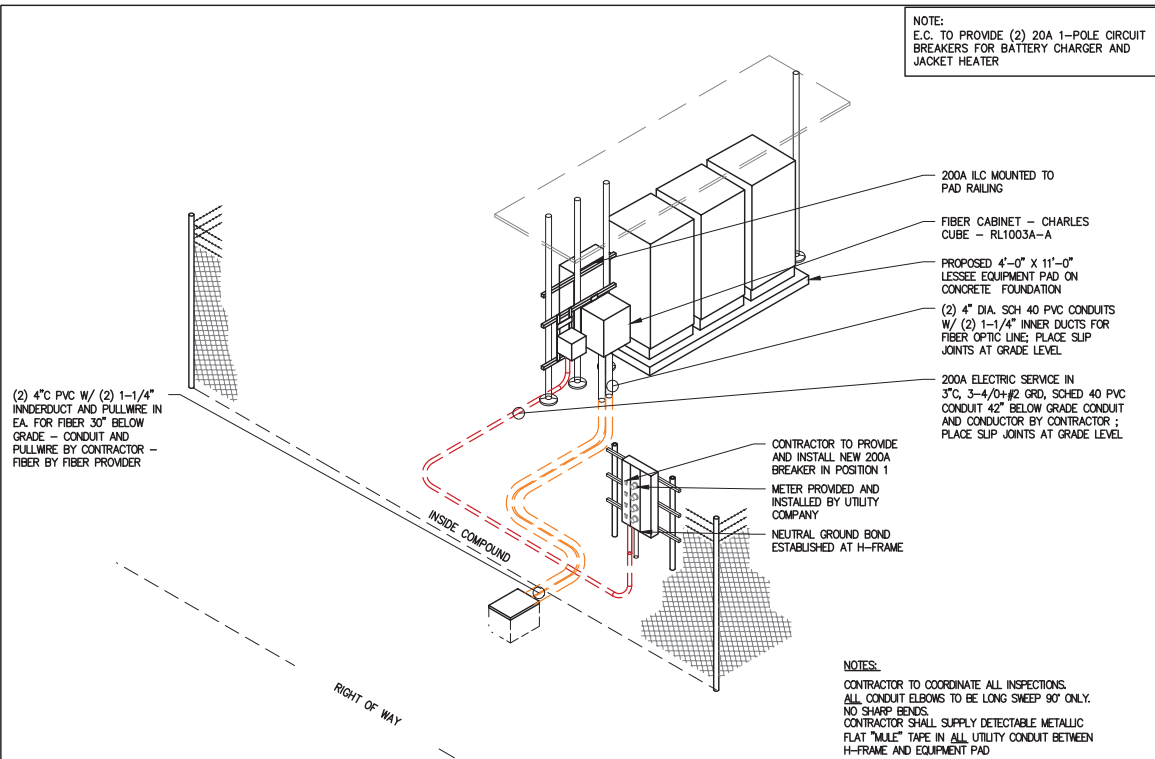
ENLARGED UTILITY PLAN

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**VZW E-1**

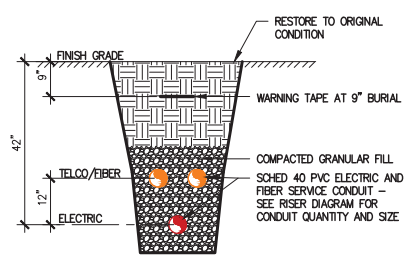




**1 Utility Riser Diagram**  
 SCALE: N.T.S.

**Utility Color Legend**

- █ ELECTRIC
- █ GAS, OIL, STEAM
- █ COMMUNICATIONS
- █ POTABLE WATER
- █ RECLAIMED WATER
- █ SEWER/ DRAINAGE
- █ SURVEY MARKS



**2 Buried Utility**  
 SCALE: 3/8" = 1'-0"

**NOTES:**  
 CONTRACTOR TO COORDINATE ALL INSPECTIONS.  
 ALL CONDUIT ELBOWS TO BE LONG SWEEP 90° ONLY.  
 NO SHARP BENDS.  
 CONTRACTOR SHALL SUPPLY DETECTABLE METALLIC FLAT "MULE" TAPE IN ALL UTILITY CONDUIT BETWEEN H-FRAME AND EQUIPMENT PAD



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SHEET TITLE:  
 ELECTRICAL AND TELCO  
 UTILITY DETAILS

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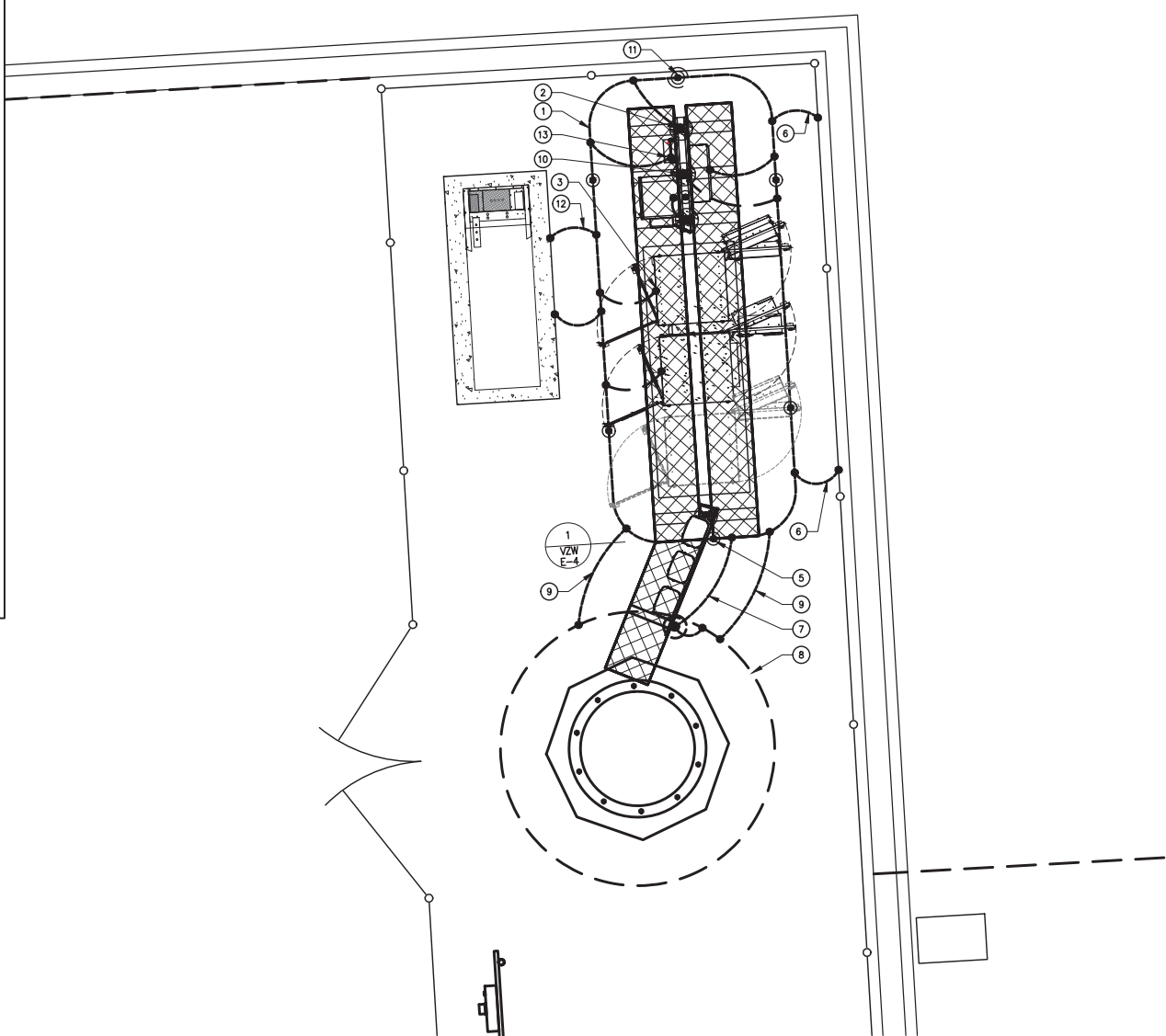
SHEET NO.:

**VZW E-2**



TYPICAL GROUNDING NOTES

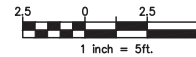
1. #2 AWG TINNED SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
2. PAD CORNER POST, STEEL COLUMN, STEEL BEAM & CANOPY GROUND
3. CABINET GROUND BOLTED TO UNIT HOUSING
4. DISCONNECT AND ELECTRIC SERVICE GROUND TO GROUND ROD
5. 5/8" X 10' COPPER CLAD GROUND ROD
6. GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION (TYPE VS) GROUND FENCE POSTS WITHIN 6 FEET OF PAD AND 25 FEET OF TOWER. (SEE DETAIL, SHEET VZW E-5.)
7. GROUND CABLE WAVEGUIDE BRIDGE (TYP.) BY ELECTRICAL CONTRACTOR.
8. TOWER GROUND RING (V.I.F.)
9. BOND PROPOSED TOWER GROUND RING TO PROPOSED GROUND RING WITH #2 AWG TINNED SOLID COPPER CONDUCTOR IN 2 LOCATIONS.
10. TWO #2 LEADS FROM THE EGR TO THE GROUND BAR AT UTILITY FRAME LOCATED ON EQUIPMENT PAD STEEL. CADWELD AT EGR AND DOUBLE HOLE LUGS ON EQUIPMENT PAD.
11. COPPER CLAD GROUND ROD WITH INSPECTION WELL TOP OF GROUND ROD MAX 24" BURY. SEE DETAIL SHEET VZW E-5.
12. EXTEND GROUND CONDUCTORS IN 1/2" RIGID H.W. CONDUIT ADJACENT TO PAD, OFFSET AND ATTACH TO EXTERIOR OF GENERATOR HOUSING AND EXTEND TO GROUND LUGS AS REQUIRED, VERIFY LOCATION WITH GENERAC.
13. MGB MOUNTED UNDER PERIMETER BEAM



Grounding Legend

- GROUND ROD
- ⊙ GROUND SYSTEM TEST WELL (HAND HOLE)
- \* CADWELD CONNECTION
- FENCE LINE

Enlarged Grounding Plan



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SHEET TITLE:

ENLARGED GROUNDING  
PLAN

A&E PROJECT NO.:

SHEET NO.:

**VZW E-3**

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08-11-22	PRELIMINARY SITE PLAN
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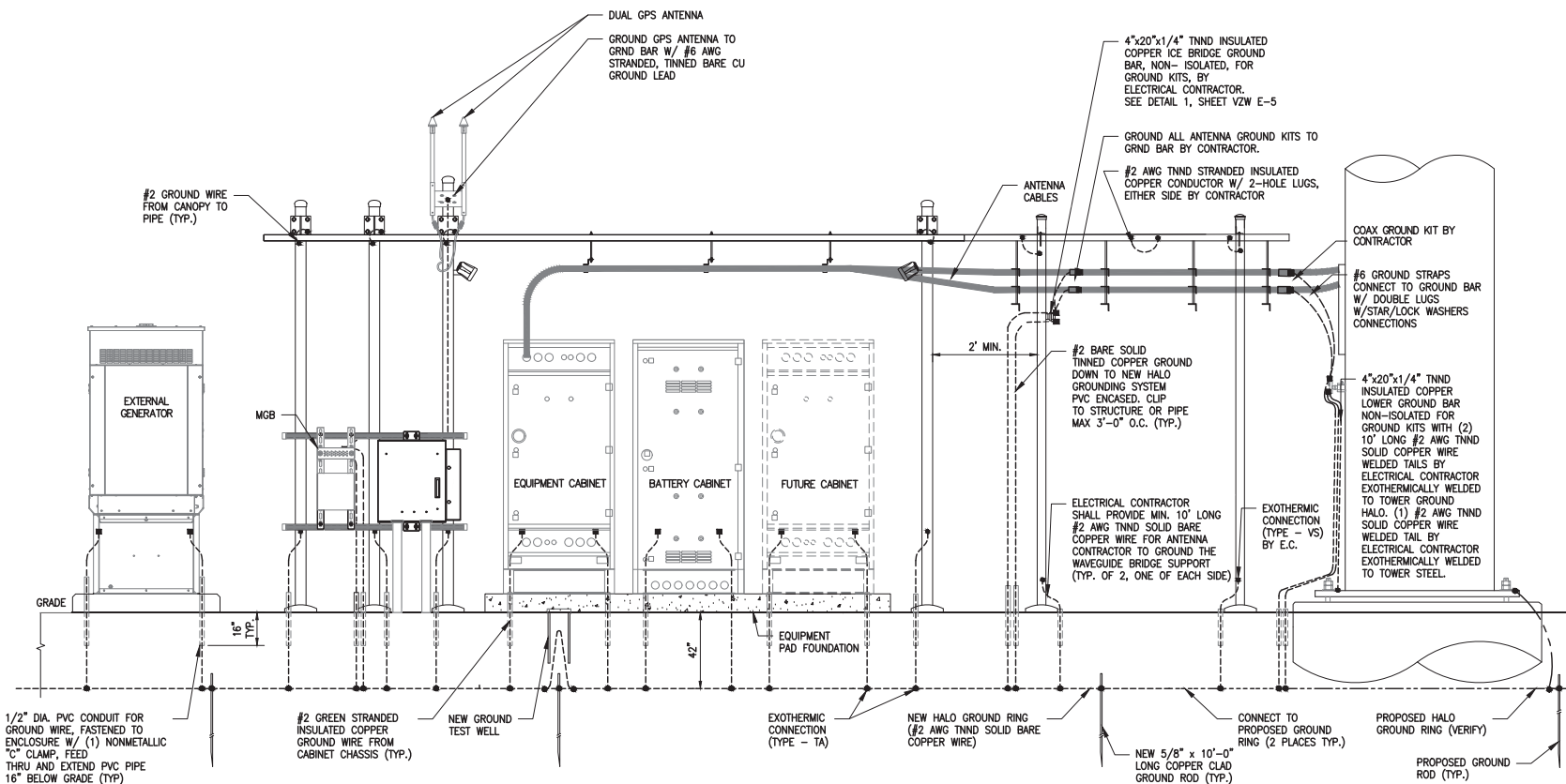
SHEET TITLE:

GROUNDING SCHEMATIC  
AND DETAILS

A&E PROJECT NO.:

SHEET NO.:

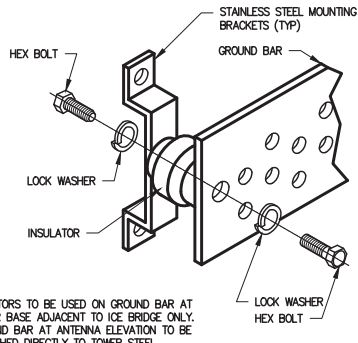
**VZW E-4**



# Skid and Tower Grounding Elevation Schematic

1

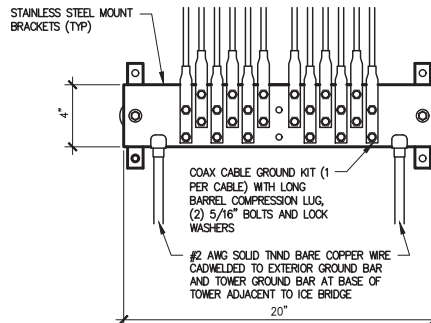
SCALE: N.T.S.



NOTE:  
ISOLATORS TO BE USED ON GROUND BAR AT TOWER BASE ADJACENT TO ICE BRIDGE ONLY. GROUND BAR AT ANTENNA ELEVATION TO BE ATTACHED DIRECTLY TO TOWER STEEL.

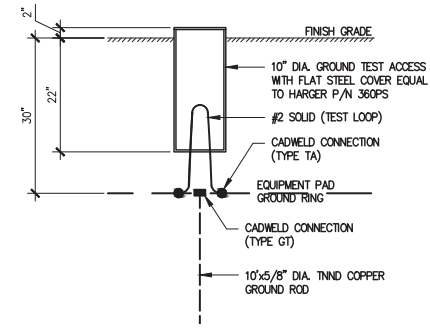
### 1 Ground Bar Installation

SCALE: 3" = 1'-0"



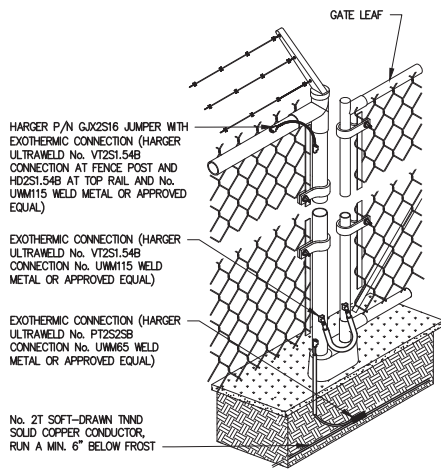
### 2 Tower Ground Bar

SCALE: 1 1/2" = 1'-0"



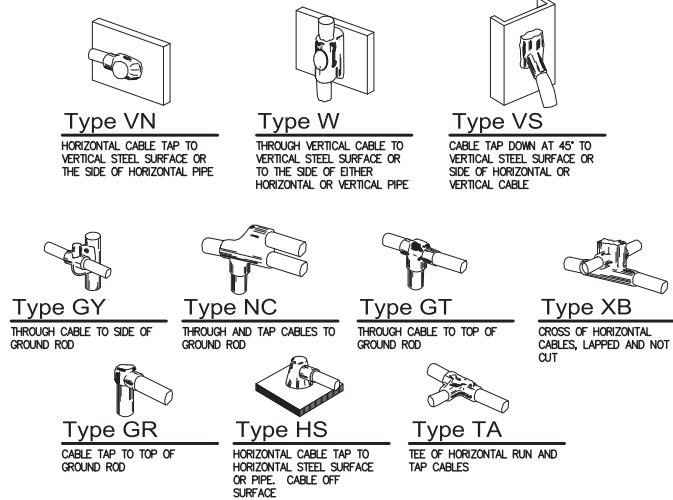
### 3 Grounding Inspection Test Well

SCALE: 1/2" = 1'-0"



### 4 Fence and Gate Grounding

SCALE: N.T.S.



### 5 Exothermic (Cadweld) Details

SCALE: N.T.S.



6202 Constitution Drive, Suite C  
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CELL SITE

SITE ADDRESS:

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ST CHARLES, IL 60174

SHEET TITLE:

GROUNDING DETAILS

A&E PROJECT NO.:

SHEET NO.:

VZW E-5





3. CONCRETE MIX

- A. CONCRETE MATERIALS SHALL CONFORM TO THE APPROPRIATE A.C.I. REQUIREMENTS FOR EXPOSED STRUCTURAL CONCRETE.
B. MIX AND DELIVER CONCRETE IN ACCORDANCE WITH ASTM C94, A.L.T. 3.
C. PROPORTIONS OF CONCRETE MATERIALS SHALL BE RESULTANT IN DURABLE CONCRETE FOR LOCAL ANTICIPATED AGGRESSIVE ACTIONS...

PART 3 - EXECUTION

- 1. INSERTS, EMBEDDED COMPONENTS AND OPENINGS
A. THE CONTRACTOR SHALL COORDINATE AND CROSS-CHECK ARCHITECTURAL, BUILDING & ELECTRICAL DRAWINGS FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, AND OTHER ITEMS RELATED TO CONCRETE WORK...
2. REINFORCEMENT PLACEMENT
A. PLACE REINFORCEMENT, SUPPORTED AND SECURED AGAINST DISPLACEMENT.
B. ENSURE REINFORCING IS CLEAN, FREE OF LOOSE SCALE, DIRT, OR OTHER FOREIGN COATINGS.

2. FABRICATION:

- CONTINUOUSLY SEAL JOINTED MEMBERS BY CONTINUOUS WELDS. GRIND EXPOSED WELDS SMOOTH.
3. FINISH
A. PREPARE STRUCTURAL COMPONENT SURFACES IN ACCORDANCE WITH SPC B. SP-1 TO SP-10 PROCEDURES.
C. STRUCTURAL STEEL MEMBERS SHALL BE HOT DIPPED GALVANIZED.

PART 3 - EXECUTION

- 1. EXAMINATION AND PREPARATION:
VERIFY THAT THE FIELD CONDITIONS ARE ACCEPTABLE.
2. ERECTION:
A. ALLOW FOR ERECTION LOADS. PROVIDE TEMPORARY BRACING TO MAINTAIN FRAMING IN ALIGNMENT UNTIL COMPLETION OF ERECTION AND INSTALLATION OF PERMANENT BRIDGING AND BRACING.
B. FIELD WELD COMPONENTS INDICATED ON SHOP DRAWINGS.
C. DO NOT FIELD CUT OR ALTER STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER.

DIVISION 16: ELECTRICAL

SECTION 16050 - BASIC ELECTRICAL MATERIALS AND METHODS

- 1. CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS PRIOR TO ORDERING THE ELECTRICAL EQUIPMENT AND STARTING THE ACTUAL CONSTRUCTION. CONTRACTORS SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ANY DISCREPANCIES OR CONFLICTING INFORMATION.
2. ELECTRICAL PLANS, DETAILS AND DIAGRAMS ARE DIAGRAMMATIC ONLY. VERIFY EXACT LOCATIONS AND MOUNTING HEIGHTS OF ELECTRICAL EQUIPMENT WITH OWNER PRIOR TO INSTALLATION.
3. EACH CONDUCTOR OR EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, JUNCTION BOX, SWITCH BOX, ETC. THE TYPE OF TAGGING METHODS SHALL BE IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).

DIVISION 5: METALS

SECTION 05000 - METALS

PART 1 - GENERAL

- 1. SECTION INCLUDES:
STRUCTURAL STEEL FRAMING MEMBERS, BASE PLATES, PLATES, BARS AND GROUTING UNDER BASE PLATES.
2. SUBMITTALS:
SHOP DRAWINGS: INDICATE SIZES, SPACINGS, AND LOCATIONS OF STRUCTURAL MEMBERS, OPENINGS, CONNECTIONS, CAMBERS, LOADS, AND WELDED SECTIONS.
3. QUALITY ASSURANCE
A. FABRICATE STRUCTURAL STEEL MEMBERS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.

PART 2 - PRODUCTS

- 1. MATERIALS:
A. STRUCTURAL STEEL MEMBERS: ASTM A572, GRADE 50
B. STRUCTURAL TUBING: ASTM A500, GRADE B
C. PIPE: ASTM A53, TYPE E OR S, GRADE B
D. BOLTS, NUTS, AND WASHERS: ASTM A325
E. ANCHOR BOLTS: ASTM A307
F. WELDING MATERIALS: AWS D1.1, TYPE REQUIRED FOR MATERIALS BEING WELDED
G. GROUT: NON-SHRINK TYPE, PREMIXED COMPOUND CONSISTING OF NONMETALLIC AGGREGATE, CEMENT, WATER REDUCING AND PLASTICIZING ADDITIVES, CAPABLE OF DEVELOPING A MINIMUM COMPRESSIVE STRENGTH OF 7000 psi AT 28 DAYS.
H. SHOP AND TOUCH-UP PRIMER: SSPC 15, TYPE 1, RED OXIDE
I. TOUCH-UP PRIMER FOR GALV. SURFACES: ZINC RICH TYPE

8. GROUNDING ELECTRODE SYSTEM

A. PREPARATION

- 1. SURFACE PREPARATION:
ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. NO WASHERS ARE ALLOWED BETWEEN THE ITEMS BEING GROUNDED.
2. GROUND BAR PREPARATION:
ALL COPPER GROUND BARS SHALL BE CLEANED, POLISHED AND A NON-OXIDIZING AGENT APPLIED. NO FINGERPRINTS OR DISCOLORED COPPER WILL BE PERMITTED.
3. SLEEVES:
ALL GROUNDING CONDUCTORS SHALL RUN THROUGH PVC SLEEVES WHEREVER CONDUCTORS RUN THROUGH WALLS, FLOORS OR CEILINGS.

B. GROUND BARS

- 1. ALL GROUND BARS SHALL BE 1/4"-MICH THICK TINNED COPPER PLATE AND OF SIZE INDICATED ON DRAWINGS.
2. AFTER ERECTION, TOUCH-UP WELDS, ABRASIONS, AND SURFACES NOT SHOP PRIMED OR GALVANIZED WITH TOUCH-UP PRIMERS AS SPECIFIED UNDER SECTION 05000-METALS, PART 2 - PRODUCTS, H & I. SURFACES TO BE IN CONTACT WITH CONCRETE NOT INCLUDED.
3. FIELD QUALITY CONTROL:
FIELD INSPECTION OF MEMBERS, CONNECTIONS, WELDS AND TORQUING.

C. EXTERNAL CONNECTIONS

- 1. ALL BURIED GROUNDING CONNECTIONS SHALL BE MADE BY THE EXOTHERMIC WELD PROCESS. CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE, SPLICES, TEES, CROSSES, ETC. ALL CABLE TO GROUND RODS, GROUND ROD SPLICES AND LIGHTNING PROTECTION SYSTEMS ARE TO BE AS INDICATED.
2. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY "CADWELD" AND INSTALLED PER MANUFACTURER'S RECOMMENDED PROCEDURES.

D. GROUND RODS

- 1. ALL GROUND RODS SHALL BE 5/8"-MICH DIAMETER X 10'-0" LONG "COPPERNEED" OR APPROVED EQUAL, OF THE NUMBER AND LOCATIONS INDICATED. GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH.
2. WHEN THE DIRECTION OF THE CONDUCTOR MUST CHANGE, IT SHALL BE DONE GRADUALLY. THE CURVATURE OF THE TURN SHALL BE IN ACCORDANCE WITH THE FOLLOWING CHART:

Table with 3 columns: GROUNDING CONDUCTOR SIZE, RADIUS TO INSIDE EDGE, and RADIUS TO OUTSIDE EDGE. Rows include 6 AWG to 250 MCM.

E. GROUNDING CONDUCTOR SIZE

- NO. 6 AWG TO NO. 4 AWG: 6 INCHES
NO. 2 AWG TO NO. 1/0 AWG: 8 INCHES
NO. 2/0 AWG TO 4/0 MCM: 12 INCHES
250 MCM TO 750 MCM: 24 INCHES

G. GROUND RING

- 1. THE EXTERNAL GROUND RING ENCIRCLING THE TOWER (IF APPLICABLE) AND BETWEEN THE EQUIPMENT PAD ANCHORS SHALL BE MINIMUM 2" A.W.G. SOLID TINNED BARE COPPER CONDUCTOR IN DIRECT CONTACT WITH THE EARTH INDICATED ON THE DRAWINGS. CONDUCTOR BENDS SHALL HAVE A MINIMUM BENDING RADIUS OF EIGHT (8) INCHES.
2. ALL EXTERNAL GROUND RINGS ARE TO BE JOINED TOGETHER AND ALL CONNECTIONS MUST BE CADWELDED. NO LUGS OR CLAMPS WILL BE ACCEPTED.

H. FENCE/GATE

- GROUND EACH GATE POST, CORNER POST AND GATE AS INDICATED ON THE DRAWINGS. FENCING WITHIN 6' OF PAD SHOULD BE TIED TO THE GROUND RING AT EVERY OTHER FENCE POST (8'). GROUND CONNECTIONS TO FENCE POSTS AND ALL OTHER CONNECTIONS FOR THE GROUND GRID SYSTEM SHALL BE MADE BY EXOTHERMIC WELD PROCESS, AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES, AND SPRAYED WITH COLD-GALVANIZED PAINT.

I. E.E.E. FALL POTENTIAL TESTS

- CONTRACTOR TO CONDUCT GROUND RESISTANCE TEST IN THE FORMAT AS FOLLOWS:
A. FOR RAW LAND SITE
1. GROUND TESTS SHALL BE PERFORMED AS INDICATED ON DRAWINGS. A BIDDLE GROUND OHMER OR THE METHOD OF USING TWO AUXILIARY GROUND RODS (AS DESCRIBED IN I.E.E.E. STANDARDS NO. 81-1983, PART 1) MAY BE USED. THE I.E.E.E. METHOD REQUIRES THE USE OF AN A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST BE SUFFICIENTLY FAR AWAY FROM THE ROD UNDER TEST SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED DO NOT OVERLAP. THE TEST POINT WILL BE THE GROUND ROD AND WILL CONSIST OF THE THREE POINT FALL OF POTENTIAL WEEGER TEST METHOD, USING THE DOUBLE NULL-BALANCE EARTH TESTER (MEGER #250220-2 OR EQUIVALENT)

B. EQUIPMENT PAD

- 1. FIRST TEST - SHALL BE WITH FOUR GROUND RODS INSTALLED, ONE AT EACH CORNER OF THE PAD BUT NOT CONNECTED TO THE MAIN GROUNDING BUS. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL FOUR GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED.
2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS, NOTIFY THE CONTRACTOR AND OWNER'S REPRESENTATIVE SO THAT ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

C. TOWER

- 1. FIRST TEST - SHALL BE WITH THREE GROUND RODS INSTALLED (MINIMUM), EQUALLY SPACED AROUND THE TOWER FOUNDATION, BUT NOT CONNECTED TO THE EQUIPMENT PAD EXTERNAL GROUND RING. FURNISH WIRE TO CONNECT (TEMPORARY CLAMP) ALL THREE GROUND RODS TOGETHER TO MAKE A SYSTEM TEST AFTER EACH ROD IS INDIVIDUALLY TESTED.
2. SECOND TEST - SHALL BE WITH THE GROUND RODS CONNECTED, WITH DRY SOIL AND WHEN NO STANDING WATER HAS BEEN PRESENT FOR THE PAST TEN (10) DAYS. THE MAXIMUM ALLOWABLE READING IS 5 OHMS TO GROUND. IF THE RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS THE ELECTRICAL CONTRACTOR AND OWNER'S REPRESENTATIVE SHALL BE NOTIFIED SO THAT EITHER ADDITIONAL AND/OR DEEPER RODS CAN BE INSTALLED.

D. EQUIPMENT PAD AND TOWER

- 1. AFTER EQUIPMENT PAD AND TOWER GROUND RESISTANCE TEST IS COMPLETED, CONTRACTOR SHALL TIE EQUIPMENT PAD EXTERNAL GROUND RING AND TOWER EXTERNAL GROUND RING TOGETHER. AFTER FIRST AND SECOND TEST ALL CONNECTIONS MUST BE MADE USING EXOTHERMIC WELD. NO LUGS OR CLAMPS WILL BE ACCEPTED.
2. AFTER ALL THE EXTERNAL GROUND RINGS ARE TIED TOGETHER, COMPLETE A MEASURER CHECK OF THE GROUND SYSTEM SHOULD BE DONE. THE MAXIMUM ALLOWABLE LEADING IS 5 OHMS TO GROUND.
3. RESISTANCE TEST REPORT
UPON COMPLETION OF THE TESTING FOR EACH SITE, A TEST REPORT SHOWING RESISTANCE IN OHMS WITH AUXILIARY POTENTIAL ELECTRODES AT FIVE (5) FEET AND TEN (10) FEET INTERVALS UNTIL THE AVERAGE RESISTANCE STARTS INCREASING AND ALSO NOTE THAT 10-15 PHOTOS MUST BE TAKEN TO PROOF ENTIRE EXTERNAL GROUND RING SYSTEM BEFORE BACKFILL. TWO (2) SETS OF TEST DOCUMENTS ARE OF THE INDEPENDENT TESTING SERVICE TO BE BOUND AND SUBMITTED WITHIN ONE (1) WEEK OF WORK COMPLETION.

SECTION 16503 - POLES, POSTS, AND STANDARDS (SINGLE MAST AND SELF SUPPORTING TOWERS)

1. GENERAL

- A. LIGHTNING ROD AND EXTENSION PIPE INCLUDING ALL APPURTENANCES, TO BE FURNISHED BY OWNER, IF REQUIRED.
B. PROVIDE TEMPORARY LIGHTING FOR TOWER AS PER FAA REGULATIONS DURING CONSTRUCTION, IF REQUIRED.
C. GROUNDING:
GROUND TOWER WITH A MINIMUM OF #2 AWG TINNED SOLID BARE COPPER CONDUCTOR CADWELDED TO TOWER BASE PLATE. TWO (2) GROUNDING LEADS PER TOWER BASE PLATE. NO EXOTHERMIC WELDS SHALL BE ATTACHED DIRECTLY TO THE MONOPOLE TOWER SHAFT.

SECTION 16745 - TELECOMMUNICATIONS WIRING COMPONENTS (COAXIAL ANTENNA CABLE)

1. GENERAL

- A. ALL MATERIALS, PRODUCTS OR PROCEDURES INCORPORATED INTO WORK SHALL BE NEW AND OF STANDARD COMMERCIAL QUALITY.
B. CERTAIN MATERIALS AND PRODUCTS WILL BE SUPPLIED BY THE OWNER (REFER TO GENERAL CONDITIONS FOR THE LIST OF OWNER FURNISHED EQUIPMENT, MATERIALS AND SUPPLIES FOR THESE ITEMS). THE CONTRACTOR IS RESPONSIBLE FOR PICKUP AND DELIVERY OF ALL SUCH MATERIALS AND DOCUMENTS SHALL BE SUPPLIED BY THE CONTRACTOR.
2. MATERIALS:
A. COAXIAL CABLE:
1. INSTALL COAXIAL CABLE AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS WITH COAXIAL CABLES SUPPORTED BY MORE THAN 3'-0" O.C. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF EQUIPMENT LOCATION UNLESS OTHERWISE STATED.
2. ALL COAX RUN LENGTHS GREATER THAN 175 FEET SHALL BE 1-5/8", ALL COAX. RUN LENGTHS BETWEEN 101 FEET AND 174 FEET SHALL BE 1-1/4", AND IN LENGTH LESS THAN OR EQUAL TO 100 FEET SHALL BE 7/8".
3. ANTENNA AND COAXIAL CABLE GROUNDING
A. COAXIAL CABLE GROUNDING: THESE ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).
4. COAXIAL CABLE IDENTIFICATION
A. TO PROVIDE EASY IDENTIFICATION AND UNIFORM MARKING OF ANTENNA CABLEING, PLASTIC TAGS SHALL BE USED AT THE FOLLOWING LOCATIONS:
1. FIRST LOCATION IS AT THE END OF THE COAX NEAREST THE ANTENNA (WHERE THE COAXIAL CABLE AND JUMPER ARE CONNECTED).
2. SECOND LOCATION IS INSIDE THE EQUIPMENT PAD NEAR THE WAVEGUIDE ENTRY PORT.
B. USE ANDREW CABLE TIES (P.T.# 27290) TO SECURE IDENTIFICATION TAGS.
5. TESTING
TENANT SHALL PROVIDE AN INDEPENDENT TESTING AGENCY TO PERFORM COAXIAL SWEEP TEST & REPORT. THE CONTRACTOR IS TO PROVIDE ONE CLIMBER / QUALIFIED PERSONNEL TO ASSIST IN ANY REPAIRS AND WEATHERPROOFING ONCE THE TEST IS COMPLETE. THE CONTRACTOR IS TO PROVIDE VERIZON WIRELESS WITH A MINIMUM OF 48 HOURS NOTICE PRIOR TO THE TIME OF THE SWEEP TEST.



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IL-64 ST CHARLES, IL 60174

SHEET TITLE:

SPECIFICATIONS

AWB PROJECT NO.:

SHEET NO.:

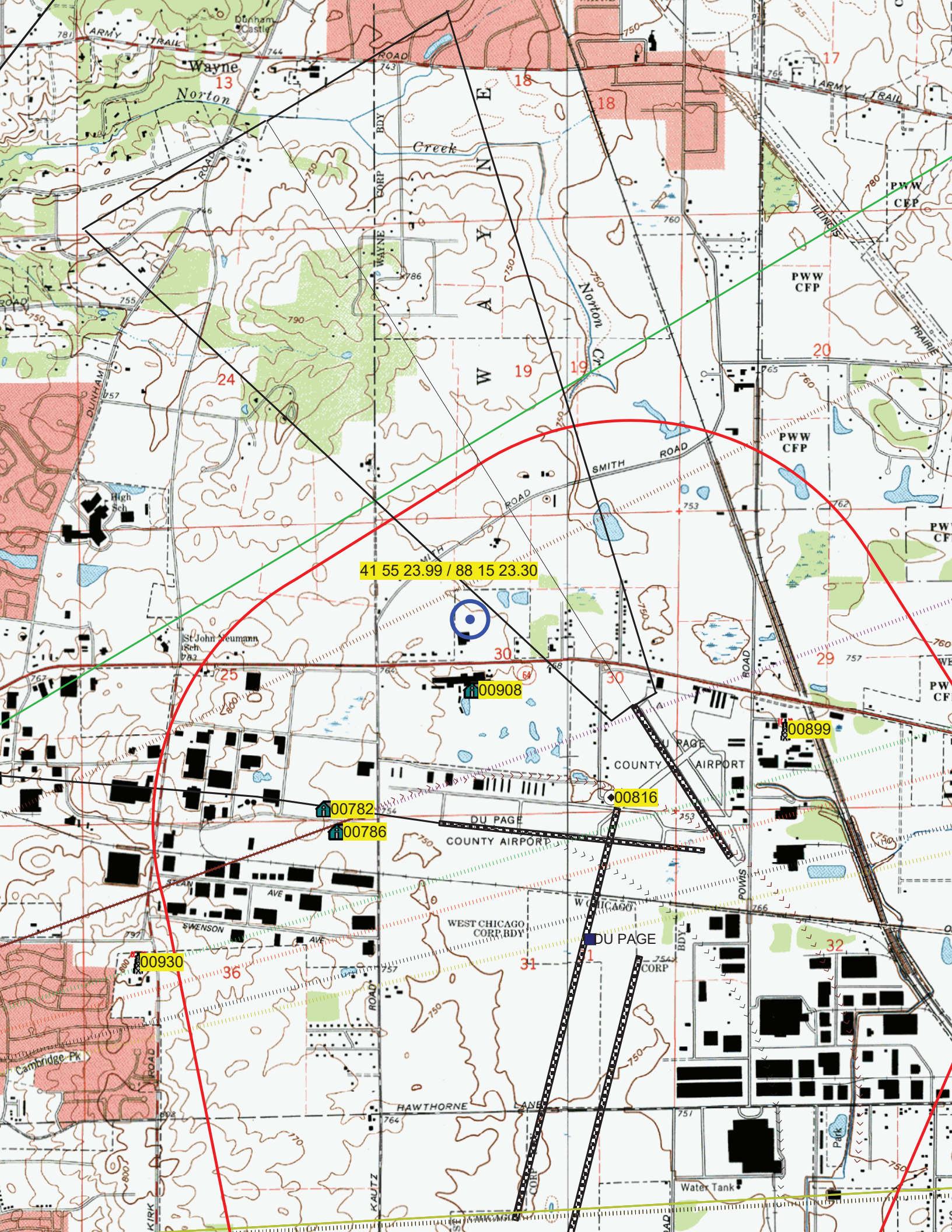
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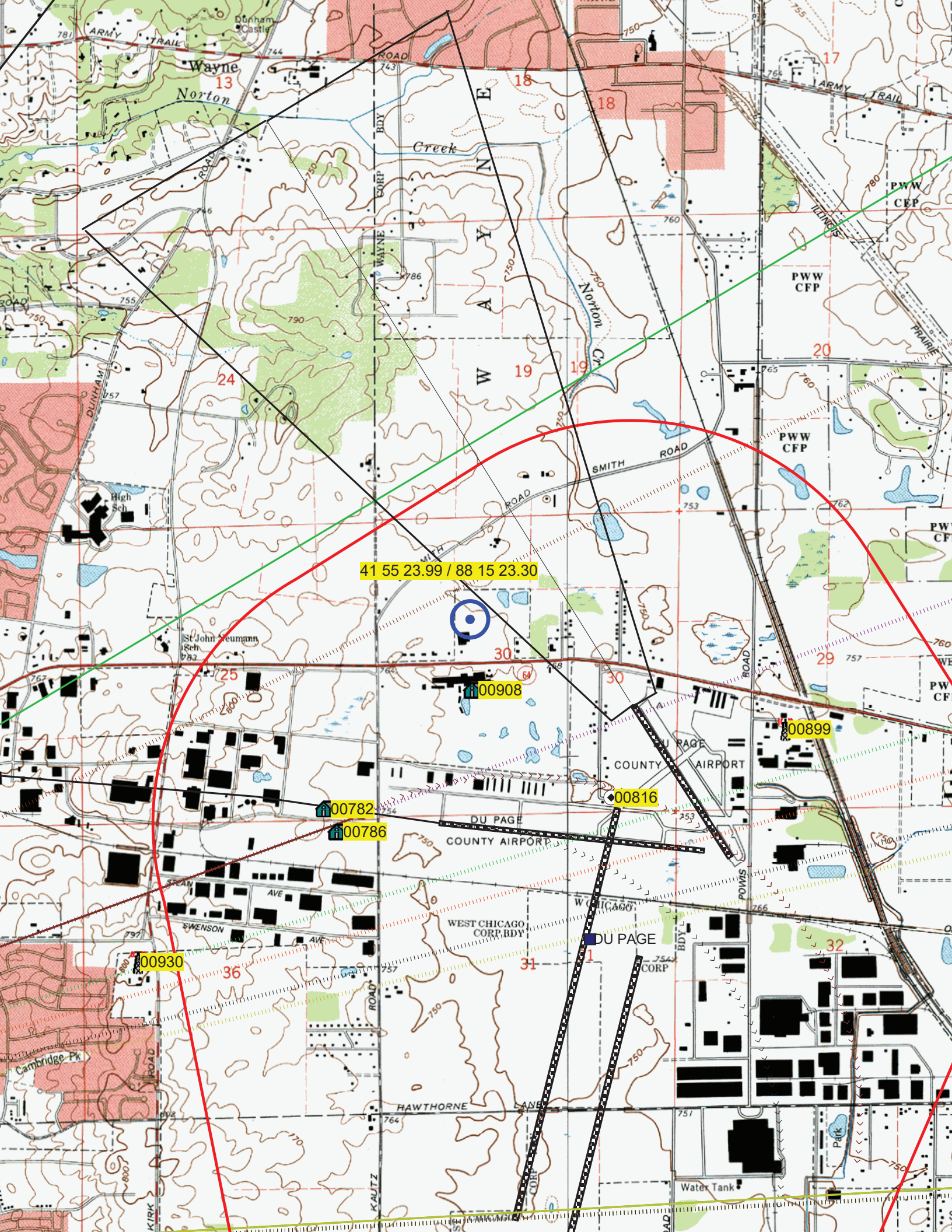
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# Ken Patterson

Airspace Consulting, Inc.

[www.airspace-ken.com](http://www.airspace-ken.com)

Site ID: DuPage

October 6, 2022

## Notice to the FAA is Required

To Whom It May Concern:

On October 6, 2022, I personally conducted an evaluation of a proposed telecommunications site for Dolan Reality Advisors, LLC. The study was to determine if the proposed structure would create any adverse effect on navigable airspace. The site is located near Chicago, Illinois at 41° 55' 23.99" North and 88° 15' 23.30" West (NAD 83). The site elevation from the topo map is approximately 761' above mean sea level (AMSL). The proposed structure height is 150' above ground level (AGL) or 911' AMSL. Part 77 of the Federal Air Regulations and Part 17 of the FCC Rules and Regulations were used as the primary reference for this evaluation.

The closest public use or DOD runway is Runway 15 at DuPage County Airport. The distance to the runway is 0.54 nautical miles on a true bearing of 297.12° from the runway edge.

The proposed 150' AGL (911' AMSL) structure would exceed FAR Part 77.9 (b) Notice Requirement by 122'. Notice of Proposed Construction or Alteration Form 7460-1 must be filed with the FAA and a favorable FAA determination must be received prior to beginning construction.

The proposed 150' AGL structure would penetrate airspace protected for the VFR traffic pattern. The maximum height the FAA is likely to approve at this site is 148' AGL (909' AMSL). At 909' AMSL the FAA should approve the proposed structure without an extended study. Marking and/or lighting should not be required..

AM broadcast stations and private use landing facilities are not a factor for this site. For additional information or questions about this study, contact my office anytime.

Sincerely,



Ken Patterson