

# Dane County Conditional Use Permit Application

<b>Application Date</b>	<b>C.U.P Number</b>
12/21/2023	DCPCUP-2023-02611
<b>Public Hearing Date</b>	
02/27/2024	

OWNER INFORMATION	AGENT INFORMATION
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OWNER NAME NATHAN M MOE	Phone with Area Code (608) 843-9733	AGENT NAME JAKE REMINGTON	Phone with Area Code (414) 978-5527
BILLING ADDRESS (Number, Street) 1896 WILLIAMS DR		ADDRESS (Number, Street) 511 NORTH BROADWAYSUITE 1100	
(City, State, Zip) STOUGHTON, WI 53589		(City, State, Zip) Milwaukee, WI 53202	
E-MAIL ADDRESS moeenterprises210@gmail.com		E-MAIL ADDRESS Jake.Remington@huschblackwell.com	

ADDRESS/LOCATION 1	ADDRESS/LOCATION 2	ADDRESS/LOCATION 3
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ADDRESS OR LOCATION OF CUP		ADDRESS OR LOCATION OF CUP		ADDRESS OR LOCATION OF CUP	
1896 Williams Dr					
TOWNSHIP PLEASANT SPRINGS	SECTION 29	TOWNSHIP	SECTION	TOWNSHIP	SECTION
PARCEL NUMBERS INVOLVED		PARCEL NUMBERS INVOLVED		PARCEL NUMBERS INVOLVED	
0611-294-9140-4		---		---	

CUP DESCRIPTION
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180' self-support communication tower on FP-35 zoned property

DANE COUNTY CODE OF ORDINANCE SECTION	ACRES
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10.103(9) and 10.122(3)(b)	0.23
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<b>DEED RESTRICTION REQUIRED?</b>  <input type="checkbox"/> Yes <input type="checkbox"/> No  Applicant Initials _____	Inspectors Initials  AMA1	<b>SIGNATURE:(Owner or Agent)</b>  <hr/> <b>PRINT NAME:</b>  <hr/> <b>DATE:</b>  <hr/>
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COMMENTS: DRIVEWAY WILL REQUIRE PERMIT FROM TOWN OF PLEASANT SPRINGS; EROSION CONTROL PERMIT FROM DANE COUNTY LAND & WATER RESOURCES.



# CUP 2611



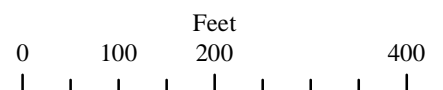
Wetland



Floodway Areas in Zone AE



Floodplain



Conditional Use Permit application for  
TowerNorth Development, LLC and  
Verizon Wireless for 180'  
Communications Tower located at  
1896 Williams Drive Stoughton, WI 53589  
(Parcel ID: 061129491404)

Amanda Wegrzyn, Market Manager

52 Farm View Dr., Ste 201 New Gloucester, ME 04260

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## SUMMARY OF PROPOSED CONDITIONAL USE APPROVAL FOR NEW COMMUNICATIONS TOWER

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TowerNorth Development, LLC (“TowerNorth”) and Verizon Wireless LLC (“Verizon”) seek Conditional Use Permit approval to construct a 180-foot wireless communications tower with a four (4) foot lightning rod on the property located at 1896 Williams Drive Stoughton, WI with a property tax ID number of 061129491404. The property is located in Dane County and the property is zoned General Farmland Preservation (FP-35). The property is owned by Nathan Moe.

The purpose of the facility is to allow Verizon to improve its customer experience in the vicinity of the proposed facility, specifically to increase the capacity of the network in this area. After evaluating Verizon Wireless’s search area in which it is seeking to install new telecommunication antennas, no existing structures were located that would allow Verizon to achieve its network objective.

Verizon’s antenna and ancillary equipment will be mounted at the 175’ elevation. The tower will be capable of holding three additional co-locators at lower elevations. The tower will be enclosed within a 65’ x 65’ fenced area within the 100’ x 100’ lease area. Within the compound, Verizon will install its ground equipment along with a generator and hand hole/pull box for its fiber equipment. The compound will be enclosed by a fence and accessed only through a locked gate. The site is an unmanned facility; therefore, no water or sewage service is necessary. The tower and compound will be accessed from Williams Drive (see Exhibit A).

If Dane County approved the Conditional Use Permit for TowerNorth and Verizon, the enhancement of the Dane County’s public safety system and the improved E-911 services from Verizon will improve public safety in the County. A few reasons for the need and benefit of the installation to the community are below:

- More than 75% of prospective home buyers prefer strong cellular connections when buying a home (Rootmetrics, June 2015).
- 35% of Americans reach for their smartphone first in the morning (CTIA, July 2015), underscoring the importance of in-building coverage.
- In the United States, mobile data traffic will grow 7-fold from 2014 to 2019, a compound annual growth rate of 47%. (Cisco VNI Mobile Forecast Highlights, 2014-2019, October 2015)
- In the US, there are 355 million wireless devices for 319 million residents. (CTIA, “Facts and Infographics, June 2015).

Robust public safety services enhance the general welfare of the community by reducing emergency responder’s response times to life/safety emergencies.

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COMPLIANCE WITH DANE COUNTY CONDITIONAL USE PERMIT STANDARDS:  
DANE COUNTY COMMUNICATION TOWER ORDINANCE – SECTION 10.103(9)

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TowerNorth and Verizon have met all the standards pursuant to Dane County Communication Tower Ordinance Section 10.103. Therefore, granting Verizon's requested Conditional Use Permit approval is the only appropriate determination.

**(a) Purpose and intent of section.**

The purpose and intent of this section is to provide a uniform and comprehensive set of standards for the development and installation of telecommunication towers and related facilities, including, but not limited to broadcast radio and television facilities, mobile service support structures and facilities, and fixed wireless internet facilities. The provisions of this section are intended to ensure that telecommunication facilities are located, constructed, maintained, and removed in a manner that:

1. Protects and promotes public health, safety, community welfare and the quality of life in Dane County as set forth within the goals, objectives and policies of the Dane County Comprehensive Plan, and this ordinance;

**TowerNorth and Verizon's proposed installation and operation will promote the public health, safety, community welfare, and quality of life in Dane County. The approval of this installation will enhance Dane County's public safety system and the improved E-911 services from Verizon will improve public safety in the County.**

2. Respects the rights and interests of towns, neighboring property owners, and existing land uses on adjoining properties in the decision making process;

**TowerNorth and Verizon's proposed installation respects the rights and interests of towns, neighboring property owners, and existing land uses on adjoining properties.**

3. Recognizes the public necessity for telecommunication facilities and the numerous benefits and opportunities a robust wireless infrastructure make possible for county residents, including improved public safety, efficient production and distribution of goods and services, access to educational resources, and economic development opportunities;

**TowerNorth and Verizon's proposed installation will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district. The proposed tower, once constructed, will serve to enhance telecommunications services in the area.**

4. Allows appropriate levels of service to be obtained throughout the County, including expansion to rural areas seeking access to personal communications and broadband internet services as such services are defined by the Federal Communications Commission;

**TowerNorth and Verizon is seeking to increase capacity at this site to allow for improved user experience.**

5. Minimizes the number of transmission towers throughout the County;  
**TowerNorth and Verizon's proposed installation offers three (3) additional spaces for other carriers to co-locate, reducing the number of towers.**
6. Encourages the joint use of new and existing telecommunication facilities as a preferred siting option;  
**TowerNorth and Verizon's proposed installation offers three (3) additional spaces for other carriers to co-locate, reducing the number of towers. Additionally, collocation was explored as the primary option in this area, but no existing structures were located that would allow Verizon to achieve its network objective.**
7. Ensures that all telecommunication facilities, including towers, antennas, and ancillary facilities are located and designed to minimize the visual and environmental impact on the immediate surroundings and throughout the county;  
**TowerNorth and Verizon's proposed installation is designed to minimize the visual and environmental impact on the immediate surroundings and throughout the county. The proposed tower will be set back from Williams Road and galvanized gray in color to blend in with the surrounding area (which is rural and a relatively unpopulated area abutting the Yahara River).**
8. Avoids potential damage to adjacent properties from tower failure or ice falls through sound engineering and careful siting of structures; and  
**TowerNorth and Verizon's proposed installation avoids potential damage to adjacent properties from tower failure or ice falls through sound engineering and careful siting of structures.**
9. Provides a public forum to assure a balance between public concerns and private interests in establishing commercial telecommunications and related facilities.  
**TowerNorth and Verizon will provide a public forum to assure a balance between public concerns and private interests.**

**(b) New construction or substantial modification of communication towers.**

1. Application process. New or substantially modified communication towers require approval of a conditional use permit. In addition to materials required under s. 10.101(6), the applicant must provide, in a form acceptable to the zoning administrator, the following:
  - a. Application. Completed communications tower conditional use permit application form, that includes, at a minimum:
    - i. The name and business address of, and the contact individual for, the applicant. If the applicant is a tower company or site acquisition consultant, the name(s), address(es), and contact individual(s) for the anchor tenant(s) along with the FCC license number(s) of the carrier(s) or service provider(s).

- ii. The precise location and base ground elevation above mean sea level of the proposed or affected support structure. Location information shall be provided in latitude/longitude coordinates.
- iii. The specific type(s) of communication services(s) to be provided by the proposed facility, the operating frequency, or frequencies at which service(s) will be provided, and the minimum required elevation above mean sea level necessary to provide the services.

**The Conditional Use Permit application includes the application information listed above. See Exhibit A**

- b. Project narrative. A signed project narrative explaining the need for a new or modified communication tower. The narrative should also include the following information:
  - i. An explanation why the particular site was selected.
  - ii. For an application to construct a new tower, an explanation as to why the applicant chose the proposed location and why the applicant did not choose collocation, that addresses the requirements of section 10.103(9)(c)1. The narrative must include a sworn statement from an individual who has responsibility over the placement of the mobile service facility attesting that collocation within the mobile service provider's search ring would not result in the same mobile service functionality, coverage, and capacity; is technically infeasible; or is economically burdensome to the mobile service provider. For the purposes of this ordinance, cost savings or increased profitability shall not be considered an economic burden.

**The Conditional Use Permit application includes the application information listed above. See Exhibit B.**

- c. Search ring map. Applicants must submit a search ring map issued by the mobile service provider on letterhead of the mobile service provider. The search ring map shall show the area in which the mobile service facility and mobile service support structure should be located to meet the radio frequency engineering requirements to provide mobile service to the geographic area or areas determined by the mobile service provider to lack adequate service from the provider's existing network. The map must include a scale of miles, road names, municipal boundaries, all existing mobile service support structures within 1.5 miles of the search ring, and any tall structure over 100' in height within the search ring. The map must document and assign an identification number to all existing towers within 1.5 miles of the center of the search ring and include a brief statement explaining why the tower is not viable for collocation. The zoning administrator may require that the map be accompanied by a table providing additional data for each existing tower within 1.5 miles of the search ring, including but not limited to, the following: simple description of the tower, existing and maximum design height, FCC registration number; owner's name and contact information; number of collocation spots occupied and available on the tower; present percentage of use of the tower, available aperture at the requester's preferred height, type of communication technology being used.



**In order to meet Verizon's network objective, the search ring for a candidate was within 0.25 miles of 42.94302, -89.2256. There were no structures within the search ring that met this requirement. See Exhibit C.**

- d. Radio frequency propagation maps. Two radio frequency (RF) propagation plots depicting the carrier's current service (clearly highlighting the existing service area void), and the service to be gained by the proposed facility. These plots shall be prepared in accordance with accepted industry standards and shall be accompanied by a clear and simply written description by an RF engineer explaining the plots and how to read them.

**The Conditional Use Permit application includes radio frequency propagation maps. Note that this project is to increase capacity of the network in this area, not coverage. See Exhibit D.**

- e. Site plan. In addition to all of the information required under s. 10.101(6), site plans must include the following information:
  - i. Existing or proposed zoning and conditional use permit area and proposed or existing lease area
  - ii. Existing and/or proposed tower compound area depicting location and layout of existing and/or proposed tower and related facilities including distances to the lease and CUP area;
  - iii. Existing and/or proposed residences (if any) on both the subject property and neighboring properties within .5 mile of the subject property – distances should be shown to neighboring residences located within 1,500' per 100' of tower height.

**The Conditional Use Permit application includes the application information listed above. See Exhibit E.**

- f. Preliminary design / construction plans, site photos and photo simulations. A description of the tower design and height. The description shall include:
  - i. A preliminary scaled elevation drawing of the proposed tower showing the location and elevation (feet Above Ground Level and Above Mean Sea Level) of each potential antenna array and any anticipated lighting. The drawing should also identify the proposed color and surfacing of the tower and ancillary facilities; See updated CDs page ANT-1 regarding color of tower. Also page VW B-1 & VW B2 regarding color of ancillary facilities.
  - ii. A statement indicating the anticipated design capacity of the tower in terms of the number, type and height of collocations it is designed to accommodate;
  - iii. Preliminary drawings showing the dimensions and design details for all tower facilities, including the specific types of communications equipment to be mounted on the tower.
  - iv. Information regarding any anticipated or proposed lighting, including types and color of lights, and whether lighting is nighttime only or both day / night and any difference between time periods.
  - v. Site photos and photo simulations showing the proposed location of the tower from adjoining properties and depicting the appearance of the tower following installation. Photo simulations shall include a scaled representation of the tower superimposed on the site photos taken from adjoining properties.

- vi. Statement of compliance with Federal Communications Commission guidelines on radio frequency exposure and interference. Compliance statement must be on letterhead of the licensed carrier(s) proposing to provide telecommunications services on the tower.

**The Conditional Use Permit application includes the application information listed above. See Exhibit A.**

- g. Notification to other carriers. Applicants shall provide written notification to other carriers licensed to provide wireless services in Dane County informing them of the intent to construct a new telecommunication tower. The zoning administrator shall maintain a list of licensed carriers, including contact information and a standard form that may be used to fulfill this requirement.

**Other carriers will be notified upon completion of tower construction.**

- h. Notification to nearby airports. The applicant shall provide written notification to all operators and owners of airports located within 5 miles of the proposed site. (Staff note: an FAA determination of no hazard to air navigation does not satisfy this requirement.)

**TowerNorth and Verizon will provide notification to nearby airports within five (5) miles of the proposed site.**

- i. Aeronautic hazards. The applicant shall provide copies of a determination of no hazard from the federal aviation administration, including any aeronautical study or other findings, if applicable.

**The Conditional Use Permit application includes a FAA Determination of No Hazard. See Exhibit F.**

- j. Other information. The Zoning Administrator, 3rd party engineering consultant, and/or Zoning & Land Regulation Committee may request additional information from the applicant as may be deemed necessary for review of a Conditional Use Permit application.

**TowerNorth and Verizon will comply with additional information requests deemed necessary to the review this Conditional Use Permit application.**

- k. Fees. Application and review fees as required in Chapter 12.

**Two (2) separate checks have been included with this application to cover the cost of the application fee (\$1145) and the third-party radio frequency engineering review fee (\$3000).**

# EXHIBIT A



**Dane County**  
**Department of Planning and Development**  
 Zoning Division  
 Room 116, City-County Building  
 210 Martin Luther King Jr. Blvd.  
 Madison, Wisconsin 53703  
 (608) 266-4266

Application Fees	
General:	\$495
Mineral Extraction:	\$1145
Communication Tower:	\$1145 (+\$3000 RF eng review fee)
PERMIT FEES DOUBLE FOR VIOLATIONS OR WHEN WORK HAS STARTED PRIOR TO ISSUANCE OF PERMIT	

## CONDITIONAL USE PERMIT APPLICATION

### APPLICANT INFORMATION

Property Owner Name:	Nathan Moe	Agent Name:	Trish Gray (agent for TowerNorth/VZW)
Address (Number & Street):	1896 WILLIAMS DR.	Address (Number & Street):	26 E. Scranton Avenue, #188
Address (City, State, Zip):	STOUGHTON WI 53589	Address (City, State, Zip):	Lake Bluff, IL 60044
Email Address:	moeenterprises210@gmail.com	Email Address:	pgray@mountainltd.com
Phone#:	608-843-9733	Phone#:	630-746-5433

### SITE INFORMATION

Township:	Pleasant Springs	Parcel Number(s):	061129491404
Section:	SEC 29-6-11 SW1/4 SE1/4	Property Address or Location:	1896 WILLIAMS DR. STOUGHTON, WI 53589
Existing Zoning:	FP-35	Proposed Zoning:	CUP Code Section(s): 10.101(7)(d) and 10.103(9)

### DESCRIPTION OF PROPOSED CONDITIONAL USE

<b>Type of conditional use permit</b> (for example: limited family business, animal boarding, mineral extraction, or any other listed conditional use): Telecommunications tower	<b>Is this application being submitted to correct a violation?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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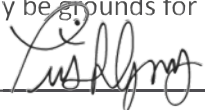
**Provide a short but detailed description of the proposed conditional use:**  
 The scope of work for the new Verizon site located at 1896 Williams Dr. Stoughton, WI includes installing a new 180' tower with antennas and ancillary equipment and installing two concrete pads within the sublease area within the fenced compound for a generator and ground equipment. Additionally, a new driveway is required to access the site.

### GENERAL APPLICATION REQUIREMENTS

**Applications will not be accepted until the applicant has met with department staff to review the application and determined that all necessary information has been provided. Only complete applications will be accepted. All information from the checklist below must be included. Note that additional application submittal requirements apply for particular uses or as may be required by the Zoning Administrator. Applicants for significant and/or potentially controversial conditional uses are strongly encouraged to meet with staff prior to submittal.**

<input checked="" type="checkbox"/> Complete attached information sheet for standards	<input checked="" type="checkbox"/> Site Plan drawn to scale	<input checked="" type="checkbox"/> Detailed operational plan	<input checked="" type="checkbox"/> Written legal description of boundaries	<input checked="" type="checkbox"/> Detailed written statement of intent	<input checked="" type="checkbox"/> Application fee ( <b>non-refundable</b> ), payable to Dane County Treasurer
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I certify by my signature that all information presented herein is true and correct to the best of my knowledge. I hereby give permission for staff of the Dane County Department of Planning and Development to enter my property for the purpose of collecting information to be used as part of the review of this application. I acknowledge that submittal of false or incorrect information may be grounds for denial of this application.

Owner/Agent Signature: 

Date: 09/01/2023

## STANDARDS FOR CONDITIONAL USE PERMITS

Applicants must provide adequate evidence demonstrating to the Town and Dane County Zoning & Land Regulation Committee that the proposed conditional use satisfies the following 8 standards for approval, along with any additional standards specific to the applicable zoning district or particular use found in sections [10.220\(1\)](#) and [10.103](#) of the code.

Please explain how the proposed land use will meet the following standards (attach additional pages, if necessary):

1. The establishment maintenance or operation of the conditional use will not be detrimental to or endanger the public health, safety, comfort or general welfare.

TowerNorth and Verizon's proposed installation and operation will not be detrimental to or endanger the public health, safety, comfort, or general welfare. The approval of this installation will enhance Dane County's public safety system and the improved E-911 services from Verizon will improve public safety in the County.

2. The uses, values, and enjoyment of other property in the neighborhood for purposes already permitted shall be in no foreseeable manner substantially impaired or diminished by establishment, maintenance or operation of the conditional use.

TowerNorth and Verizon's proposed installation will not substantially impair or diminish the uses, values, or enjoyment of other properties in the neighborhood. The proposed tower is set back from Williams Drive approximately 730ft east of the right-of-way and is adjacent to a tree-line approximately 130ft north of the proposed tower.

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

TowerNorth and Verizon's proposed installation will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district. The proposed tower, once constructed, will serve to enhance telecommunications services in the area.

4. Adequate utilities, access roads, drainage and other necessary site improvements have been or are being made to accommodate the conditional use.

TowerNorth and Verizon are in the process of obtaining the adequate utilities, access roads, drainage, and other necessary improvements.

5. Adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets.

TowerNorth and Verizon's proposed installation, once constructed, will have a negligible impact to existing traffic congestion.

6. That the conditional use shall conform to all applicable regulations of the district in which it is located.

TowerNorth and Verizon's proposed installation will conform to all applicable regulations of the FP-35 district.

7. The conditional use is consistent with the adopted town and county comprehensive plans.

TowerNorth and Verizon's proposed installation is consistent with the adopted town and county comprehensive plans.

8. If the conditional use is located in a Farmland Preservation (FP) Zoning district, the conditional use is subject to the following additional standards found in section 10.220(1). Attach additional pages, if necessary.

- Explain how the use and its location in the Farmland Preservation Zoning District are consistent with the purposes of the district:

Conditional Uses 10.222(3) - "Transportation, communication, pipeline, electric transmission, utility, or drainage uses not required by law"

- Explain how the use and its location in the Farmland Preservation Zoning district are reasonable and appropriate, considering alternative locations:

This location meets the network objective, while minimizing impact to the local community.

- Explain how the use is reasonably designed to minimize the conversion of land from agricultural use or open space use:

This proposed installation offers three (3) additional spaces for other carriers to co-locate, reducing the number of towers.

- Explain how the use does not substantially impair or limit the current or future agricultural use of surrounding parcels zoned for agricultural use:

The proposed footprint is 65ft x 65ft, is 127ft from the property line, and does not impact the agricultural use of surrounding parcels.

- Explain how construction damage to land remaining in agricultural use is minimized and repaired, to the extent feasible:

TowerNorth and Verizon will mitigate damage and restore land to pre-construction status

## WRITTEN STATEMENT OF INTENT AND OPERATIONS PLAN

Applicants must provide a detailed written statement of intent describing the proposed conditional use along with an operational plan that explains how the conditional use will be operated. Please use the form below and provide responses, as applicable, to your proposed conditional use. Attach additional pages, if necessary.

Describe in detail the proposed conditional use. Provide the specific location of the use(s), type of equipment used, planned property improvements, including description / size of existing or proposed new buildings to be used, and any other relevant information. For existing or proposed commercial operations, provide the name of the business and describe the nature and type of business activity.

TowerNorth Development, LLC ("TowerNorth") and Verizon Wireless LLC ("Verizon") seek Conditional Use Permit approval to construct a 180-foot wireless communications tower with a four (4) foot lightning rod on the property located at 1896 Williams Drive Stoughton, WI with a property tax ID number of 061129491404. The purpose of the facility is to allow Verizon to improve its customer experience in the vicinity of the proposed facility, specifically to increase the capacity of the network in this area. The property is located in Dane County and the property is zoned General Farmland Preservation (FP-35). The property is owned by Nathan Moe. Verizon's antenna and ancillary equipment will be mounted at the 175' elevation. The tower will be capable of holding three additional co-locators at lower elevations. The tower will be enclosed within a 65' x 65' fenced area within the 100' x 100' lease area. Within the compound, Verizon will install its ground equipment along with a generator and hand hole/pull box for its fiber equipment. The compound will be enclosed by a fence and accessed only through a locked gate. The site is an unmanned facility; therefore, no water or sewage service is necessary. The tower and compound will be accessed from Williams Drive (see Exhibit A).

List the proposed days and hours of operation.

24/7. This is an unmanned communication tower.

List the number of employees, including both full-time equivalents and maximum number of personnel to be on the premises at any time.

The maximum number of personnel on the premises will be six (6).

List any anticipated noise, odors, dust, soot, runoff or pollution associated with the conditional use, along with any proposed measures that will be taken to mitigate impacts to neighboring properties.

Noise from the backup generator - See 30KW GENERAC DIESELOUTDOOR SOUND DATA.pdf

Describe any materials proposed to be stored outside and any activities, processing or other operations taking place outside an enclosed building.

TowerNorth and Verizon's proposed installation is within a fenced-in compound that is locked. No outside storage or activities.

For proposals involving construction of new facilities and/or infrastructure, describe, as applicable, any measures being taken to ensure compliance with county stormwater and erosion control standards under [Chapter 11](#) of [Chapter 14](#), Dane County Code.

TowerNorth and Verizon's proposed installation has two concrete pads (11ft x 4ft; 4.5ft x 10ft) and aggregate.

List and describe existing or proposed sanitary facilities, including adequate private onsite wastewater treatment systems, associated with the proposed conditional use. For uses involving domestic pets or livestock, list and describe measures taken to address manure storage or management.

N/A. This is an unmanned communications tower.

List and describe any existing or proposed facilities for managing and removal of trash, solid waste and recyclable materials.

N/A. This is an unmanned communications tower.

Describe anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic.

TowerNorth and Verizon's proposed installation, once constructed, will have a negligible impact to existing traffic congestion.

Provide a listing of any hazardous, toxic or explosive materials to be stored on site, and any spill containment, safety or pollution prevention measures.

None to be stored on site. See WI1040 Lake Kegonsa - NEPA Review 7-13-23.pdf

Describe any existing or proposed outdoor lighting along with any measures that will be taken to mitigate light-pollution impacts to neighboring properties. The Zoning Administrator may require submittal of a photometric plan for outdoor lighting if deemed necessary to determine potential impacts to neighbors.

No Light at top of tower required to comply with FAA regulations. This structure is under 200ft - See Lake Kegonsa NB WI1040-A PAL SST 7-14-23.pdf

Describe any existing or proposed signage, including size, location, and materials, consistent with the county's sign ordinance found in s. [10.800](#).

See page C-6

Briefly describe the current use(s) of the property on which the conditional use is proposed.

Agriculture.

Briefly describe the current uses of surrounding properties in the neighborhood.

Agriculture and residential.

## APPLICATION CHECKLIST FOR A CONDITIONAL USE PERMIT

**A scaled site plan and detailed operations plan must be submitted with your Conditional Use Permit application. Please use the checklist below to ensure you are submitting all required information applicable to your request. Please attach to your application form the required maps and plans listed below, along with any additional pages.**

### **SCALED SITE PLAN. Show sufficient detail on 11" x 17" paper. Include the following information, as applicable:**

- Scale and north arrow.
- Date the site plan was created.
- Existing subject property lot lines and dimensions.
- Existing and proposed wastewater treatment systems and wells.
- All buildings and all outdoor use and/or storage areas, existing and proposed, including provisions for water and sewer.
- All dimension and required setbacks, side yards and rear yards.
- Location and width of all existing and proposed driveway entrances onto public and private roadways, and of all interior roads or driveways.
- Location and dimensions of any existing utilities, easements or rights-of-way.
- Parking lot layout in compliance with s. [10.102\(8\)](#).
- Proposed loading/unloading areas.
- Zoning district boundaries in the immediate area. All districts on the property and on all neighboring properties must be clearly labeled.
- All relevant natural features, including navigable and non-navigable waters, floodplain boundaries, delineated wetland areas, natural drainage patterns, archeological features, and slopes over 12% grade.
- Location and type of proposed screening, landscaping, berms or buffer areas if adjacent to a residential area.
- Any lighting, signs, refuse dumpsters, and possible future expansion areas.

### **NEIGHBORHOOD CHARACTERISTICS. Describe existing land uses on the subject and surrounding properties:**

- Provide a brief written statement describing the current use(s) of the property on which the conditional use is proposed.
- Provide a brief written statement documenting the current uses of surrounding properties in the neighborhood.

### **OPERATIONS PLAN AND NARRATIVE. Describe in detail the following characteristics of the operation, as applicable:**

- Hours of operation.
- Number of employees, including both full-time equivalents and maximum number of personnel to be on the premises at any time.
- Anticipated noise, odors, dust, soot, runoff or pollution and measures taken to mitigate impacts to neighboring properties.
- Descriptions of any materials stored outside and any activities, processing or other operations taking place outside an enclosed building.
- Compliance with county stormwater and erosion control standards under [Chapter 11](#) of [Chapter 14](#), Dane County Code.
- Sanitary facilities, including adequate private onsite wastewater treatment systems and any manure storage or management plans approved by the Madison and Dane County Public Health Agency and/or the Dane County Land and Water Resources Department.
- Facilities for managing and removal of trash, solid waste and recyclable materials.
- Anticipated daily traffic, types and weights of vehicles, and any provisions, intersection or road improvements or other measures proposed to accommodate increased traffic.
- A listing of hazardous, toxic or explosive materials stored on site, and any spill containment, safety or pollution prevention measures taken.
- Outdoor lighting and measures taken to mitigate light-pollution impacts to neighboring properties.
- Signage, consistent with section [10.800](#).

### **ADDITIONAL MATERIALS. Additional information is required for certain conditional uses listed in s. [10.103](#):**

- Agricultural entertainment, special events, or outdoor assembly activities anticipating over 200 attendees must file an [event plan](#).
- [Domestic pet](#) or [large animal boarding](#) must provide additional information in site and operations plans.
- Communication towers must submit additional information as required in s. [10.103\(9\)](#).
- Farm residences proposed in the FP-35 district must submit additional information as required in s. [10.103\(11\)](#).
- Mineral extraction proposals must submit additional information as required in s. [10.103\(15\)](#).

## EXHIBIT B





26 E. Scranton Avenue, #188  
Lake Bluff, IL 60044

June 6, 2023

Dane County Planning & Development  
Attn: Majid Allan  
210 Martin Luther King Jr. Blvd, room 116  
Madison, WI 53703

RE: Dane County Communication Tower Ordinance – Section 10.103 / Project Narrative /  
Telecommunications Tower Facility on Parcel #061129491404 / 1896 Williams Drive Stoughton, WI [Lake  
Kegonsa]

Dear Mr. Allan,

After evaluating Verizon Wireless's search area in which it is seeking to install new telecommunication antennas, no existing structures were located that would allow Verizon to achieve its network objective. As a result, the proposed telecommunications tower facility is required to allow Verizon to improve its customer experience and address its network objective.

If you have any questions regarding this request, please contact me directly at (630)746-5433 or [pgray@mountainltd.com](mailto:pgray@mountainltd.com).

Sincerely,

---

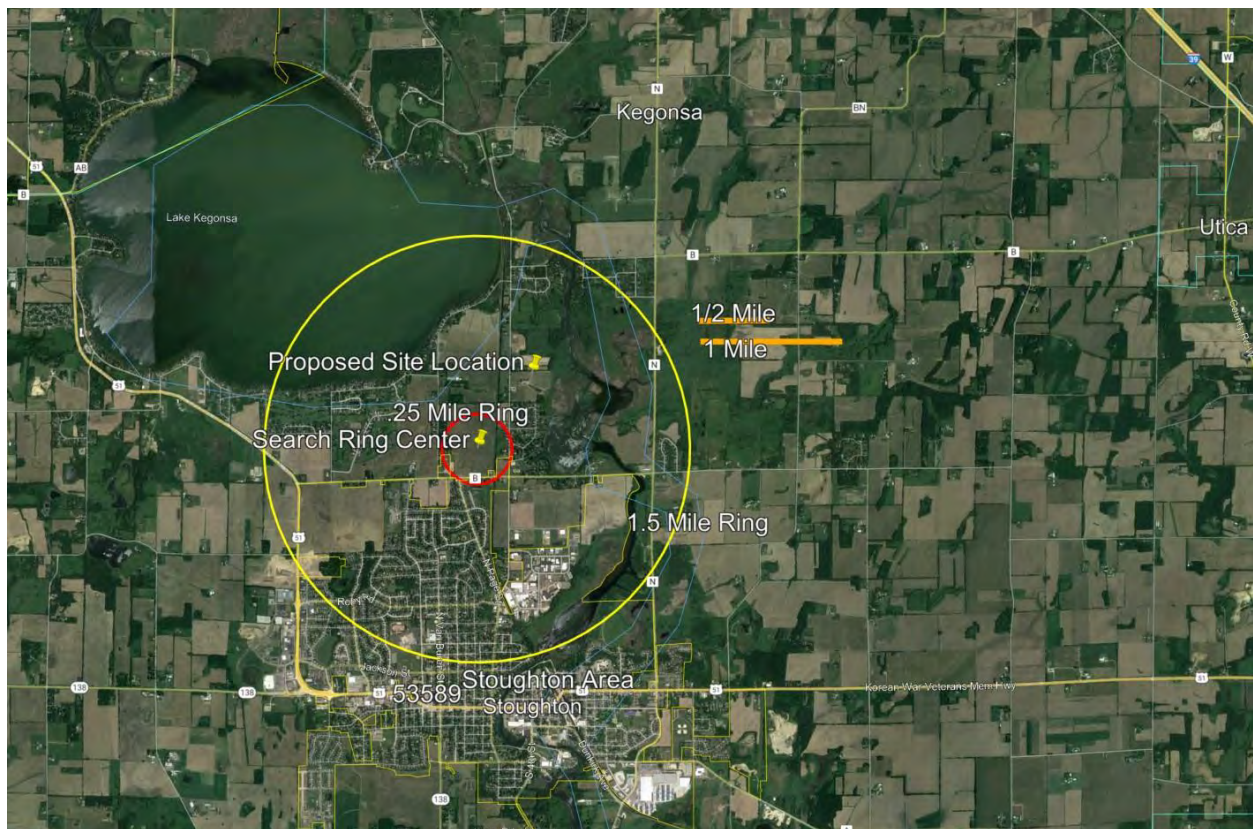
Trish Gray  
Agent on Behalf of Verizon Wireless  
MOUNTAIN LTD.

# EXHIBIT C

## Lake Kegonsa – Search Area

VZW network needs were identified within proximity to Lake Kegonsa and the Company identified a one quarter mile search radius centered around the Search Ring Center as depicted in the below maps. An initial land search within a one quarter mile radius yielded no prospective candidates and the best and closest option to the Company’s preferred search area is the candidate being presented.

### Overall Search Area Map



### Detailed Search Area Map



## EXHIBIT D

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RF Affidavit

Proposed Mobile Service Facility  
1896 Williams Drive,  
Stoughton, WI 53589

**verizon**

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November 8, 2023

## OVERVIEW

This RF Affidavit has been prepared on behalf of Verizon Wireless in support of TowerNorth's proposal for the installation and operation of a mobile service support structure and associated mobile service facility located at 1896 Williams Drive, Stoughton, WI 53589. The proposed facility will consist of ground-based equipment cabinets along with antennas and associated equipment mounted on the proposed 180' self-support tower.

This report concludes that the proposed site will provide additional capacity to Dane County to improve deficient service areas in the City of Stoughton, and the surrounding roads, neighborhoods, businesses, and residents in proximity to the proposed site.

Included in this report is: a summary of the site's objectives, maps showing Verizon Wireless' current network plan, and modeled Radio Frequency coverage of the subject site and the surrounding sites in Verizon Wireless' network compiled by Hemal Parikh Verizon Wireless RF Engineer. He is currently an RF Design engineer for Verizon Wireless and graduated from Purdue University with a degree in Electrical Engineering, he is familiar with Verizon Wireless' network needs in the Dane County area and has been the RF engineer for the area for the past 4 years.

## INTRODUCTION

Verizon Wireless provides digital voice and data communications services using 3rd Generation (3G) CDMA/EVDO technology in the Cellular (800 MHz) and PCS (1900 MHz) frequency bands and deploying advanced 4th Generation (4G) voice and data services over LTE technology in the 700 MHz, Cellular, PCS, AWS (2100 MHz), and is in the midst of deploying 5th Generation (5G) C-Band (3.7-3.9 GHz) frequency bands as allocated by the FCC. These networks are used by mobile devices for fast web browsing, media streaming, and other applications that require broadband connections. The mobile devices that benefit from these advanced networks are not limited to basic handheld phones, but also include devices such as smartphones, PDA's, tablets, and laptop au-cards. With the evolving rollout of 4G & 5G services and devices, Verizon Wireless customers will have even faster connections to people, information, and entertainment.

For Verizon Wireless' network to function effectively, there must be adequate overlapping coverage

between the “serving cell” and adjoining cells. This not only allows a user to access the network initially, but also allows for the transfer or “hand-off” of calls and data transmissions from one cell to another and prevents unintended disconnections or “dropped calls.”

Verizon Wireless’ antennas also must be located high enough above ground level to allow transmission (aka propagation) of the radio frequency signals above trees, buildings, and other natural or man-made structures that may obstruct or diminish the signals. Areas without adequate radio frequency coverage have substandard service, characterized by dropped and blocked calls, slow data connections, or no wireless service at all, and are commonly referred to as coverage gaps

The size of the area potentially served by each cell site depends on several factors including the number of antennas used, the height at which the antennas are deployed, the topography of the surrounding land, vegetative cover, and natural or man-made obstructions in the area. The actual service area at any given time also depends on the number of customers who are on the network in range of that cell. As customers move throughout the service area, the transmission from the phone or other device is automatically transferred to the Verizon Wireless facility with the best reception, without interruption in service, provided there is overlapping coverage between the cells.

We have concluded that by installing the proposed wireless communication facility at 1896 Williams Drive, Stoughton, WI 53589, at an antenna centerline height of 175’ AGL (above ground level), Verizon Wireless will be able to provide improved capacity to residents, businesses, and traffic corridors within Stoughton that are currently located within the gap in optimal service of Verizon Wireless’ network.

## **THE PROPOSED FACILITY**

Verizon Wireless’ plan for this proposed facility would consist principally of the following elements:

- 1) A fenced equipment lease area of 65’ x 65’ within TowerNorth’s overall 100’ x 100’ lease parcel;
- 2) Telecommunication equipment cabinets with utility connections to the proposed H-frame and other utility sources within the proposed compound;



- 3) Twelve (12) antennas (four per sector) mounted on the proposed 180' self-support tower, at a centerline elevation of between 175' AGL,
- 4) Remote Radio Units (RRU) with accessory junction boxes, hybrid cabling, and surge suppressors mounted along with the antennas

The minimum required elevation above the mean sea level necessary to provide the services is 180'.

## **SITE SEARCH AND SELECTION PROCESS**

To find a site that provides acceptable coverage, adequate capacity, and fills the gaps in service, computer modeling software is used to define a search area. The search ring identifies the area within which a site could be located (assuming sufficient height is considered) that would have a high probability of addressing the significant coverage gap and/or meeting the capacity objectives established by the Verizon Wireless RF (Radio Frequency) engineers.

Once a search ring is determined, Verizon Wireless' real estate specialists search within the proximity of the defined area – in this case within a ¼ mile radius from the search ring center -- for existing buildings, towers, and other structures of sufficient height that would meet the defined objectives. The search ring center for this site is 42 94302, -89.2256. If none are found, then the focus shifts to “raw land” sites.

A suitable site must satisfy the technical requirements identified by the RF engineers, must be available for lease, and must have access to a road and be otherwise suitable for constructing a cell site of the required size and height. Every effort is made to use existing structures before pursuing a “raw land” build to minimize the number of new towers throughout the cities and towns being served.

In accordance with the requirements of Sections 10.103(9)(b)1.b.ii and 10.103(9)(c)1 of the Dane County Ordinances, Verizon Wireless is pursuing the proposed “raw land” site instead of collocation because its real estate specialists were unable to locate any existing mobile service support structures or other tall structures (over 100 feet in height) within 1.5 miles of the center of the search ring for Verizon Wireless to consider.

The proposed site gives coverage to Lake Kegonsa better than the ATC Tower located at 42.96259,

-89.17975, which was considered, but rejected. The proposed site will provide for greater coverage with the areas surrounding Lake Kegonsa than the vetted ATC Tower does. The ATC tower is missing key areas around Lake Kegonsa compared to the proposed site. The proposed site will alleviate the capacity needs in the area compared to the ATC tower.

## CAPACITY OBJECTIVES

Verizon Wireless is in the process of expanding its 4G LTE high-speed wireless broadband system in the 700 MHz, Cellular, PCS, and AWS frequency bands and in the midst of deploying 5G (C-Band) Frequency bands, in accordance with its licenses from the FCC. In order to expand and enhance their wireless services throughout Wisconsin, Verizon Wireless must address capacity, interference, and high-speed broadband issues. As part of this effort, Verizon Wireless has determined that significant gaps in service exist in and around sections of Stoughton as described further below.

Verizon Wireless currently operates wireless facilities similar to the proposed facility within the surrounding cities/towns. Due in large part to the distances between the existing sites, and volume of user traffic in the area, these existing facilities do not provide sufficient capacity to portions of the city. Specifically, Verizon Wireless determined that portions of Stoughton are without reliable service.

Although Verizon's specific network utilization metrics are confidential and proprietary, Verizon will attest to the following:

- Lack of capacity causes call blocking, which is the same as a lack of coverage to subscribers. This equates to dropped calls and inability to use service properly.
- Data consumption is increasing at an exponential rate and has already exceeded network capacity in the target area. The proposed site at 1896 Williams Drive will provide offload relief to six sectors, four of which are exhausted and require immediate relief.

New sites are very expensive and carriers/tower companies only build them when there are no other options to expand capacity. It is not something the carriers wish to do but must do to keep their service viable.

## **CAPACITY UTILIZATION**

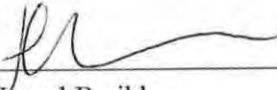
Although Verizon has coverage in the area, there are serious capacity constraints that can only be addressed with a new facility. Once the new site is on air, utilization of available capacity will drop from the current level to a level which will allow for excess capacity for future increases in network usage.

## **CERTIFICATION OF NON-INTERFERENCE & RF EXPOSURE**

Verizon Wireless certifies that the proposed facility will not cause interference to any lawfully operating emergency communication system, television, telephone or radio, in the surrounding area. The FCC has licensed Verizon Wireless to transmit and receive in the Upper C-Block of the 700 MHz band, B Block of the Cellular (850 MHz) band, B Blocks of the PCS (1900 MHz) band, the A and B Blocks of the AWS (2100 MHz) band and A,B,&C Blocks of the C-BAND (3.7-3.9 GHz) RF spectrum. As a condition of the FCC licenses, Verizon Wireless is prohibited from interfering with other licensed devices that are being operated in a lawful manner. Furthermore, no emergency communication system, television, telephone, or radio is licensed to operate on these frequencies, and therefore interference is highly unlikely. Verizon confirms that this site will comply with all applicable FCC regulations regarding radio frequency safety and exposure limits.

## **SUMMARY**

In undertaking its build-out of 4G LTE & 5G service in Dane County, Verizon Wireless has determined that an additional facility is needed to provide reliable service and additional capacity. Verizon Wireless determined that the proposed wireless communications facility at 1896 Williams Drive, Stoughton, WI 53589, at an antenna centerline height of approximately 175 feet (AGL) will provide additional coverage and capacity needed in the surrounding roads, neighborhoods, and retail/dining/business establishments in proximity to the proposed site. Without the installation of the proposed site, Verizon Wireless will be unable to improve and expand their existing 4G & 5G wireless communication services in this area of Dane County; therefore, Verizon Wireless respectfully requests that the Dane County act favorably upon the proposed facility request.

  
\_\_\_\_\_

Hemal Parikh  
RF Engineer  
Verizon Wireless

November 8, 2023  
Date

STATE OF ILLINOIS     )  
                                  )  
COUNTY OF COOK     )

ss.

Subscribed and sworn to before me on 8 day of November, 2023, by Hemal Parikh.

  
NOTARY PUBLIC FOR ILLINOIS  
My Commission Expires: 7-22-2025



# EXHIBIT E

**CONSULTANT TEAM**

PROJECT CONSULTANT: TERRA CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
(847) 698-6400

SURVEYOR: MERIDIAN SURVEYING, LLC  
N8774 FIRELANE 1  
MENASHA, WI 54952  
(920) 993-0881

**PROJECT TYPE**

PROPOSED VERIZON WIRELESS ANTENNAS TO BE MOUNTED ON 180' SELF SUPPORT TOWER WITH PROPOSED 11'-0" x 4'-0" EQUIPMENT ON CONCRETE PAD AT BASE.

**SITE COORDINATES:**

LATITUDE: 42° 57' 02.18" N (1A CERTIFICATION)  
LONGITUDE: 89° 13' 05.52" W (1A CERTIFICATION)  
ELEVATION: ±881.0' (1A)

**VICINITY MAP**

N.T.S.



**PROJECT INFORMATION**

ZONING: FP-35 GENERAL FARMLAND PRESERVATION

OCCUPANCY: UNINHABITED

PERMITTING JURISDICTION: VILLAGE OF PLEASANT SPRINGS / DANE COUNTY

E911 ADDRESS: TBD

TOWER OWNER: TOWNORTH DEVELOPMENT, LLC  
750 W CENTER STREET, SUITE 301  
W BRIDGEWATER, MA 02379

CONTACT: LIZ RUTKOWSKI  
EMAIL: LRUTKOWSKI@TOWNORTH.COM  
PHONE: 401-533-1679

PROPERTY OWNER: NATHAN M MOE (608) 843-9733  
MOEENTERPRISES210@GMAIL.COM

POWER PROVIDER: STOUGHTON ELECTRIC UTILITY  
SCOTT ADLER 608-877-7416  
SADLER@STOUGHTONUTILITIES.COM

TELCO PROVIDER: TRANSPORT BY OTHERS

PREPARED FOR



PLANS PREPARED BY:



CARRIER:



**APPROVALS**

CARRIER: \_\_\_\_\_

LANDLORD: \_\_\_\_\_

LEASING: \_\_\_\_\_

CONSTRUCTION: \_\_\_\_\_

GENERATOR TYPE: DIESEL  
MAKE: GENERAC  
MODEL #: SD030-1PE-190JT;  
GEN-GENSET-WP-30KW-DSL-1PH-190G-AHJ-TANK

**SHEET DRAWING INDEX REVISION**

SHEET	DRAWING INDEX	REVISION
T-1	TITLE SHEET	2,3
LP-1	OVERALL LOCATION PLAN	3
LP-2	ENLARGED LOCATION PLAN	1
LP-3	AERIAL EXHIBIT	3
C-1	ENGINEERING SITE PLAN	-
C-2	SITE GRADING PLAN (SHEET 1 OF 2)	-
C-2A	SITE GRADING PLAN (SHEET 2 OF 2)	-
C-3	FENCE DETAILS	-
C-4	SITE DETAILS	-
C-5	CONSTRUCTION NOTES	-
C-6	SITE SIGNAGE	-
L-1	LANDSCAPE PLAN	3
ANT-1	SITE ELEVATION	-
E-1	ELECTRICAL NOTES	-
E-2	UTILITY ROUTING PLAN	1
E-3	H-FRAME DETAILS	2
E-4	SINGLE LINE DIAGRAM & TRENCH DETAILS	-
E-5	SITE GROUNDING PLAN	-
E-6	GROUNDING DETAILS	-
EX-1	PHOTO EXHIBIT	-
VW LP	LOCATION PLAN	-
VW C-1	ENGINEERING SITE PLAN	-
VW C-2	SITE GRADING PLAN	-
VW C-3	EQUIPMENT PAD FOUNDATION PLAN	-
VW C-4	GENERATOR FOUNDATION DETAILS	-
VW A-1	SITE ELEVATION & ANTENNA LAYOUT	-
VW A-2	ANTENNA INFORMATION	-
VW A-2A	ANTENNA INFORMATION	-
VW A-3	SITE DETAILS	-
VW A-3A	ANTENNA MOUNTING DETAILS	3
VW A-4	SITE DETAILS	-
VW B-1	EQUIPMENT PAD PLAN & NOTES	3
VW B-2	EQUIPMENT PAD ELEVATIONS	3
VW E-1	UTILITY ROUTING PLAN	-
VW E-1A	UTILITY RISER DIAGRAMS	3
VW E-1B	GENERATOR UTILITY ROUTING PLAN	-
VW E-1C	GENERATOR SINGLE LINE DIAGRAM & ALARM WIRING	-
VW E-2	ELECTRICAL AND GROUNDING NOTES	-
VW E-3	ELECTRICAL DETAILS	-
VW E-4	SITE GROUNDING PLAN	-
VW E-5	GROUNDING DETAILS	-
VW E-6	GROUNDING DETAILS	-
VW EX-1	GENERATOR CUT-SHEET	-

NO.	DESCRIPTION	BY	DATE	TE	TE	TE	TJS
		ISSUED FOR REVIEW	REVISOR	REVISION	REVISION	REVISION	REVISION
1	ISSUED FOR REVIEW		02/14/23				
2	REVISOR PER TN COMMENTS		03/02/23				
3	REVISOR PER POWER COORDINATION		04/03/23				
4	REVISOR PER ZONING AND ISSUED FOR PERMIT		10/30/23				



750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
PHONE: (844) 748-8878 FAX: (508) 819-3017  
SITEACCESS@TOWNORTH.COM  
1-888-315-0220x3



1701 GOLF ROAD, TOWER 2, SUITE 400  
ROLLING MEADOWS, ILLINOIS 60008  
PHONE: (847) 619-5397 FAX: (847) 706-7415  
LOCATION NUMBER: 706115  
MDG LOCATION NUMBER: 5000889243  
SITE NAME: LAKE KEGONSA

**SITE NAME: LAKE KEGONSA**

**SITE NUMBER: WI1040-A**

**1896 WILLIAMS DR.  
STOUGHTON, WI 53589**



22" x 34" IS FULL SCALE.  
11" x 17" IS HALF SCALE.

**ATTACHMENTS**

PS-1	SITE SURVEY RFDS (BY OTHERS)	-
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**SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243**

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER

**T-1**



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

**LEGEND**

- = 1" X 18" IRON PIPE SET
- = 1" IRON PIPE FOUND
- ⊕ = COUNTY MONUMENT FOUND
- ⊠ = TELEPHONE PEDESTAL
- ⊙ = EXISTING POWER POLE
- = SANITARY SEWER MAIN
- OHE— = OVERHEAD ELECTRIC
- UGF— = BURIED FIBER OPTIC LINE
- X—X— = FENCE LINE
- — — = PROPERTY LINE
- ⊙ = EXISTING TREE

- PROPERTY LINE — — — — —
- FENCE — X — X —
- OVERHEAD POWER LINE — OHE — OHE —
- UNDERGROUND TELCO — UGT — UGT —
- UNDERGROUND POWER — UGE — UGE —
- BURIED WATER LINE — W — W —
- BURIED GAS LINE — G — G —
- EDGE OF BUSH/TREES — — — — —

**SURVEY PERFORMED BY:**



N8774 Firelane 1 Office: 920-993-0881  
Menasha, WI 54952 Fax: 920-273-6037

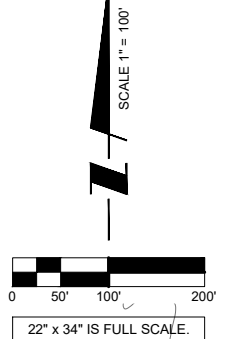
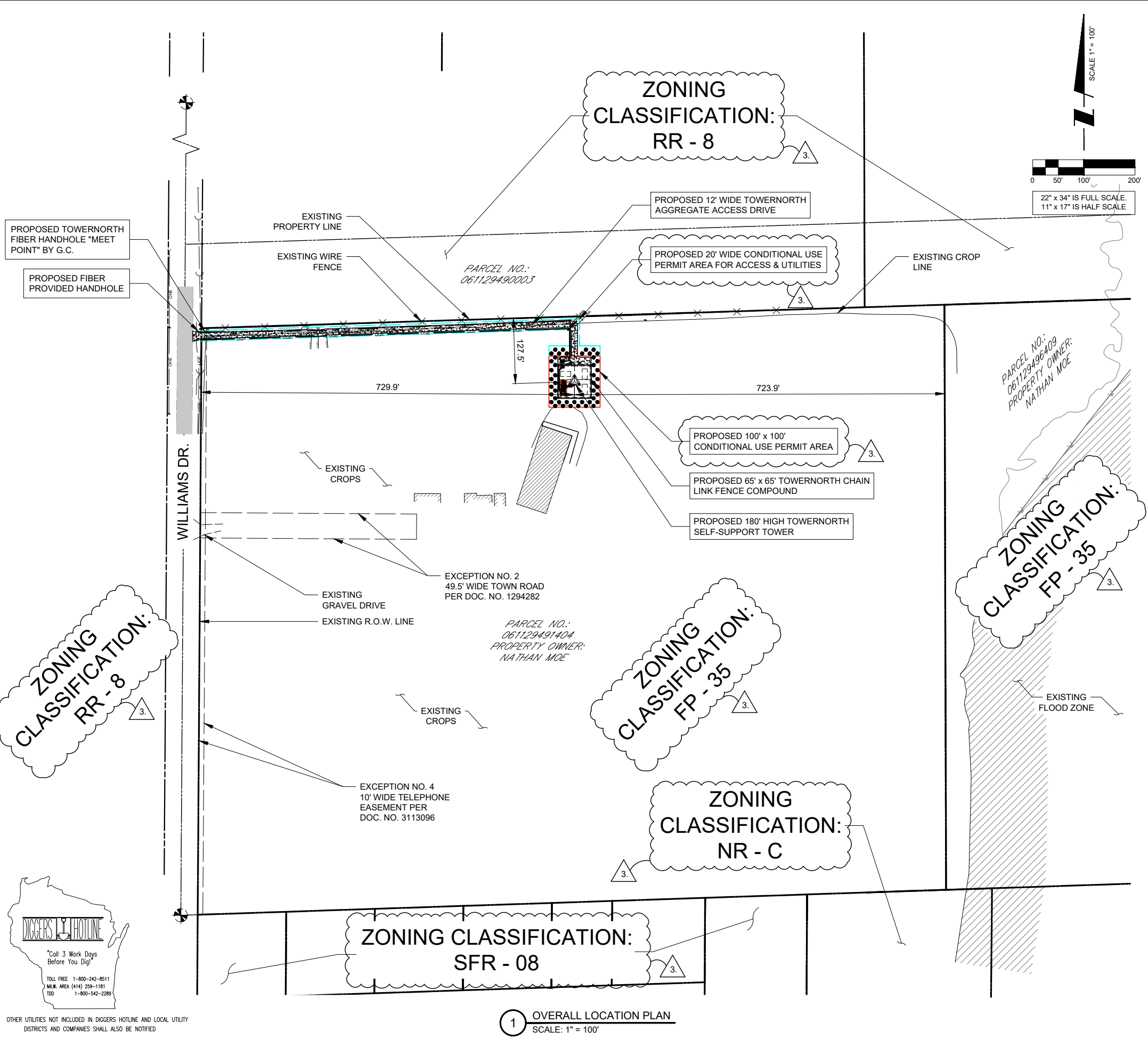
SITE BENCHMARK: (BM A)  
SET RAILROAD SPIKE IN 1" IRON PIPE,  
LOCATED ±250' NE OF BUILDING ALONG  
FENCE LINE  
ELEVATION: 872.06'

**GENERAL SITE NOTES**

- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVEMENT. CONTRACTOR SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PAVEMENT PRIOR TO CONSTRUCTION. ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.
- 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 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 SOIL STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.
- CONTRACTOR TO PROVIDE APPROXIMATE 50'X50' STAGING AREA AND TEMPORARY ROAD. CONTRACTOR SHALL COORDINATE WITH ANTENNA CONTRACTOR, A STAGING AREA AND TEMPORARY ROAD THAT IS ACCEPTABLE TO THE OWNER. STAGING AREA AND TEMPORARY ROAD SHALL BE RESTORED TO EXISTING CONDITIONS AS NECESSARY UPON COMPLETION OF THE PROJECT.
- 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 CATCH BASINS SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED



1 OVERALL LOCATION PLAN  
SCALE: 1" = 100'

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
FAX: (847) 706-7415

NO.	DESCRIPTION	BY	DATE
1	ISSUED FOR REVIEW	TE	02/14/23
2	REVISED PER TN COMMENTS	TE	03/02/23
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4	REVISED PER ZONING AND ISSUED FOR PERMIT	TJS	10/30/23

SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

**LAKE KEGONSA**  
1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**OVERALL LOCATION PLAN**

SHEET NUMBER  
**LP-1**

**LEGEND**

- = 1" X 18" IRON PIPE SET
- = 1" IRON PIPE FOUND
- ⊕ = COUNTY MONUMENT FOUND
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- UNDERGROUND TELCO
- UNDERGROUND POWER
- BURIED WATER LINE
- BURIED GAS LINE
- EDGE OF BUSH/TREES

**SURVEY PERFORMED BY:**

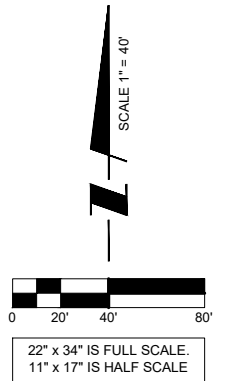
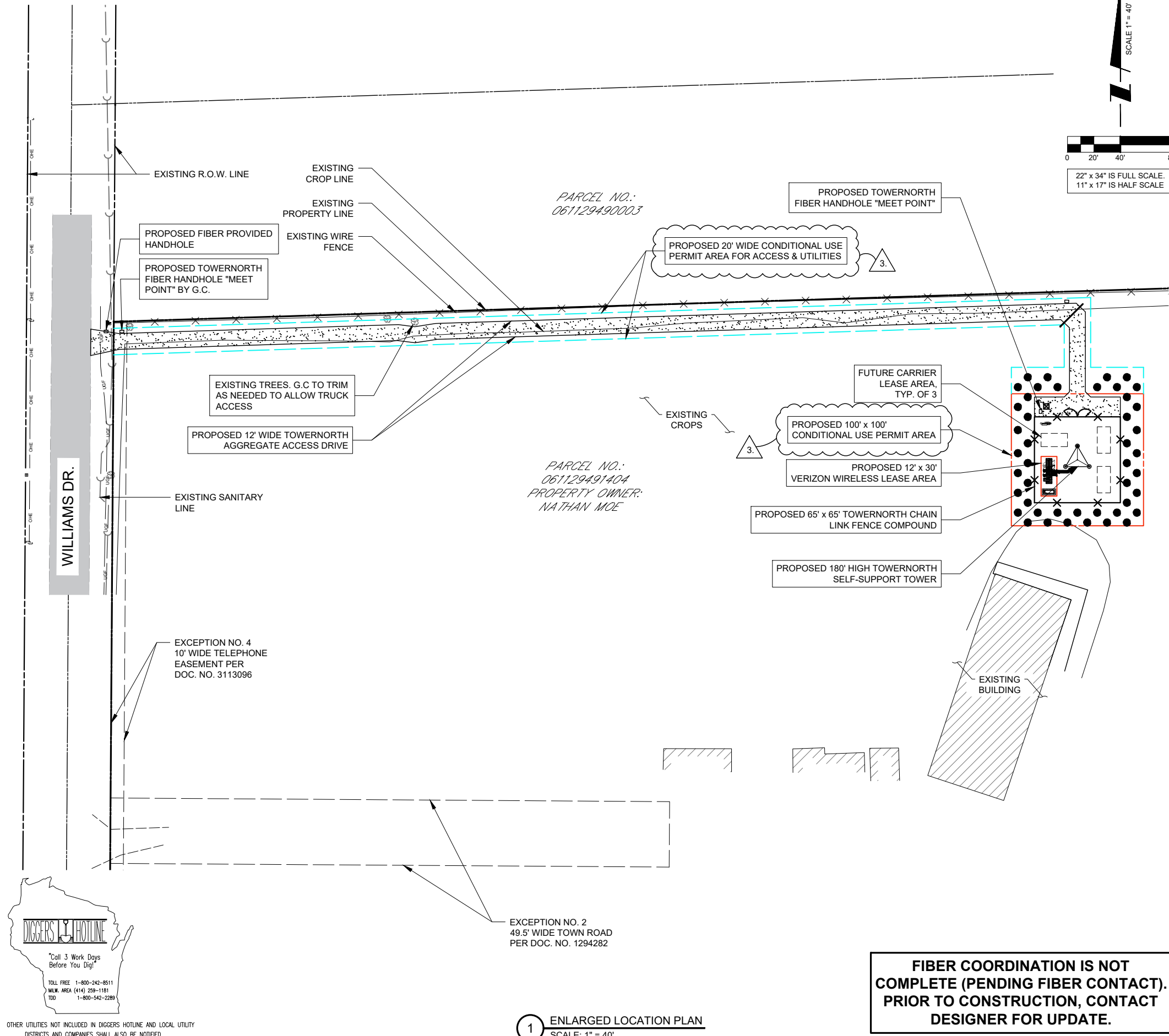


N8774 Firelane 1 Office: 920-993-0881  
Menasha, WI 54952 Fax: 920-273-6037

SITE BENCHMARK: (BM A)  
SET RAILROAD SPIKE IN 1" IRON PIPE,  
LOCATED ±250' NE OF BUILDING ALONG  
FENCE LINE  
ELEVATION: 872.06'

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OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

**1 ENLARGED LOCATION PLAN**  
SCALE: 1" = 40'

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

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
FAX: (847) 706-7415

NO.	DESCRIPTION	BY	DATE	TE	TE	TE	TJS
1	ISSUED FOR REVIEW		02/14/23				
2	REVISED PER TN COMMENTS		03/02/23				
3	REVISED PER POWER COORDINATION		04/03/23				
4	REVISED PER ZONING AND ISSUED FOR PERMIT		10/30/23				

**SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243**

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**ENLARGED LOCATION PLAN**

SHEET NUMBER  
**LP-2**



**LEGEND**

- = 1" X 18" IRON PIPE SET
- = 1" IRON PIPE FOUND
- ⊕ = COUNTY MONUMENT FOUND
- ⊠ = TELEPHONE PEDESTAL
- ⊙ = EXISTING POWER POLE
- = SANITARY SEWER MAIN
- OHE— = OVERHEAD ELECTRIC
- UGF— = BURIED FIBER OPTIC LINE
- X—X— = FENCE LINE
- — — = PROPERTY LINE
- ⊙ = EXISTING TREE

- PROPERTY LINE — — — — —
- FENCE — X — X —
- OVERHEAD POWER LINE — OHE — OHE —
- UNDERGROUND TELCO — UGT — UGT —
- UNDERGROUND POWER — UGE — UGE —
- BURIED WATER LINE — W — W —
- BURIED GAS LINE — G — G — G —
- EDGE OF BUSH/TREES — — — — —

**SURVEY PERFORMED BY:**

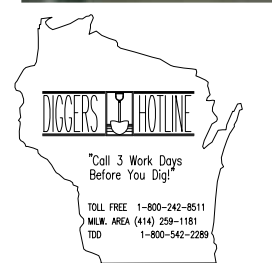


N8774 Firelane 1 Office: 920-993-0881  
Menasha, WI 54952 Fax: 920-273-6037

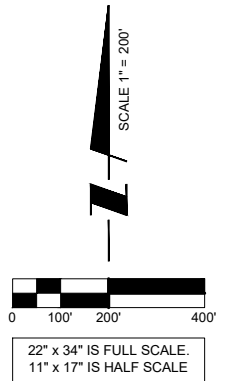
SITE BENCHMARK: (BM A)  
SET RAILROAD SPIKE IN 1" IRON PIPE,  
LOCATED ±250' NE OF BUILDING ALONG  
FENCE LINE  
ELEVATION: 872.06'

**GENERAL SITE NOTES**

- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVEMENT. CONTRACTOR SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PAVEMENT PRIOR TO CONSTRUCTION. ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.
- 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 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 SOIL STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.
- CONTRACTOR TO PROVIDE APPROXIMATE 50'X50' STAGING AREA AND TEMPORARY ROAD. CONTRACTOR SHALL COORDINATE WITH ANTENNA CONTRACTOR, A STAGING AREA AND TEMPORARY ROAD THAT IS ACCEPTABLE TO THE OWNER. STAGING AREA AND TEMPORARY ROAD SHALL BE RESTORED TO EXISTING CONDITIONS AS NECESSARY UPON COMPLETION OF THE PROJECT.
- 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 CATCH BASINS SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED



1 OVERALL LOCATION PLAN  
SCALE: 1" = 200'

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

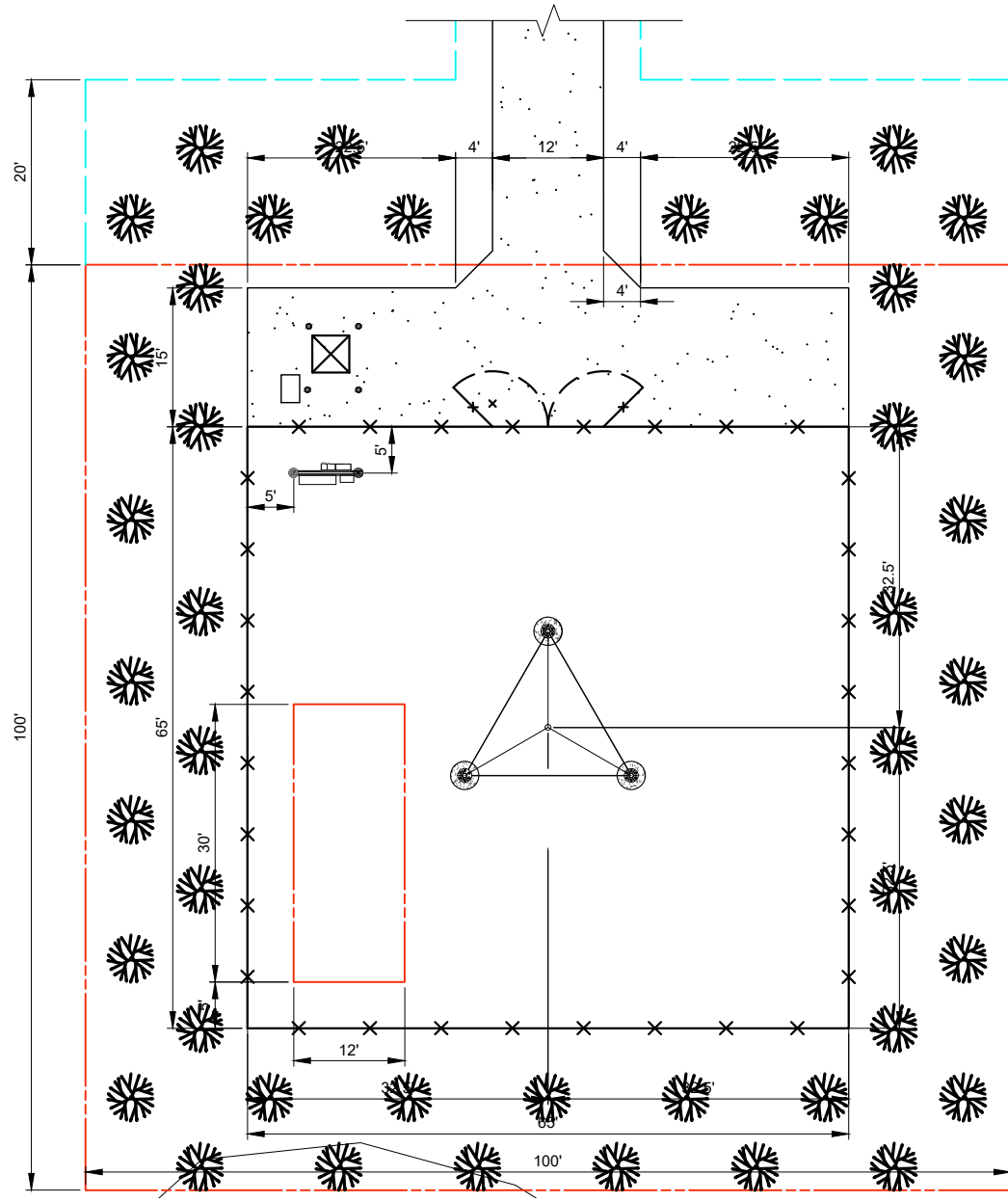
LAKE  
KEGONSA

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

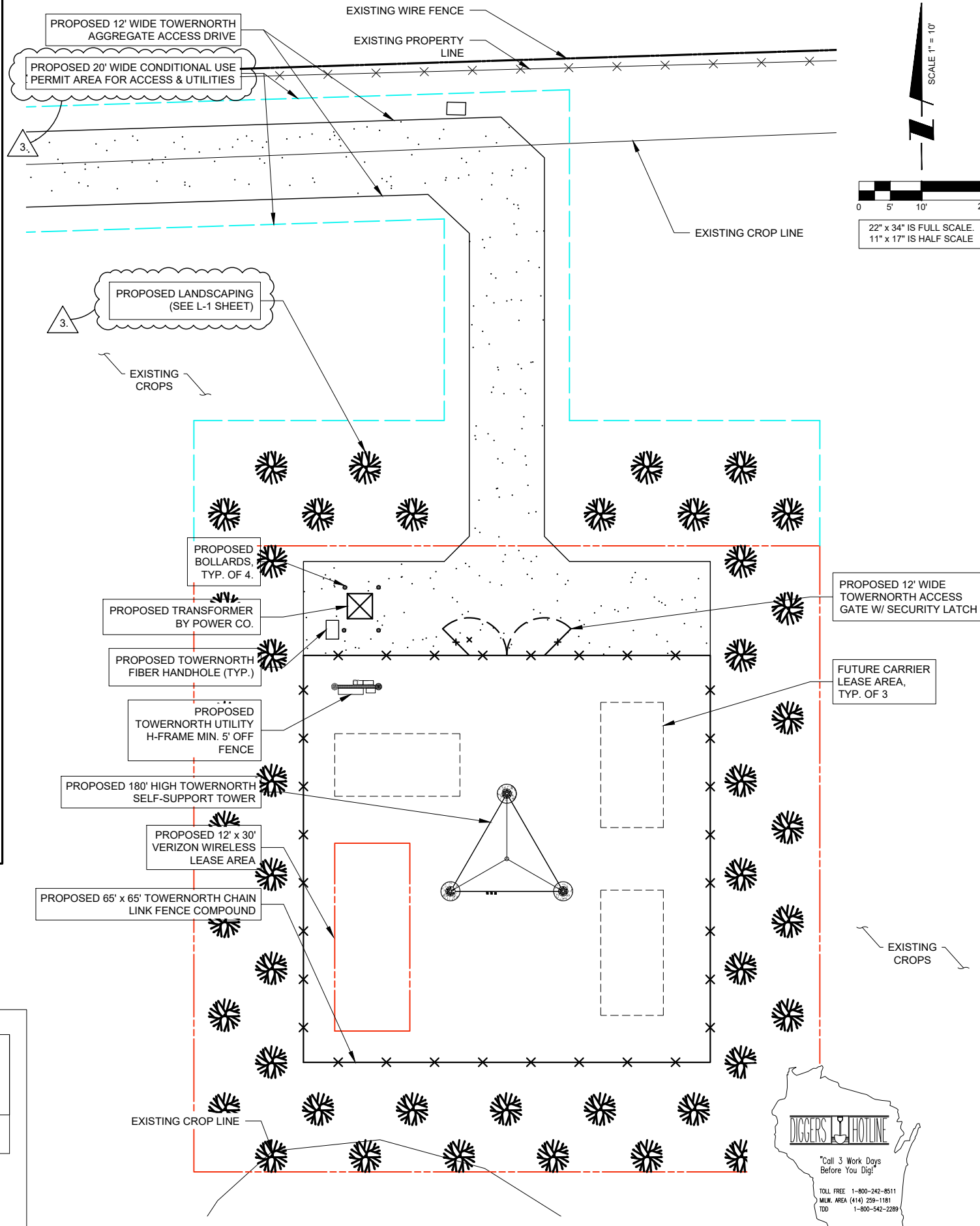
DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**AERIAL EXHIBIT**

SHEET NUMBER  
**LP-3**



2 SITE DIMENSION PLAN  
SCALE: 1" = 10'



1 SITE PLAN  
SCALE: 1" = 10'

**PAVEMENT MATERIAL**

ACCESS ROAD (HATCHED)  
±1164 S.Y.  
8" COMPACTED AGGREGATE BASE COURSE, CA-6  
MIRAFI 500X SUBGRADE GEOTEXTILE FABRIC OR APPROVED EQUAL

LEASE SITE  
±469 S.Y.  
8" COMPACTED AGGREGATE BASE COURSE, WITH 3/4" CRUSHED AGGREGATE, NO FINES, OR APPROVED EQUAL. MIRAFI 500X SUBGRADE GEOTEXTILE FABRIC OR APPROVED EQUAL  
260 L.F. OF FENCING

THE CONTRACTOR SHALL INCLUDE AS PART OF THE BID, THE COST OF REMOVAL OF ANY SURFACE VEGETATION AND ORGANIC SOILS OR OTHER DELETERIOUS MATERIALS AND THE REPLACEMENT WITH ENGINEERED BACKFILL FOR THE AGGREGATE ACCESS DRIVE AND LEASE SITE, IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.

SURVEY PERFORMED BY:

**MERIDIAN SURVEYING, LLC**

N8774 Firelane 1 Office: 920-993-0881  
Menasha, WI 54952 Fax: 920-273-6037

SITE BENCHMARK: (BM A)  
SET RAILROAD SPIKE IN 1" IRON PIPE,  
LOCATED ±250' NE OF BUILDING ALONG  
FENCE LINE  
ELEVATION: 872.06'



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
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PLANS PREPARED BY:  
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LOC # 706115  
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LAKE KEGONSA

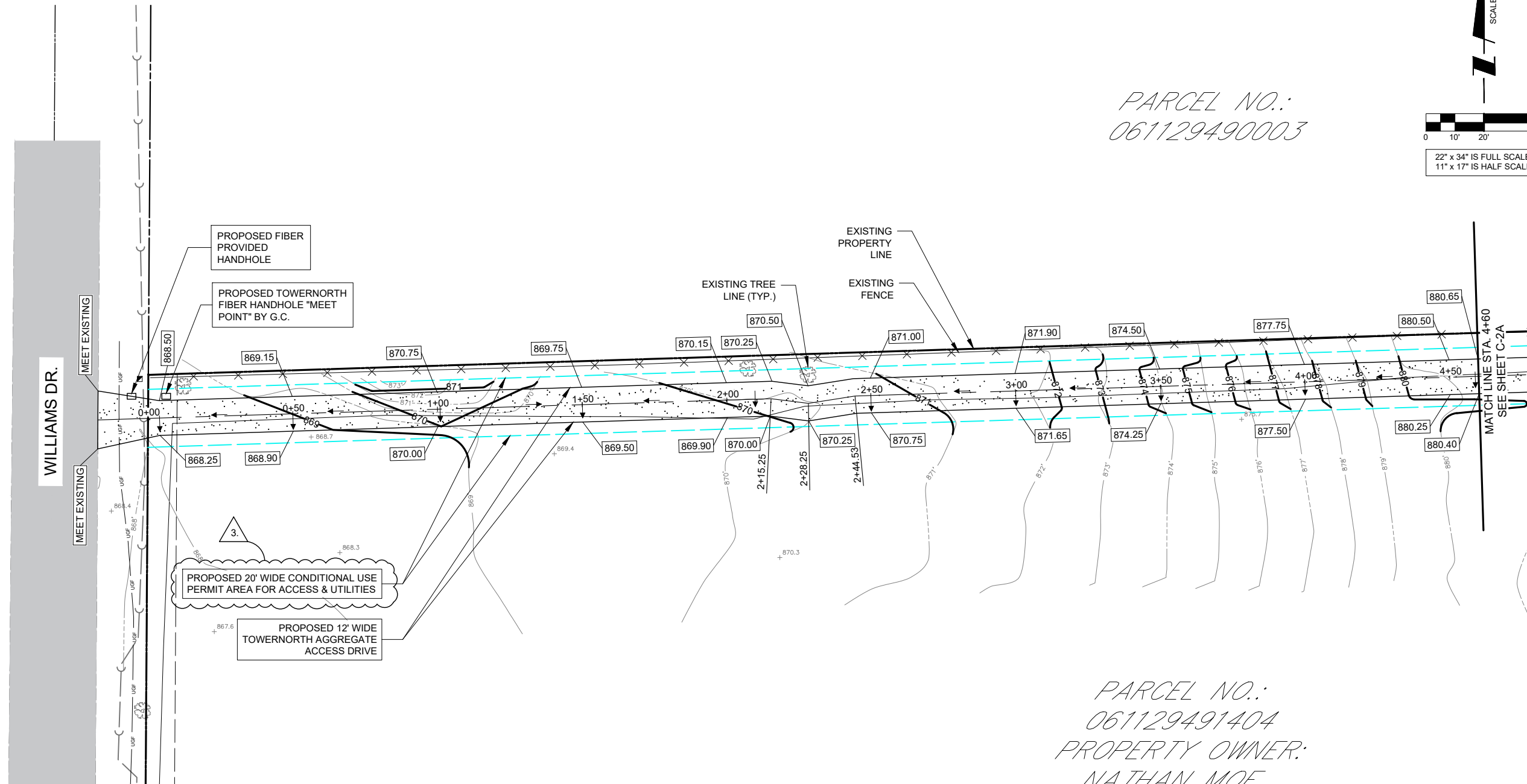
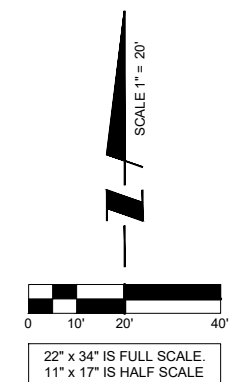
1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER  
**C-1**

PARCEL NO.:  
 061129490003



PARCEL NO.:  
 061129491404  
 PROPERTY OWNER:  
 NATHAN MOE

NO.	DESCRIPTION	BY	DATE
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LAKE  
 KEGONSA

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

DRAWN BY:	TE
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SHEET TITLE  
 SITE GRADING PLAN  
 (SHEET 1 OF 2)

SHEET NUMBER  
**C-2**

**LEGEND**

**PROPOSED GROUND DRAINAGE FLOW DIRECTION ARROWS**

- ← DRAINAGE DIRECTION ARROW
- ← 0.00% GROUND SLOPE% WITH DIRECTION
- ↔ SUMMIT DRAINAGE DIRECTIONS
- ~ EXISTING GROUND DRAINAGE FLOW DIRECTION

**PROPOSED SPOT GRADES**

- 0000.00 PROPOSED ELEVATION

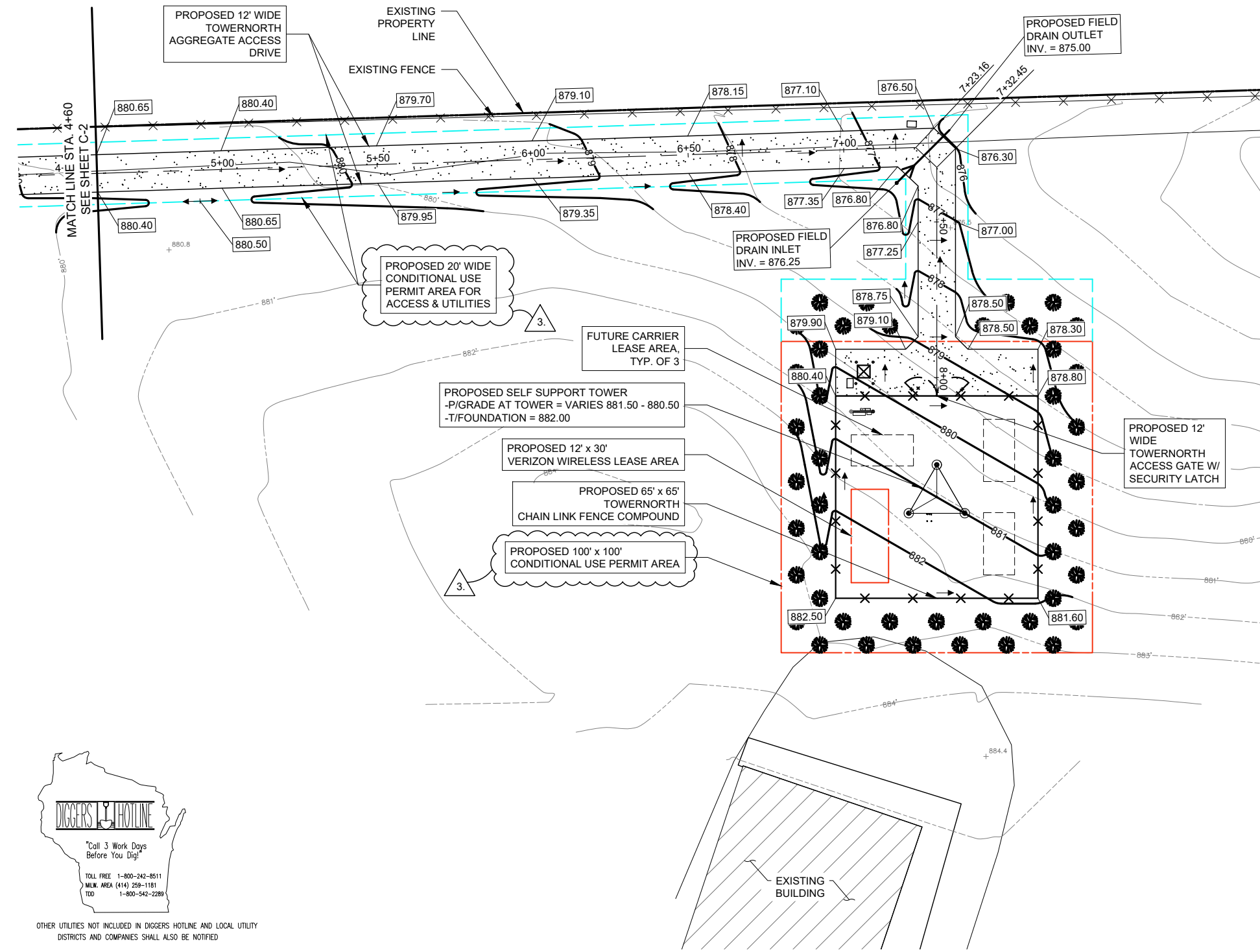
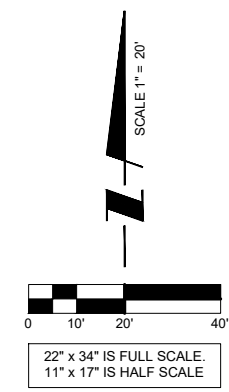
**PROPOSED LINES**

- - - - - PROPOSED GROUND RIDGE LINE
- 000 PROPOSED CONTOUR
- 000 EXISTING CONTOUR
- ▣ → ▣ PROPOSED CULVERT & END SECTIONS

"Call 3 Work Days Before You Dig!"

TOLL FREE 1-800-242-8511  
 MILK AREA (414) 259-1181  
 TDD 1-800-542-2289

OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED



**LEGEND**

**PROPOSED GROUND DRAINAGE FLOW DIRECTION ARROWS**

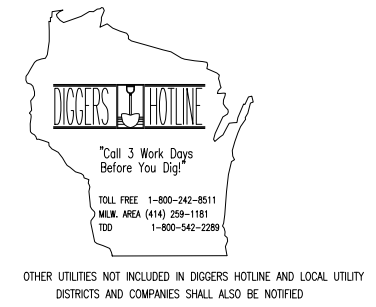
- ← DRAINAGE DIRECTION ARROW
- ← 0.00% GROUND SLOPE% WITH DIRECTION
- ↔ SUMMIT DRAINAGE DIRECTIONS
- ↔ EXISTING GROUND DRAINAGE FLOW DIRECTION

**PROPOSED SPOT GRADES**

- 0000.00 PROPOSED ELEVATION

**PROPOSED LINES**

- - - - - PROPOSED GROUND RIDGE LINE
- 000 — PROPOSED CONTOUR
- - - - - 000 - - - - - EXISTING CONTOUR
- ▣ —> ▣ PROPOSED CULVERT & END SECTIONS



REVISIONS

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**SITE # WI1040-A**  
**LOC # 706115**  
**MDG # 5000889243**

**LAKE KEGONSA**

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**SITE GRADING PLAN**  
 (SHEET 2 OF 2)

SHEET NUMBER  
**C-2A**

NO.	DESCRIPTION	BY	DATE
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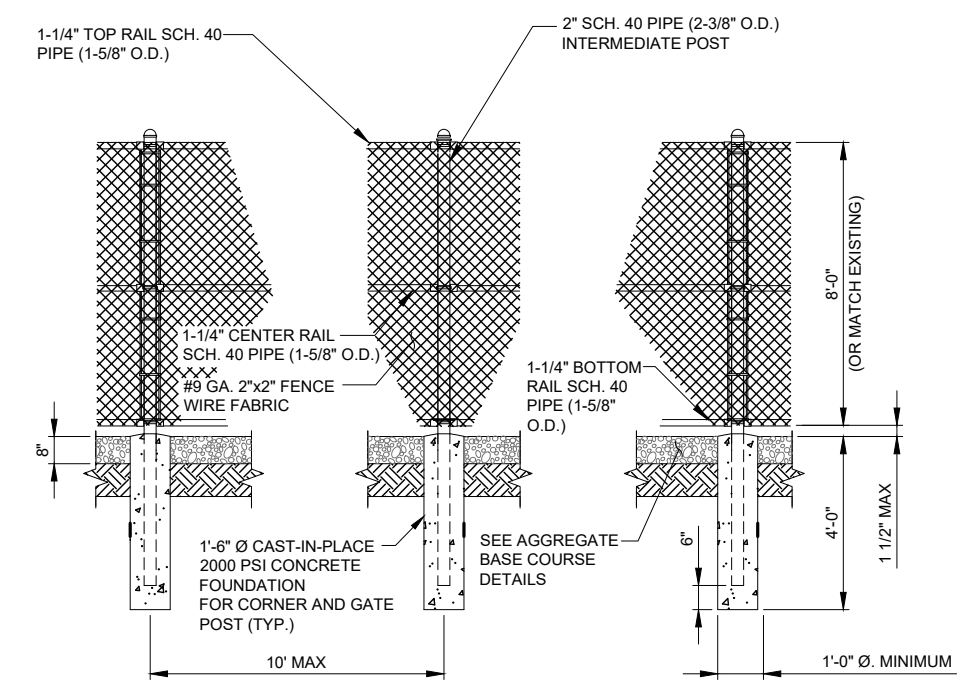
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LAKE  
 KEGONSA  
 1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

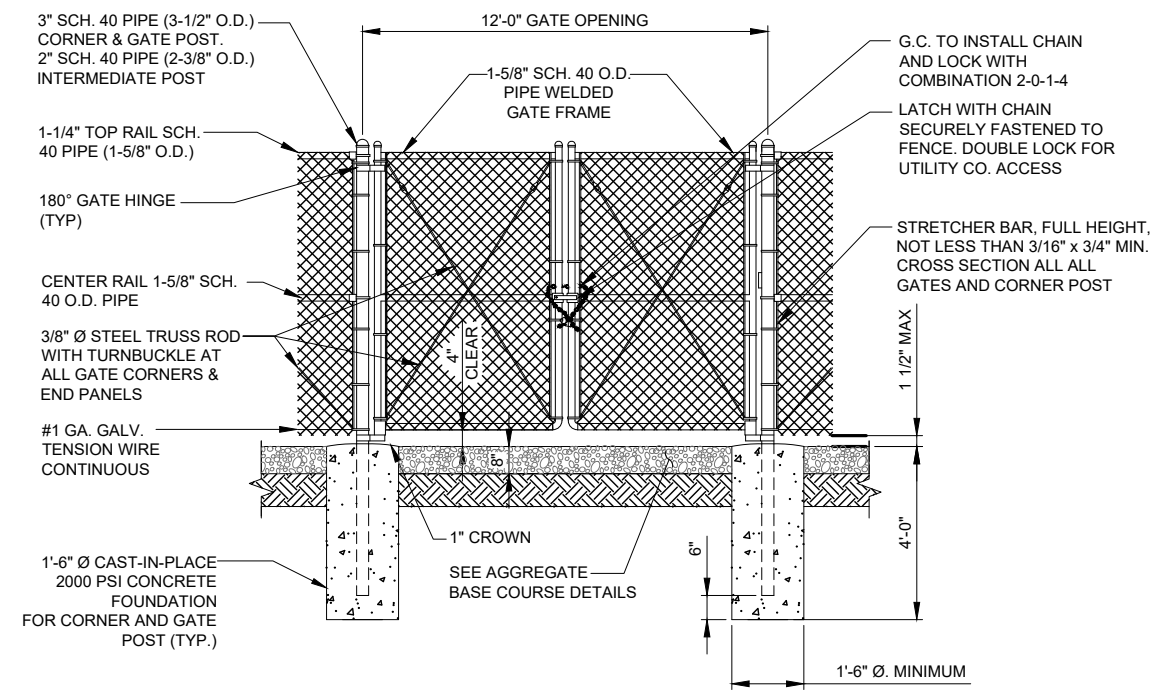
DRAWN BY:	TE
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DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**FENCE DETAILS**

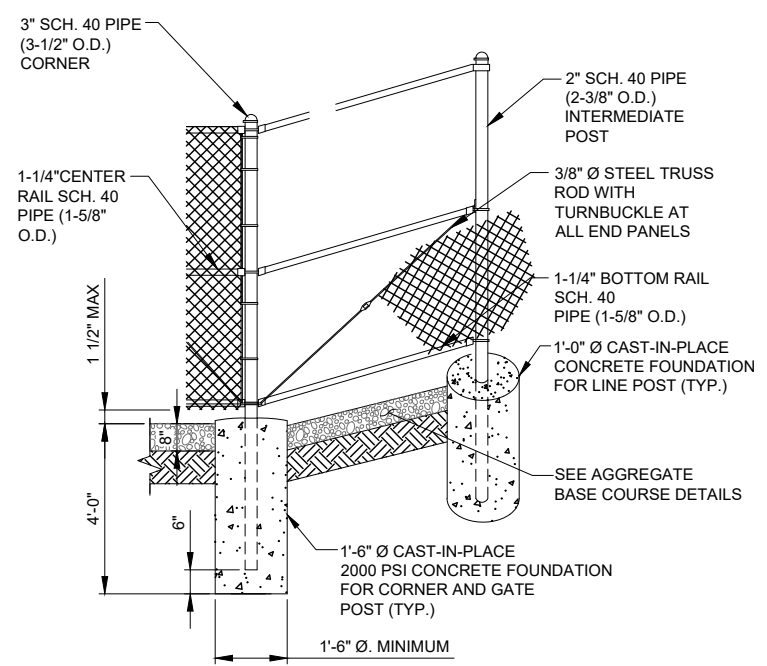
SHEET NUMBER  
**C-3**



**1** FENCE POST DETAILS  
 N.T.S.

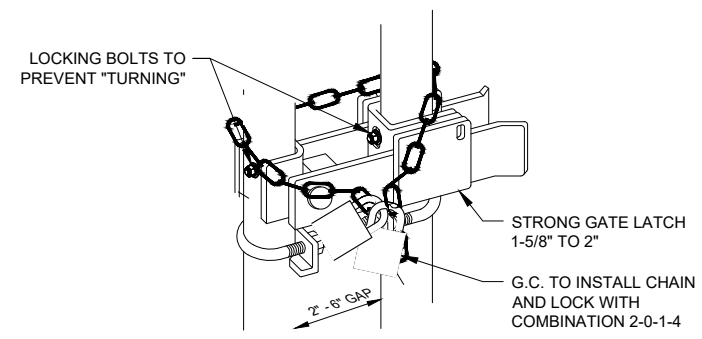


**2** 12'-0" DOUBLE SWING GATE  
 N.T.S.



**3** CORNER POST DETAIL  
 N.T.S.

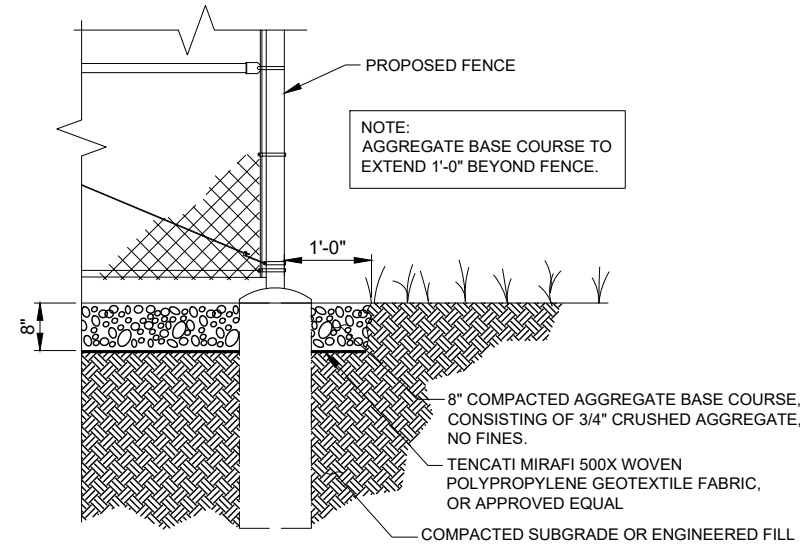
NOTE:  
 GATE HINGE BOLTS SHALL HAVE THEIR  
 THREADS PEENED OR WELDED TO  
 PREVENT UNAUTHORIZED REMOVAL



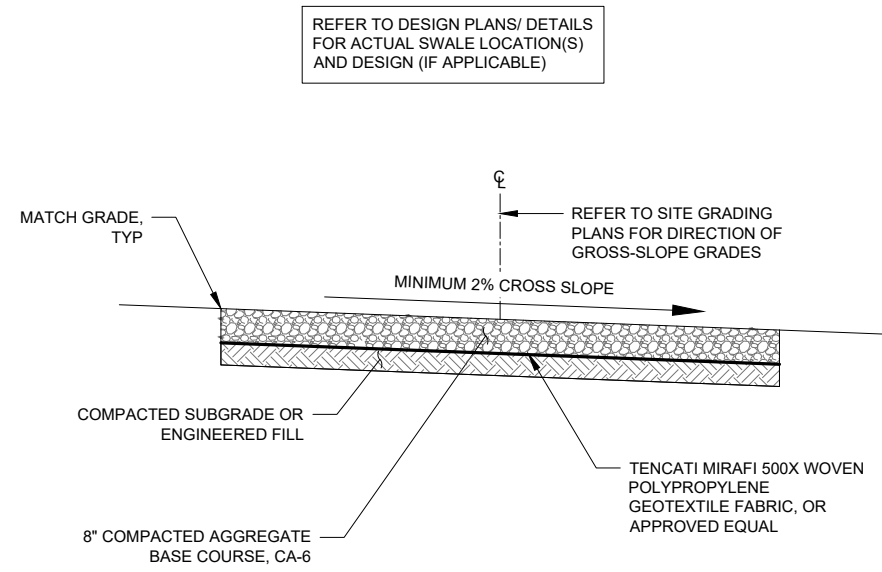
**4** STRONG ARM GATE LATCH DETAIL  
 N.T.S.



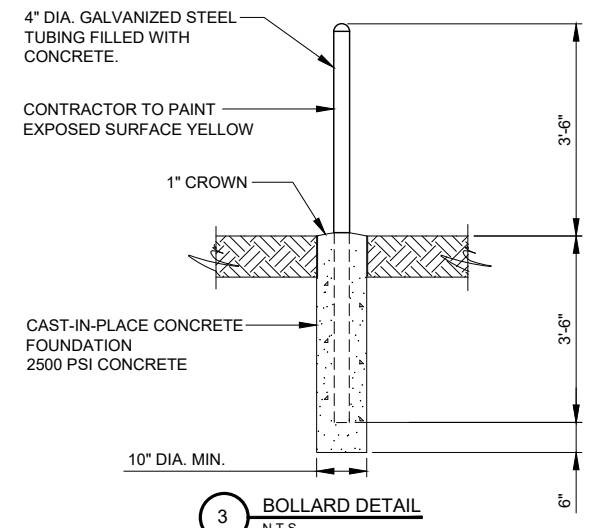
OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED



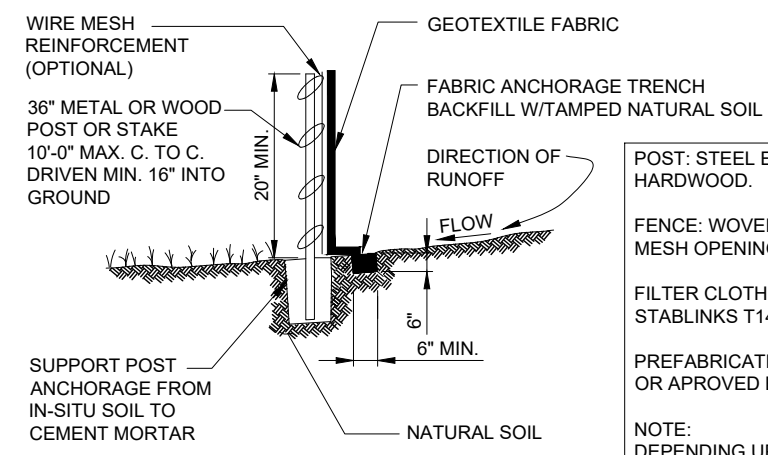
**1 AGGREGATE CROSS-SECTION**  
N.T.S. LEASE SITE



**2 ACCESS DRIVE DETAIL**  
SCALE: NTS



**3 BOLLARD DETAIL**  
N.T.S.



POST: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD.

FENCE: WOVEN WIRE, 14 1/2" GAUGE, 6" MAX. MESH OPENING

FILTER CLOTH: FILTER X, MIRAFI 100X, STABLINKS T140N OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

NOTE:  
DEPENDING UPON CONFIGURATION, ATTACH FABRIC TO WIRE MESH W/HOG RINGS, STEEL POSTS W/ TIE WIRES, WOOD POSTS W/ NAILS.

**4 EROSION CONTROL SILT FENCE DETAIL**  
N.T.S.

GEOTEXTILE PARAMETERS		
PROPERTY	MINIMUM VALUE (a)	TEST METHOD
GRAB STRENGTH	180 LBS.	ASTM D-4632-91
PUNCTURE STRENGTH	75 LBS.	ASTM D-4833-88
BURST STRENGTH	290 LBS.	ASTM D-3786
TRAPEZOIDAL TEAR	50 LBS.	ASTM D-4571-87

(a) ALL VALUES REPRESENT MINIMUM ROLL VALUES

NOTES:  
THE FABRIC SHOULD BE PLACED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. INTERSECTIONS OF SHEETS MUST BE SOWN 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 FABRIC.

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
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ENGINEERING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
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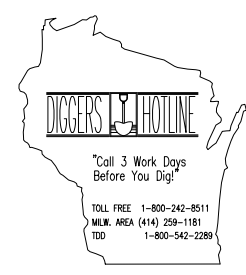
**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**SITE DETAILS**

SHEET NUMBER  
**C-4**



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

GENERAL NOTES:

- FOR THE PURPOSE OF THE CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)  
TOWER OWNER – TOWERNORTH DEVELOPMENT, LLC
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE ENGINEER.
- CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, FIBER, AND GROUNDING CABLES AS SHOWN ON THE POWER & GROUNDING DRAWINGS.
- THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
- CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- CONTRACTOR SHALL HAVE A PRECONSTRUCTION MEETING WITH OWNER TO DISCUSS ALL ASPECTS OF THE CONSTRUCTION SCOPE OF THIS DRAWING TO ENSURE HE IS FAMILIAR AND UNDERSTANDS ALL REQUIREMENTS AND INTENT OF EACH ACTIVITY.
- THE GENERAL CONTRACTOR MUST VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETE INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORMWORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL ORDINANCES, TO SAFELY EXECUTE ALL WORK AND SHALL BE RESPONSIBLE FOR SAME. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
- THE CONTRACTOR SHALL USE ADEQUATE NUMBERS OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS, AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.
- CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION.

SITE WORK GENERAL NOTES:

- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATION OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF OWNER AND/OR LOCAL UTILITIES.
- THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER EQUIPMENT AND TOWER AREAS.
- NOFILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUB GRADE UNDER THE PROPOSED EQUIPMENT PAD SHALL BE COMPACTED TO 95% PROCTOR AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

STRUCTURAL STEEL NOTES:

- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC MANUAL OF STEEL CONSTRUCTION « PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.

CONCRETE AND REINFORCING STEEL NOTES:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE, SLUMP: 2«MIN./4«MAX. AIR ENTRAINMENT: 45 TO 6% BY VOLUME. MAXIMUM COARSE AGGREGATE SIZE SHALL BE 1«
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS B« AND ALL HOOKS SHALL BE STANDARD, UNLESS NOTED OTHERWISE.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:  
  
 CONCRETE CAST AGAINST EARTH.....3”  
 CONCRETE EXPOSED TO EARTH OR WEATHER:  
 #6 AND LARGER.....3”  
 #5 AND SMALLER & WWF.....3”  
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
 SLAB AND WALL.....1½”  
 BEAMS AND COLUMNS.....1½”
- A CHAMFER OF 3/4” SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE. IN ACCORDANCE WITH ACI 3010 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE DAMAGED WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE.
- WELDING IS PROHIBITED ON REINFORCING STEEL AND EMBEDMENTS.
- ALL CONCRETE SHALL BE READY-MIXED IN ACCORDANCE WITH ASTM C94. MAINTAIN TEMPERATURE OF CAST IN PLACE CONCRETE AT BETWEEN 50 DEGREES AND 90 DEGREES.
- DO NOT USE RETEMPERED CONCRETE, OR ADD WATER TO READY-MIX CONCRETE AT THE JOBSITE.
- FOUNDATION INSTALLER SHALL INSURE THAT ALL PROTRUDING THREADS ARE LEFT CLEAN AND FREE OF CONCRETE.
- FOUNDATION DESIGN IS BASED ON SOIL WITH 2000 PSF BEARING CAPACITY. IF EXISTING SOIL DOES NOT HAVE A MINIMUM 2000 PSF BEARING CAPACITY CONTRACTOR SHALL EXTEND PERIMETER BEAM TO REACH SOIL WITH MINIMUM 2000 PSF BEARING CAPACITY.

PREPARED FOR  
  
 750 W CENTER ST. SUITE 301  
 WEST BRIDGEWATER, MA 02379  
 SITEACCESS@TOWERNORTH.COM  
 1-888-315-0220x3

PLANS PREPARED BY:  
  
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 PARK RIDGE, IL 60068  
 PH: 847-698-6400  
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CARRIER:  
  
 1701 GOLF ROAD,  
 TOWER 2, SUITE 400  
 ROLLING MEADOWS, IL 60008  
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2	REVISED PER POWER COORDINATION	03/02/23	TE				
3	REVISED PER ZONING AND ISSUED FOR PERMIT	04/03/23	TE				
		10/30/23	TJS				

**SITE # WI1040-A  
 LOC # 706115  
 MDG # 5000889243**

**LAKE  
 KEGONSA**

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**CONSTRUCTION NOTES**

SHEET NUMBER  
**C-5**

NOTE:  
ALL SIGNS TO BE PROVIDED AND  
INSTALLED BY GC UNLESS  
OTHERWISE NOTED.



12"

**FCC REGISTRATION SIGN**

WHITE/ GREEN BACKGROUND, WHITE/ BLACK LETTERING.  
MOUNTING LOCATION: GATE & BASE OF TOWER  
QUANTITY: 2  
WHERE ACCESS GATE INSTALLED (QTY. 3)

8"



10"

14"

**AUTHORIZED PERSONNEL SIGN**

WHITE/ BLACK BACKGROUND, WHITE/BLACK LETTERING.  
MOUNTING LOCATION: GATE & BASE OF TOWER  
QUANTITY: 2  
WHERE ACCESS GATE INSTALLED (QTY. 3)



10"

14"

**DANGER NO TRESPASSING SIGN**

WHITE/ BLACK BACKGROUND, WHITE/BLACK LETTERING.  
MOUNTING LOCATION: GATE & BASE OF TOWER  
QUANTITY: 2  
WHERE ACCESS GATE INSTALLED (QTY. 3)



**TOWERNORTH SIGN**

WHITE/ BLACK BACKGROUND, BLUE LETTERING.  
MOUNTING LOCATION: GATE  
QUANTITY: 1  
WHERE ACCESS GATE INSTALLED AND COMPOUND IS  
NOT VISIBLE FROM MAIN ROAD (QTY. 2)  
(PROVIDED BY TOWER OWNER)

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
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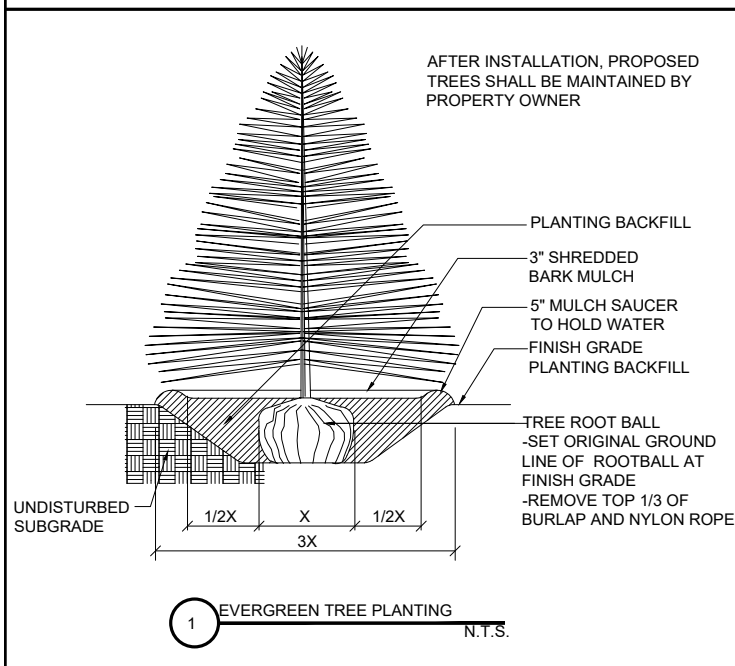
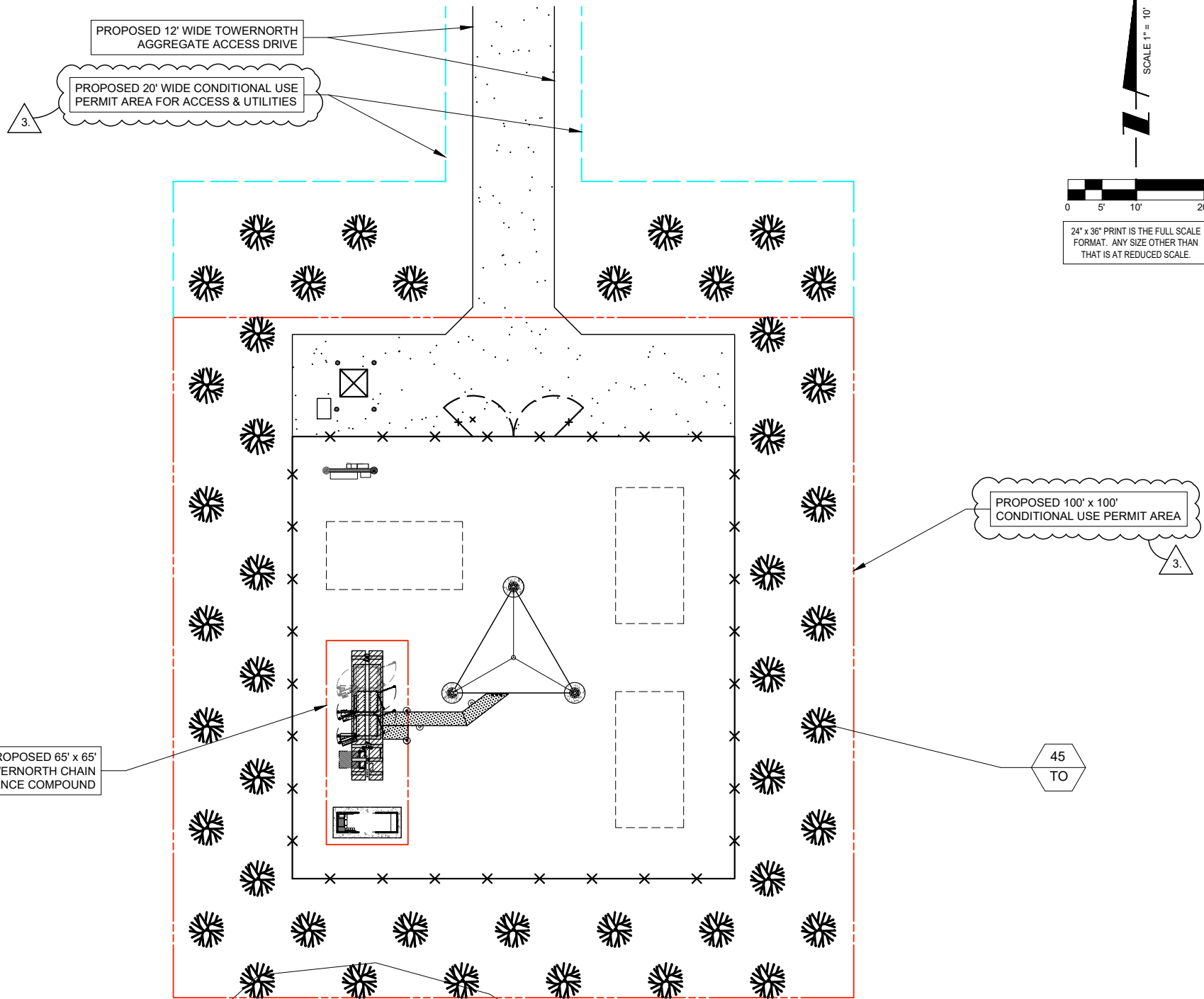
SHEET TITLE  
SITE SIGNAGE

SHEET NUMBER  
**C-6**



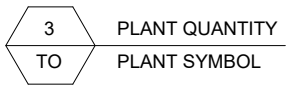
# GENERAL LANDSCAPE NOTES

- PRUNE NEWLY INSTALLED SHRUBS. WORK SHALL BE DONE BY EXPERIENCED PERSONNEL TO THE ACCEPTED HORTICULTURAL AND ARBORICULTURAL STANDARDS. PRUNING SHALL RESULT IN A LOOSE OUTLINE CONFORMING TO THE GENERAL SHAPE OF THE SHRUB TYPE. DO NOT USE HEDGE SHEARS.
- ALL PLANTING STOCK SHALL BE NURSERY-GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. PLANTS SHALL BE FREE OF DISEASE, INSECTS EGGS, LARVAE AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS OR DISFIGUREMENT. THEY SHALL HAVE SOUND, HEALTHY VIGOROUS AND UNIFORM GROWTH TYPICAL OF THE SPECIES AND VARIETY, WELL-FORMED, FREE FROM IRREGULARITIES, WITH THE MINIMUM QUALITY AND SIZE CONFORMING TO AMERICAN STANDARD FOR NURSERY STOCK.
- GUARANTEE: WARRANT ALL PLANT MATERIAL TO BE TRUE TO BOTANICAL NAME AND SPECIFIED SIZE. AFTER COMPLETION OF PLANTING, ALL PLANT MATERIALS SHALL BE WARRANTED AGAINST DEFECTS, INCLUDING DEATH AND UNSATISFACTORY GROWTH FOR A WARRANTY PERIOD OF ONE YEAR. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DEFECTS RESULTING FROM NEGLIGENCE, DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS BEYOND THE CONTRACTORS CONTROL WHICH RESULT FROM NATURAL CAUSES SUCH AS FLOODS STORMS, FIRES OR VANDALISM.  
REPLACEMENTS: DURING THE WARRANTY PERIOD, REPLACE ONE TIME, AT NO ADDITIONAL COST TO THE OWNER, PLANT MATERIALS THAT ARE DEAD, OR IN THE OPINION OF THE LANDSCAPE ARCHITECT, IN AN UNHEALTHY OR UNSIGHTLY CONDITION. REJECTED PLANT MATERIALS SHALL BE REMOVED FROM THE SITE AT CONTRACTOR'S EXPENSE. REPLACEMENTS ARE TO BE MADE NO LATER THAN THE SUBSEQUENT PLANTING SEASON. RESTORE AREAS DISTURBED BY REPLACEMENT OPERATIONS.
- MULCHING SHALL BE DONE WITHIN 48 HOURS AFTER PLANTING. MULCH SHRUB BEDS TO A UNIFORM DEPTH OF THREE INCHES. MULCH SHALL BE CLEAN COMPOSTED PINE BARK MULCH FREE OF FOREIGN MATERIAL AND LARGE PIECES OVER THREE INCHES LONG. DO NOT MULCH TREE AND SHRUB PLANTING PITS.
- TOPSOIL SHALL CONSIST OF FERTILE FRIABLE NATURAL LOAM, CONTAINING A LIBERAL AMOUNT OF HUMUS AND SHALL BE SUBJECT TO INSPECTION AND APPROVAL. IT SHALL BE FREE OF ADMIXTURES OF SUBSOIL AND FREE OF CRAB GRASS, ROOTS, STICKS AND OTHER EXTRANEIOUS MATTER, AND SHALL NOT BE USED FOR PLANTING OPERATIONS WHILE IN A FROZEN OR MUDDY CONDITIONS.
- REPAIR ALL TURF AREAS BY SEEDING. SEEDING INSTALLATION SHALL BE EXECUTED ONLY AFTER ALL FINISH GRADING HAS BEEN COMPLETED. NO SEEDING WORK SHALL BE DONE PAST SEPTEMBER 15, UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE.  
SEED: SEED MIX SHALL MATCH EXISTING TURF, OR BE A 50/50 MIX OF CERTIFIED IMPROVED BLEND OF BLUEGRASS AND CERTIFIED IMPROVED PERENNIAL RYE. MIX SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEEDING SHALL BE APPLIED AT A MINIMUM RATE OF 120 POUNDS PER ACRE. FUTERRA BLANKET, OR EQUAL, SHALL BE USED FOR EROSION CONTROL MULCH WHERE NECESSARY IN LIEU OF HYDRO MULCH.



## PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	COMMENTS
TREES					
TO	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	45	4 FT. HT. MIN.	B & B (BALLED & BURLAPPED)



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SITE # WI1040-A  
 LOC # 706115  
 MDG # 5000889243

## LAKE KEGONSA

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

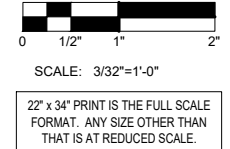
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PROJECT #:	170-051

SHEET TITLE  
**LANDSCAPE PLAN**

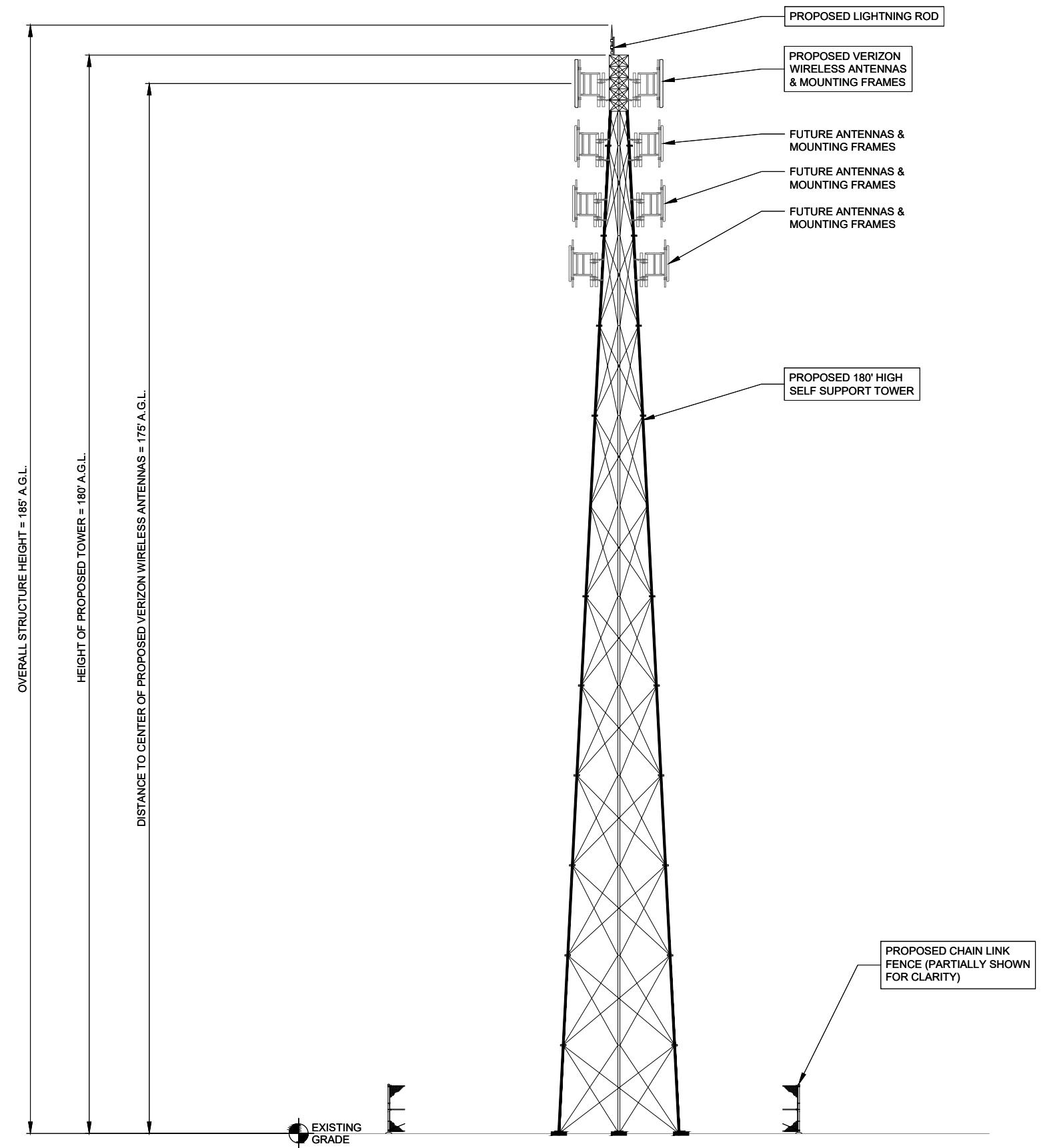
SHEET NUMBER  
**L-1**

- G.C. TO ADJUST HEIGHT OF MOUNT BY ±6" AS NEEDED TO AVOID CLIMBING FACILITIES. G.C. IS NOT TO REMOVE OR DAMAGE CLIMBING FACILITIES DURING INSTALLATION.
- TOWER TO BE UNPAINTED AND STEEL GREY IN COLOR

3.



22' x 34" PRINT IS THE FULL SCALE FORMAT. ANY SIZE OTHER THAN THAT IS AT REDUCED SCALE.



1 SOUTH ELEVATION  
SCALE: 3/32" = 1'-0"

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LAKE  
 KEGONSA

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 DATE: 12/08/22  
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SHEET TITLE  
 SITE ELEVATION

SHEET NUMBER  
**ANT-1**

ELECTRICAL INSTALLATION NOTES

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- ALL ELECTRICAL EQUIPMENT AND ACCESSORIES SHALL BE U.L. APPROVED OR LISTED.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
- WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NE & OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 OR XHHW-2, STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE USE-2 CABLE (314 AWG OR LARGER), 600 V, OIL RESISTANT RHW-2 OR XHHW-2, STRANDED COPPER CABLE RATED FOR 90°C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 90°C.
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID METALLIC CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID METALLIC CONDUIT (RMC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- RIGID NON-METALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR IN AREAS OF HEAVY VEHICLE TRAFFIC, GALVANIZED RIGID CONDUIT SHALL BE USED.
- ALL OUTDOOR EXPOSED CONDUIT SHALL BE RMC AND SHALL BE SUPPORTED ADEQUATELY.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LFMC) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED. LFMC SHALL CONFORM TO NEC ARTICLE 350.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES, AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NON-METALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- CONTRACTOR SHALL APPLY FOR ELECTRICAL SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS, SERVICE ROUTING, AND METER SOCKET TYPE WITH LOCAL POWER COMPANY.

ELECTRICAL INSTALLATION NOTES (CONT.)

- CONTRACTOR SHALL APPLY FOR TELEPHONE SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS AND SERVICE ROUTING WITH TELEPHONE COMPANY.
- CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY PERMIT FEES, AND SCHEDULE INSPECTIONS.
- ALL SAFETY SWITCHES SHALL BE NEMA 1 FOR INDOOR, NEMA 3R FOR OUTDOOR, UL LISTED 200K SCCR RATED, REJECTION TYPE, WITH RK1 FUSES. FUSES SHALL HAVE AN AIR OF 200K AND SHALL HAVE A LIMITING RATING AS SHOWN IN THESE DRAWINGS. EQUIPMENT AND ACCESSORIES SHALL BE RATED FOR 75 DEGREES CELSIUS OR HIGHER.
- ALL LOAD CENTERS SHALL BE 42 SPACE UNLESS NOTED OTHERWISE, NEMA 1 FOR INDOOR, NEMA 3R FOR OUTDOOR, MCB WITH CONVERTIBLE MAINS, UL LISTED 22K IA OR HIGHER SCCR, WITH 22K AIR BREAKERS, BREAKERS AND LOAD CENTER SHALL BE RATED FOR 75 DEGREES CELSIUS OR HIGHER. BREAKERS SHALL HAVE A LIMITING RATING AS SPECIFIED ON THESE DRAWINGS.
- CONTRACTOR SHALL LABEL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC 110.16 AND 110.24.
- CONTRACTOR SHALL VERIFY THAT THE MAIN BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR IS INSTALLED PROPERLY AT SERVICE ENTRANCE.
- CONTRACTOR SHALL SEAL AROUND ALL CONDUIT PENETRATIONS TO PREVENT MOISTURE PENETRATION OR VERMIN INFESTATIONS.
- DURING TRENCH BACK-FILLING FOR EACH UNDERGROUND ELECTRICAL, TELEPHONE, SIGNAL AND COMMUNICATIONS LINE, PROVIDE A CONTINUOUS UNDERGROUND WARNING TAPE TWELVE INCHES BELOW FINISHED GRADE.

GROUNDING NOTES

- ALL GROUNDING CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELDING PROCESS (CAD WELD OR EQUAL) EXCEPT FOR EQUIPMENT THAT MAY BE MECHANICALLY FASTENED. ALL LUGS SHALL BE TWO HOLE, LONG BARREL TYPE, FOR COPPER, UNLESS OTHERWISE NOTED.
- ALL GROUND PLATES SHALL BE INSTALLED AT 30' BELOW GRADE PER MANUFACTURER'S SPECIFICATIONS. UNDERGROUND GROUNDING CONDUCTORS SHALL BE 30' BELOW GRADE.
- ALL GROUND CONDUCTORS SHALL BE MIN. #2 AWG SOLID TINNED COPPER WIRE BARE. EQUIPMENT GROUND CONDUCTORS SHALL BE MIN. #6 GREEN INSULATED, UNLESS OTHERWISE NOTED.
- GROUND PLATES FOR GROUND RING SHALL BE LOCATED 5'-0" APART.
- ANY METAL OBJECT WITHIN 6 FEET OF THE TOWER OR EQUIPMENT GROUND RING SHALL BE BONDED DIRECTLY TO THE RING.
- THE MINIMUM BENDING RADIUS FOR ALL GROUNDING CONDUCTORS #6 AWG OR LARGER SHALL BE 24'.
- ALL ABOVE GRADE GROUND CONDUCTORS SHALL BE ROUTED DOWNWARD TOWARD EARTH AND HORIZONTAL ONLY WHERE NECESSARY.
- ALL CONDUCTORS SHALL BE ROUTED SUCH THAT THERE ARE NO INCLUSIVE ANGLES OF LESS THAN 90 DEGREES.
- THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A RECOMMENDED TEST RESULT OF 5 OHMS OR LESS.
- ALL GROUNDING SHALL COMPLY WITH THE N.E.C. AND NFPA 780, LIGHTNING PROTECTION CODE.
- ALL GROUNDING COMPONENTS SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR.
- ANY METAL CONDUIT MOUNTED ON THE TOWER SHALL BE BONDED TO THE TOWER AT EACH END.
- ALL EXPOSED GROUNDING SHALL BE IN NON-METALLIC FLEX CONDUIT AND SECURED AS NECESSARY.
- WHEN BONDING TO EQUIPMENT, REMOVE PAINT TO BARE STEEL AND PROTECT WITH A COATING OF NO-OX.
- APPROVED ANTIOXIDANT COATINGS SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- BOND ICE BRIDGE SECTIONS TOGETHER EXOTHERMICALLY OR WITH 2 HOLE LUGS. BOND ICE BRIDGE TO SUPPORT POSTS.

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CARRIER:  
  
 1701 GOLF ROAD,  
 TOWER 2, SUITE 400  
 ROLLING MEADOWS, IL 60008  
 PHONE: (847) 619-5397  
 FAX: (847) 706-7415

NO.	DESCRIPTION	DATE	BY	TE	TE	TE	TJS
1		02/14/23					
2		03/02/23					
3		04/03/23					
		10/30/23					

**SITE # WI1040-A  
 LOC # 706115  
 MDG # 5000889243**

**LAKE  
 KEGONSA**

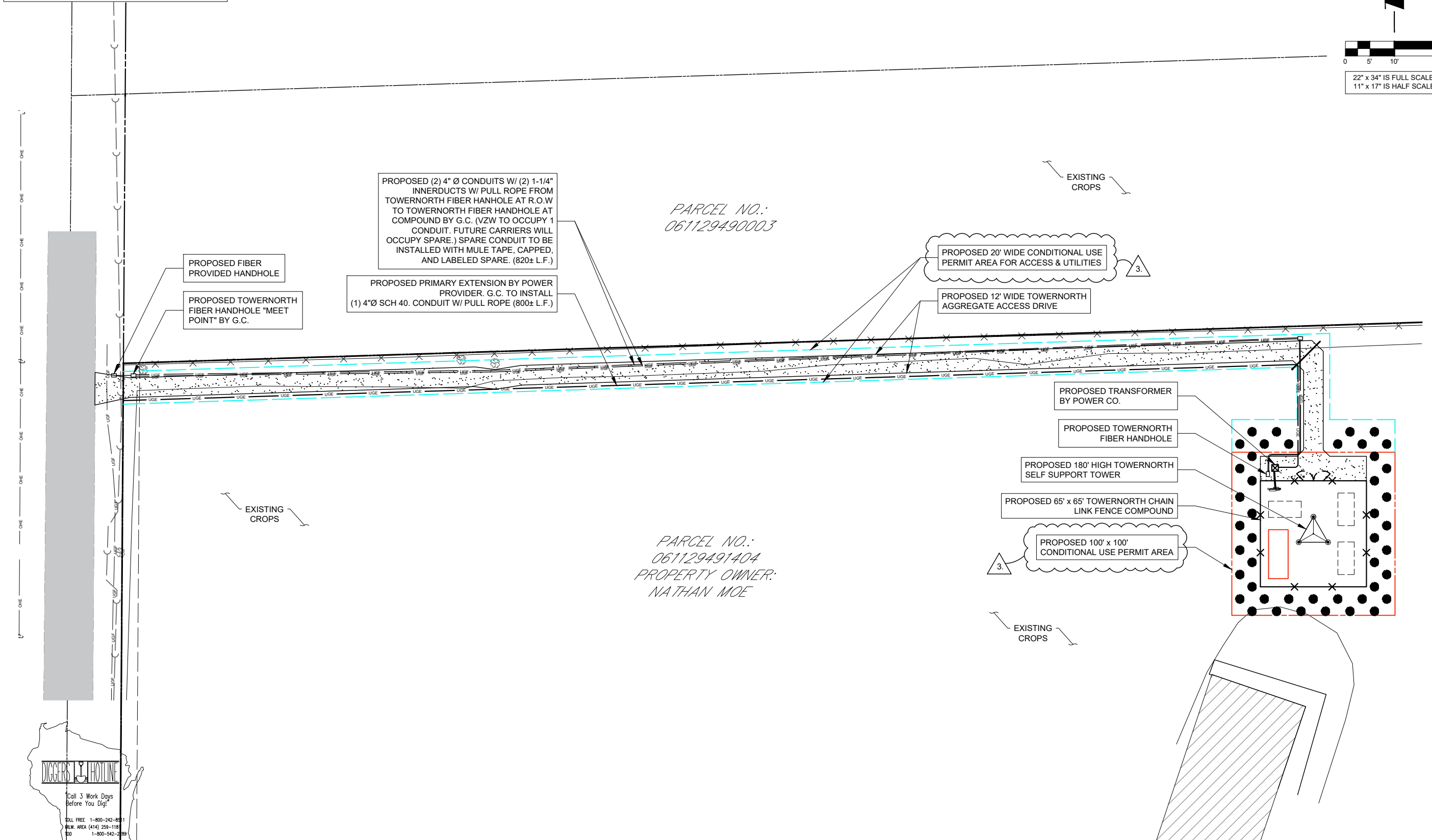
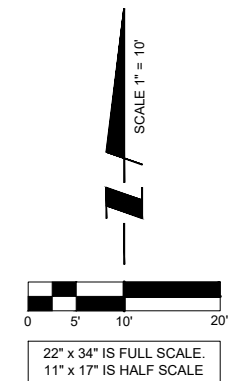
1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**ELECTRICAL NOTES**

SHEET NUMBER  
**E-1**

NOTES:  
 GENERAL CONTRACTOR & ELECTRICAL CONTRACTOR TO USE EXPANSION COUPLINGS FOR ALL UTILITY CONNECTIONS ASSOCIATED WITH THE EQUIPMENT PAD. UTILIZE A CARLON EXPANSION COUPLING (WWW.CARLON.COM, OR EQUAL) W/ A MINIMUM OF 4" TRAVEL LENGTH. GROUND CONDUCTORS FROM PAD TO BELOW GRADE TO BE INSTALLED WITH A SLACK LOOP TO ACCOUNT FOR ANY POSSIBLE FROST HEAVE.



PROPOSED (2) 4" Ø CONDUITS W/ (2) 1-1/4" INNERDUCTS W/ PULL ROPE FROM TOWNORTH FIBER HANHOLE AT R.O.W TO TOWNORTH FIBER HANDHOLE AT COMPOUND BY G.C. (VZW TO OCCUPY 1 CONDUIT. FUTURE CARRIERS WILL OCCUPY SPARE.) SPARE CONDUIT TO BE INSTALLED WITH MULE TAPE, CAPPED, AND LABELED SPARE. (820± L.F.)

PROPOSED PRIMARY EXTENSION BY POWER PROVIDER. G.C. TO INSTALL (1) 4"Ø SCH 40. CONDUIT W/ PULL ROPE (800± L.F.)

PROPOSED FIBER PROVIDED HANDHOLE

PROPOSED TOWNORTH FIBER HANDHOLE "MEET POINT" BY G.C.

PARCEL NO.:  
061129490003

PROPOSED 20' WIDE CONDITIONAL USE PERMIT AREA FOR ACCESS & UTILITIES

PROPOSED 12' WIDE TOWNORTH AGGREGATE ACCESS DRIVE

PROPOSED TRANSFORMER BY POWER CO.

PROPOSED TOWNORTH FIBER HANDHOLE

PROPOSED 180' HIGH TOWNORTH SELF SUPPORT TOWER

PROPOSED 65' x 65' TOWNORTH CHAIN LINK FENCE COMPOUND

PROPOSED 100' x 100' CONDITIONAL USE PERMIT AREA

PARCEL NO.:  
061129491404  
PROPERTY OWNER:  
NATHAN MOE

**DIGGERS HOTLINE**  
 Call 3 Work Days Before You Dig!  
 TOLL FREE 1-800-242-8811  
 MILW. AREA (414) 259-1118  
 MOBILE 1-800-542-2899

OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

**1** UTILITY ROUTING PLAN  
 SCALE: 1" = 10'

PREPARED FOR  
**TowerNorth**  
 750 W CENTER ST, SUITE 301  
 WEST BRIDGEWATER, MA 02379  
 SITEACCESS@TOWNORTH.COM  
 1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
 CONSULTING GROUP, LTD.  
 600 BUSSE HIGHWAY  
 PARK RIDGE, IL 60068  
 PH: 847-698-6400  
 FAX: 847-698-6401

CARRIER:  
**verizon**  
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 TOWER 2, SUITE 400  
 ROLLING MEADOWS, IL 60008  
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 FAX: (847) 706-7415

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	REVISED PER ZONING AND ISSUED FOR PERMIT	TJS	10/30/23

SITE # WI1040-A  
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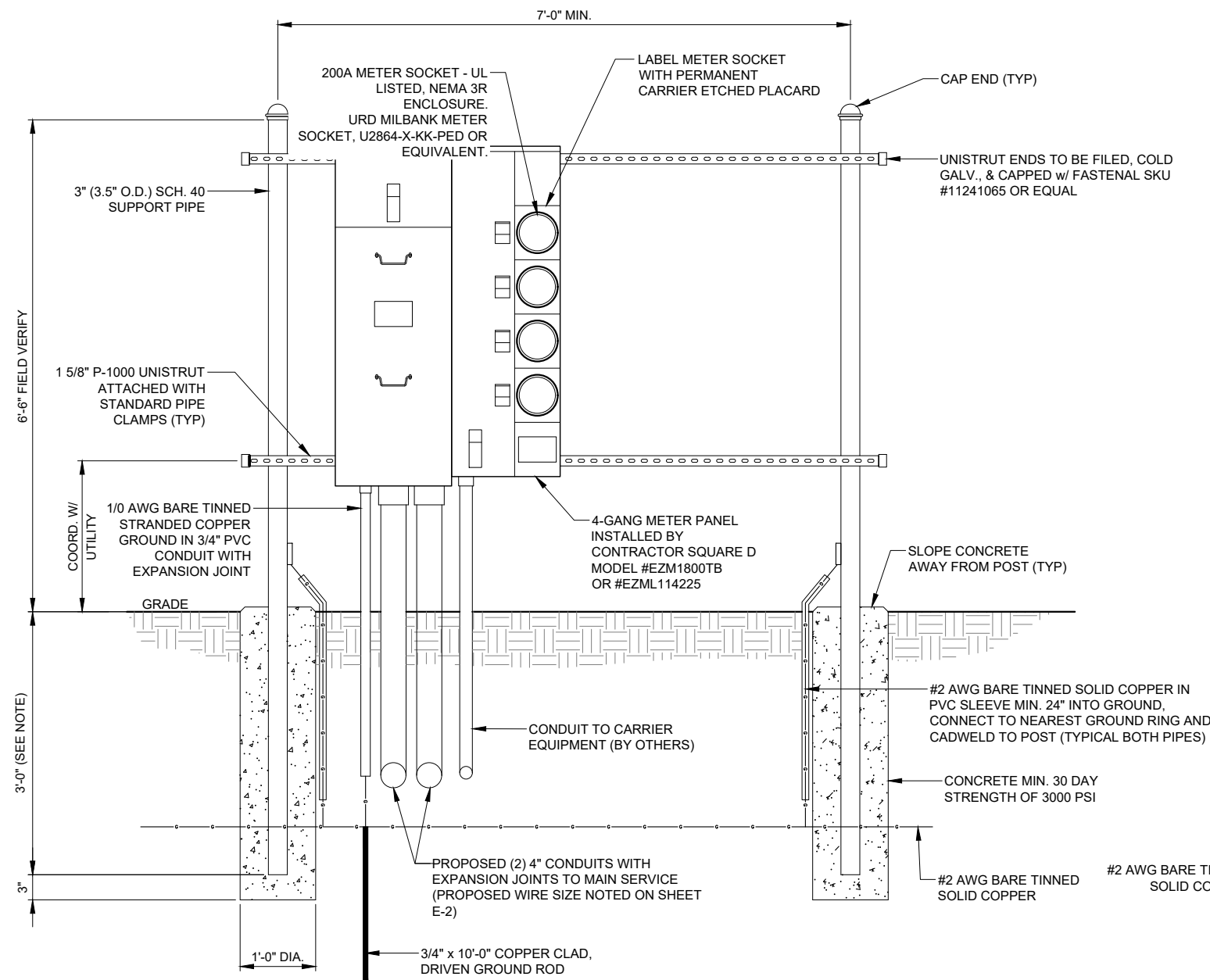
**LAKE KEGONSA**

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

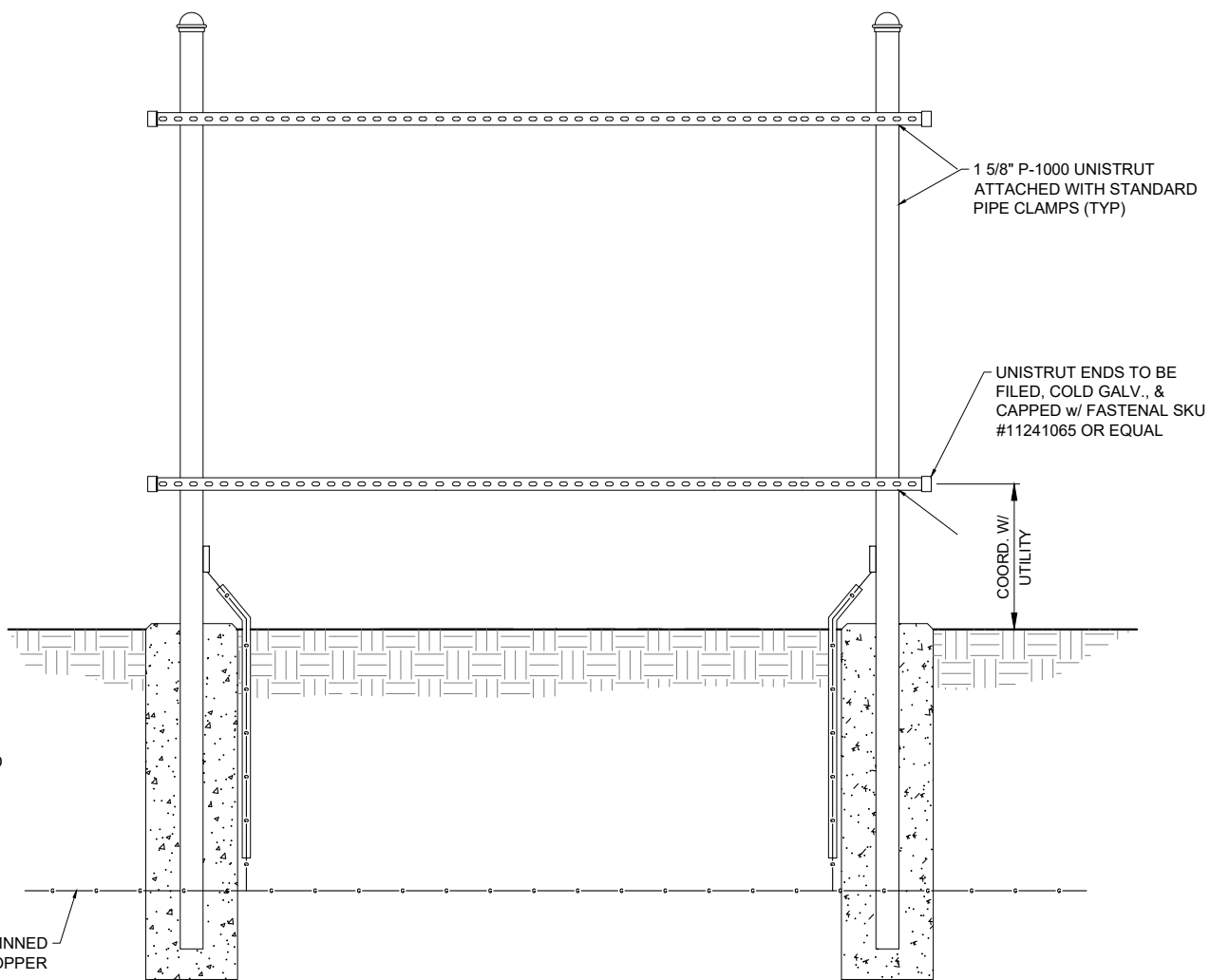
DRAWN BY: TE  
 CHECKED BY: TAZ  
 DATE: 12/08/22  
 PROJECT #: 170-051

SHEET TITLE  
**UTILITY ROUTING PLAN**

SHEET NUMBER  
**E-2A**



**1** UTILITY H-FRAME DETAIL (GANG METER)  
SCALE: 1" = 10'



**2** UTILITY H-FRAME DETAIL (TELCO)  
SCALE: 1" = 10'

**NOTES:**

1. CONTRACTOR TO FIELD LOCATE THE METER PEDESTAL AS SHOWN ON THE PLAN. INSTALL THE METER PEDESTAL NEAR THE PERIMETER OF THE FENCED COMPOUND WITH THE METERS FACING AS SHOWN.
2. THE CONTRACTOR SHALL COORDINATE THE LOCAL UTILITY COMPANY FOR THE CONDUIT RUN TO THE MAIN SERVICE CONNECTION OR TRANSFORMER.
3. THE CONTRACTOR SHALL COORDINATE THE LOCAL UTILITY COMPANY FOR GROUND ROD REQUIREMENTS. IF REQUIRED, THE CONTRACTOR SHALL ORDER AN PAY FOR NECESSARY GROUND TEST.
4. SUPPORT POST AND UNISTRUT SHALL BE GALVANIZED. PIPE CLAMS AND HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL.
5. TELCO CABINET SHALL BE A 48" x 48" x 12" HOFFMAN OR EQUIVALENT. PROVIDE 3/4" PLYWOOD BACKBOARD INSIDE THE MULTI-TENANT TELCO CABINET.
6. ADJUSTMENTS TO THE METER PEDESTAL DESIGN MAY BE REQUIRED DEPENDING ON THE EXACT METER PANEL INSTALLED. CONTRACTOR SHALL FIELD COORDINATE ADJUSTMENTS AND INFORM THE ENGINEER IF ANY UNUSUAL CONDITIONS ARE FOUND TO EXIST.

PREPARED FOR  
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CARRIER:  
 Verizon  
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SITE # WI1040-A  
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LAKE  
 KEGONSA

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

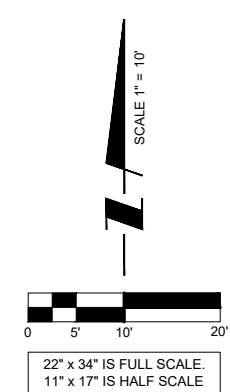
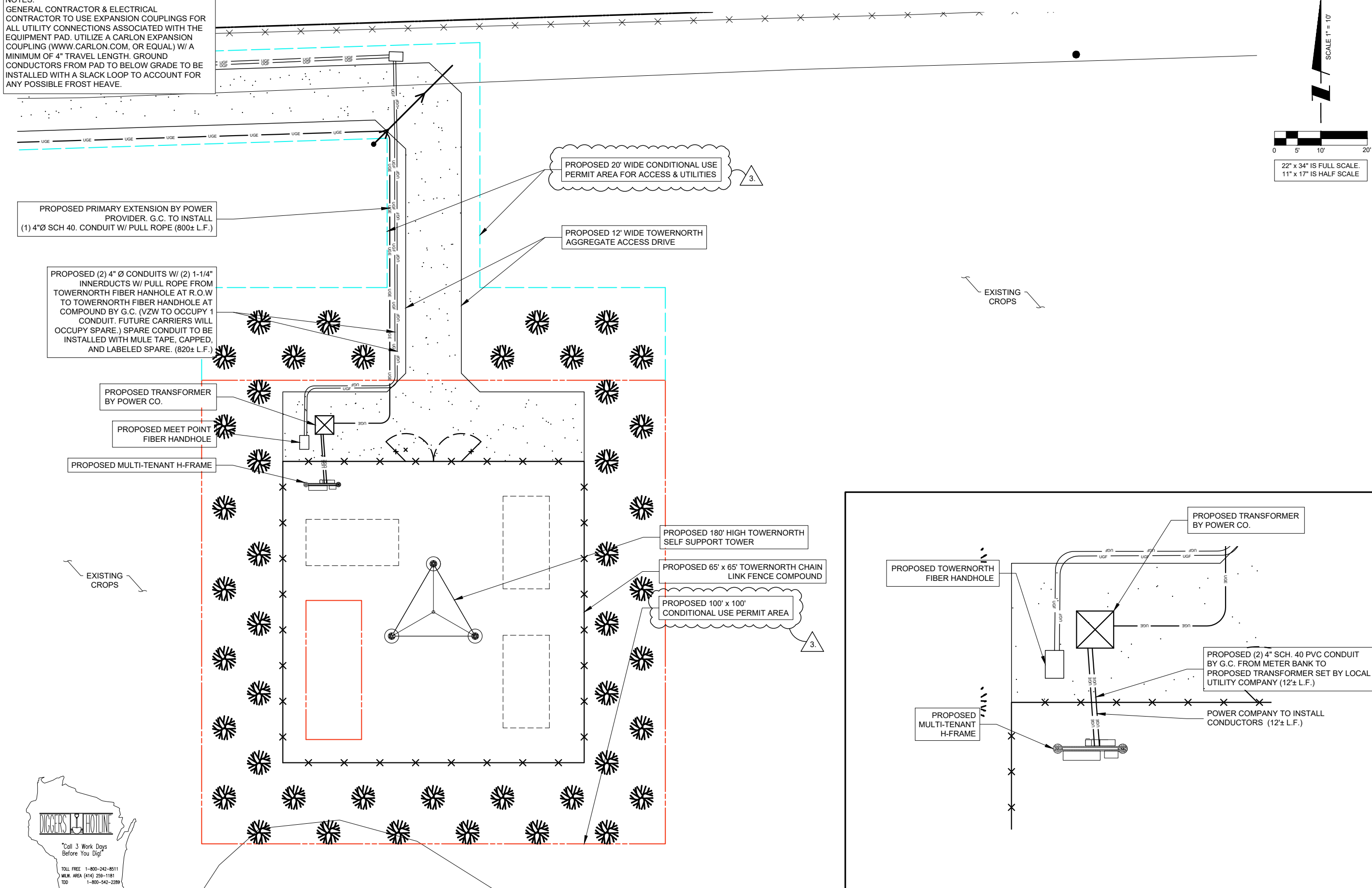
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 CHECKED BY: TAZ  
 DATE: 12/08/22  
 PROJECT #: 170-051

SHEET TITLE  
 H-FRAME DETAILS

SHEET NUMBER

**E-3**

NOTES:  
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CARRIER:  
**verizon**  
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SITE # WI1040-A  
 LOC # 706115  
 MDG # 5000889243

LAKE  
 KEGONSA

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

DRAWN BY: TE  
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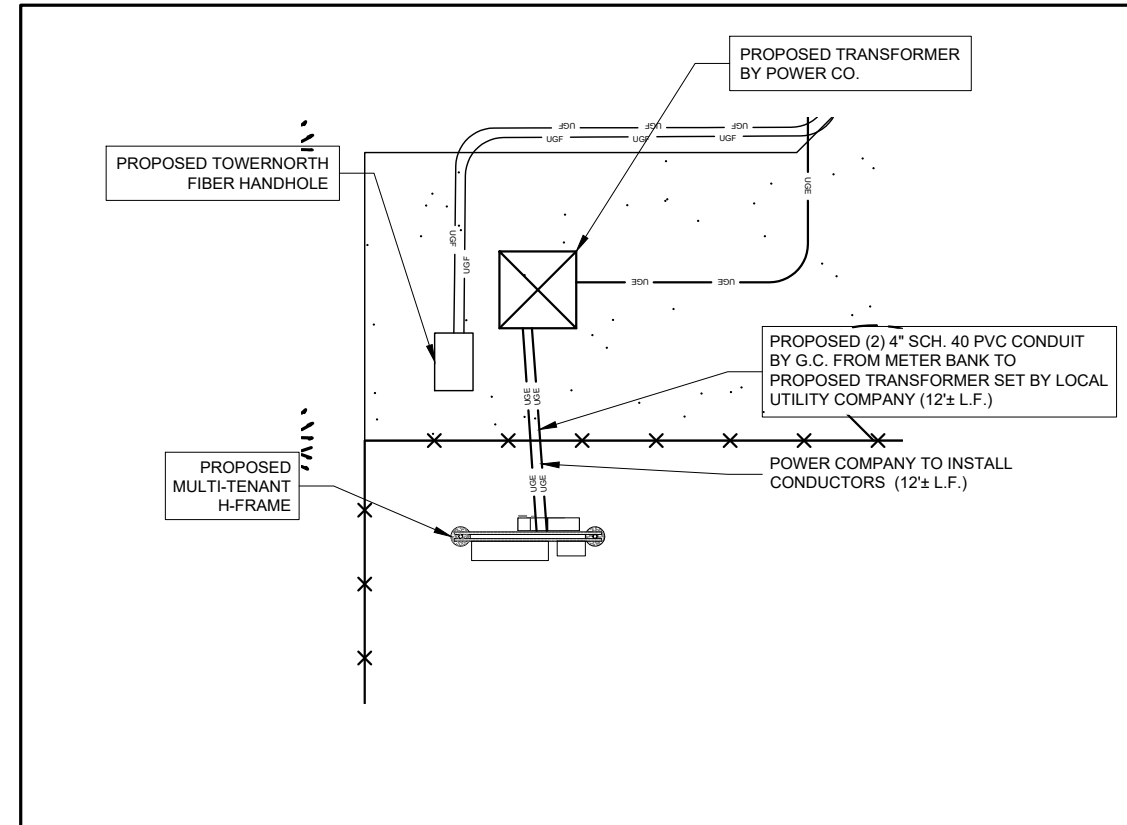
SHEET TITLE  
 ENLARGED  
 UTILITY ROUTING PLAN

SHEET NUMBER  
**E-2B**

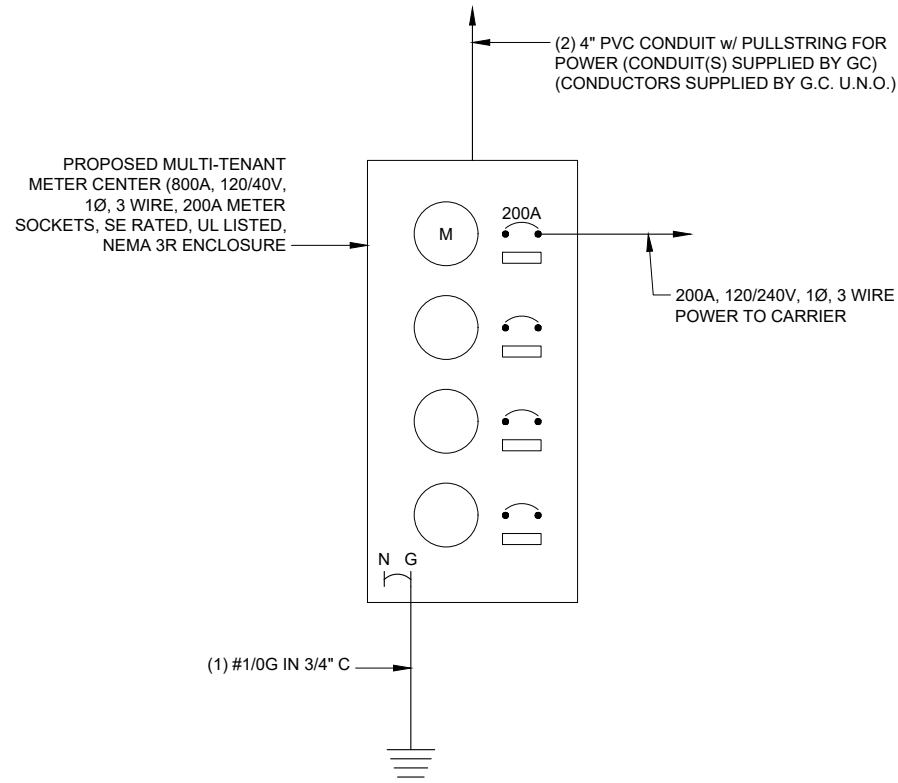


OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

1 ENLARGED UTILITY ROUTING PLAN  
 SCALE: 1" = 10'



2 UTILITY ROUTING PLAN AT H-FRAME  
 SCALE: 1" = 5'



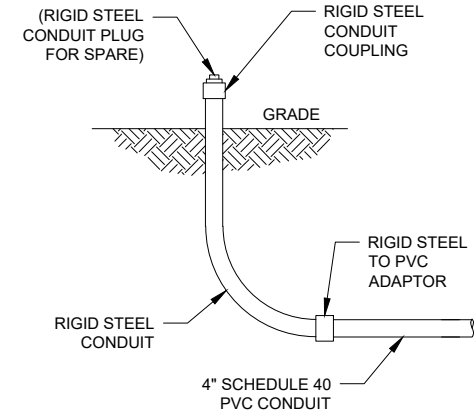
**NOTES AND SPECIFICATIONS**

1. ELECTRIC UTILITY WILL PROVIDE METER AND INCOMING SERVICE LATERAL CONDUCTORS.
2. ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE AND LOCAL CODES.
3. CONTRACTOR SHALL OBTAIN OWNER/TENANT EQUIPMENT DRAWINGS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND REQUIREMENTS THAT MAY BE ADDRESSED IN THE EQUIPMENT DRAWINGS.
4. PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. PROVIDE MAX AFC SIGNAGE AS REQUIRED PER ENC 110.24. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT INTERRUPTING RATING BE LESS THAN 10,000 AMPS.
5. THE GROUNDED SERVICE CONDUCTOR (NEUTRAL CONDUCTOR) SHALL BE GROUNDED AT THE SERVICE DISCONNECT ONLY.
6. ALL POWER CIRCUITS SHALL USE COPPER CONDUCTORS WITH THHN/THWN INSULATION. ALL TERMINATIONS SHALL BE RATED FOR AT LEAST 75°C.
7. CONTRACTOR SHALL PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLES FOR ALL UTILITY RECEPTACLES.
8. CONTRACTOR SHALL ENSURE ALL NEUTRAL CONDUCTORS HAVE WHITE INSULATION AND EQUIPMENT GROUND CONDUCTORS HAVE GREEN INSULATION. COLOR TAPE IDENTIFICATION OF THESE CONDUCTORS IS NOT ALLOWED.
9. PER NEC ARTICLE 702 PROVIDE SIGNAGE AS FOLLOWS:

AT SERVICE DISCONNECT:

**WARNING - SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED**

**1** SINGLE LINE DIAGRAM (POWER)  
SCALE: N.T.S.



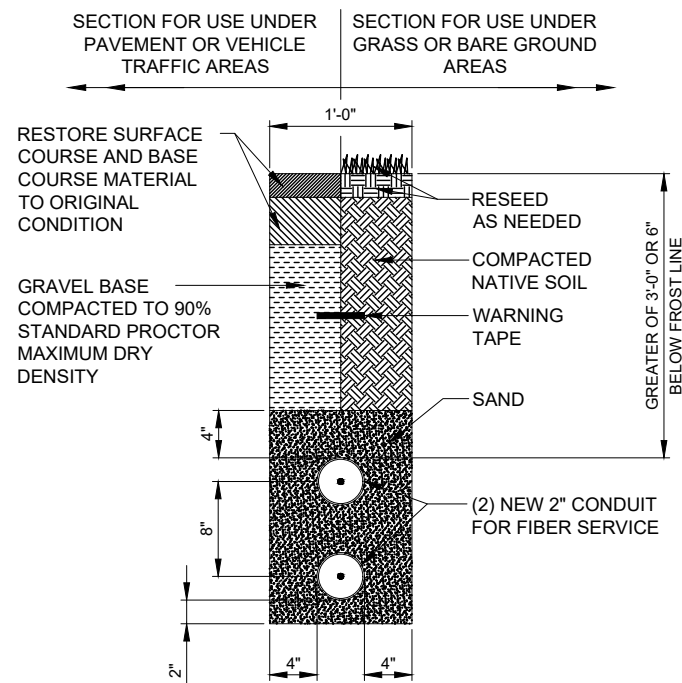
**2** UNDERGROUND CONDUIT STUB-UP  
SCALE: N.T.S.

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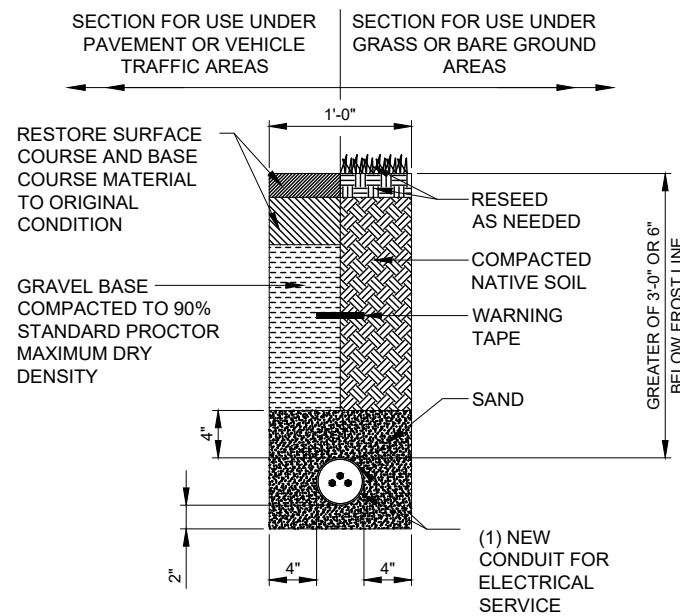
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FAX: 847-698-6401

CARRIER:  
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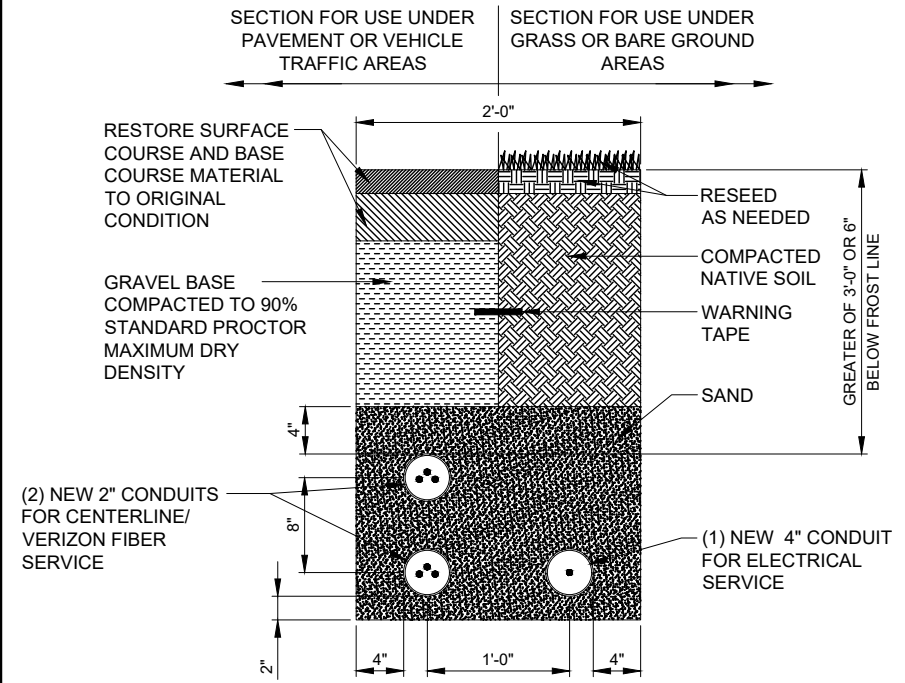
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**3** FIBER TRENCH DETAIL (IF REQUIRED)  
N.T.S.



**4** ELECTRICAL TRENCH DETAIL  
N.T.S.



**5** JOINT UTILITY TRENCH DETAIL  
N.T.S.

**SITE # WI1040-A**  
**LOC # 706115**  
**MDG # 5000889243**

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**SINGLE LINE DIAGRAM & UTILITY TRENCH DETAILS**

SHEET NUMBER

**E-4**

**TYPICAL KEYED GROUNDING NOTES**

- ① #2 AWG TNNND SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
- ② 5/8" x 10' COPPER CLAD GROUND ROD
- ③ GROUND ALL CORNER POSTS WITH MECHANICAL PIPE CONNECTORS
- ④ PERIPHERAL GROUND RING SHOULD BE INSTALLED 1'-2' INSIDE THE FENCE LINE, THE TOWER GROUND RING SHOULD BE INSTALLED A MINIMUM TWO FEET OFF OF ANY STRUCTURE
- ⑤ 5/8"Ø 10' LONG COPPERCLAD GROUND ROD WITH INSPECTION WELL, TOP OF GROUND ROD MAX 24" BURY, SEE DETAIL SHEET E-5.
- ⑥ INSPECTION WELL (TYP.)
- ⑦ BOND TOWER TO GROUND SYSTEM WITH CADWELD TYPE VS, 4 LOCATIONS
- ⑧ GATE JUMPERS SEE DETAIL ON SHEET E-6

⑨ PROVIDE AN EXTERNAL #2 TNNCOATED GROUND LEAD FROM GROUND RING TO ALL METAL CABINETS ON UTILITY BACKBOARD (TELCO, ELEXTRIC, BREAKER PANELS, METER RACKS, JUNCTION BOXES, ETC.) SLEEVED IN CONDUIT FROM JUST BELOW GRADE TO SAND CABINETS USING BURNDY TYPE 2 LONG BARREL LUGS WITH NO-OK OR COPPER SHIELD

⑩ ELECTRIC METER AND ELECTRIC SERVICE GROUNDING COORDINATE ALTERNATE WITH PM

⑪ 24" x 30" x 24" FIBER OPTIC HAND HOLE

⑫ MAINTAIN TWO FOOT DISTANCE OFF OF STRUCTURES.

⑬ GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION (TYPE VS) GROUND FENCE POSTS WITHIN 6 FEET OF PLATFORM AND 25 FEET OF TOWER.

⑭ PROPOSED TOWER GROUND RING

⑮ PROPOSED COMPOUND GROUND RING

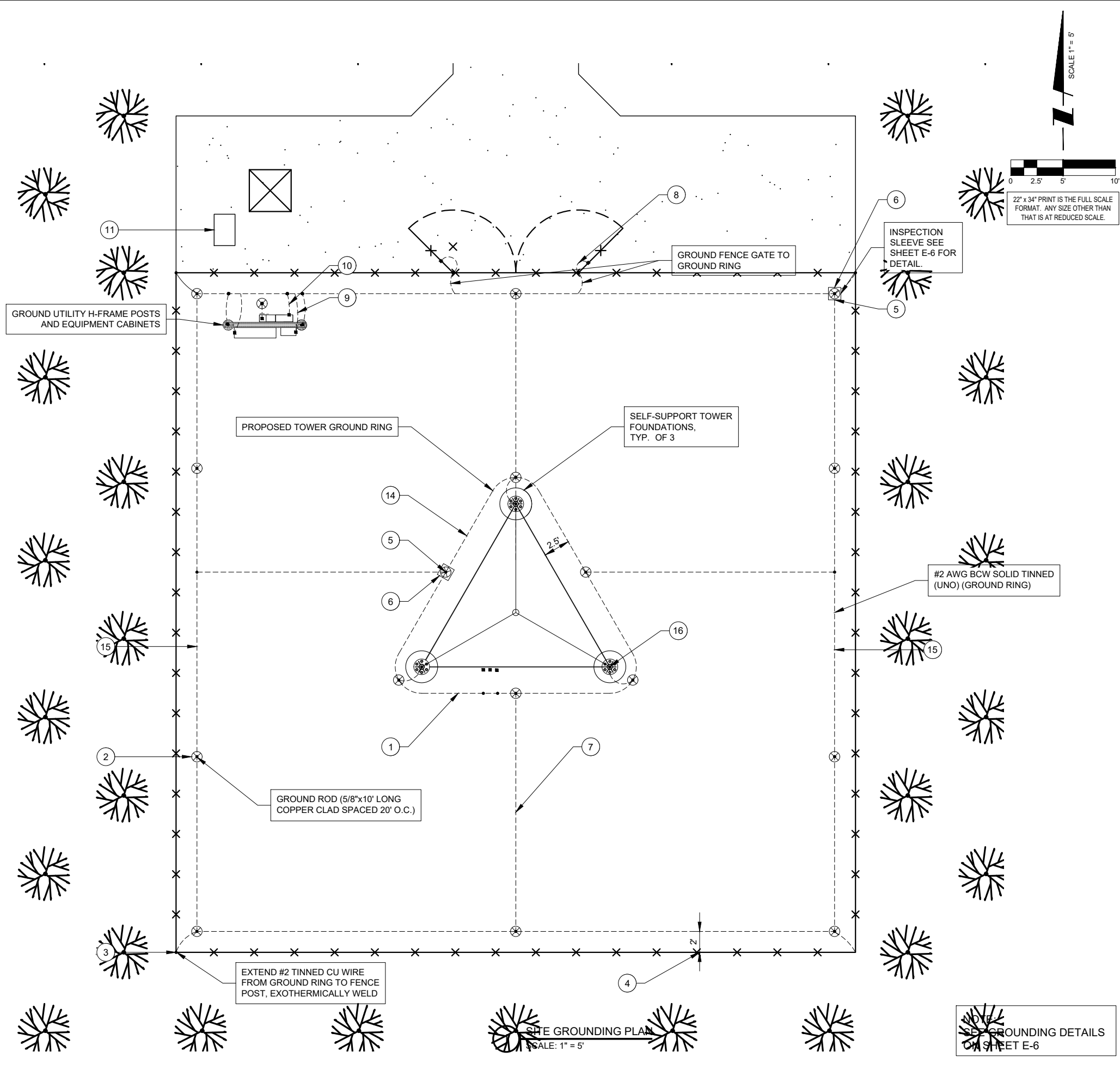
⑯ EACH TOWER FOUNDATION TO HAVE AT LEAST ONE ANCHOR BOLT BONDED TO TOWER GROUND RING WITH #2 TINNED SOLID COPPER CONDUCTOR

**NOTES:**

- 1. CONTRACTOR TO INSTALL GROUND RODS AS NEEDED TO PROVIDE RECOMMENDED RESISTIVITY. REFER TO ELECTRICAL AND GROUNDING NOTES ON SHEET E-1.
- 2. CONTRACTOR TO INSTALL HANDHOLES AS NECESSARY PER LOCAL UTILITY REQUIREMENTS.
- 3. **ALL GROUNDING CONDUCTORS ARE #2 AWG SOLID TINNED COPPER WIRE BARE, UNLESS NOTED OTHERWISE.**

**LEGEND:**

—	GROUND BAR OR ARRESTOR BAR	○	SPARE GROUND LEAD
⊗	5/8"Ø x 10'-0" GROUND ROD	■	MECHANICAL CONNECTION
⊗	GROUND SYSTEM TEST WELL	---	EXISTING GROUNDING
•	CADWELD OR APPROVED CONNECTION	---	NEW GROUNDING



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**LAKE KEGONSA**

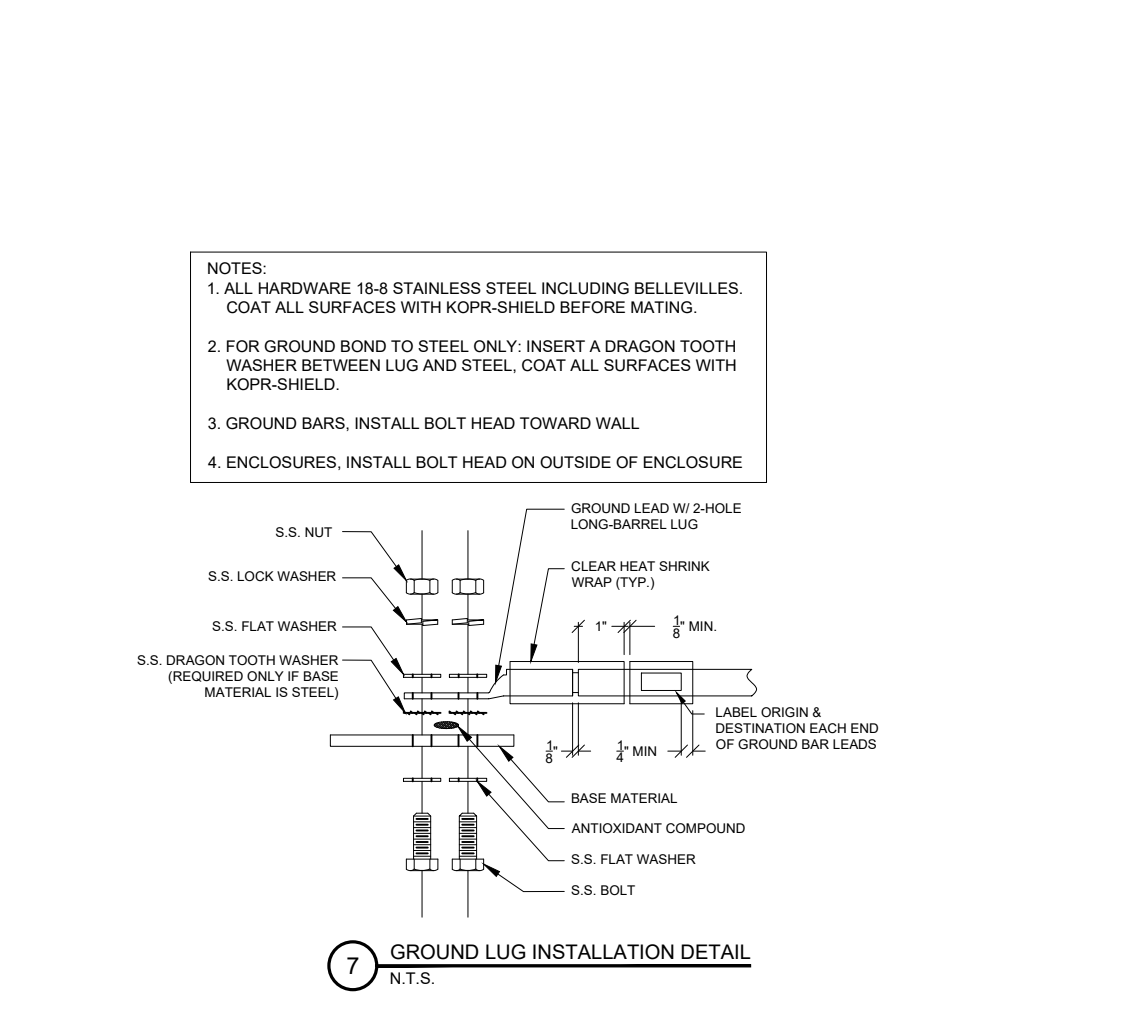
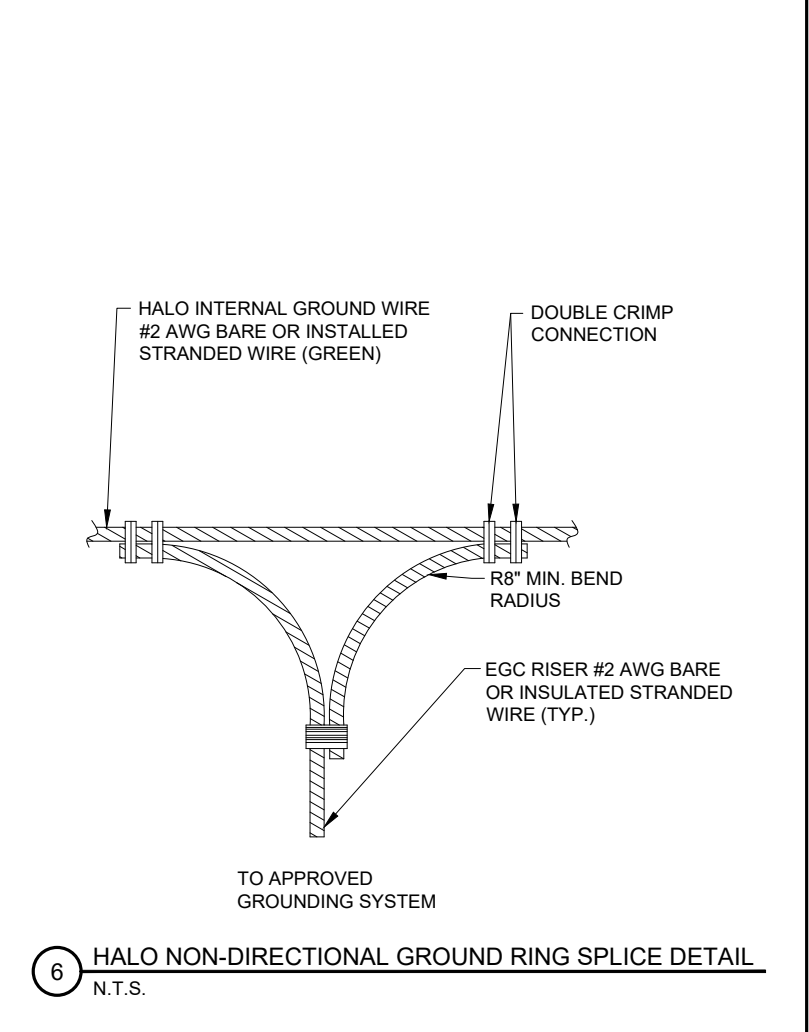
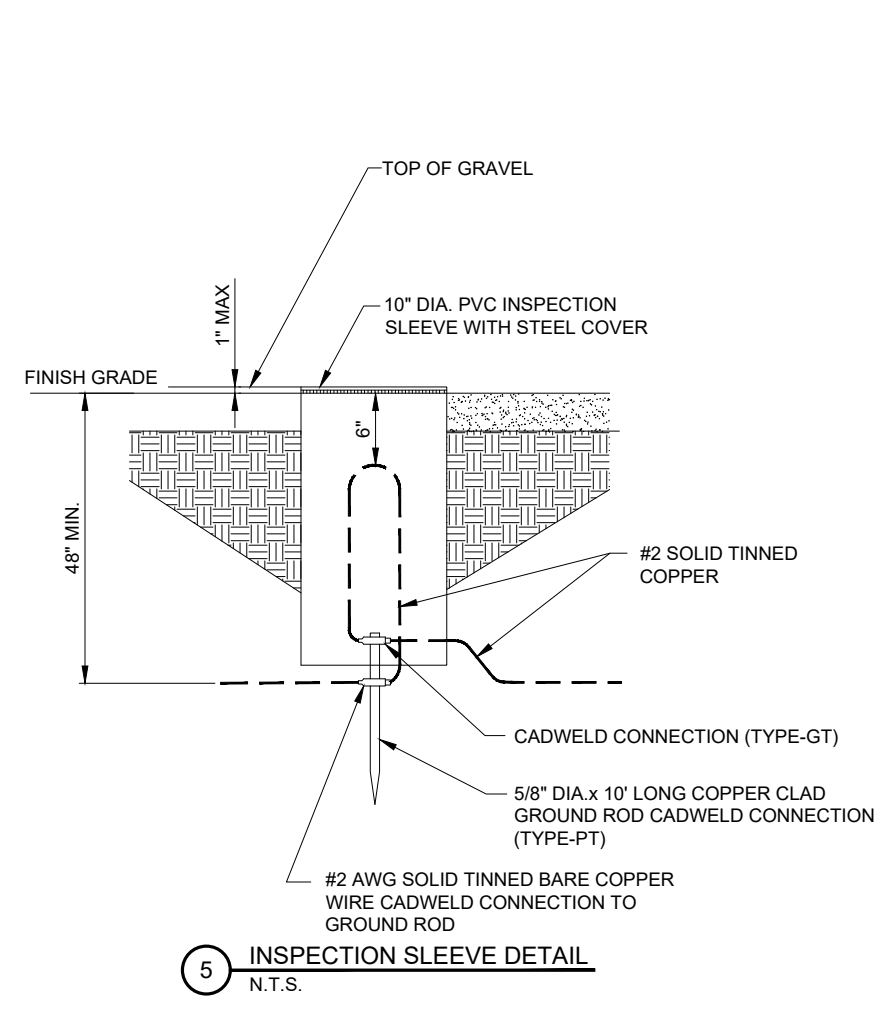
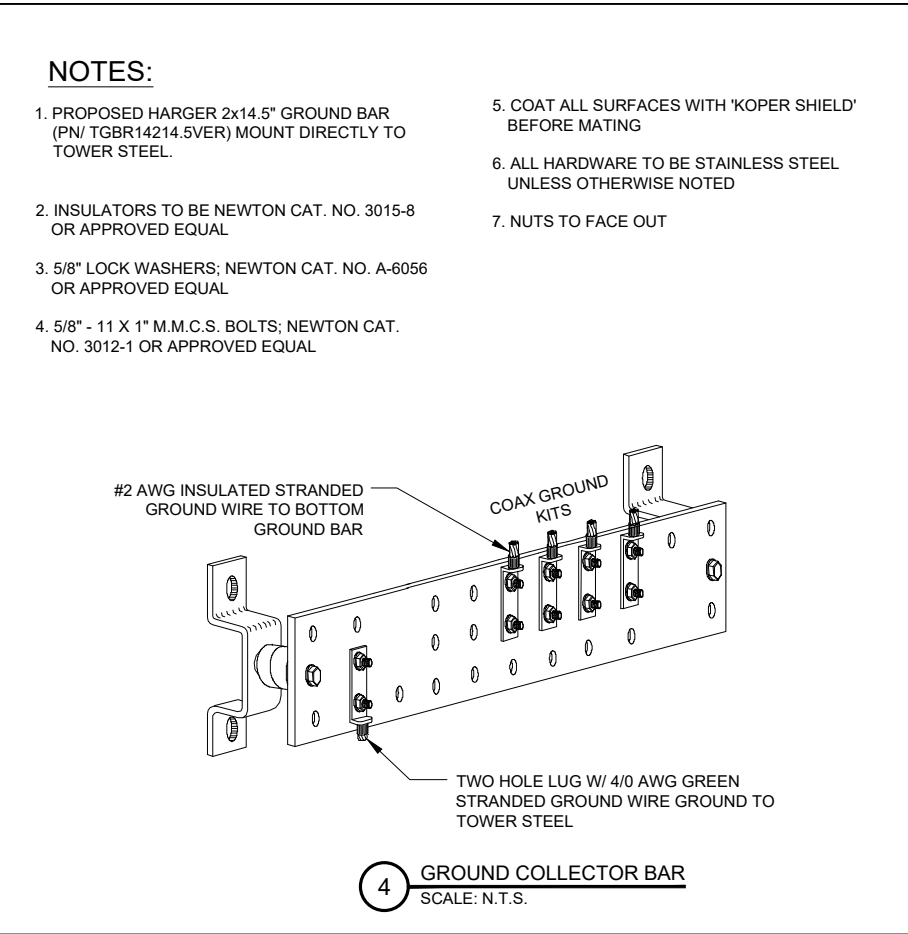
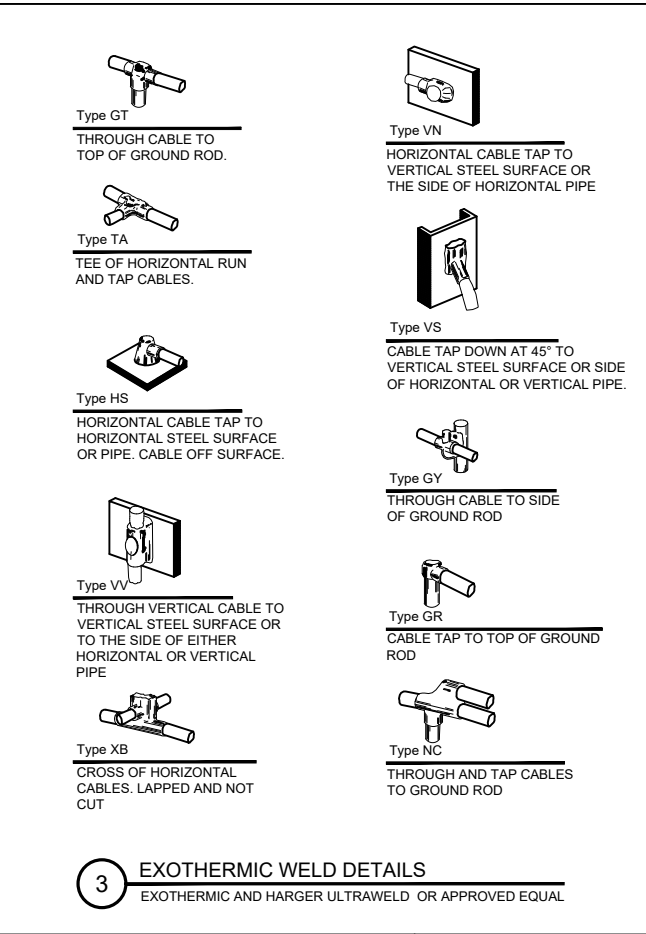
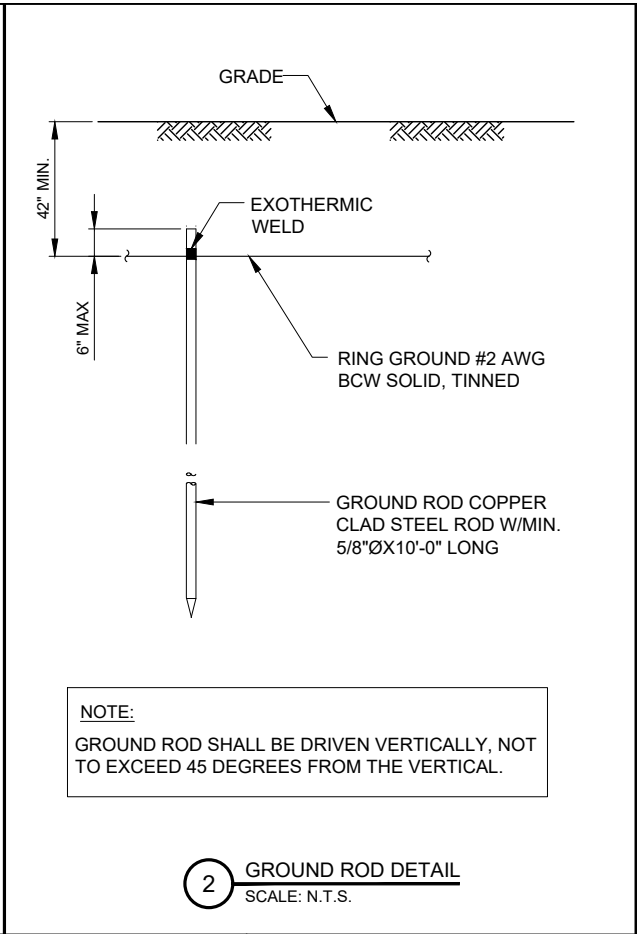
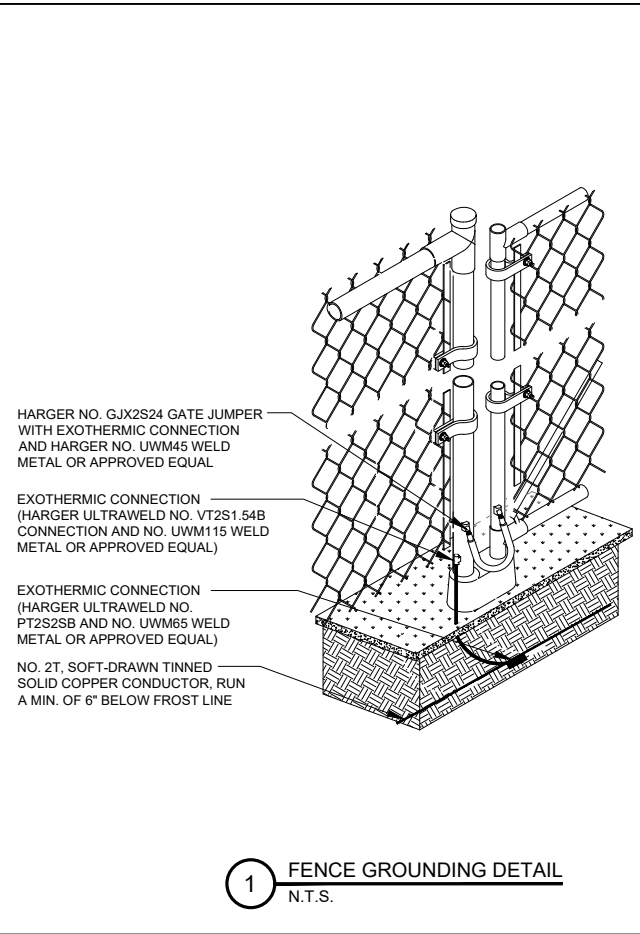
1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

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CHECKED BY:	TAZ
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PROJECT #:	170-051

SHEET TITLE  
**SITE GROUNDING PLAN**

SHEET NUMBER  
**E-5**





PREPARED FOR  
 TowerNorth  
 750 W CENTER ST, SUITE 301  
 WEST BRIDGEWATER, MA 02379  
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**SITE # WI1040-A**  
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**MDG # 5000889243**

**LAKE KEGONSA**  
 1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

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SHEET TITLE  
**GROUNDING DETAILS**

SHEET NUMBER  
**E-6**



1 PROPOSED SITE LOCATION  
VIEW FACING WEST



2 NEAREST UTILITY POLE  
SCALE: N.T.S.



3 PEDESTAL LOCATION  
SCALE: N.T.S.



4 PROPOSED ACCESS DRIVE FROM ROADWAY  
SCALE: N.T.S.

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SHEET TITLE  
 PHOTO EXHIBIT

SHEET NUMBER  
**EX-1**

**LEGEND**

- = 1" X 18" IRON PIPE SET
- = 1" IRON PIPE FOUND
- ⊕ = COUNTY MONUMENT FOUND
- ⊞ = TELEPHONE PEDESTAL
- ⊕ = EXISTING POWER POLE
- = SANITARY SEWER MAIN
- OHE— = OVERHEAD ELECTRIC
- UGF— = BURIED FIBER OPTIC LINE
- X—X— = FENCE LINE
- — — = PROPERTY LINE
- ⊗ = EXISTING TREE

- PROPERTY LINE
- FENCE
- OVERHEAD POWER LINE
- UNDERGROUND TELCO
- UNDERGROUND POWER
- BURIED WATER LINE
- BURIED GAS LINE
- EDGE OF BUSH/TREES

**SURVEY PERFORMED BY:**

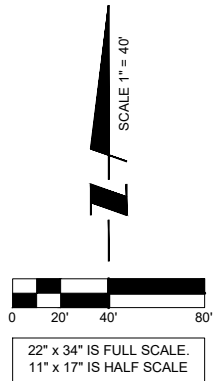
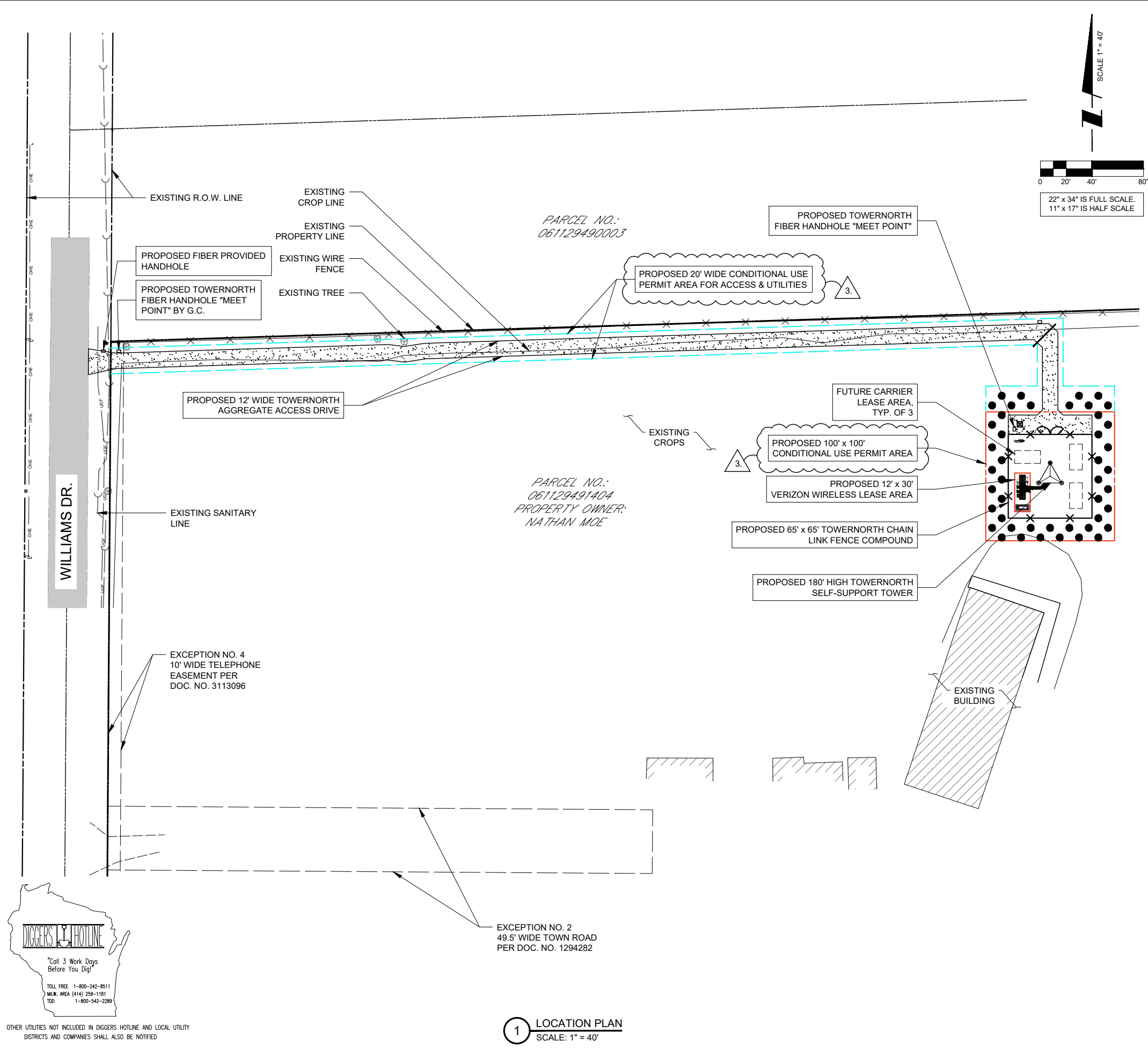


N8774 Firelane 1 Office: 920-993-0881  
Menasha, WI 54952 Fax: 920-273-6037

SITE BENCHMARK: (BM A)  
SET RAILROAD SPIKE IN 1" IRON PIPE,  
LOCATED ±250' NE OF BUILDING ALONG  
FENCE LINE  
ELEVATION: 872.06'

**GENERAL SITE NOTES**

- CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING PAVEMENT. CONTRACTOR SHALL PHOTOGRAPH AND VIDEOTAPE EXISTING PAVEMENT PRIOR TO CONSTRUCTION. ANY DAMAGE CAUSED DURING CONSTRUCTION SHALL BE REPLACED TO EXISTING OR BETTER CONDITION AT NO ADDITIONAL COST.
- 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 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 SOIL STUDIES WILL BE ALLOWED UNLESS THE CONTRACTOR HAS SO NOTIFIED THE OWNER, VERBALLY AND IN WRITING, AS REQUIRED ABOVE, OF SUCH DIFFERING SUBSURFACE CONDITIONS.
- CONTRACTOR TO PROVIDE APPROXIMATE 50'X50' STAGING AREA AND TEMPORARY ROAD. CONTRACTOR SHALL COORDINATE WITH ANTENNA CONTRACTOR, A STAGING AREA AND TEMPORARY ROAD THAT IS ACCEPTABLE TO THE OWNER. STAGING AREA AND TEMPORARY ROAD SHALL BE RESTORED TO EXISTING CONDITIONS AS NECESSARY UPON COMPLETION OF THE PROJECT.
- 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 CATCH BASINS SUSCEPTIBLE TO EROSION. EROSION CONTROL MEASURES SHALL BE PERIODICALLY INSPECTED TO ENSURE PROPER FUNCTION. EROSION CONTROL SHALL BE REMOVED UPON COMPLETION OF WORK.



**DIGGERS HOTLINE**

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TDD 1-800-542-2289

OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

**1 LOCATION PLAN**  
SCALE: 1" = 40'

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
FAX: (847) 706-7415

NO.	DESCRIPTION	BY	DATE	TE	TE	TE	TJS
1	ISSUED FOR REVIEW		02/14/23				
2	REVISED PER TN COMMENTS		03/02/23				
3	REVISED PER POWER COORDINATION		04/03/23				
4	REVISED PER ZONING AND ISSUED FOR PERMIT		10/30/23				

**SITE # WI1040-A**  
**LOC # 706115**  
**MDG # 5000889243**

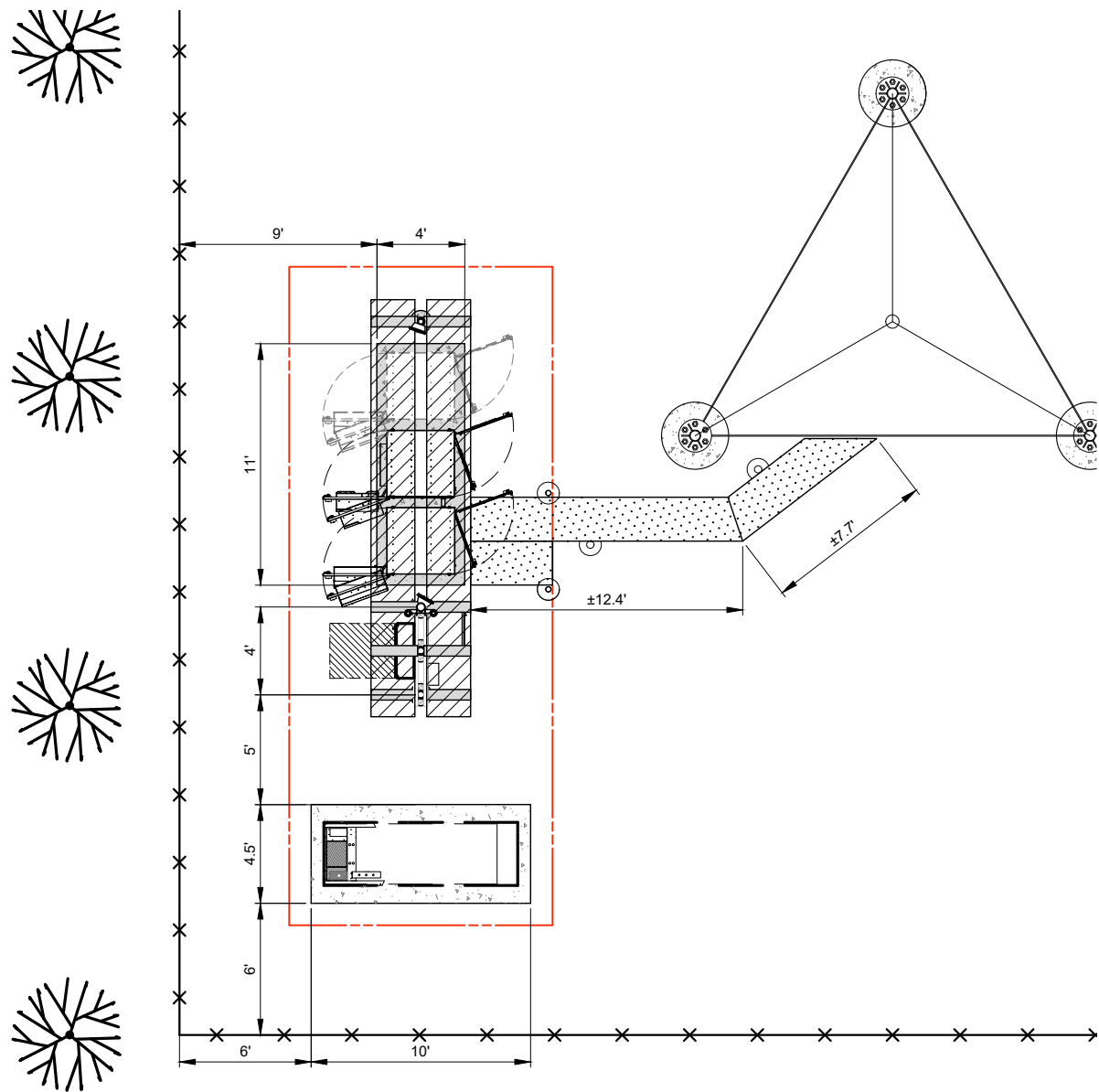
**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**LOCATION PLAN**

SHEET NUMBER  
**VW LP**



2 SITE DIMENSION PLAN  
SCALE: 1" = 4'

**PAVEMENT MATERIAL**

ACCESS ROAD (HATCHED)  
±1164 S.Y.  
8" COMPACTED AGGREGATE BASE COURSE, CA-6  
MIRAFI 500X SUBGRADE GEOTEXTILE FABRIC OR APPROVED EQUAL

LEASE SITE  
±469 S.Y.  
8" COMPACTED AGGREGATE BASE COURSE, WITH 3/4" CRUSHED  
AGGREGATE, NO FINES. OR APPROVED EQUAL. MIRAFI 500X  
SUBGRADE GEOTEXTILE FABRIC OR APPROVED EQUAL  
260 L.F. OF FENCING

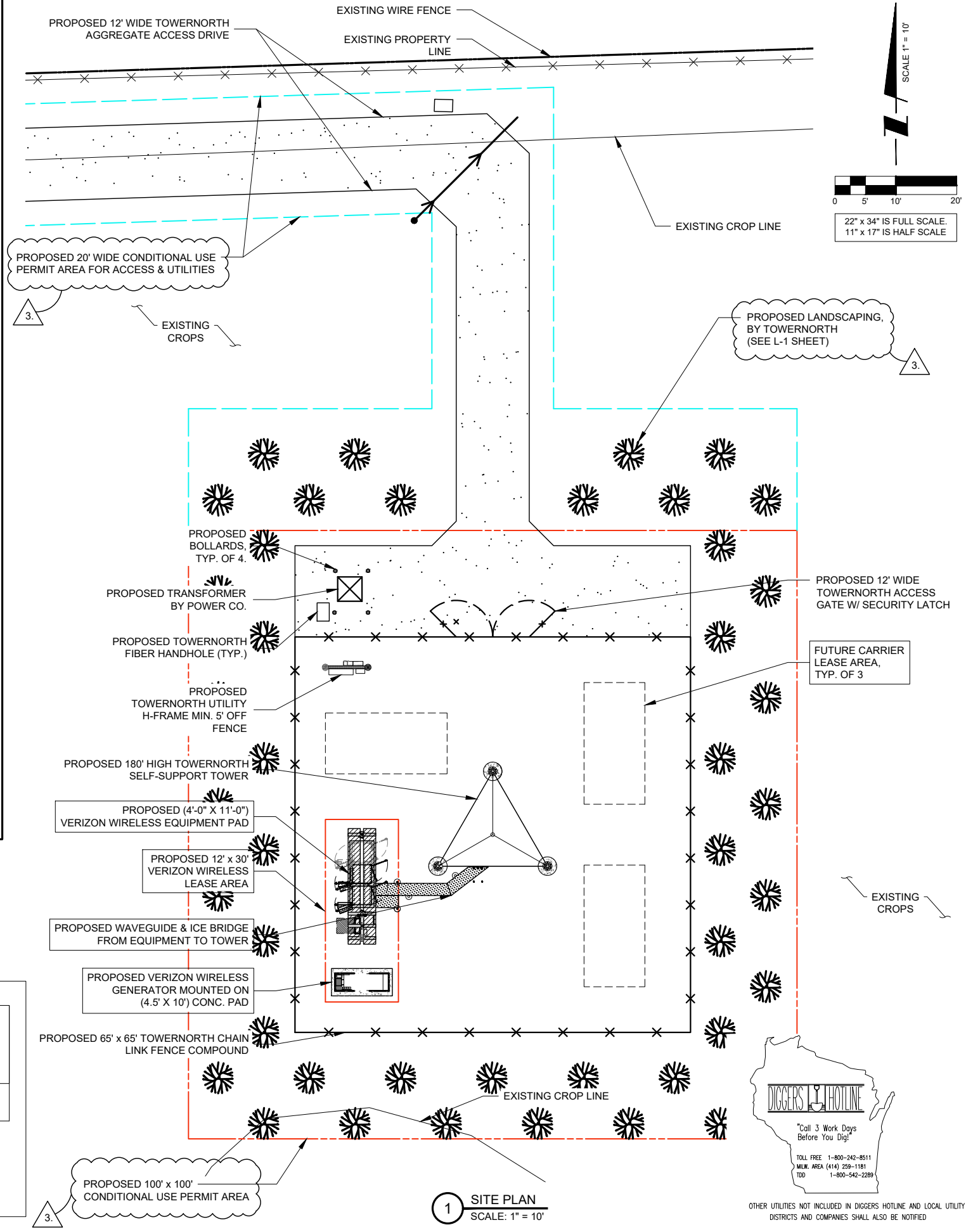
THE CONTRACTOR SHALL INCLUDE AS PART OF THE BID, THE COST OF REMOVAL OF ANY SURFACE VEGETATION AND ORGANIC SOILS OR OTHER DELETERIOUS MATERIALS AND THE REPLACEMENT WITH ENGINEERED BACKFILL FOR THE AGGREGATE ACCESS DRIVE AND LEASE SITE, IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.

SURVEY PERFORMED BY:

**MERIDIAN SURVEYING, LLC**

N8774 Firelane 1 Office: 920-993-0881  
Menasha, WI 54952 Fax: 920-273-6037

SITE BENCHMARK: (BM A)  
SET RAILROAD SPIKE IN 1" IRON PIPE,  
LOCATED ±250' NE OF BUILDING ALONG  
FENCE LINE  
ELEVATION: 872.06'



1 SITE PLAN  
SCALE: 1" = 10'

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
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CARRIER:  
**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
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	10/30/23	TJS	REVISED PER ZONING AND ISSUED FOR PERMIT

SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

LAKE KEGONSA

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER  
**VW C-1**



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

**LEGEND**

**PROPOSED GROUND DRAINAGE FLOW DIRECTION ARROWS**

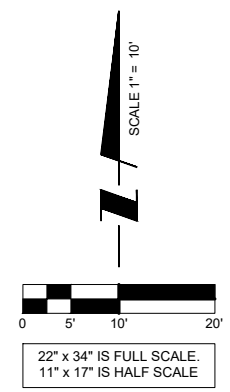
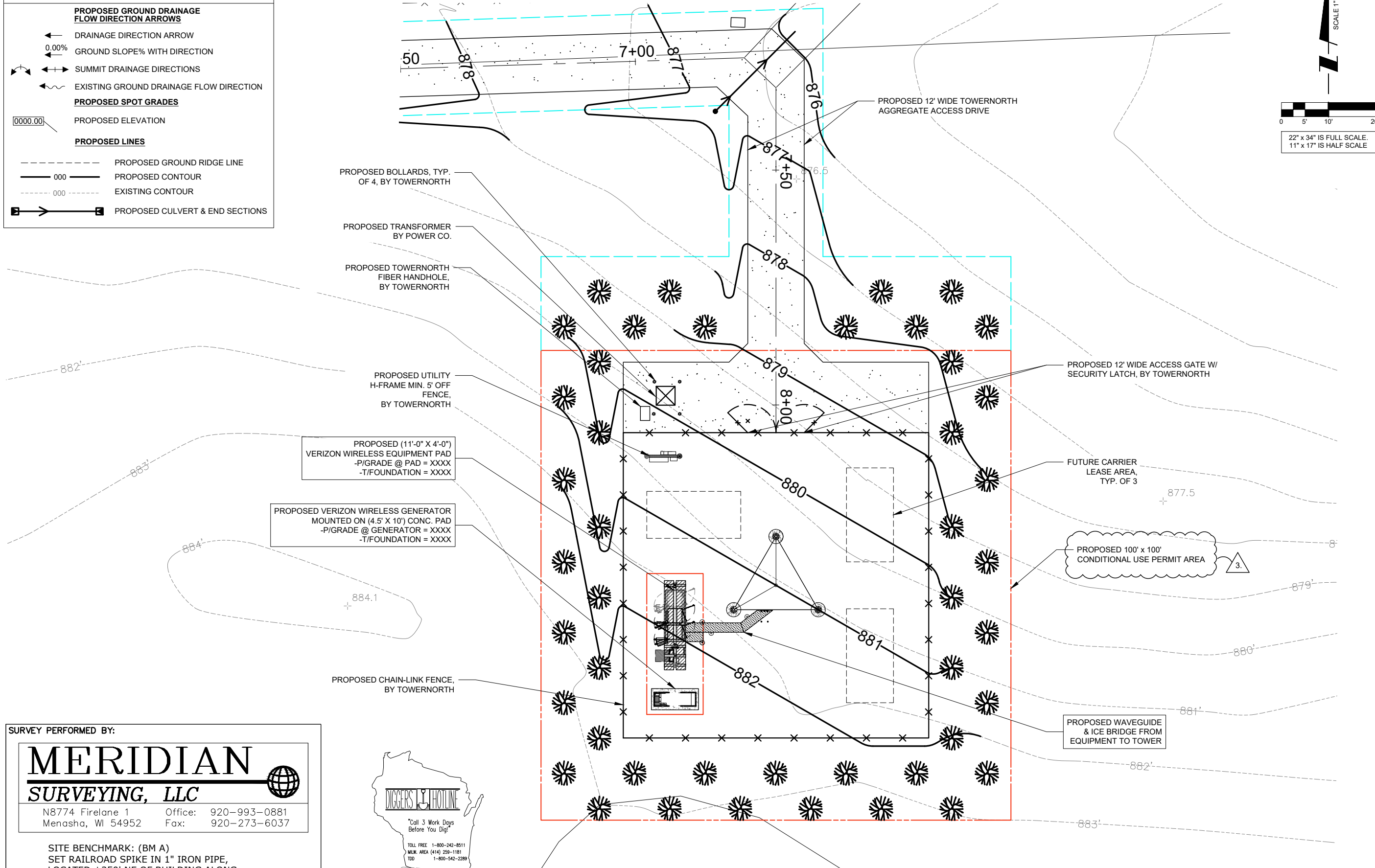
- ← DRAINAGE DIRECTION ARROW
- 0.00% GROUND SLOPE% WITH DIRECTION
- ↔ SUMMIT DRAINAGE DIRECTIONS
- ↔ EXISTING GROUND DRAINAGE FLOW DIRECTION

**PROPOSED SPOT GRADES**

- 0000.00 PROPOSED ELEVATION

**PROPOSED LINES**

- PROPOSED GROUND RIDGE LINE
- 000 PROPOSED CONTOUR
- EXISTING CONTOUR
- ▣→▣ PROPOSED CULVERT & END SECTIONS



SURVEY PERFORMED BY:

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1 SITE GRADING PLAN  
SCALE: 1" = 10'

NOTE:  
PROPOSED COMPOUND GRADING TO BE COMPLETED PRIOR TO VERIZON WIRELESS INSTALLATION. SEE SHEET C-2.

PREPARED FOR

**TowerNorth**

750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:

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CARRIER:

**verizon**

1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
FAX: (847) 706-7415

REVISIONS

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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

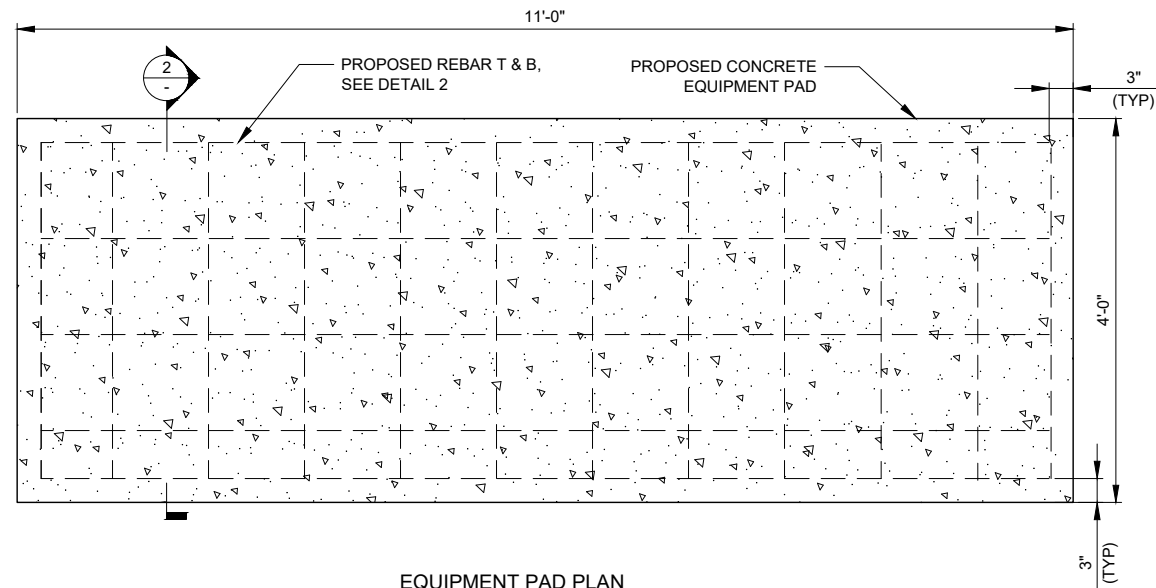
LAKE KEGONSA

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
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PROJECT #:	170-051

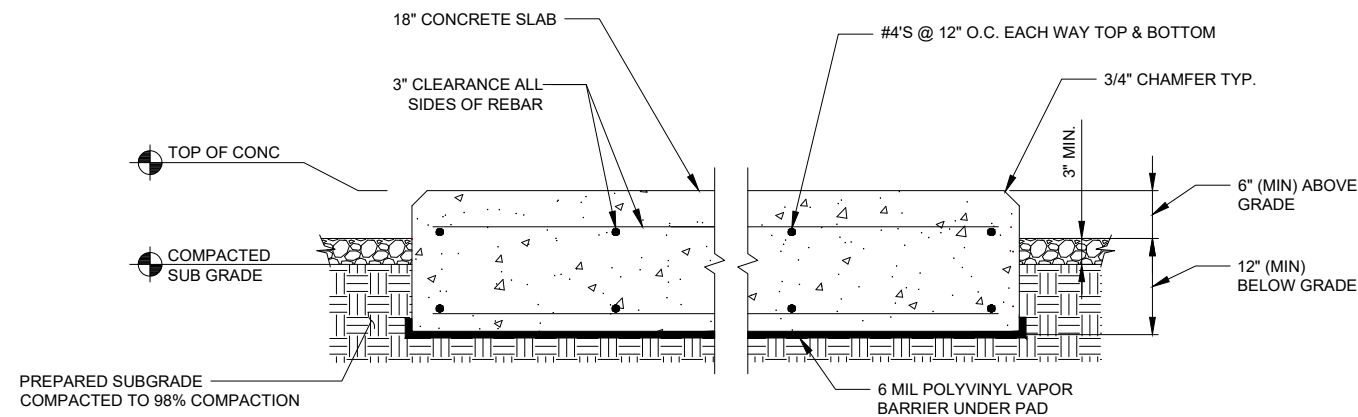
SHEET TITLE  
SITE GRADING PLAN  
(SHEET 1 OF 1)

SHEET NUMBER  
**VW C-2**



EQUIPMENT PAD PLAN

1 EQUIPMENT SLAB DETAIL  
SCALE: N.T.S.



NOTES:

1. SLAB TO BE LEVEL ( $\pm$ ) 1/4".
2. FOUNDATION SHALL HAVE A MINIMUM 6" PROJECTION ABOVE GRADE.
3. CONCRETE STRENGTH SHALL BE A MINIMUM OF 4000 PSI @ 28 DAYS.

2 EQUIPMENT PAD DETAIL  
SCALE: N.T.S.



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

PREPARED FOR



750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:



CARRIER:



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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

LAKE  
KEGONSA

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
FOUNDATION DETAILS

SHEET NUMBER

VW C-3

RECOMMENDED ELECTRICAL STUB-UPS  
(SEE DETAILED VIEW & TOP VIEW)

(LOW VOLTAGE STUB UP)  
1. TRANSFER SWITCH/COMMUNICATIONS  
CONDUITS, COMMUNICATIONS AND 2-WIRE START  
MUST NOT BE RUN IN CONDUIT W/ AC WIRING.

(HIGH VOLTAGE STUB UP)  
1. AC LOAD LEAD CONDUIT AREA.  
2. 120/240 VAC FROM UTILITY FOR OPTIONAL LOADS  
SUCH AS GFCI OUTLET, BLOCK HEATER, BATTERY  
CHARGER, AND OTHER 120/240 VAC OPTIONS. (GLAND  
PLATE INCLUDED)

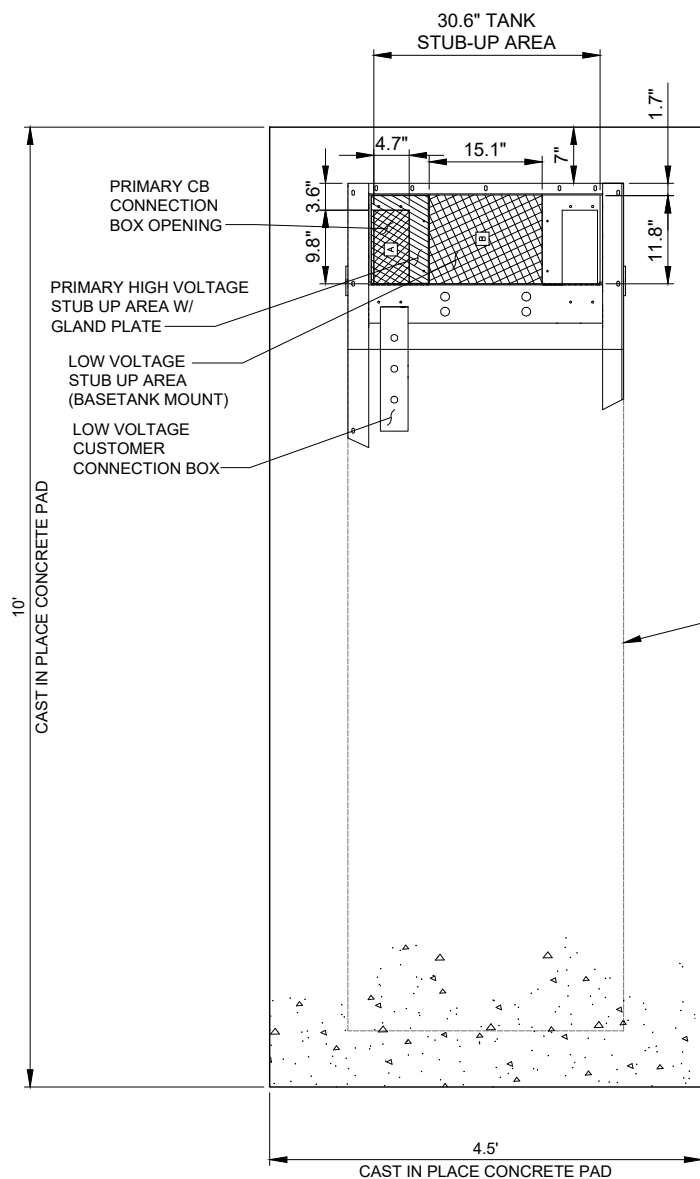


OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY  
DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

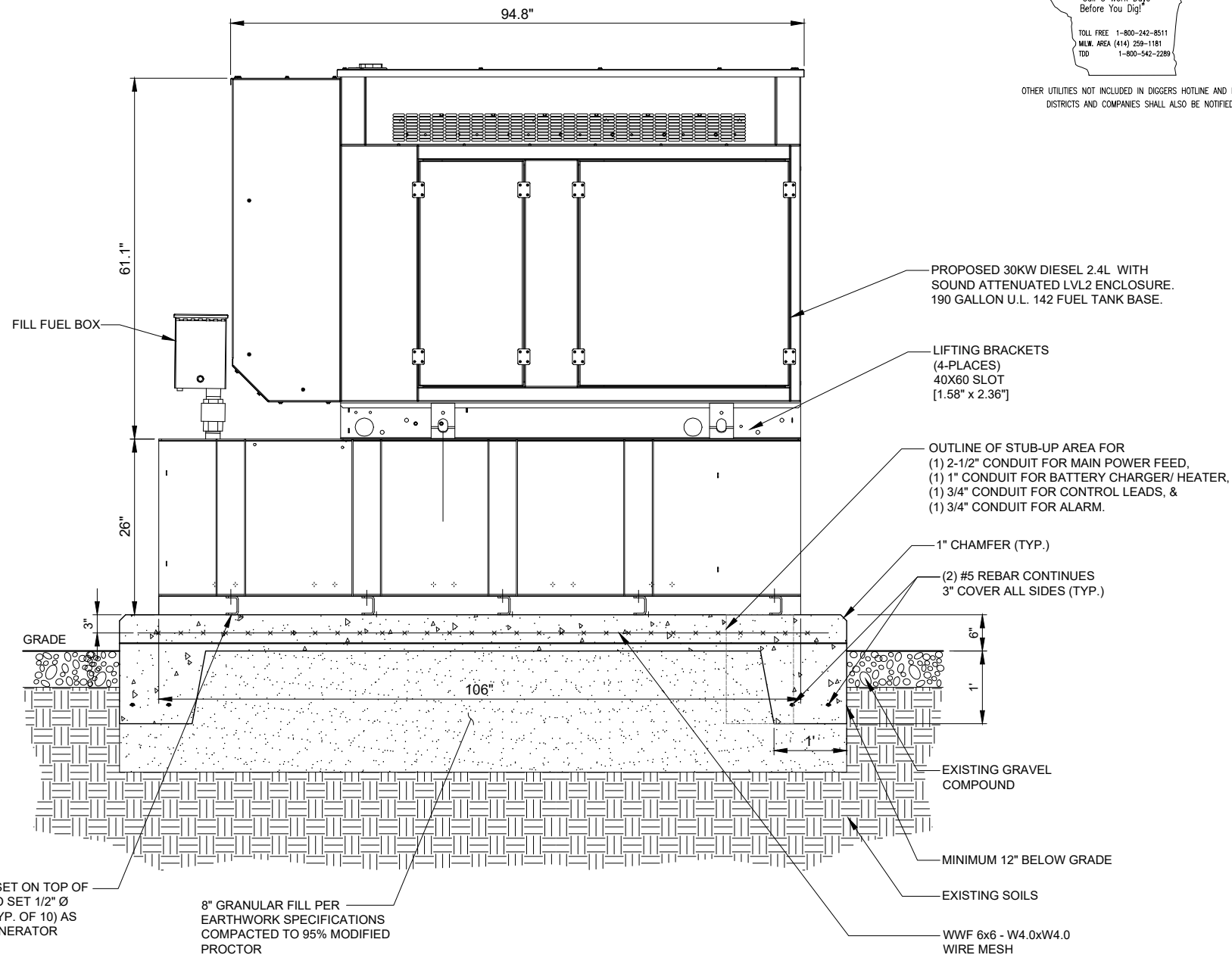
PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
**verizon**  
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FAX: (847) 706-7415



**PLAN VIEW**

1 TYPICAL GENERAC FOUNDATION DETAIL  
SCALE: 1" = 1'



**FRONT SIDE VIEW**

2 TYPICAL GENERAC FOUNDATION DETAIL  
SCALE: 1" = 1'

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.

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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

LAKE  
KEGONSA

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

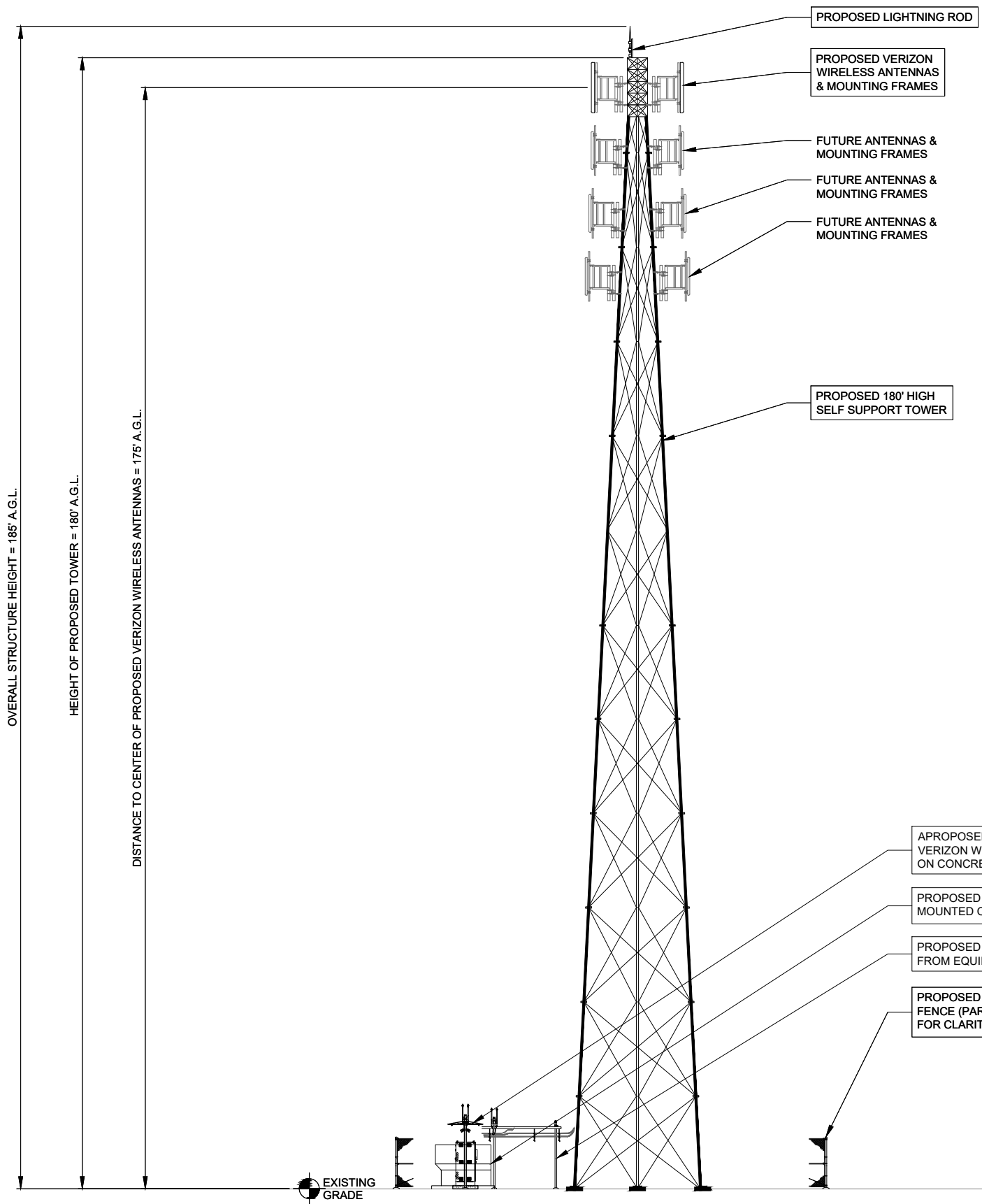
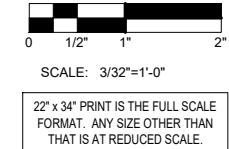
DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
GENERATOR  
FOUNDATION DETAILS

SHEET NUMBER  
**VW C-4**

G.C. TO ADJUST HEIGHT OF MOUNT BY ±6" AS NEEDED TO AVOID CLIMBING FACILITIES. G.C. IS NOT TO REMOVE OR DAMAGE CLIMBING FACILITIES DURING INSTALLATION.

TOP OF ANTENNA OR ANTENNA PIPE SHALL NOT EXCEED TOP OF TOWER STEEL



OVERALL STRUCTURE HEIGHT = 185' A.G.L.

HEIGHT OF PROPOSED TOWER = 180' A.G.L.

DISTANCE TO CENTER OF PROPOSED VERIZON WIRELESS ANTENNAS = 175' A.G.L.

EXISTING GRADE

1 SOUTH ELEVATION  
SCALE: 3/32" = 1'-0"

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
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PLANS PREPARED BY:  
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SITE # WI1040-A  
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**LAKE KEGONSA**  
1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
SITE ELEVATION & ANTENNA LAYOUT

SHEET NUMBER  
**VW A-1**



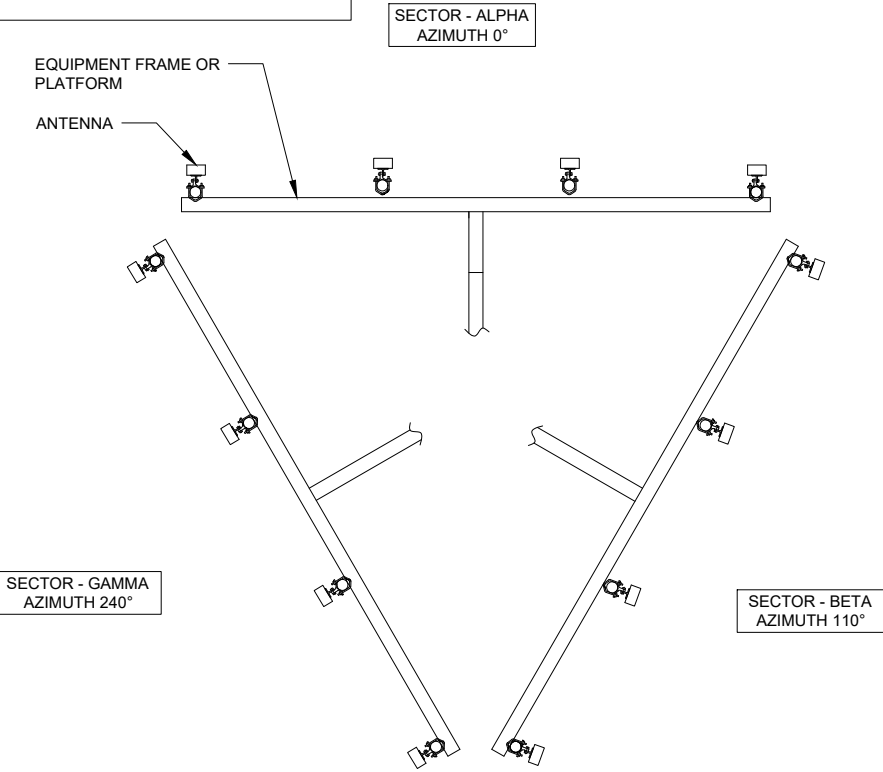
**Antenna Summary**

Added															
700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
LTE	LTE 5G	LTE	LTE			COMMSCOPE	NHH-65C-R2B	175	179	0(0001) 0(01) 110(0002) 110(02) 240(0003) 240(03)	false	false	PHYSICAL	6	NHH-65C-R2B
					LTE	ERICSSON	KRE105281/1	173	173.3	0(19) 110(20) 240(21)	false	false	PHYSICAL	3	
					5G	Ericason	AIR6449	172	173.3	0(0001) 110(0002) 240(0003)	false	false	PHYSICAL	3	
Removed															
700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															
Retained															
700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															

Added: 12    Removed: 0    Retained: 0

1 ANTENNA SUMMARY  
N.T.S.

NOTE:  
THIS DETAIL IS SCHEMATIC AND IS INTENDED TO IDENTIFY ANTENNA AZIMUTHS. REFER TO DETAILS 1 & 2 ON THIS SHEET FOR EQUIPMENT MODELS AND QUANTITIES. REFER TO SHEET ANT-3A FOR MOUNT DETAILS.



3 ANTENNA PLAN SCHEMATIC  
N.T.S.

PREPARED FOR  
**TowerNorth**  
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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

LAKE  
KEGONSA

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
ANTENNA INFORMATION

SHEET NUMBER  
**VW A-2**

**Equipment Summary**

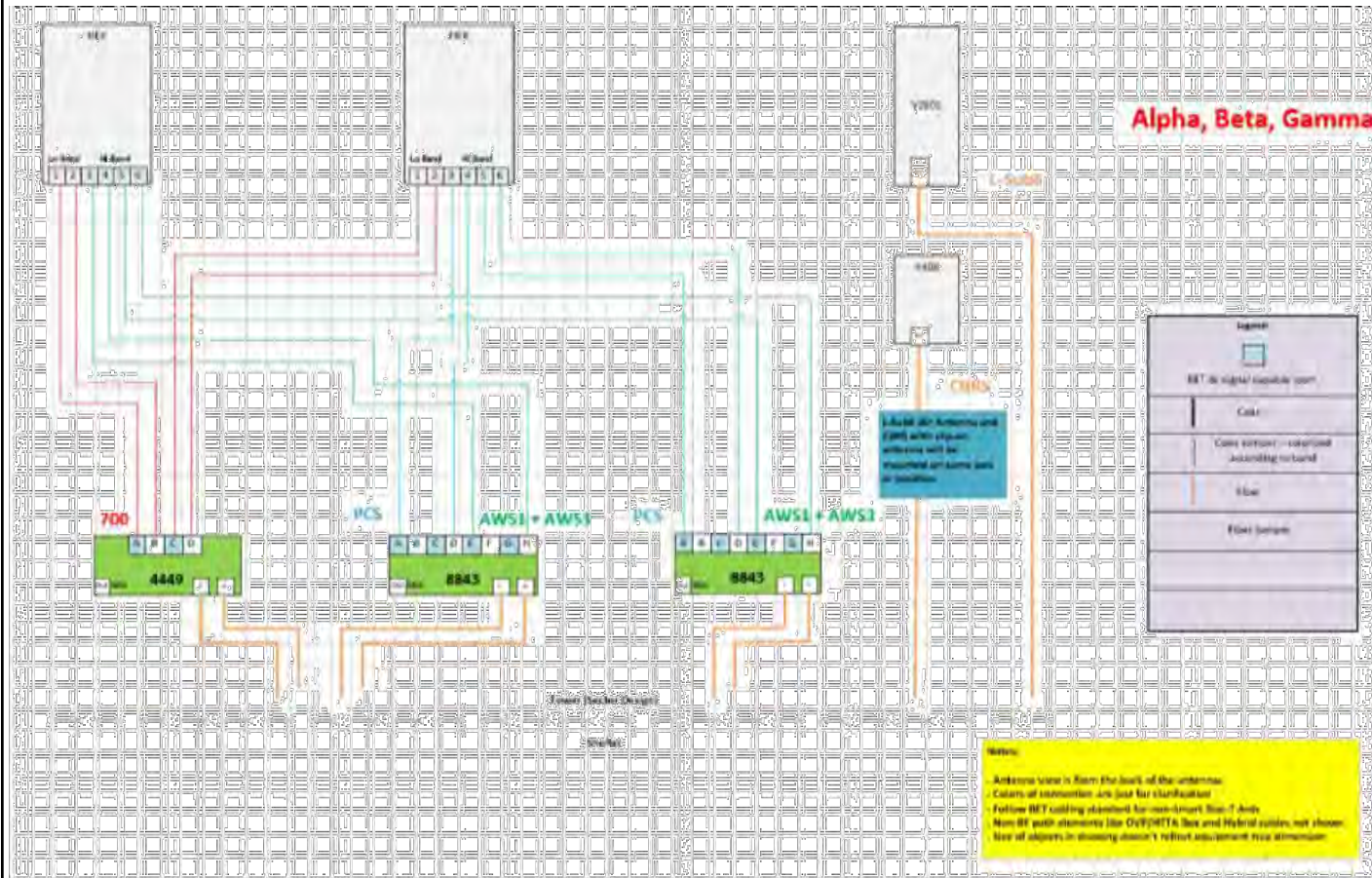
Added															
Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
RRU	Tower					LTE		Ericsson	4408 B48 DC			PHYSICAL	3	KRC161746/1	
RRU	Tower		LTE					Ericsson	4449			PHYSICAL	3	KRC161749/1	
RRU	Tower		LTE 5G	LTE	LTE			Ericsson	8843			PHYSICAL	6	KRC161707/2	
RRU	Tower					5G		Ericsson	AIR6449			PHYSICAL	3		
Removed															
Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
No data available.															
Retained															
Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID	
No data available.															

2 EQUIPMENT SUMMARY  
N.T.S.

**RF EMISSIONS REPORT REQUIRED**

YES  NO

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



**1** CABLE DIAGRAM  
N.T.S.

SECTOR	AT GROUND		AT STRUCTURE		TOTAL (±)
	HOR (±)	VER (±)	HOR (±)	RAYCAP CL (±)	
ALPHA	20'	5'	5'	175'	205'
BETA	20'	5'	5'	175'	205'
GAMMA	20'	5'	5'	175'	205'

NOTE TO RF, G.C. & IMPLEMENTATION:  
RAYCAP CHART IS CURRENTLY BEING UPDATED BY VERIZON WIRELESS. PRIOR TO FINAL AND CONSTRUCTION, CHART TO BE INSERTED. GC TO NOTIFY VERIZON WIRELESS IF THIS NOTE IS STILL ON THE DRAWINGS PRIOR TO CONSTRUCTION.

Raycap Layout - Raycap Per Sector					
<b>POWER</b>					
3	700 RRU	6	700 RRU2/A2		
2	PCSLT RRU	5	PCSLT RRU2/A2		
1	AWS RRU	4	AWS RRU2/A2		
<b>FIBER</b>					
1	2	3	4	5	6
AWS RRU	AWS RRU2/A2	PCSLT RRU	PCSLT RRU2/A2	700 RRU	700 RRU2/A2
7	8	9	10	11	12

**2** RAYCAP TABLE  
N.T.S.

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PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
FAX: (847) 706-7415

NO.	DESCRIPTION	BY	TE	TE	TE	TJS
		DATE	DATE	DATE	DATE	DATE
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2	REVISED PER TN COMMENTS					
3	REVISED PER POWER COORDINATION					
4	REVISED PER ZONING AND ISSUED FOR PERMIT					

SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

**LAKE  
KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**ANTENNA INFORMATION**

SHEET NUMBER  
**VW A-2A**

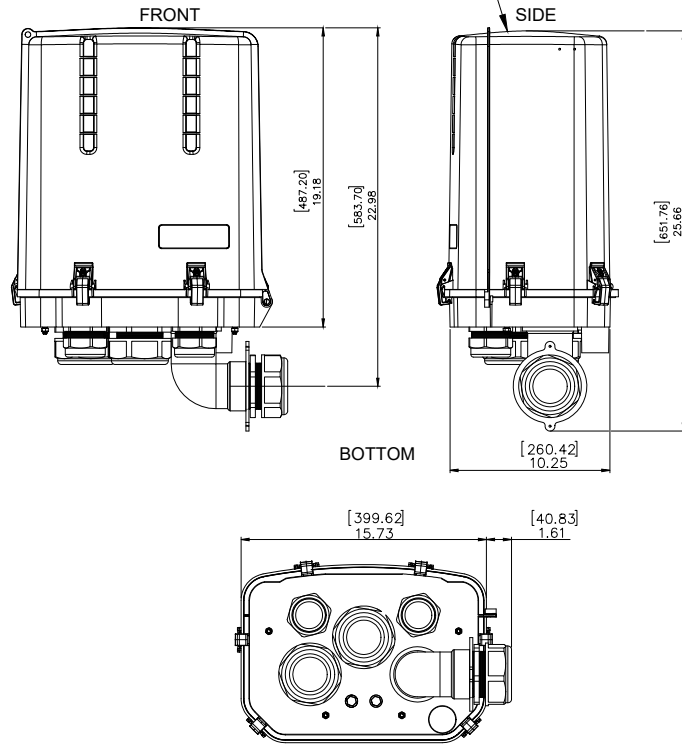
SPECIFICATIONS DC SURGE PROTECTION FOR RRU/INTEGRATED ANTENNA RADIO HEAD

APPLICATION: TOWER / BASE / ROOFTOP / ROOFTOP DISTRIBUTION MODELS

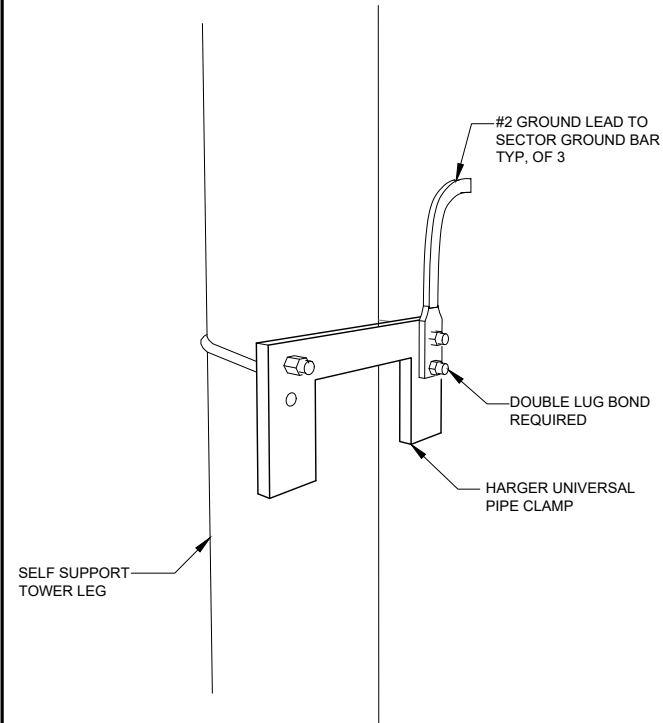
WEIGHT: 32LBS (14.51 KG)

[mm]  
INCHES

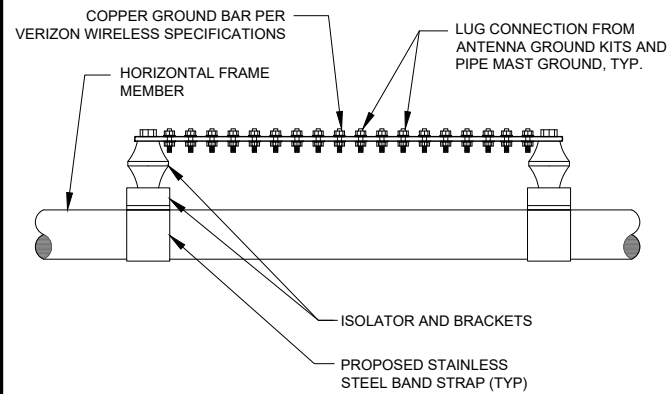
PROPOSED RAYCAP JUNCTION BOX MODEL# RCMDC-3315-PF-48



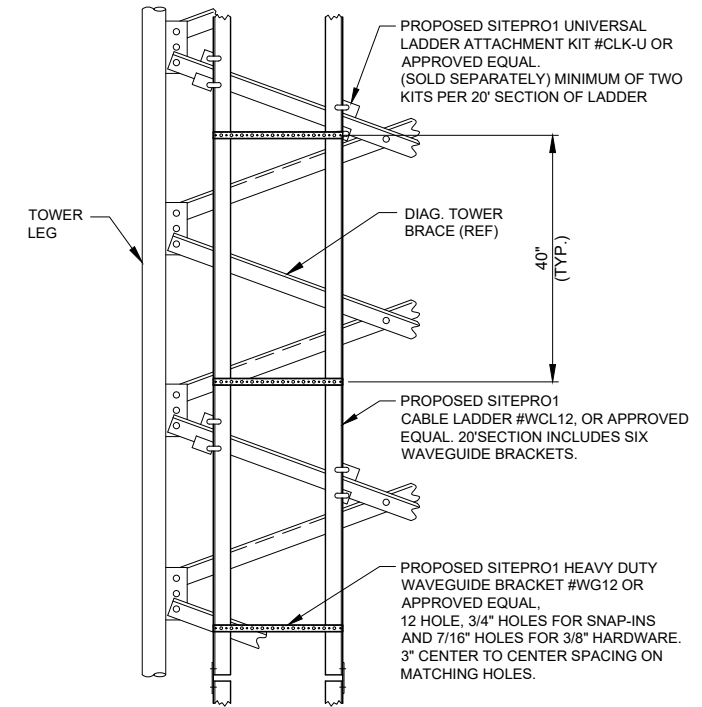
1 RAYCAP JUNCTION BOX DETAIL  
SCALE: N.T.S.



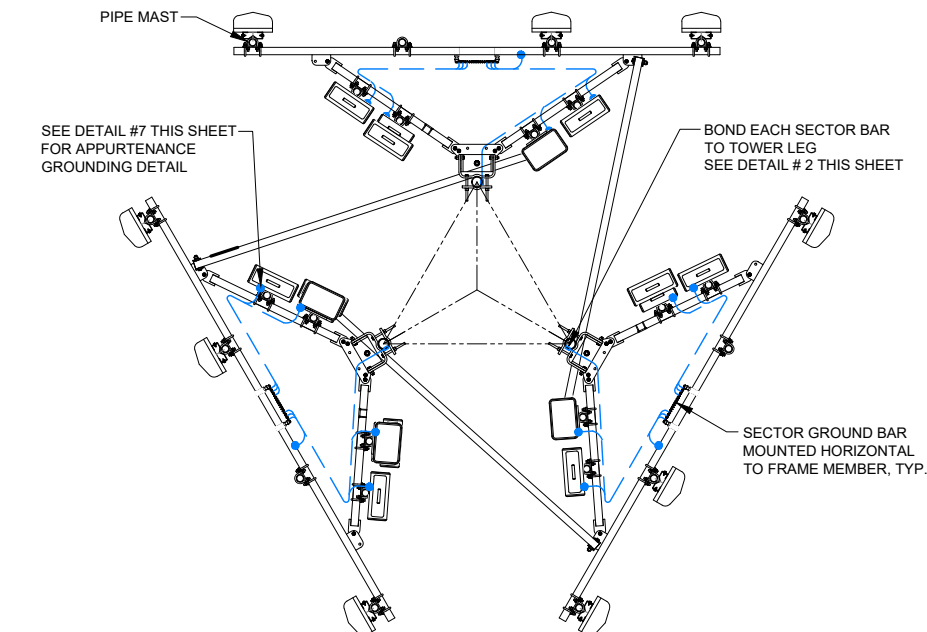
2 SELF SUPPORT TOWER (ROUND MEMBER)  
SCALE: N.T.S.



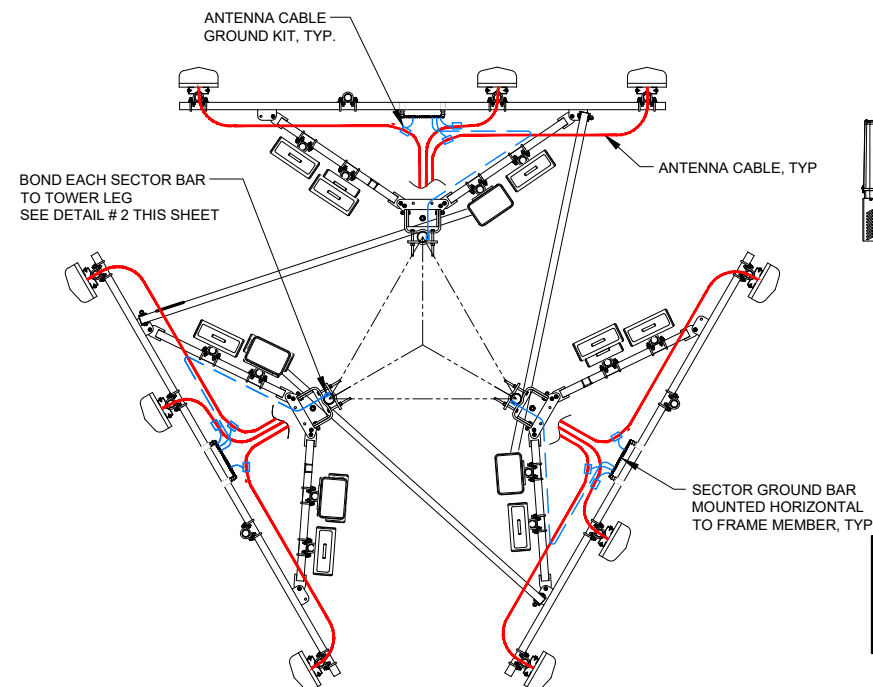
3 GROUND BAR AT SECTOR  
N.T.S.



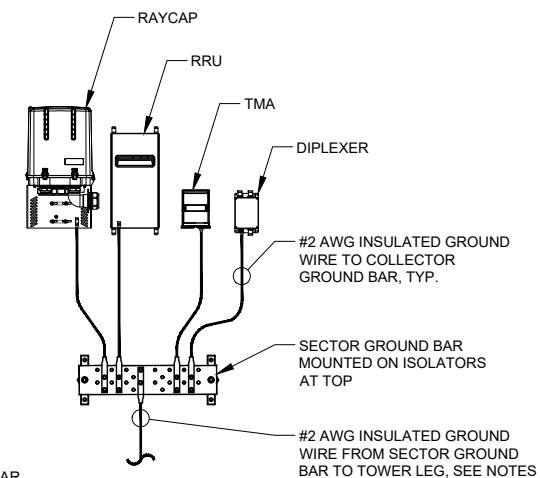
4 TRANSMISSION LINE HANGER  
N.T.S.



5 EQUIPMENT GROUNDING AT ANTENNA ELEVATION  
N.T.S.



6 ANTENNA CABLE GROUNDING AT ANTENNA ELEVATION  
N.T.S.



THIS DETAIL IS CONCEPTUAL TO DEMONSTRATE GROUNDING AT THE ANTENNA LEVEL. VERIFY EQUIPMENT, MOUNTING FRAME, AND AZIMUTH WITH ANT-1 SHEET & ECR.

7 TYPICAL APPURTENANCE GROUNDING AT ANTENNA LEVEL  
N.T.S.

APPROVED UL LISTED GROUND CLAMPS

APPLICATION	UL LISTED HARGER PART #
METAL FLANGE	213, 213T, 213TTP
PIPE MEMBER	CPC SERIES (SIZED TO FIT DIAMETER OF PIPE)
LARGER PIPE MEMBER	UPC SERIES (UNIVERSAL PIPE CLAMP) SIZED TO FIT DIAMETER OF PIPE
TO TOWER LEG	HARGER UNIVERSAL PIPE CLAMP

NOTES:

- THE BOND BETWEEN THE SECTOR BAR AND THE TOWER IS TO BE MECHANICALLY BONDED TO TOWER LEG. THE MECHANICAL BOND IS TO BE A UL APPROVED MECHANICAL CONNECTION CLAMP.
- GROUND CONNECTIONS MUST BE DOUBLE HOLE CONNECTION. SPECIAL EXCEPTION ONLY TO EQUIPMENT THAT WILL NOT ALLOW FOR A DOUBLE HOLE CONNECTION.

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
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SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

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LAKE  
KEGONSA

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SHEET TITLE  
SITE  
DETAILS

SHEET NUMBER

**VW A-3**

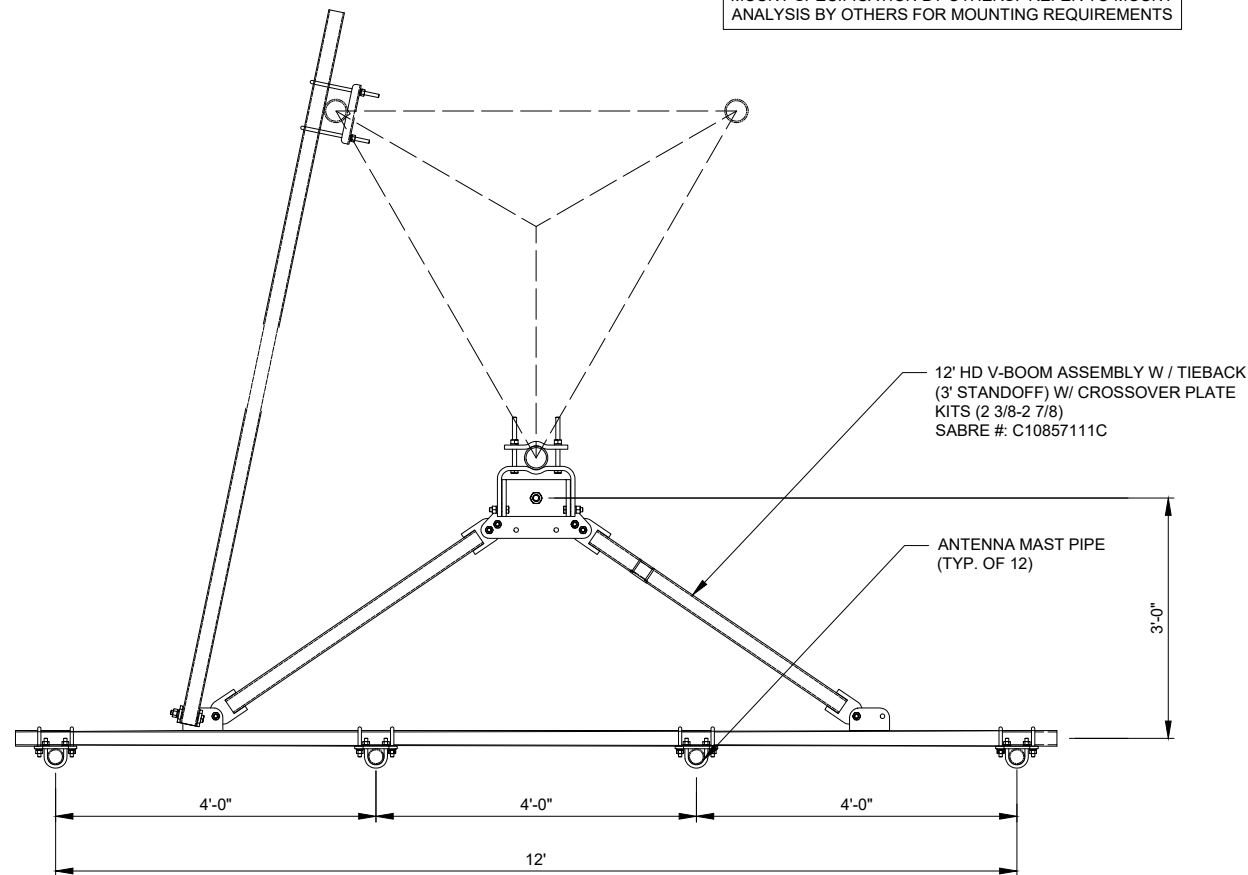
**VERIZON WIRELESS NSTD-445 ANTENNA MOUNTING SYSTEM CLASSIFICATION STANDARD ASSUMPTIONS:**

- MAXIMUM ALLOWABLE VERTICAL OFFSET FROM MOUNT CENTERLINE TO ANTENNA CENTERLINE IS 6".
- MOUNT PIPES ARE ASSUMED TO BE EQUALLY SPACED ON EACH SECTOR, WITH AN ALLOWABLE 6" MAXIMUM HORIZONTAL OFFSET FROM EQUAL SYMMETRIC SPACING.
- ALL APPURTENANCES/EQUIPMENT MUST BE ATTACHED TO MOUNT PIPES ON MOUNT FACE (NOT ON SECTOR FRAME ARMS).
- ANTENNAS MOUNTED ON SIDE-BY-SIDE BRACKETS ARE NOT PERMITTED.
- MAXIMUM NUMBER OF MOUNT PIPES IS INDICATED IN MOUNT CLASSIFICATION.
- IF SITE CONDITIONS ARE OUTSIDE OF THESE PARAMETERS, CONTACT ENGINEER OF RECORD FOR ALTERNATIVE OPTIONS.

**NOTES:**

1. 7/8" O.D. MOUNTING PIPES MUST BE PURCHASED SEPARATELY.
2. QUANTITIES SHOWN IN LISTS OF MATERIAL ARE FOR ONE (1) V-BOOM ONLY
3. THIS V-BOOM WILL MOUNT TO THE FOLLOWING: 1 1/2" Ø TO 5 9/16"Ø ROUND LEG.
4. TIEBACK MUST BE CONNECTED TO A RIGID MEMBER THAT PROVIDES ADEQUATE SUPPORT WITHIN THE LIMITS NOTED ABOVE IN THE TIEBACK ANGLE RANGE DETAIL UNLESS APPROVED BY THE ENGINEER OF RECORD

NOTE:  
MOUNT SPECIFICATION BY OTHERS. REFER TO MOUNT ANALYSIS BY OTHERS FOR MOUNTING REQUIREMENTS



MOUNTING OPTION  
SHOWING MOUNTING PIPE PLACEMENTS

NOTE:  
UNLESS SPECIFIED DIFFERENTLY IN RFDS, G.C. TO MOUNT ANTENNAS WITH 700 TECHNOLOGY ON OPPOSITE ENDS OF FRAME.

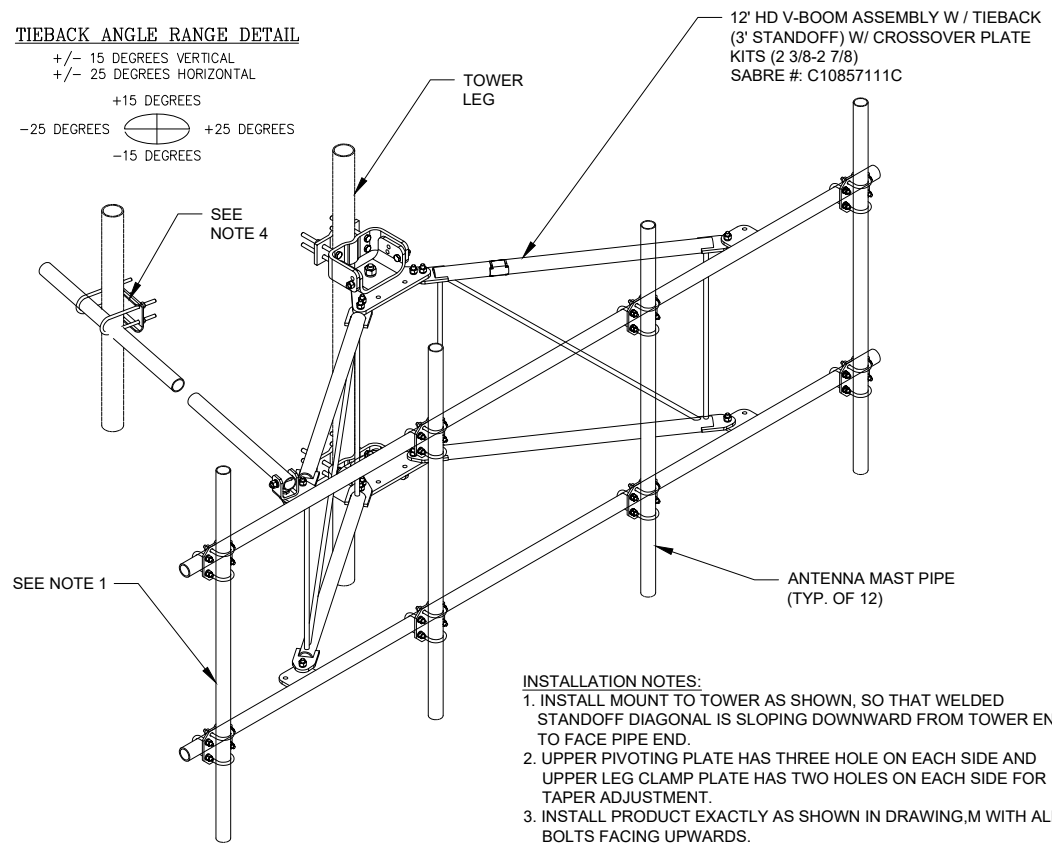
ANTENNAS & EQUIPMENT TO BE INSTALLED PER MOUNT MANUFACTURER'S RECOMMENDED MOUNTING LOCATIONS

G.C. TO ADJUST HEIGHT OF PLATFORM BY ±6" AS NEEDED TO AVOID CLIMBING FACILITIES. G.C. IS NOT TO REMOVE OR DAMAGE CLIMBING FACILITIES DURING INSTALLATION.

1 PLAN VIEW  
N.T.S.

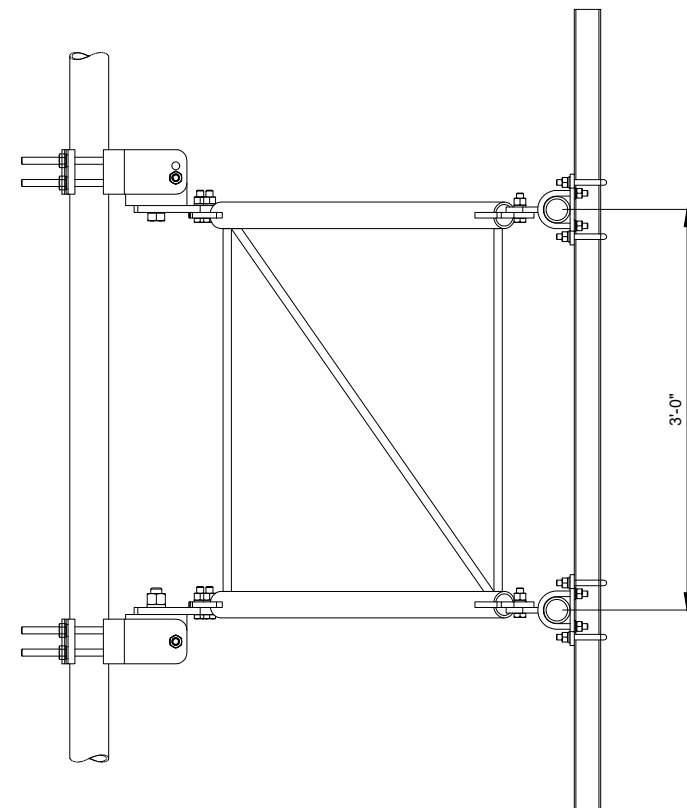
**TIEBACK ANGLE RANGE DETAIL**

+/- 15 DEGREES VERTICAL  
+/- 25 DEGREES HORIZONTAL  
+15 DEGREES  
-25 DEGREES  
+25 DEGREES  
-15 DEGREES



- INSTALLATION NOTES:**
1. INSTALL MOUNT TO TOWER AS SHOWN, SO THAT WELDED STANDOFF DIAGONAL IS SLOPING DOWNWARD FROM TOWER END TO FACE PIPE END.
  2. UPPER PIVOTING PLATE HAS THREE HOLES ON EACH SIDE AND UPPER LEG CLAMP PLATE HAS TWO HOLES ON EACH SIDE FOR TAPER ADJUSTMENT.
  3. INSTALL PRODUCT EXACTLY AS SHOWN IN DRAWING, M WITH ALL BOLTS FACING UPWARDS.

2 ISOMETRIC VIEW  
N.T.S.



3 PROPOSED PLATFORM SUPPORT SIDE VIEW  
N.T.S.

PREPARED FOR



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PLANS PREPARED BY:



CARRIER:



1701 GOLF ROAD,  
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SITE # WI1040-A  
LOC # 706115  
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LAKE  
KEGONSA

1896 WILLIAMS DR.  
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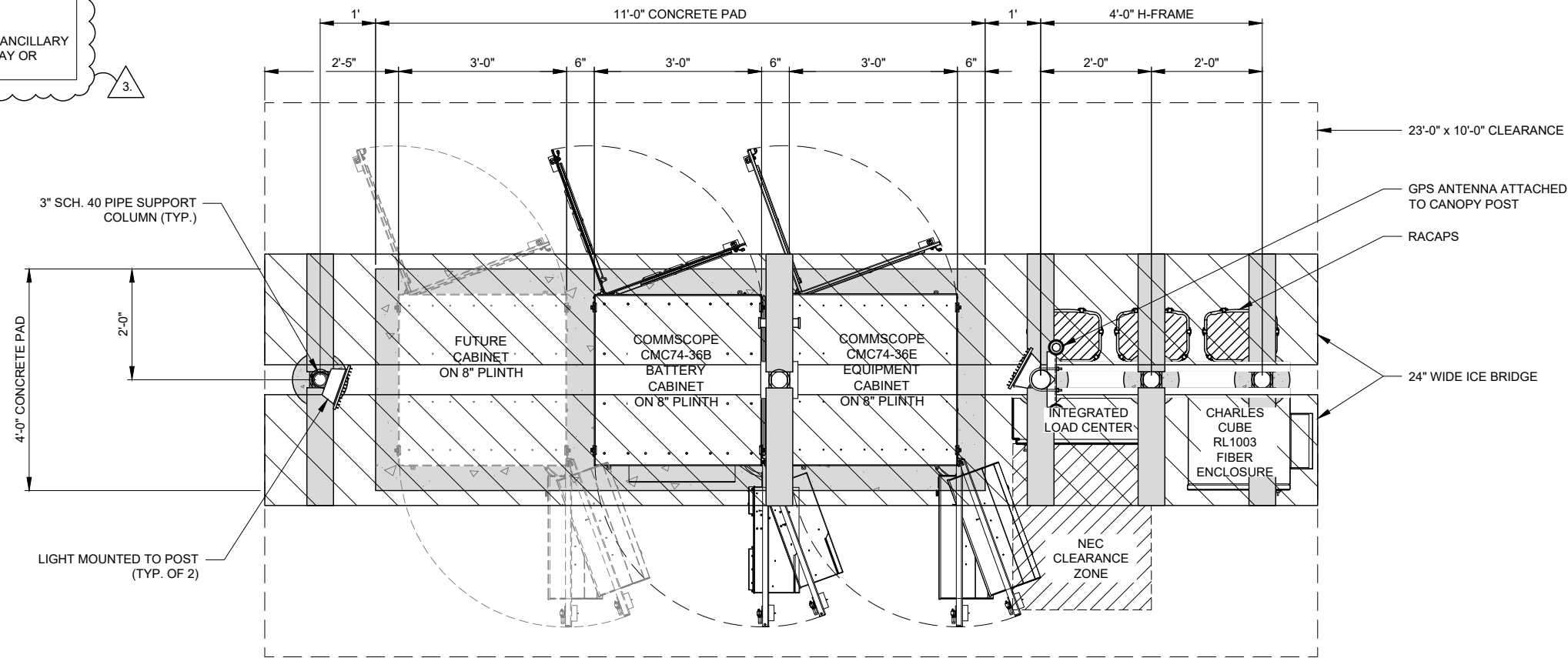
SHEET TITLE  
ANTENNA  
MOUNTING DETAILS

SHEET NUMBER

VW A-3A



NOTE:  
ALL STEEL COMPONENTS TO BE UNPAINTED. ALL CABINETS AND ANCILLARY EQUIPMENT TO BE NEUTRAL GRAY OR BEIGE IN COLOR.



3" SCH. 40 PIPE SUPPORT COLUMN (TYP.)

4'-0" CONCRETE PAD

2'-0"

LIGHT MOUNTED TO POST (TYP. OF 2)

23'-0" x 10'-0" CLEARANCE

GPS ANTENNA ATTACHED TO CANOPY POST

RACAPS

24" WIDE ICE BRIDGE

1 EQUIPMENT PAD - LAYOUT PLAN  
SCALE: 3/4" = 1'-0"

LEGEND	
	= CANOPY/CONCRETE PAD
	= ICE BRIDGE

NOTES:

- THIS IS AN UNMANNED STORAGE AND EQUIPMENT PAD ONLY.
- PAD SHALL BE PLACED ACCORDING TO STATE AND LOCAL CODE FROM ANY PROPERTY LINE, INTERIOR LOT LINE OR ANY OTHER BUILDING.
- ALL ITEMS NOTED AS "FIELDWORK" SHALL BE INSTALLED AND TESTED AT THE FACTORY THEN REMOVED FOR TRANSPORT AND REINSTALLED AT THE FINAL SITE.
- PAD NOT DESIGNED FOR INSTALLATION IN A FLOOD PRONE AREA.
- THIS PAD DOES NOT CONTAIN PLUMBING FACILITIES.
- THIS ENCLOSURE IS CLASSIFIED AS USE S-2 (IBC, FBC), U (OBC) 2006-2015 INTERNATIONAL BUILDING CODE 2009-2012 UNIFORM MECHANICAL CODE 2006-2015 INTERNATIONAL MECHANICAL CODE 2004 CHICAGO BUILDING CODE  
DESIGN PARAMETERS  
USE GROUP: S-2 (IBC, FBC)  
U (OBC)
- CONSTRUCTION TYPE: V-B (IBC, FBC)  
OCCUPANCY CATEGORY: II  
ROOF LIVE LOAD: 81 PSF  
FLOOR LIVE LOAD: 986 PSF  
GROUND SNOW LOAD: 96 PSF (N/A FOR FBC 2014)  
WIND SPEED: 150 MPH/EXPOSURE C  
SEISMIC ZONE FOR SBC & UBC: 4  
SEISMIC DESIGN CATEGORY FOR IBC: E (IBC)  
USE GROUP-III (OBC)  
SITE CLASS-D (OBC)  
BULLET RESISTANCE LEVEL 4 FOR 4" CONCRETE PER IBC  
CONCRETE f<sub>c</sub>: 5000 PSI AT 28 DAYS  
CONCRETE UNIT WEIGHT: 115 PCF
- CONCRETE PAD AND ASSOCIATED EQUIPMENT IS PROVIDED BY OWNER UNDER SEPARATE CONTRACT. EQUIPMENT ENCLOSURE INFORMATION INDICATED HEREIN IS PROVIDED FOR REFERENCE ONLY AND IS TAKEN FROM MANUFACTURER'S AVAILABLE DATA. REFER TO CIVIL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR WORK TO BE PERFORMED UNDER THIS CONTRACT.

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LAKE  
KEGONSA

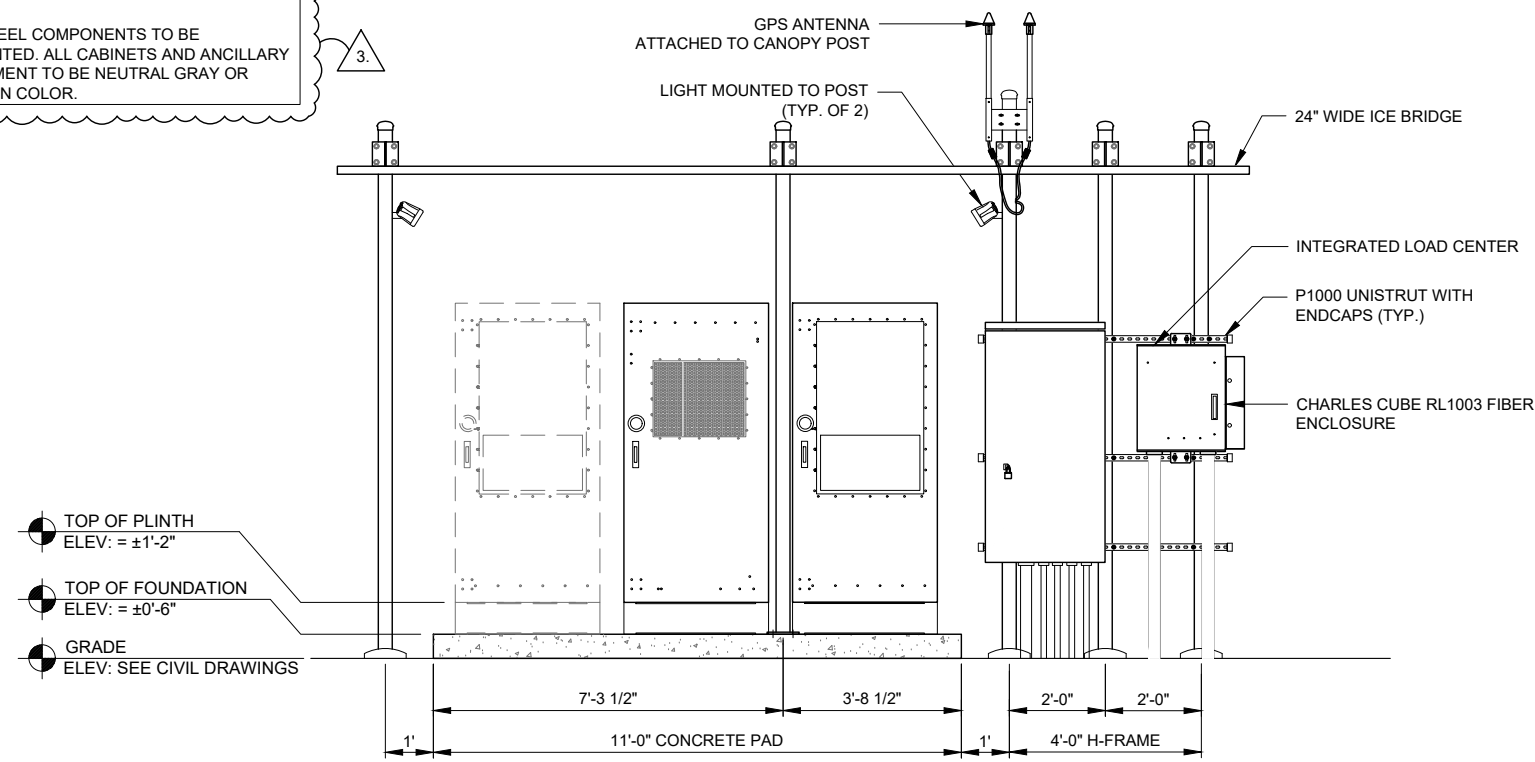
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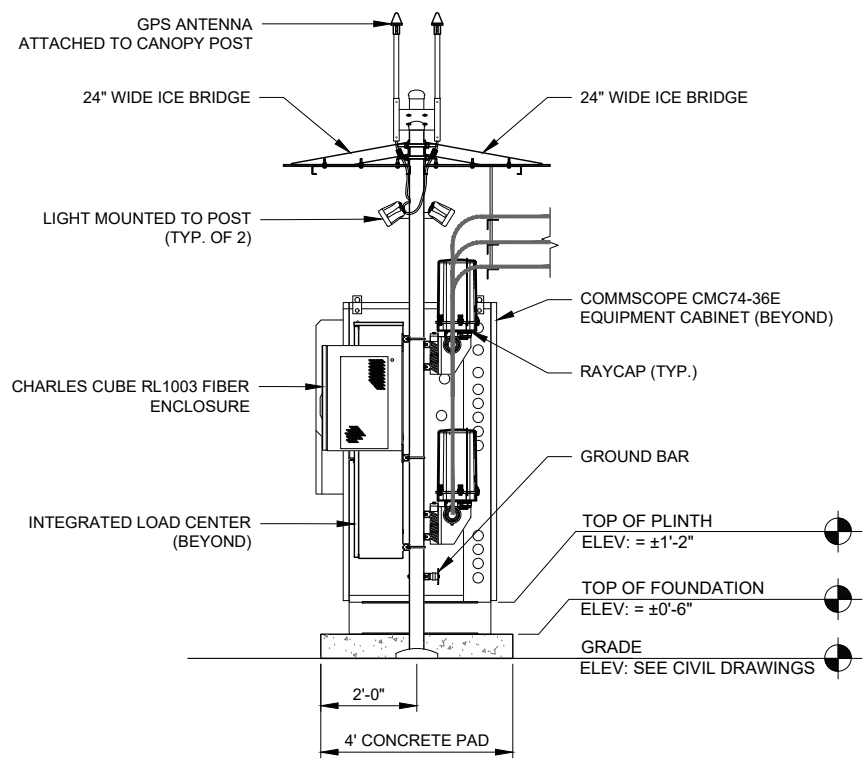
SHEET TITLE  
EQUIPMENT  
PAD  
PLAN & NOTES

SHEET NUMBER  
**VW B-1**

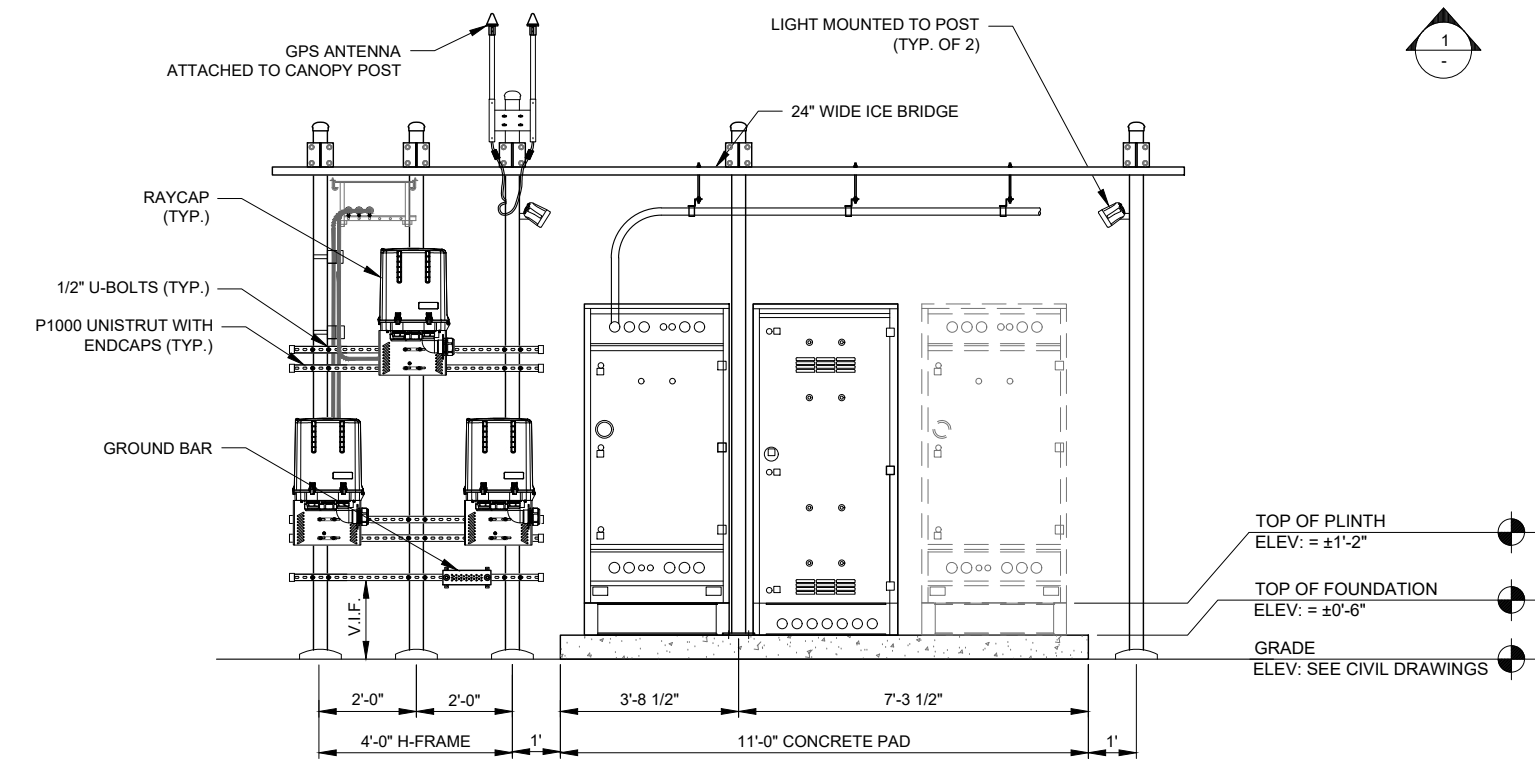
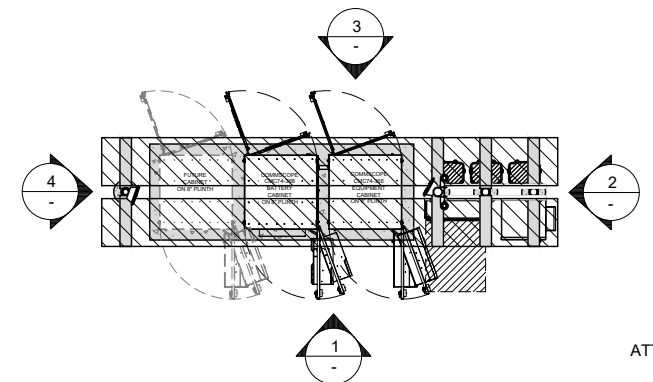
NOTE:  
ALL STEEL COMPONENTS TO BE UNPAINTED. ALL CABINETS AND ANCILLARY EQUIPMENT TO BE NEUTRAL GRAY OR BEIGE IN COLOR.



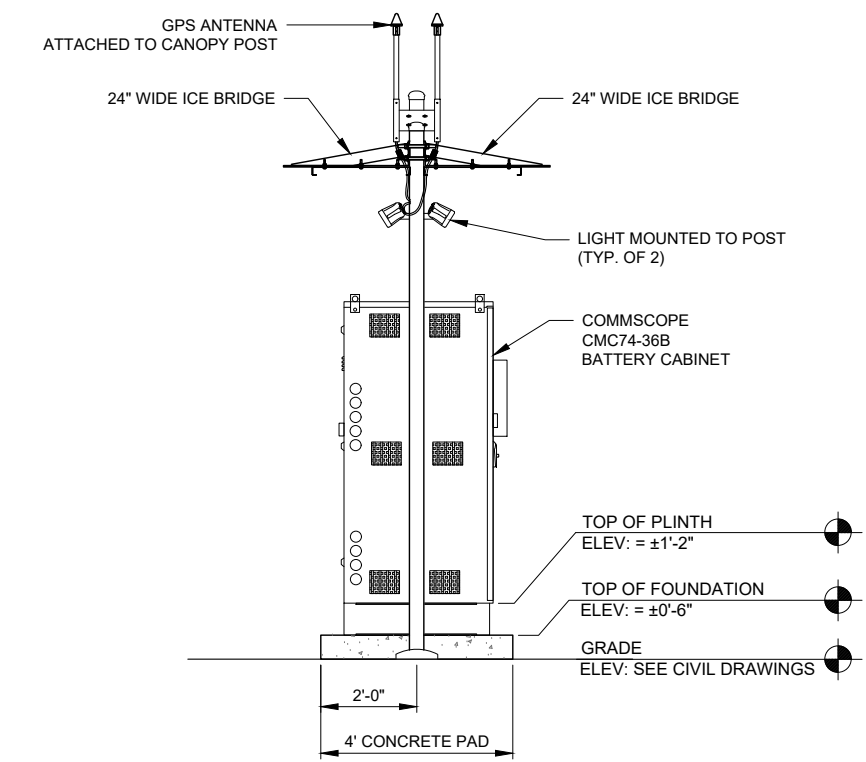
1 EQUIPMENT PAD ELEVATION  
SCALE: N.T.S.



2 EQUIPMENT PAD ELEVATION  
SCALE: N.T.S.



3 EQUIPMENT PAD ELEVATION  
SCALE: N.T.S.



4 EQUIPMENT PAD ELEVATION  
SCALE: N.T.S.

NOTE: FOR REFERENCE ONLY

PREPARED FOR  
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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

LAKE  
KEGONSA

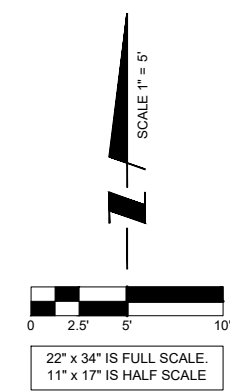
1896 WILLIAMS DR.  
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SHEET TITLE  
EQUIPMENT  
PAD  
ELEVATIONS

SHEET NUMBER

**VW B-2**



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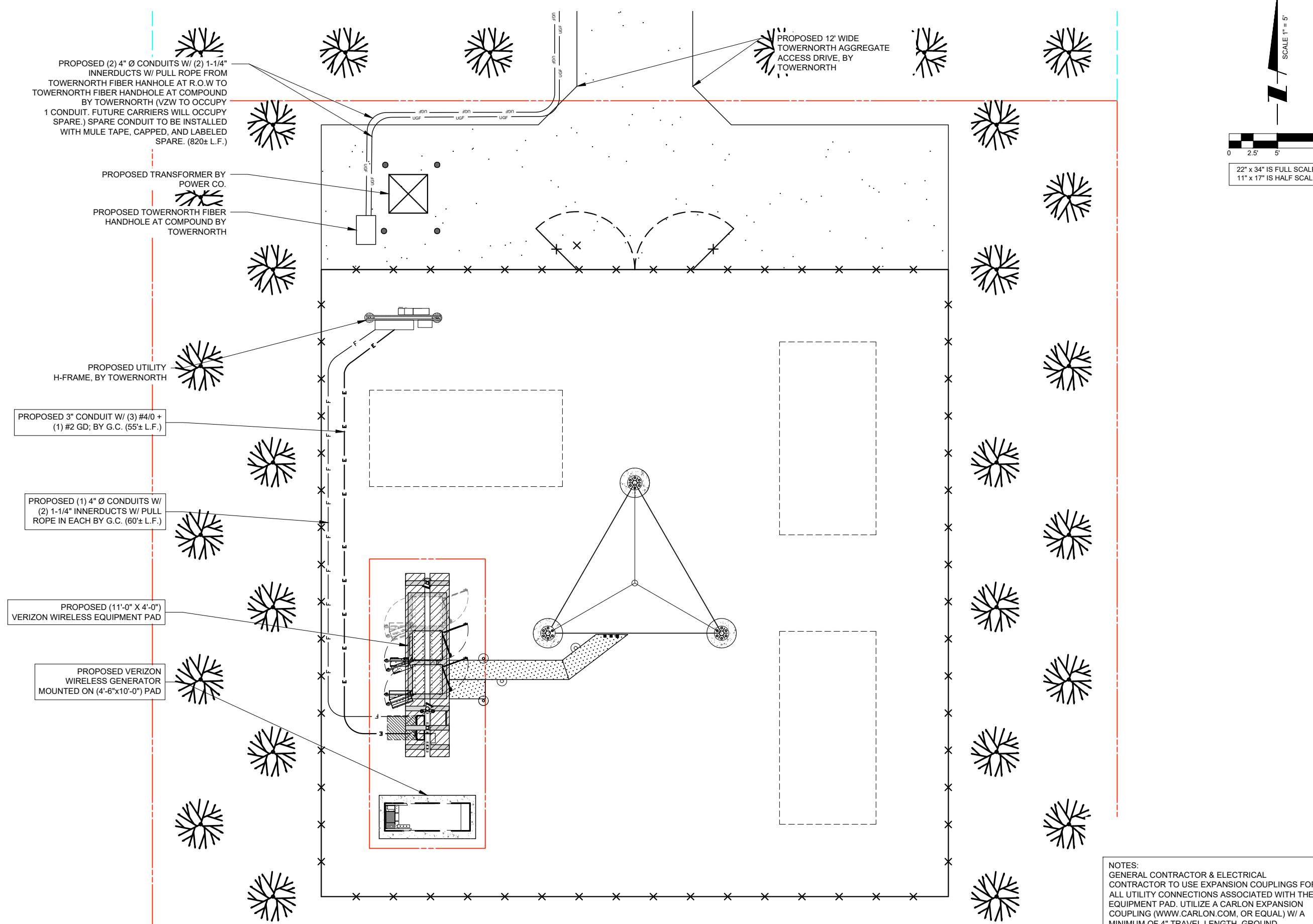
**LAKE KEGONSA**

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SHEET TITLE  
**UTILITY ROUTING PLAN**

SHEET NUMBER  
**VW E-1**



PROPOSED (2) 4" Ø CONDUITS W/ (2) 1-1/4" INNERDUCTS W/ PULL ROPE FROM TOWERNORTH FIBER HANHOLE AT R.O.W TO TOWERNORTH FIBER HANHOLE AT COMPOUND BY TOWERNORTH (VZW TO OCCUPY 1 CONDUIT. FUTURE CARRIERS WILL OCCUPY SPARE.) SPARE CONDUIT TO BE INSTALLED WITH MULE TAPE, CAPPED, AND LABELED SPARE. (820± L.F.)

PROPOSED TRANSFORMER BY POWER CO.  
 PROPOSED TOWERNORTH FIBER HANHOLE AT COMPOUND BY TOWERNORTH

PROPOSED UTILITY H-FRAME, BY TOWERNORTH

PROPOSED 3" CONDUIT W/ (3) #4/0 + (1) #2 GD; BY G.C. (55± L.F.)

PROPOSED (1) 4" Ø CONDUITS W/ (2) 1-1/4" INNERDUCTS W/ PULL ROPE IN EACH BY G.C. (60± L.F.)

PROPOSED (11'-0" X 4'-0") VERIZON WIRELESS EQUIPMENT PAD

PROPOSED VERIZON WIRELESS GENERATOR MOUNTED ON (4'-6"x10'-0") PAD

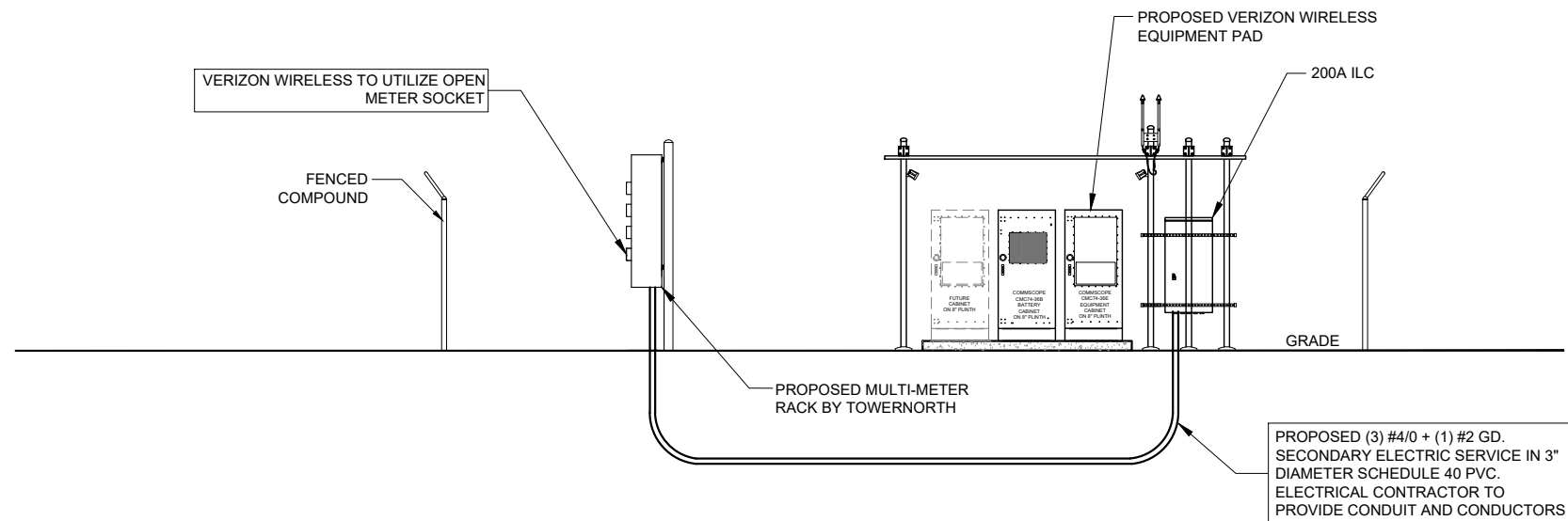
PROPOSED 12' WIDE TOWERNORTH AGGREGATE ACCESS DRIVE, BY TOWERNORTH

**1** UTILITY ROUTING PLAN  
 SCALE: 1" = 5'

NOTES:  
 GENERAL CONTRACTOR & ELECTRICAL CONTRACTOR TO USE EXPANSION COUPLINGS FOR ALL UTILITY CONNECTIONS ASSOCIATED WITH THE EQUIPMENT PAD. UTILIZE A CARLON EXPANSION COUPLING (WWW.CARLON.COM, OR EQUAL) W/ A MINIMUM OF 4" TRAVEL LENGTH. GROUND CONDUCTORS FROM PAD TO BELOW GRADE TO BE INSTALLED WITH A SLACK LOOP TO ACCOUNT FOR ANY POSSIBLE FROST HEAVE.



• DESIGN PENDING POWER COORDINATION

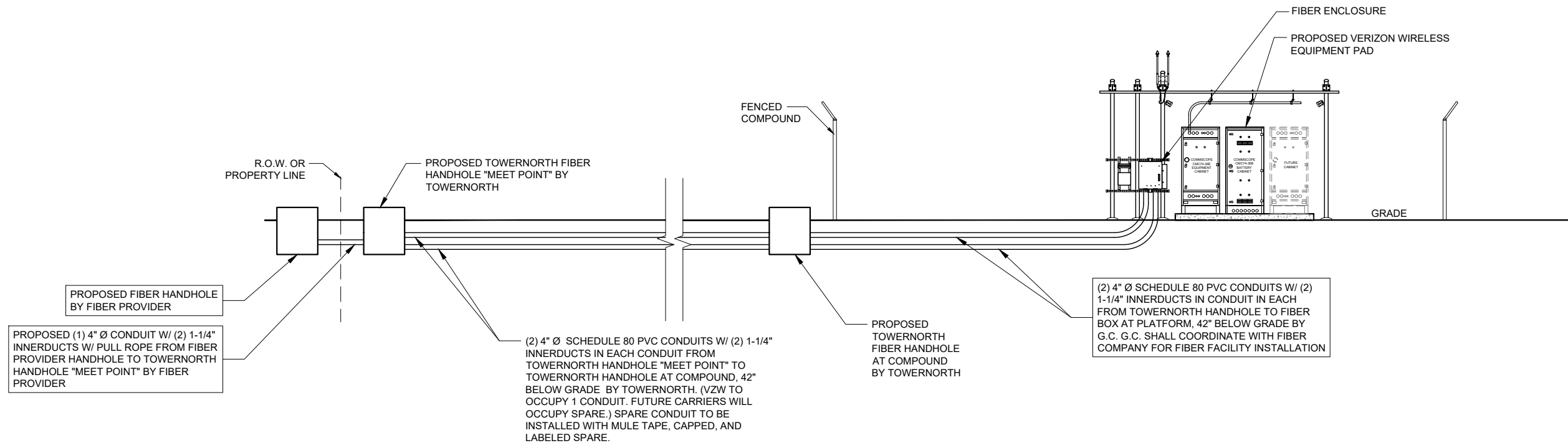


ELECTRICAL SERVICE: 200 AMP 120/240V SINGLE PHASE 3 WIRE

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

CONTRACTOR SHALL BUILD INTO THE PRICE OF THE BID THE COST OF TWO (2) MOBILIZATIONS:  
1) POWER/FIBER PERMIT PULLED PRIOR TO BUILDING PERMIT AND PRELIMINARY WORK (SMART JACK ON A STICK, ETC) COMPLETED PRIOR TO GENERAL CONSTRUCTION  
2) RETURN TO COMPLETE GENERAL ELECTRICAL CONSTRUCTION

• TRANSPORT BY OTHERS



NOTE: VERIFY FIBER ROUTING REQUIREMENTS WITH FIBER COMPANY

2 FIBER RISER DIAGRAM  
SCALE: N.T.S.

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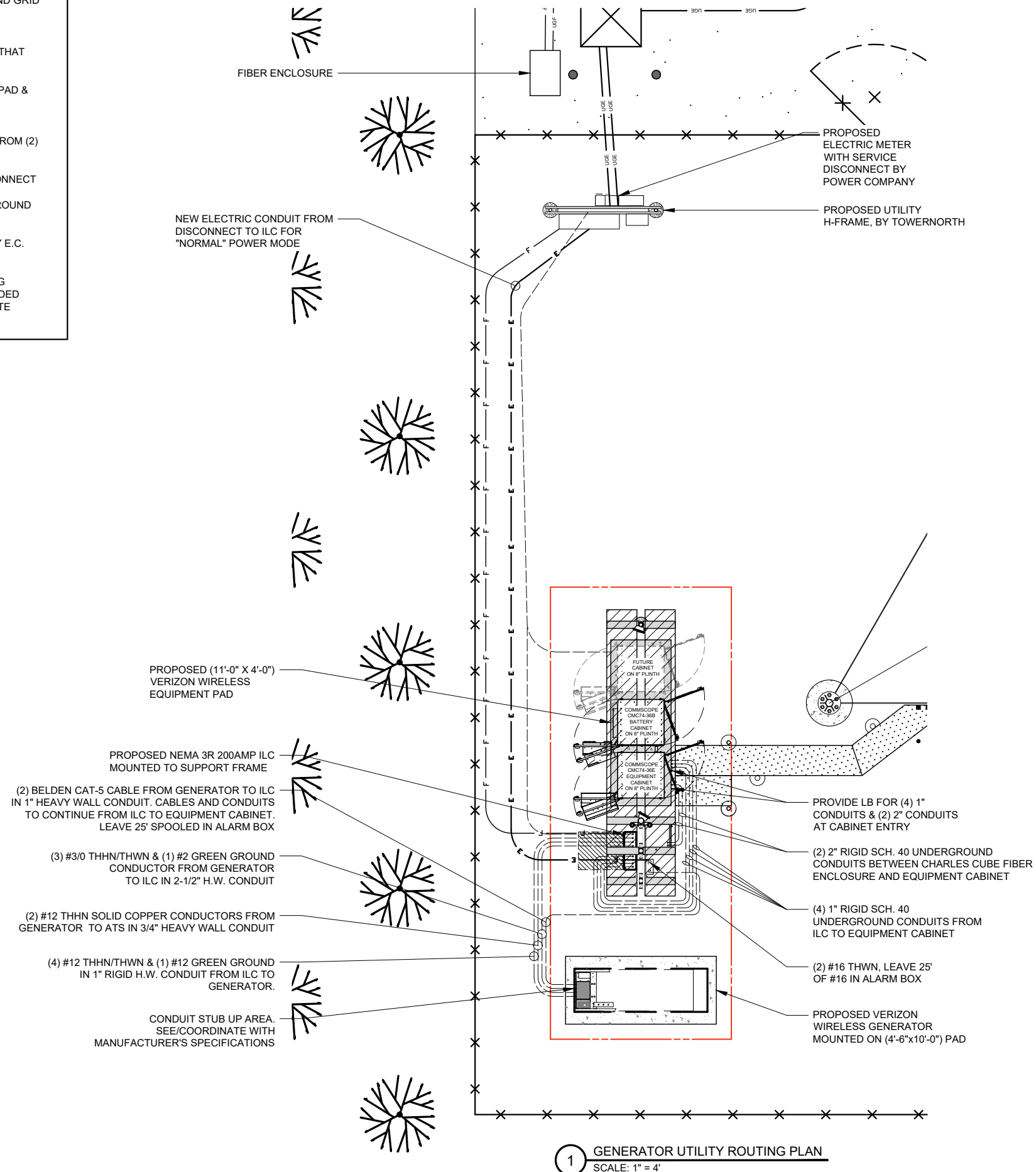
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UTILITY RISER  
DIAGRAMS

SHEET NUMBER  
**VW E-1A**

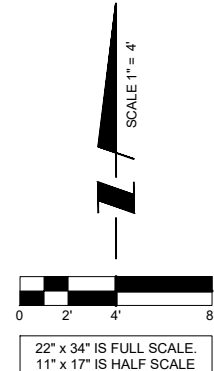
**NOTES:**

- 1) SEE DETAILS ON EXISTING GROUND GRID AND GENERATOR GROUND GRID FOR REQUIRED GROUNDING SYSTEM.
- 2) NEW AUTOMATIC TRANSFER SWITCH, INSTALLED AND WIRED BY E.C. CONNECT EXTERNAL GROUND LUG AND GROUNDING CONDUCTOR THAT WAS REMOVED FROM MANUAL TRANSFER SWITCH.
- 3) E.C. MUST LOCATE GROUND GRID INSTALLED FOR NEW EQUIPMENT PAD & PROVIDE THE ATTACHMENT OF THE GENERATOR GROUND TO THE EQUIPMENT GRID FOR SINGLE POINT GROUNDING.
- 4) E.C. TO EXTEND #2 TINNED SOLID COPPER GROUND CONDUCTORS FROM (2) LOCATIONS ON GENERATOR FRAME (SEE MANUFACTURERS RECOMMENDATIONS) PROVIDE GROUND LUGS ON GENERATOR AS REQUIRED. EXTEND #1/0 STRANDED GROUND CONDUCTOR AND CONNECT TO COPPER CLAD GROUND RODS VIA HEAVY DUTY EXOTHERMIC TERMINATIONS AND THEN EXTENDED AND ATTACH TO BUILDING GROUND GRID VIA EXOTHERMIC TERMINATIONS.
- 5) NEW GENERATOR FURNISHED BY LESSEE. INSTALLED AND WIRED BY E.C. DELIVERED AND SET BY CONTRACTOR.
- 6) E.C. MUST MONITOR DC POWER WHEN ON BATTERY BACK-UP DURING PORTIONS OF CONSTRUCTION. IF LEVEL FALLS BELOW RECOMMENDED LEVEL 2256 DC, E.C. MUST TURN ON THE MAIN POWER. THE CELL SITE CANNOT GO OFF LINE AT ANYTIME.

NOTE:  
CONTRACTOR TO VERIFY ROUTES WITH LOCAL UTILITY COMPANY PRIOR TO INSTALLATION.



1 GENERATOR UTILITY ROUTING PLAN  
SCALE: 1" = 4'



PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
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**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
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PHONE: (847) 619-5397  
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NO.	DESCRIPTION	BY	TE	TE	TE	TE	TJS
		DATE	DATE	DATE	DATE	DATE	DATE
1	ISSUED FOR REVIEW						
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3	REVISED PER POWER COORDINATION						
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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

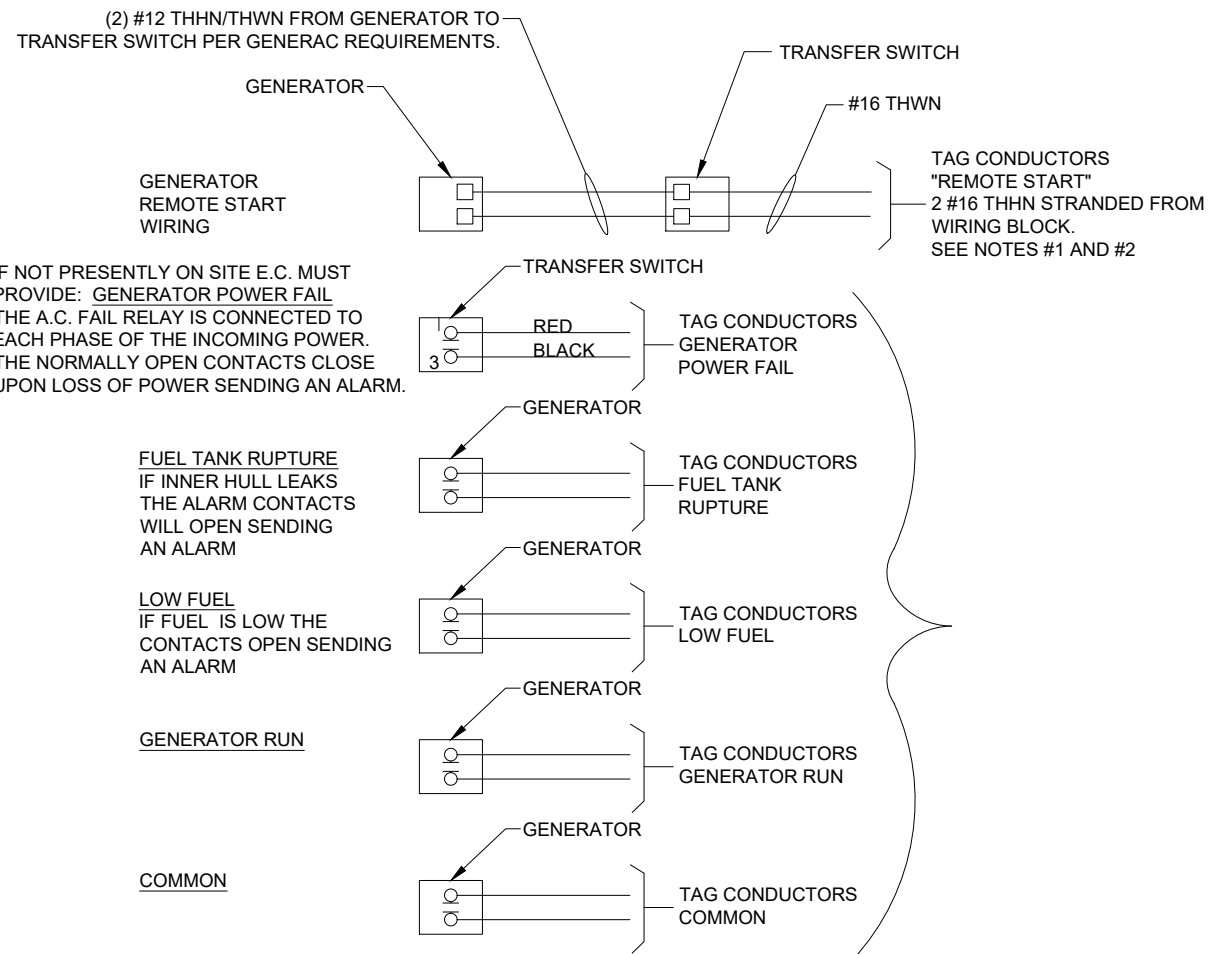
DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**GENERATOR UTILITY ROUTING PLAN**

SHEET NUMBER  
**VW E-1B**



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED



**NOTES:**

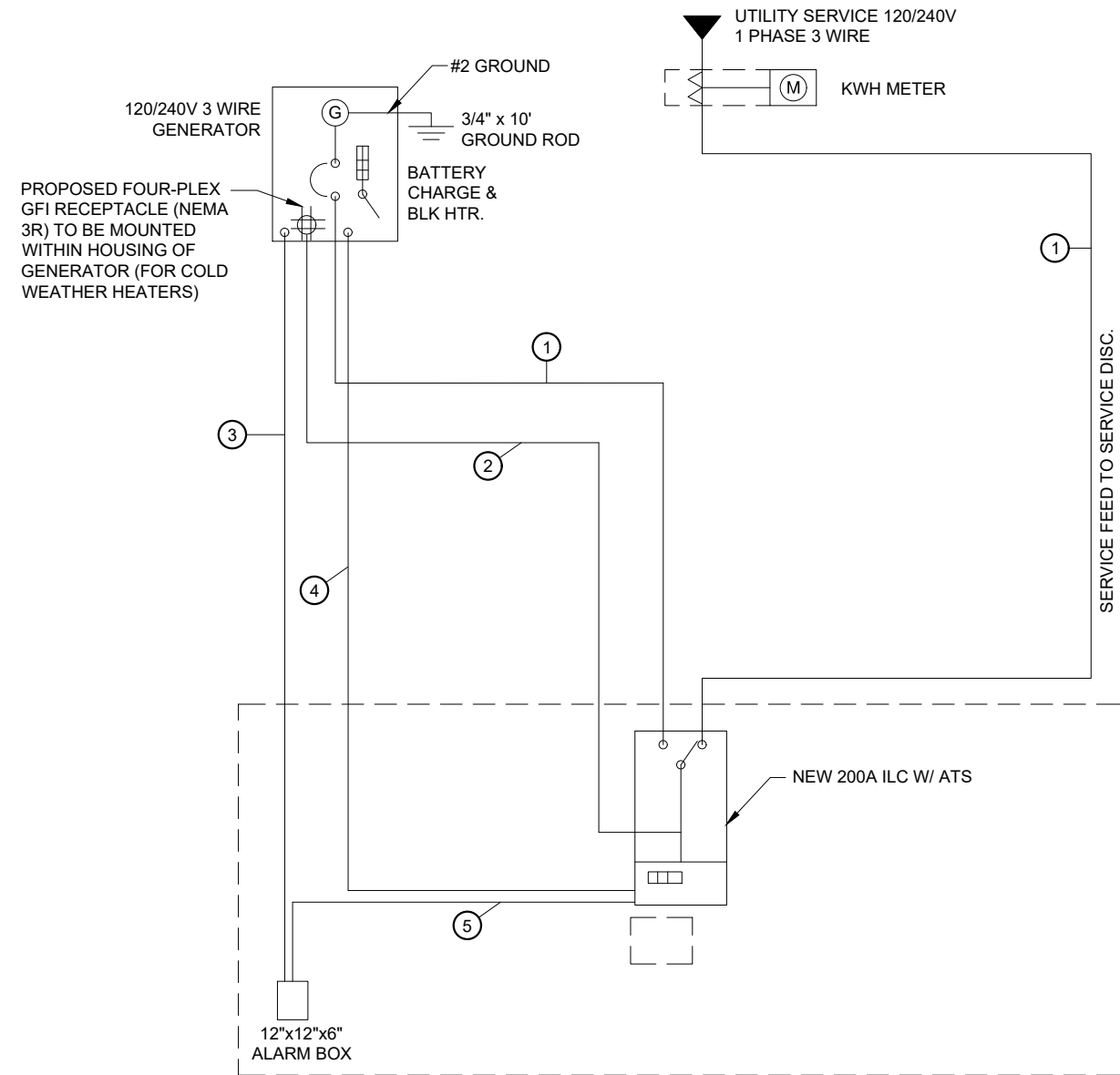
1) E.C. TO PULL A #16 AWG SOLID RED AND A #16 AWG SOLID BLACK FROM THE TRANSFER SWITCH TO ALARM WIRING BLOCK FOR REMOTE START.

2) E.C. TO PULL ALL ALARM LEADS TO EXISTING ALARM WIRING BLOCK. LEAVE A MINIMUM OF 24" PIGTAILS AT ALARM WIRING BLOCK AND TAG CONDUCTORS AS INDICATED. TERMINATIONS ON ALARM POINT WIRING BLOCK BY OTHERS. CONDUCTORS CAN BE RUN EXPOSED. THEY SHALL BE NEATLY BUNDLED USING NYLON TIES AND SUPPORTED AT 2'-0" INTERVALS FOR A NEAT INSTALLATION.

1 **ALARM WIRING**  
N.T.S.

- KEY**
- ① (3) #3/0 & (1) #2 GND IN 2-1/2" C
  - ② (4) #12 & (1) #12 GND IN 1" C (SEE NOTE)
  - ③ (2) CAT-5 BELDEN IN 1" C FROM GENERATOR TO ALARM BOX. LEAVE 25' SPOOLED IN ALARM BOX
  - ④ (2) #12 THWN IN 3/4" C
  - ⑤ (2) #16 THWN. LEAVE 25' OF #16 IN ALARM BOX

**NOTE:**  
E.C. TO PROVIDE (2) 20A 1-POLE CIRCUIT BREAKERS FOR BATTERY CHARGER AND JACKET HEATER



2 **NEW SINGLE LINE DIAGRAM**  
N.T.S.

PREPARED FOR  
**TowerNorth**  
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WEST BRIDGEWATER, MA 02379  
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1-888-315-0220x3

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SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

SHEET TITLE  
**GENERATOR SINGLE LINE DIAGRAM & ALARM WIRING**

SHEET NUMBER  
**VW E-1C**

**ELECTRICAL INSTALLATION NOTES**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS THE NATIONAL ELECTRICAL CODE (N.E.C.), AND ALL APPLICABLE LOCAL CODES.
- WIRING RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE N.E.C.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE N.E.C.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER CABLE TRAY RUNGS.
- EACH END OF EVERY POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH N.E.C. & OSHA
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE, ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE NOTED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER) 600 V, OIL RESISTANT THHN OR THHN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE)
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND N.E.C.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40, OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED; IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREWS FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND N.E.C.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL) AND RATED NEMA 1 (OR BETTER).
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS

- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED; OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY

**GROUNDING NOTES**

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE N.E.C.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT & PROVIDE TESTING RESULTS.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE N.E.C. REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE N.E.C., SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR & EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS, IF REQUIRED BY EQUIPMENT INSTALLATION INSTRUCTIONS (NEC 110-3 (B)).
- ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE N.E.C.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH (1) #2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

PREPARED FOR  
  
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**SITE # WI1040-A  
 LOC # 706115  
 MDG # 5000889243**

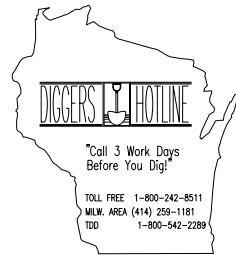
**LAKE  
 KEGONSA**

1896 WILLIAMS DR.  
 STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**ELECTRICAL  
 AND GROUNDING  
 NOTES**

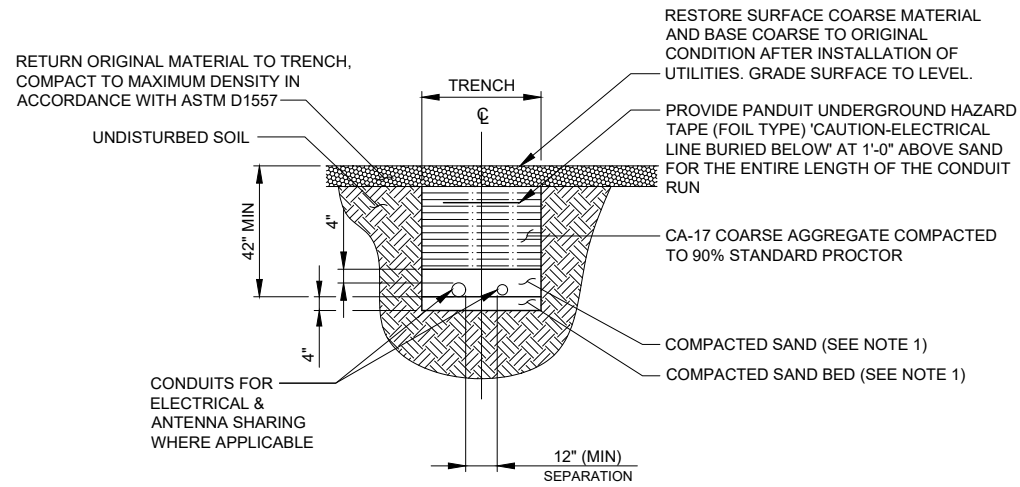
SHEET NUMBER  
**VW E-2**



OTHER UTILITIES NOT INCLUDED IN DIGGERS HOTLINE AND LOCAL UTILITY DISTRICTS AND COMPANIES SHALL ALSO BE NOTIFIED

NOTES:

- LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND.
- BURY CONDUITS 42" BELOW GRADE OR 6" BELOW FROST LINE, WHICHEVER IS GREATER
- CONDUIT SIZE, TYPE, QUANTITY AND SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS



1 UTILITY TRENCH DETAIL  
SCALE: N.T.S.

VERIZON WIRELESS PANEL "A" SCHEDULE

MAIN: 200A VOLTAGE: 120/240 PHASE: 1 WIRE: 3

DESCRIPTION	BRKR.	WATTS	S/G	A	B	S/N	WATTS	BRKR.	DESCRIPTION	
RECTIFIER 1	40/2	1250	1			2	1250	40/2	RECTIFIER 5	
RECTIFIER 2	40/2	1250	3			4	1250	40/2	RECTIFIER 6	
RECTIFIER 3	40/2	1250	5			6	1250	40/2	RECTIFIER 7	
RECTIFIER 4	40/2	1250	7			8	1250	40/2	RECTIFIER 8	
SPACE			9			10			SPACE	
SPACE			11			12			SPACE	
SPACE			13			14			SPACE	
SPACE			15			16			SPACE	
SPACE			17			18		20/1	SPACE	
SPACE			19			20		20/1	SPACE	
SPACE			21			22			SPACE	
SPACE			23			24			SPACE	
SPACE			25			26			SPACE	
SPACE			27			28			SPACE	
SPACE			29			30			SPACE	
SPACE			31			32			SPACE	
SPACE			33			34			SPACE	
SPACE			35			36			SPACE	
SPACE			37			38	360	20/1	GFCI RECEPTACLE *	
SPACE			39			40	1200	20/1	EQUIPMENT	
GEN BATTERY CHARGER *	20/1	1000	41			42	1000	20/1	GEN. GFCI RECEPTACLE *	
			SURGE ARRESTOR							
SUBTOTALS:		6000 5000					6360 6200			
TOTAL:								23.56kW (98.2A)		

SURFACE MOUNTED NEMA 3R w/ DOOR  
22K AIC BREAKERS  
(CONTRACTOR SHALL VERIFY AIC RATINGS W/ LOCAL POWER CO.)

2 PANEL BOARD SCHEDULE  
N.T.S.

NOTE:  
1. VERIZON WIRELESS EQUIPMENT ENGINEERING TO SUPPLY BREAKER FOR RADIO AND POWER CABINETS  
2. GENERAL CONTRACTOR TO SUPPLY BREAKERS NOTED WITH " \* "

PREPARED FOR



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WEST BRIDGEWATER, MA 02379  
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PLANS PREPARED BY:



CARRIER:



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1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
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SHEET TITLE  
ELECTRICAL  
DETAILS

SHEET NUMBER

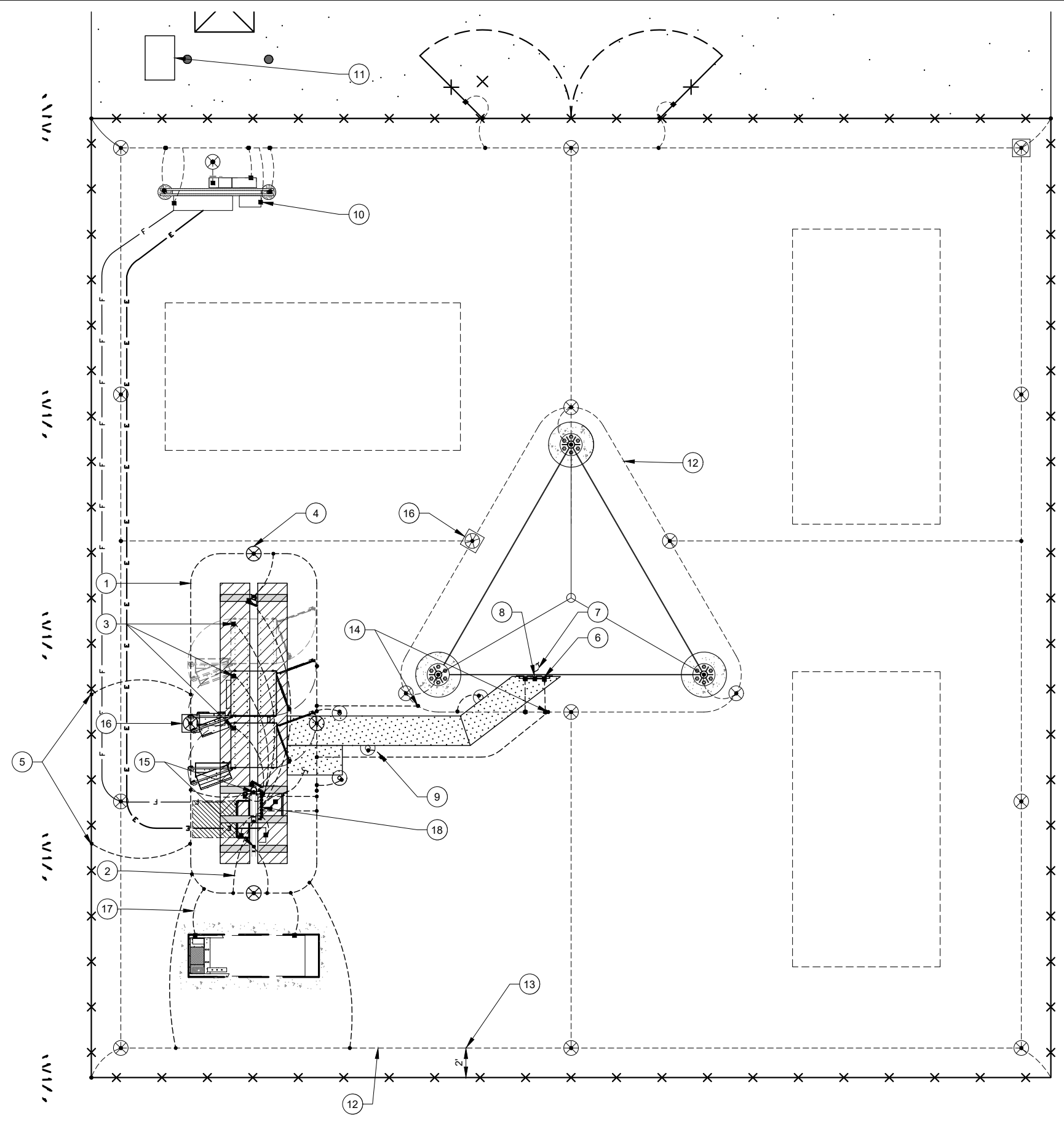
**VW E-3**

**TYPICAL KEYED GROUNDING NOTES**

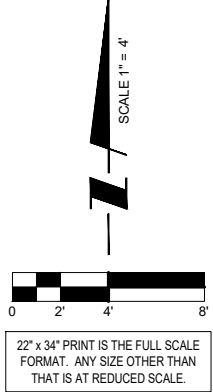
- 1 #2 AWG TNND SOLID BARE COPPER CONDUCTOR 42" BELOW GRADE (TYPICAL) MINIMUM 24" BENDING RADIUS
- 2 PLATFORM/PAD CORNER POST, STEEL COLUMN, STEEL BEAM & CANOPY GROUND
- 3 CABINET GROUND
- 4 5/8" x 10' COPPER CLAD GROUND ROD
- 5 GROUND CHAIN LINK FENCE (TYPICAL) EXOTHERMIC CONNECTION GROUND FENCE POSTS WITHIN 6 FEET OF EQUIPMENT.
- 6 GROUND COAXIAL ANTENNA CABLES TO GROUND BAR BY ANTENNA CONTRACTOR TERMINATE CABLES 1'-0" FROM PLATFORM AND INSTALL LIGHTNING SURGE ARRESTORS ON EACH CABLE GROUND.
- 7 EXOTHERMICALLY WELD COPPER GROUND BAR TAIL TO HALO GROUND RING (EXOTHERMIC CONNECTION TYPE TA) BY ANTENNA CONTRACTOR. FINAL CONNECTION BY ELECTRICAL CONTRACTOR.
- 8 4"x20"x1/4" TNND INSULATED COPPER GROUND BAR, NON ISOLATED WITH 10.0' LONG #2 AWG TNND SOLID COPPER WIRE WELDED TAILS (HARGER GBIT 14420VW)
- 9 GROUND CABLE WAVEGUIDE BRIDGE (TYP.) BY ELECTRICAL CONTRACTOR.
- 10 VZW DISCONNECT AND ELECTRIC SERVICE GROUND TO GROUND ROD
- 11 24" x 30" x 24" FIBER OPTIC HAND HOLE
- 12 PROPOSED TOWER OR COMPOUND GROUND RING BY CENTERLINE (V.I.F.)
- 13 MAINTAIN TWO FOOT DISTANCE OFF OF STRUCTURES.
- 14 BOND EXISTING/ PROPOSED TOWER GROUND RING TO PROPOSED PLATFORM/PAD GROUND RING WITH #2 AWG TNND SOLID COPPER CONDUCTOR IN 2 LOCATIONS.
- 15 TWO #2 LEADS FROM THE EGR TO THE GROUND BAR AT UTILITY FRAME LOCATED ON PLATFORM/PAD. CADWELD AT EGR AND DOUBLE HOLE LUGS ON PLATFORM/PAD.
- 16 COPPER CLAD GROUND ROD WITH INSPECTION WELL TOP OF GROUND ROD MAX 24" BURY.
- 17 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.
- 18 MGB MOUNTED ON H-FRAME.

**LEGEND:**

	GROUND BAR OR ARRESTOR BAR		SPARE GROUND LEAD
	5/8"Ø x 10'-0" GROUND ROD		MECHANICAL CONNECTION
	GROUND SYSTEM TEST WELL		EXISTING GROUNDING
	CADWELD OR APPROVED CONNECTION		NEW GROUNDING



**1 SITE GROUNDING PLAN**  
SCALE: 1" = 5'



NOTE:  
SEE GROUNDING DETAILS  
ON SHEET E-6

PREPARED FOR  
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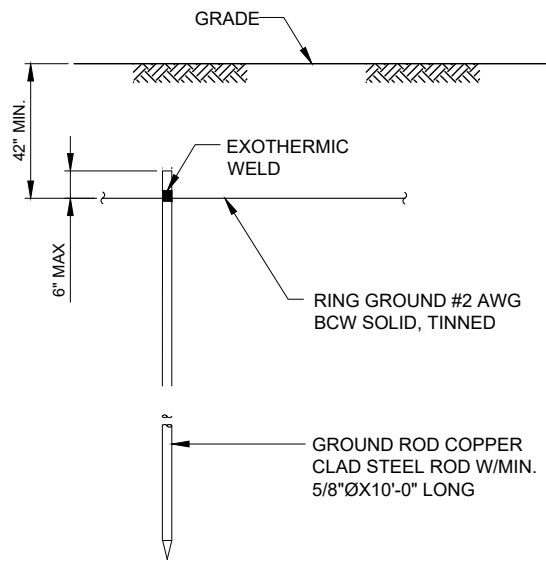
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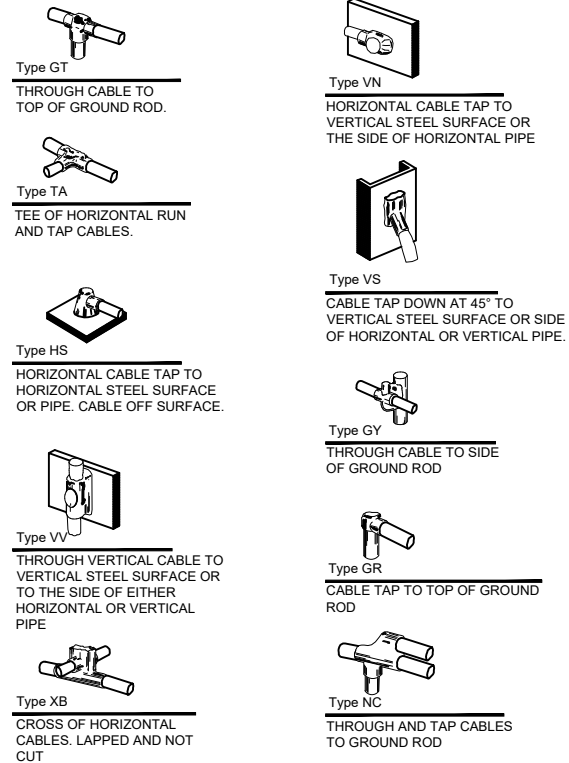
SHEET TITLE  
**SITE  
GROUNDING PLAN**

SHEET NUMBER  
**VW E-4**



**NOTE:**  
GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL.

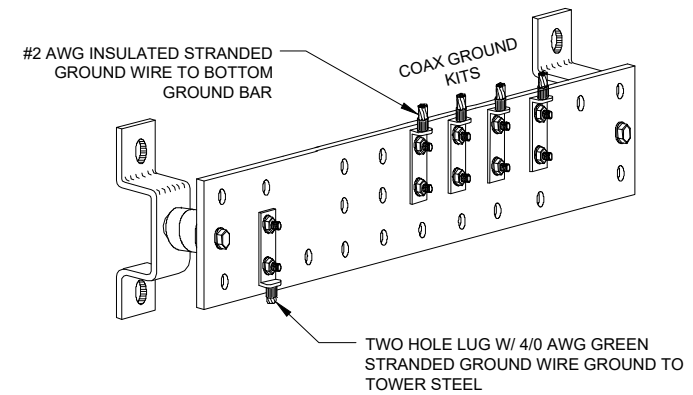
**1** GROUND ROD DETAIL  
SCALE: N.T.S.



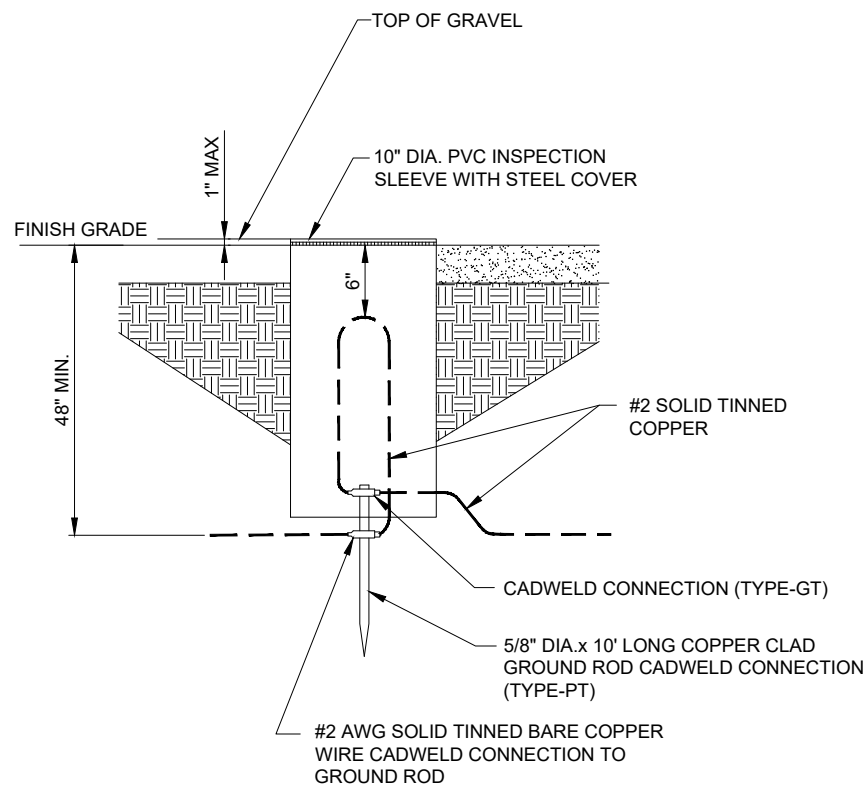
**2** EXOTHERMIC WELD DETAILS  
EXOTHERMIC AND HARGER ULTRAWELD OR APPROVED EQUAL

**NOTES:**

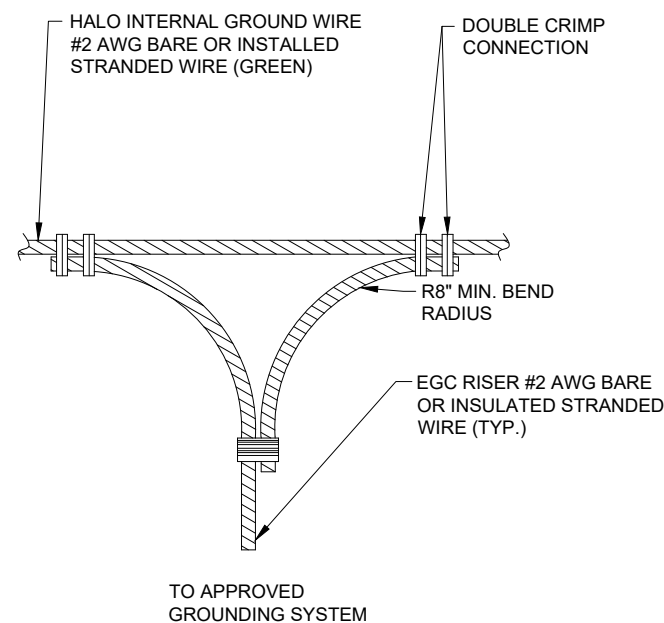
1. PROPOSED HARGER 2x14.5" GROUND BAR (PN/ TGBR14214.5VER) MOUNT DIRECTLY TO TOWER STEEL.
2. INSULATORS TO BE NEWTON CAT. NO. 3015-8 OR APPROVED EQUAL
3. 5/8" LOCK WASHERS; NEWTON CAT. NO. A-6056 OR APPROVED EQUAL
4. 5/8" - 11 X 1" M.M.C.S. BOLTS; NEWTON CAT. NO. 3012-1 OR APPROVED EQUAL
5. COAT ALL SURFACES WITH 'KOPER SHIELD' BEFORE MATING
6. ALL HARDWARE TO BE STAINLESS STEEL UNLESS OTHERWISE NOTED
7. NUTS TO FACE OUT



**3** GROUND COLLECTOR BAR  
SCALE: N.T.S.



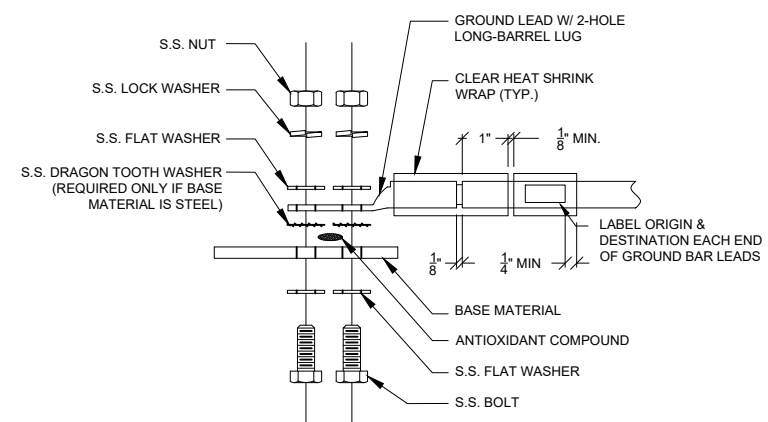
**4** INSPECTION SLEEVE DETAIL  
N.T.S.



**5** HALO NON-DIRECTIONAL GROUND RING SPLICE DETAIL  
N.T.S.

**NOTES:**

1. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING BELLEVILLES. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH KOPR-SHIELD.
3. GROUND BARS, INSTALL BOLT HEAD TOWARD WALL
4. ENCLOSURES, INSTALL BOLT HEAD ON OUTSIDE OF ENCLOSURE



**6** GROUND LUG INSTALLATION DETAIL  
N.T.S.

NO.	DESCRIPTION	DATE	BY	TE	TE	TE	TJS
1	ISSUED FOR REVIEW	02/14/23					
1	REVISED PER TN COMMENTS	03/02/23					
2	REVISED PER POWER COORDINATION	04/03/23					
3	REVISED PER ZONING AND ISSUED FOR PERMIT	10/30/23					

**SITE # WI1040-A**  
**LOC # 706115**  
**MDG # 5000889243**

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

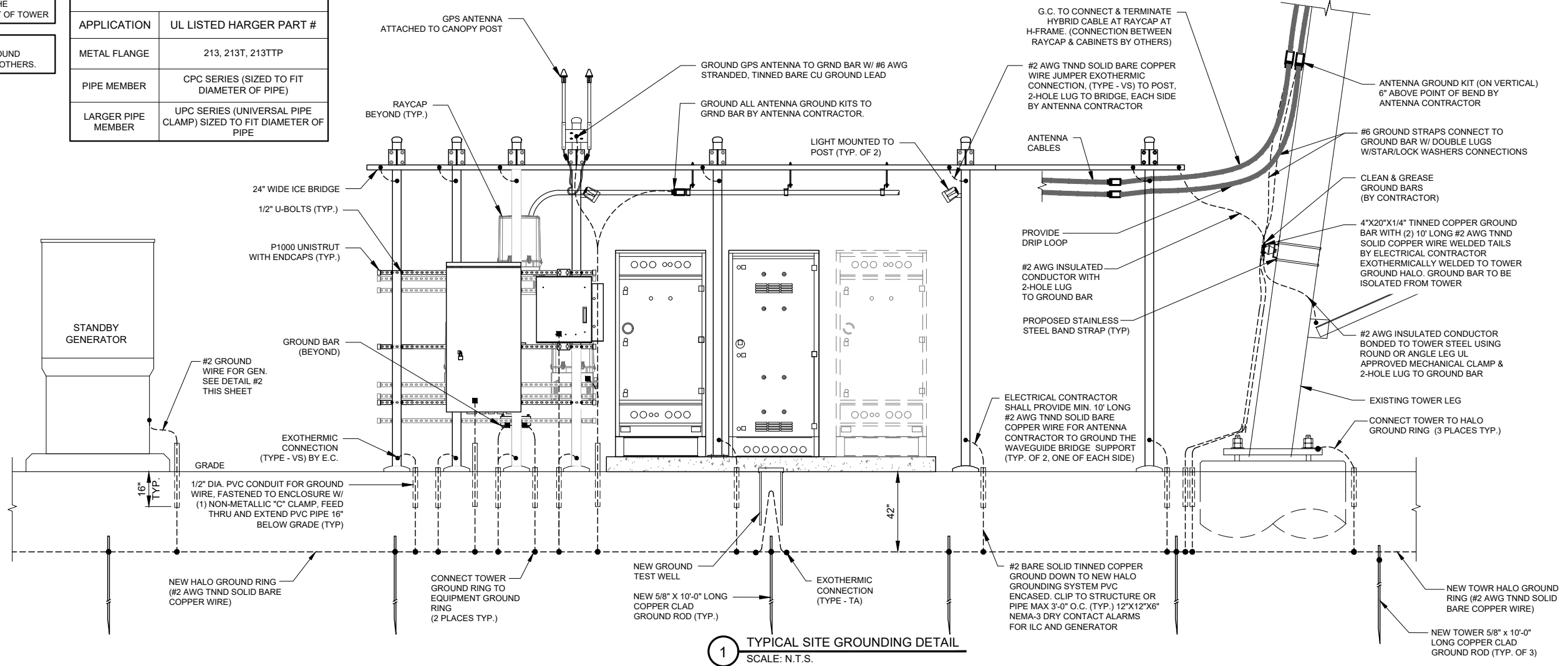
SHEET TITLE  
**GROUNDING DETAILS**

SHEET NUMBER  
**VW E-5**

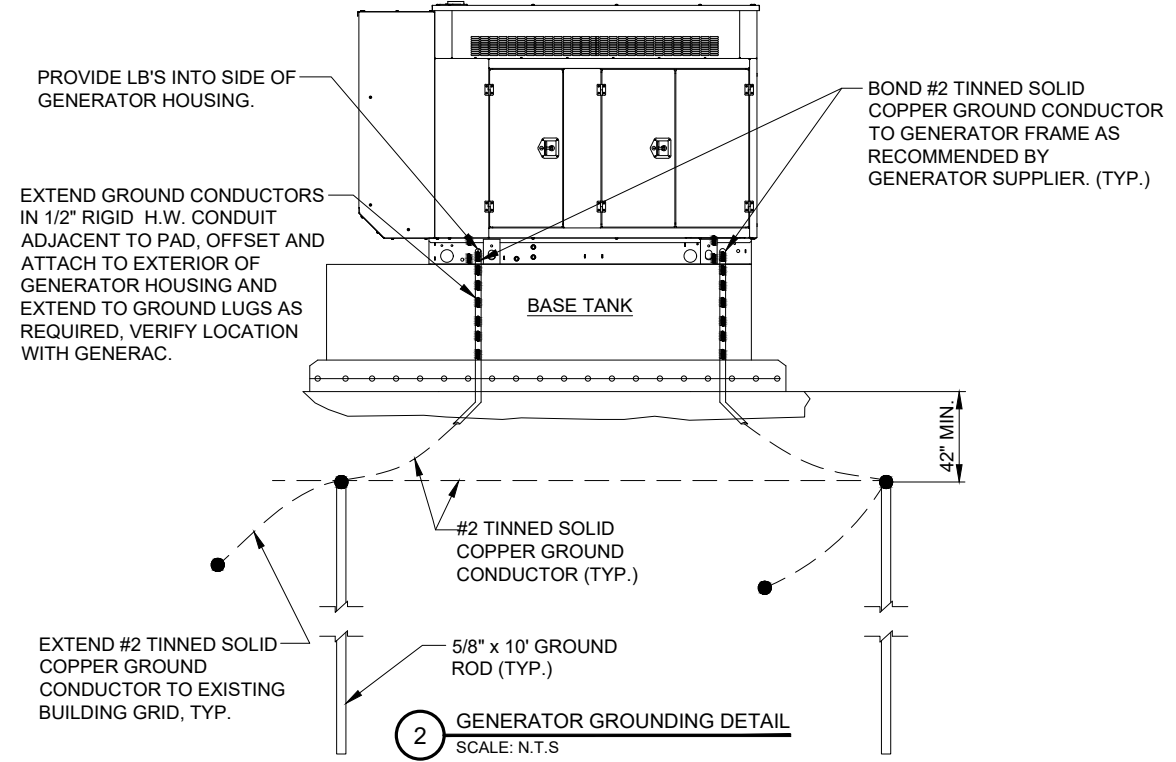
NOTE:  
ANTENNA CABLES SHALL BE GROUNDED AT THE ANTENNA HEIGHT OF TOWER

NOTE:  
ALL CABINET GROUND CONNECTION BY OTHERS.

APPROVED UL LISTED GROUND CLAMPS	
APPLICATION	UL LISTED HARGER PART #
METAL FLANGE	213, 213T, 213TTP
PIPE MEMBER	CPC SERIES (SIZED TO FIT DIAMETER OF PIPE)
LARGER PIPE MEMBER	UPC SERIES (UNIVERSAL PIPE CLAMP) SIZED TO FIT DIAMETER OF PIPE



1 TYPICAL SITE GROUNDING DETAIL  
SCALE: N.T.S.



2 GENERATOR GROUNDING DETAIL  
SCALE: N.T.S.

PREPARED FOR  
**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
SITEACCESS@TOWERNORTH.COM  
1-888-315-0220x3

PLANS PREPARED BY:  
**TERRA**  
CONSULTING GROUP, LTD.  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
PH: 847-698-6400  
FAX: 847-698-6401

CARRIER:  
**verizon**  
1701 GOLF ROAD,  
TOWER 2, SUITE 400  
ROLLING MEADOWS, IL 60008  
PHONE: (847) 619-5397  
FAX: (847) 706-7415

NO.	BY	DATE	REVISIONS		
			DESCRIPTION	TE	TJS
1		02/14/23	ISSUED FOR REVIEW		
2		03/02/23	REVISED PER TN COMMENTS		
3		04/03/23	REVISED PER POWER COORDINATION		
4		10/30/23	REVISED PER ZONING AND ISSUED FOR PERMIT		

SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

LAKE  
KEGONSA

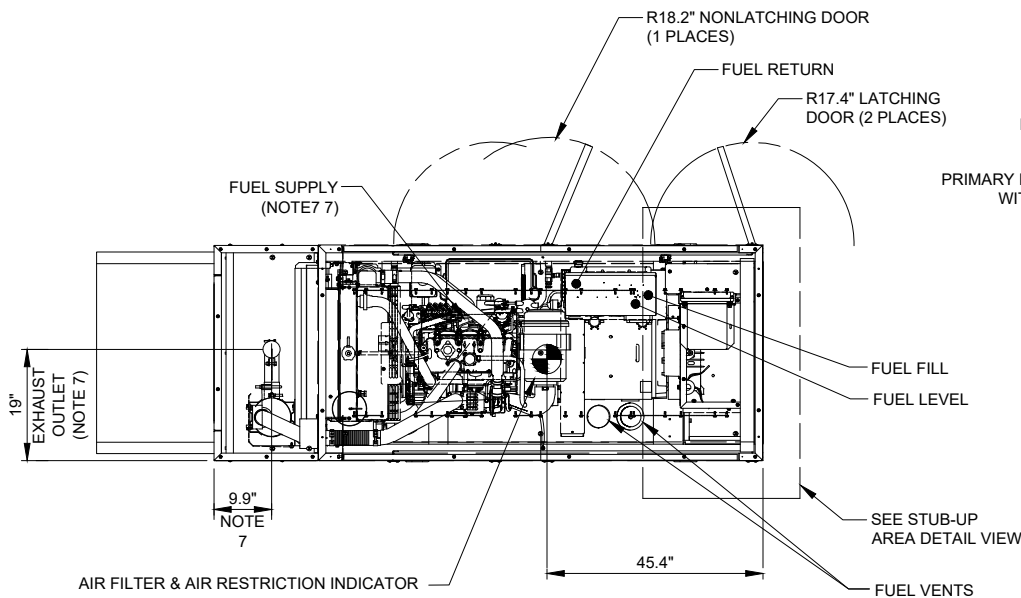
1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY: TE  
CHECKED BY: TAZ  
DATE: 12/08/22  
PROJECT #: 170-051

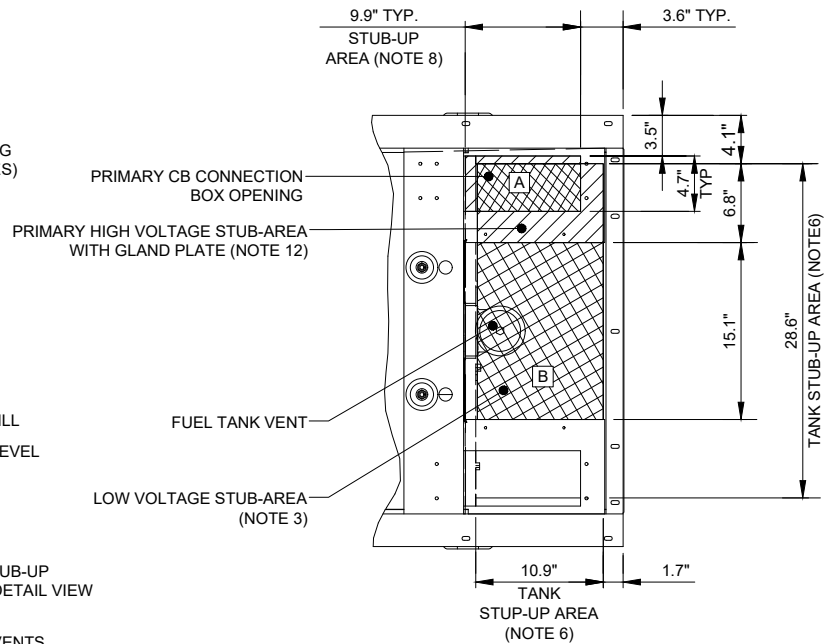
SHEET TITLE  
GROUNDING &  
ELECTRICAL DETAILS

SHEET NUMBER  
**VW E-6**





**TOP VIEW**  
(SHOWN WITH ROOF PANELS REMOVED)



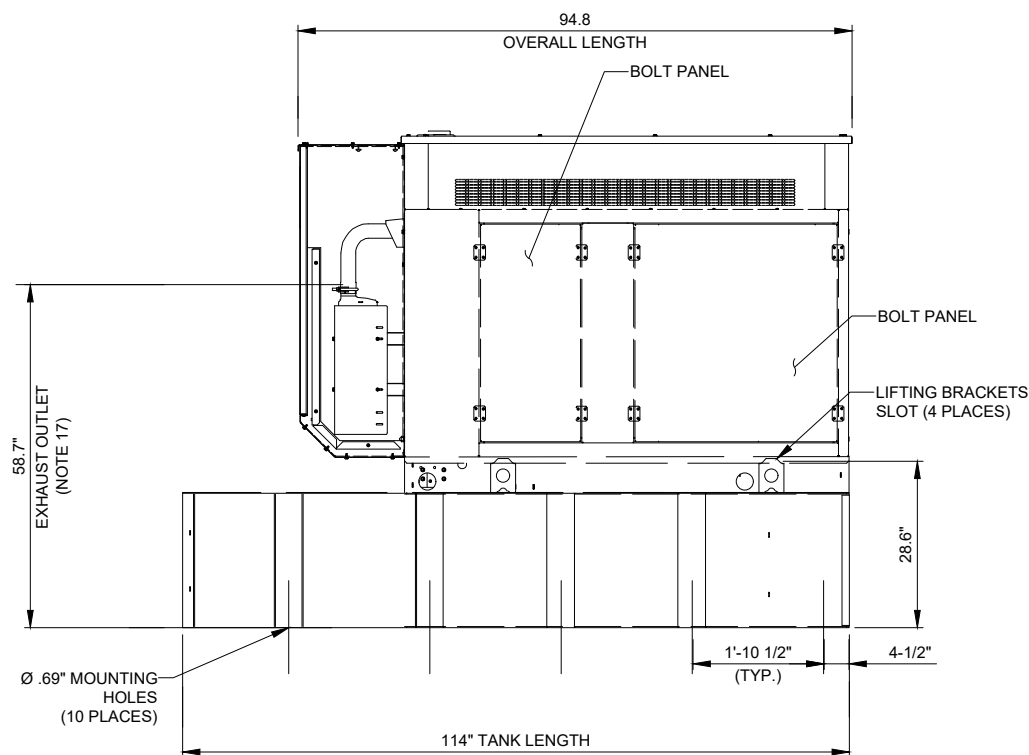
**STUB-UP AREA DETAILED VIEW**  
(2X SCALE)

**RECOMMENDED ELECTRICAL STUB-UPS**  
(SEE DETAILED VIEW & TOP VIEW)

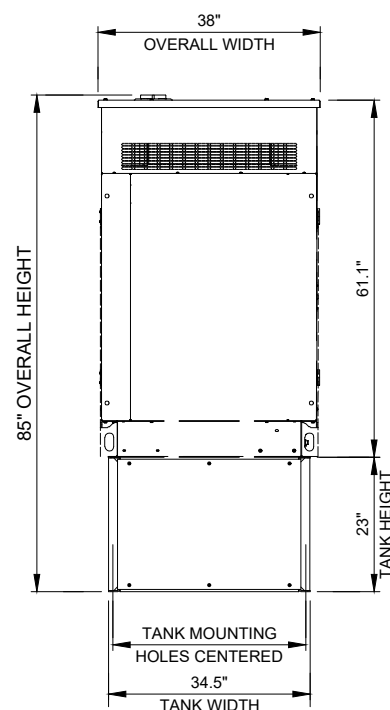
DESCRIPTION	INSIDE BASE
(HIGH VOLTAGE STUB UP) 1. AC LOAD LEAD CONDUIT AREA.	A
LOW VOLTAGE STUB UP	B

**NOTES**

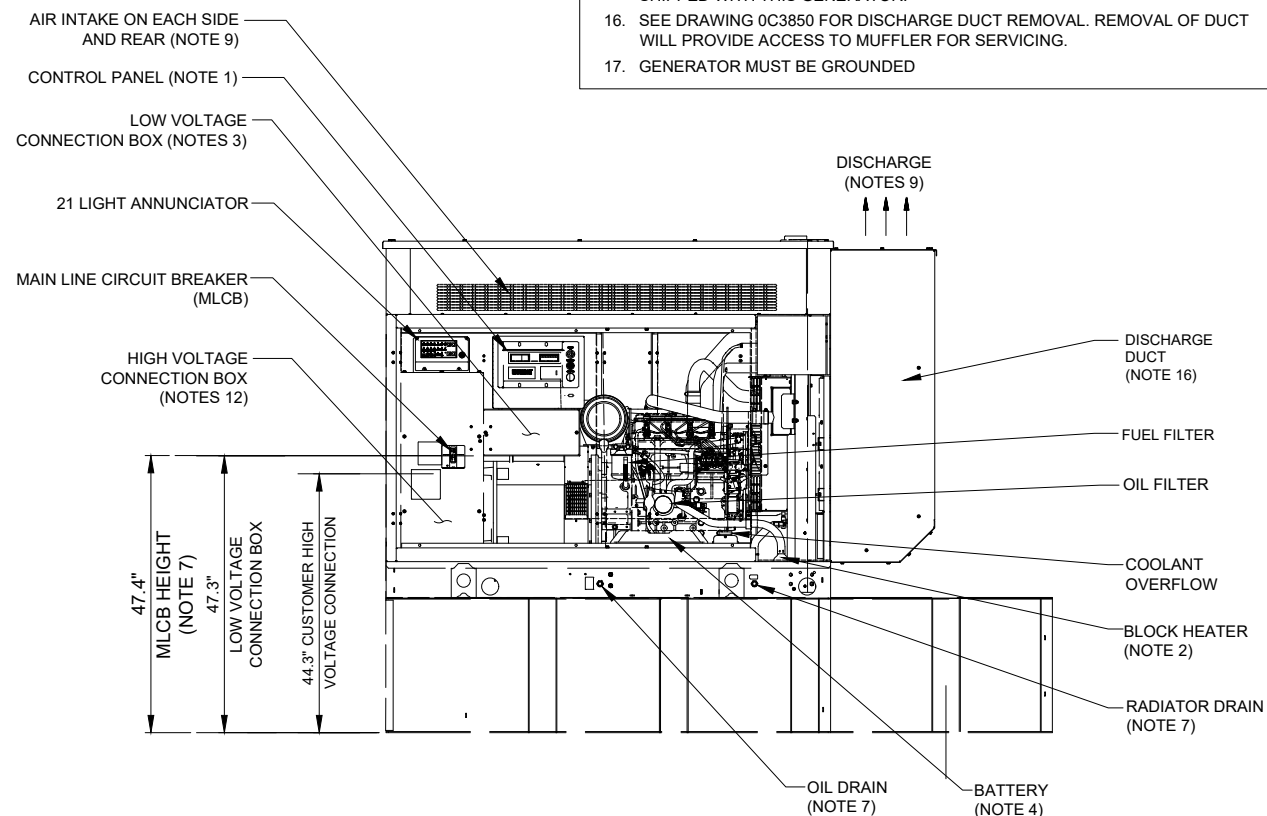
- CONTROL PANEL INCLUDES BATTERY CHARGER WITH THREE PRONG CORD.
- 1500W 120VAC ENGINE BLOCK HEATER WITH THREE PRONG CORD.
- CONNECTION POINTS FOR CONTROL WIRES PROVIDED IN THE LOW VOLTAGE CONNECTION BOX. BOTTOM HAS KNOCKOUTS FOR 1/2" AND 3/4" CONDUIT FITTINGS (USE LOW VOLTAGE STUB-UP AREA).
- BATTERY (12 VOLT NEGATIVE GROUND SYSTEM).
- MAIN LINE CIRCUIT BREAKER (MLCB) (MLCB HEIGHT MAY VARY WITH CB SELECTION) AC LOAD LEADS CONNECT DIRECTLY TO BOTTOM BREAKER.
- CENTER OF GRAVITY & WEIGHT MAY BE SHIFTED SLIGHTLY DUE TO UNIT OPTIONS.
- ENGINE SERVICE CONNECTIONS:  
INLET DIESEL = 3/8" NPT  
RETURN DIESEL = 3/8" NPT  
OIL DRAIN = 1/2" NPT  
RADIATOR DRAIN = 1/2" NPT  
EXHAUST OUTLET = 2.5" I.D.
- STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB UP AREA.
- GENERATOR SET MUST BE INSTALLED SUCH THAT FRESH COOLING AIR IS AVAILABLE AND DISCHARGED AIR IS NOT RECIRCULATED. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTIONS REQUIREMENTS.
- BOTTOM OF GENERATOR SET MUST BE CLOSED TO PREVENT PEST INTRUSION AND RECIRCULATION OF DISCHARGE AIR AND/OR IMPROPER COOLING FLOW.
- BOLTS OR STUDS USED TO MOUNT UNIT TO PAD SHALL BE 5/8-11 GRADE 5. USE STANDARD SAE TORQUE SPECS.
- HIGH VOLTAGE STUB-UP AREA INCLUDES THE AC LOAD LEAD CONNECTIONS TO MLCB, NEUTRAL CONNECTION AND AUXILIARY 120/240V CONNECTION.
- 200 GALLON USEABLE CAPACITY TERTIARY SPECIAL TANK.
- IT IS THE RESPONSIBILITY OF THE INSTALLATION TECHNICIAN TO ENSURE THAT THE GENERATOR INSTALLATION COMPLIES WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS.
- UNIT IS SHIPPED WITH FUEL SUPPLY AND RETURN LINES DISCONNECTED AND PLUGGED BETWEEN ENGINE AND FUEL TANK. THIS HAS BEEN DONE TO FACILITATE PRESSURE TESTING OF THE TANK IN THE FIELD. FOR INFORMATION REGARDING CONNECTING THE FIELD TANK FIELD TESTING PROCEDURE (0E5082) SUPPLIED IN THE TANK LOOSE VENTS KIT, WHICH IS SHIPPED WITH THIS GENERATOR.
- SEE DRAWING 0C3850 FOR DISCHARGE DUCT REMOVAL. REMOVAL OF DUCT WILL PROVIDE ACCESS TO MUFFLER FOR SERVICING.
- GENERATOR MUST BE GROUNDED



**LEFT SIDE VIEW**  
(SHOWN WITH DUCT SIDE PANEL REMOVED)



**REAR VIEW**



**RIGHT SIDE VIEW**  
(SHOWN WITH DUCT SIDE PANEL REMOVED)

**1** GENERAC 30kW DIESEL GENERATOR  
SCALE: N.T.S. GENERAC MODEL: 200 TERTIARY TANK

WEIGHT DATA: (INCLUDING EMPTY FUEL TANK)  
GENERATOR: \_\_\_\_ LBS

PREPARED FOR

**TowerNorth**  
750 W CENTER ST, SUITE 301  
WEST BRIDGEWATER, MA 02379  
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NO.	DESCRIPTION	BY	TE	TE	TE	TJS
		DATE	DATE	DATE	DATE	DATE
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2	REVISED PER TN COMMENTS		03/02/23			
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	REVISED PER ZONING AND ISSUED FOR PERMIT		10/30/23			

SITE # WI1040-A  
LOC # 706115  
MDG # 5000889243

**LAKE KEGONSA**

1896 WILLIAMS DR.  
STOUGHTON, WI 53589

DRAWN BY:	TE
CHECKED BY:	TAZ
DATE:	12/08/22
PROJECT #:	170-051

SHEET TITLE  
**GENERATOR CUT-SHEET**

SHEET NUMBER

**VW EX-1**

Project Details	
Project ID:	FUZE Project ID: 16679409
Project Name:	Lake_Kegonsa_NB
Project Alt Name:	Lake_Kegonsa_NB
Project Type:	Initial Build
Modification Type:	
Designed Sector Carrier 4G:	3
Designed Sector Carrier 5G:	3
Additional Sector Carrier 4G:	N/A
Additional Sector Carrier 5G:	N/A
FP Solution Type & Tech Type:	MCR;4G_700,4G_AWS,4G_PCS
Carrier Aggregation:	false
MPT Id:	
eCIP-O:	false
Suffix:	

Location Information	
Site ID:	617098737
E-NodeB ID:	
PSLC:	706115
Switch Name:	
Tower Owner:	
Tower Type:	Monopole
Site Type:	MACRO
Site Sub Type:	TRADITIONAL
Street Address:	1896 Williams Dr
City:	Stoughton
State:	WI
Zip Code:	53589
County:	Dane
Latitude:	42.950783 / 42° 57' 2.8188" N
Longitude:	-89.215796 / 89° 12' 56.8656" W

RFDS Project Scope:

### Equipment Summary

Added														
Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
RRU	Tower							Ericsson	4408 B48 DC			PHYSICAL	3	KRC161746/1
RRU	Tower	LTE						Ericsson	4449			PHYSICAL	3	KRC161749/1
RRU	Tower		LTE	LTE	LTE			Ericsson	8843			PHYSICAL	6	KRC161707/2
RRU	Tower						5G	Ericsson	AIR6449			PHYSICAL	3	
Removed														
Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
No data available.														
Retained														
Equipment Type	Location	700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
No data available.														

### Antenna Summary

Added															
700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
LTE	LTE	LTE	LTE			COMMSCOPE	NHH-65C-R2B	175	179	0(0001) 0(01) 110(0002) 110(02) 240(0003) 240(03)	false	false	PHYSICAL	6	NHH-65C-R2B
					LTE	ERICSSON	KRE105281/1	173	173.3	0(19) 110(20) 240(21)	false	false	PHYSICAL	3	
					5G	Ericsson	AIR6449	172	173.3	0(0001) 110(0002) 240(0003)	false	false	PHYSICAL	3	
Removed															
700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															
Retained															
700	1900	AWS	AWS3	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
No data available.															

Added: 12    Removed: 0    Retained: 0

### Service Info

AWS3 LTE		CAND		
	Sector	01	02	03
	Azimuth	0	110	240
	Cell / ENode B ID			
	Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
	Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
	Antenna Centerline(Ft)	175	175	175
	Mechanical Down-Tilt(Deg.)	0	0	0
	Electrical Down-Tilt	0	0	0
	Tip Height	179	179	179
	Regulatory Power	377.19	377.19	377.19
	DLEARFCN	66936	66936	66936
	Channel Bandwidth(MHz)	10	10	10
	Total ERP (W)	2069.19	2069.19	2069.19
	TMA Make			
	RRU Make	Ericsson	Ericsson	Ericsson
	RRU Model	2x8843	2x8843	2x8843
	Number of Tx/Rx Lines	4,4	4,4	4,4
	Position			
	Transmitter Id	15250547	15250552	15250539
	Source	ATOLL_API	ATOLL_API	ATOLL_API

CBRS 3.5 GHz			
	19	19	19
Sector	0	0	0
Azimuth			
Cell / ENode B ID			
Antenna Model	KRE105281/1	KRE105281/1	KRE105281/1
Antenna Make	ERICSSON	ERICSSON	ERICSSON
Antenna Centerline(FI)	173	173	173
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	8	8	8
Tip Height	173.3	173.3	173.3
Regulatory Power	28.03	28.03	28.03
DLEARFCN	55790	55890	55990
Channel Bandwidth(MHz)	10	10	10
Total ERP (W)	38.44	38.44	38.44
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	4408 B48 DC	4408 B48 DC	4408 B48 DC
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	15250968	15251034	15251100
Source	ATOLL_API	ATOLL_API	ATOLL_API
	19	20	20
	0	110	110
	KRE105281/1	KRE105281/1	KRE105281/1
	ERICSSON	ERICSSON	ERICSSON
	173	173	173
	0	0	0
	8	8	8
	173.3	173.3	173.3
	28.03	28.03	28.03
	56090	55790	55990
	10	10	10
	38.44	38.44	38.44
	Ericsson	Ericsson	Ericsson
	4408 B48 DC	4408 B48 DC	4408 B48 DC
	4,4	4,4	4,4
	15251166	15250969	15251035
	ATOLL_API	ATOLL_API	ATOLL_API
	20	20	21
	110	110	240
	KRE105281/1	KRE105281/1	KRE105281/1
	ERICSSON	ERICSSON	ERICSSON
	173	173	173
	0	0	0
	8	8	8
	173.3	173.3	173.3
	28.03	28.03	28.03
	55990	56090	55790
	10	10	10
	38.44	38.44	38.44
	Ericsson	Ericsson	Ericsson
	4408 B48 DC	4408 B48 DC	4408 B48 DC
	4,4	4,4	4,4
	15251101	15251167	15250970
	ATOLL_API	ATOLL_API	ATOLL_API
	21		
	240		
	KRE105281/1		

CBRS 3.5 GHz			
	21	21	
Sector	173	240	240
Azimuth	0		
Cell / ENode B ID	8	KRE105281/1	KRE105281/1
Antenna Model	173.3		
Antenna Make	28.03	ERICSSON	ERICSSON
Antenna Centerline(FI)	55990	173	173
Mechanical Down-Tilt(Deg.)	10	0	0
Electrical Down-Tilt	38.44	8	8
Tip Height		173.3	173.3
Regulatory Power		28.03	28.03
DLEARFCN		55990	56090
Channel Bandwidth(MHz)		10	10
Total ERP (W)		38.44	38.44
TMA Make			
TMA Model			
RRU Make		Ericsson	Ericsson
RRU Model		4408 B48 DC	4408 B48 DC
Number of Tx, Rx Lines		4,4	4,4
Position			
Transmitter Id		15251102	15251168
Source		ATOLL_API	ATOLL_API

700 MHz LTE			
	01	02	03
Sector	0	110	240
Azimuth			
Cell / ENode B ID			
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(FI)	175	175	175
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	0	0	0
Tip Height	179	179	179
Regulatory Power	149.82	149.82	149.82
DLEARFCN	5220	5230	5230
Channel Bandwidth(MHz)	10	10	10
Total ERP (W)	1348.34	1348.34	1348.34
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	4449	4449	4449
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	15250543	15250549	15250554
Source	ATOLL_API	ATOLL_API	ATOLL_API

1900 MHz LTE			
	01	01	02
Sector	0	110	110
Azimuth			
Cell / ENode B ID			
Antenna Model	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make	COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(FI)	175	175	175
Mechanical Down-Tilt(Deg.)	0	0	0
Electrical Down-Tilt	0	0	0
Tip Height	179	179	179
Regulatory Power	251.46	754.38	251.46
DLEARFCN	875	975	875
Channel Bandwidth(MHz)	5	5	5
Total ERP (W)	2069.19	2069.19	2069.19
TMA Make			
TMA Model			
RRU Make	Ericsson	Ericsson	Ericsson
RRU Model	2x8843	2x8843	2x8843
Number of Tx, Rx Lines	4,4	4,4	4,4
Position			
Transmitter Id	15251414	15251417	15251415
Source	ATOLL_API	ATOLL_API	ATOLL_API
	02	03	03
	110	240	240
	NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
	COMMSCOPE	COMMSCOPE	COMMSCOPE
	175	175	175
	0	0	0
	0	0	0
	179	179	179
	754.38	251.46	754.38
	975	875	975
	5	15	5
	2069.19	2069.19	2069.19
	Ericsson	Ericsson	Ericsson
	2x8843	2x8843	2x8843
	4,4	4,4	4,4
	15251418	15251416	15251419
	ATOLL_API	ATOLL_API	ATOLL_API

1900 MHz 5GNR		CAND		
Sector		0001	0002	0003
Azimuth		0	110	240
Cell / ENode B ID				
Antenna Model		NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make		COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(FI)		175	175	175
Mechanical Down-Tilt(Deg.)		0	0	0
Electrical Down-Tilt		0	0	0
Tip Height		179	179	179
Regulatory Power		251.46	251.46	251.46
DLEARFCN		875	875	875
Channel Bandwidth(MHz)		15	15	15
Total ERP (W)		2069.19	2069.19	2069.19
TMA Make				
TMA Model				
RRU Make		Ericsson	Ericsson	Ericsson
RRU Model		2x8843	2x8843	2x8843
Number of Tx, Rx Lines		4,4	4,4	4,4
Position				
Transmitter Id		15251414	15251415	15251416
Source		ATOLL_API	ATOLL_API	ATOLL_API
2100 MHz LTE		CAND		
Sector		01	02	03
Azimuth		0	110	240
Cell / ENode B ID				
Antenna Model		NHH-65C-R2B	NHH-65C-R2B	NHH-65C-R2B
Antenna Make		COMMSCOPE	COMMSCOPE	COMMSCOPE
Antenna Centerline(FI)		175	175	175
Mechanical Down-Tilt(Deg.)		0	0	0
Electrical Down-Tilt		0	0	0
Tip Height		179	179	179
Regulatory Power		377.19	377.19	377.19
DLEARFCN		2350	2350	2350
Channel Bandwidth(MHz)		10	10	10
Total ERP (W)		2069.19	2069.19	2069.19
TMA Make				
TMA Model				
RRU Make		Ericsson	Ericsson	Ericsson
RRU Model		2x8843	2x8843	2x8843
Number of Tx, Rx Lines		4,4	4,4	4,4
Position				
Transmitter Id		15250546	15250551	15250556
Source		ATOLL_API	ATOLL_API	ATOLL_API

nL-Sub6		CAND		
Sector		0001	0002	0003
Azimuth		0	110	240
Cell / ENode B ID				
Antenna Model		AIR6449	AIR6449	AIR6449
Antenna Make		Ericsson	Ericsson	Ericsson
Antenna Centerline(FI)		172	172	172
Mechanical Down-Tilt(Deg.)		0	0	0
Electrical Down-Tilt		6	6	6
Tip Height		173.3	173.3	173.3
Regulatory Power		1365.07	1365.07	1365.07
DLEARFCN		648672	648672	648672
Channel Bandwidth(MHz)		60	60	60
Total ERP (W)		23713.74	23713.74	23713.74
TMA Make				
TMA Model				
RRU Make		Ericsson	Ericsson	Ericsson
RRU Model		AIR6449	AIR6449	AIR6449
Number of Tx, Rx Lines		2,2	2,2	2,2
Position				
Transmitter Id		15250548	15250553	15250540
Source		ATOLL_API	ATOLL_API	ATOLL_API

Service Comments

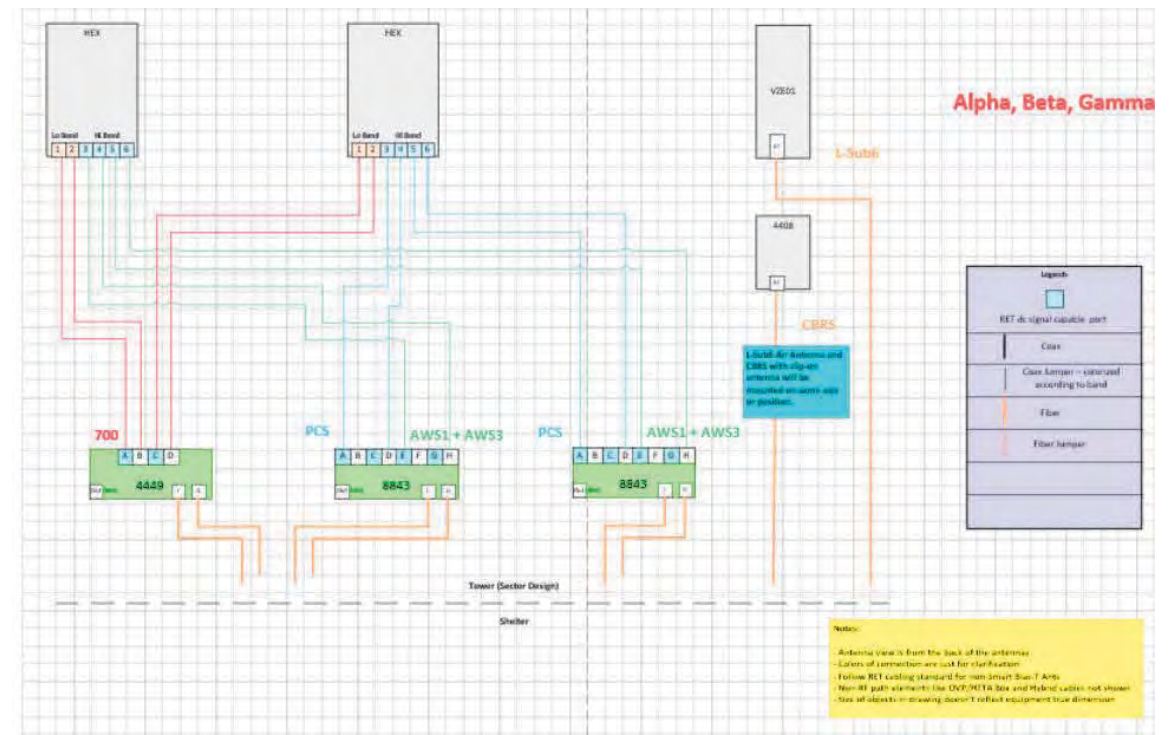
**Callsigns Per Antenna**

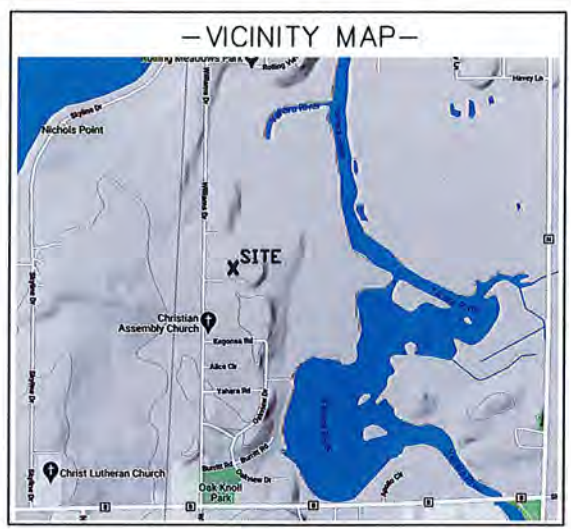
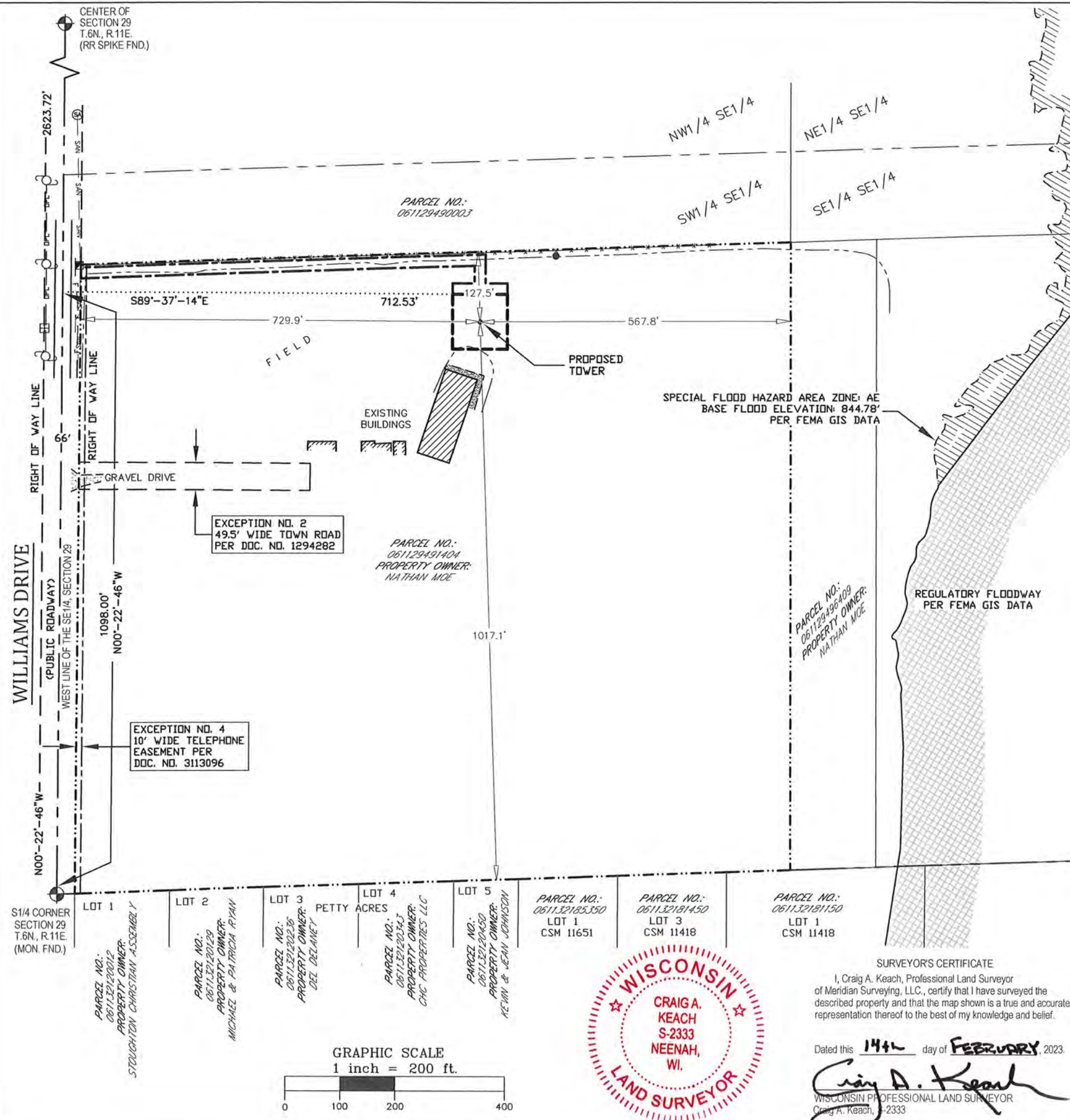
Sector	Antenna Make	Antenna Model	Ant CL Height AGL	Tip Height	Azimuth (TN)	Elec Tilt	Mech Tilt	Gain	Beam Width	Regulatory Power	Callsigns							
											700	850	1900	2100	28 GHz	31 GHz	39 GHz	
No data available.																		

**Callsigns**

Callsign	Market	Radio Code	Market Number	Block	State	County	Licensee Name	Wholly Owned	Total MHz	Freq Range 1	Freq Range 2	Freq Range 3	Freq Range 4	Regulatory Power	Threshold (W)	POPs /Sq Mi	Status	Action	Approved for Insvc
WQJQ691	Great Lakes	WU	REA003	C	WI	Dane	Cellco Partnership	Yes	22.000	746.000-757.000	776.000-787.000	.000-.000	.000-.000	149.82	1000	469.00	Active	added	Yes
KNLF240	Milwaukee	CW	MTA020	B	WI	Dane	Cellco Partnership	Yes	30.000	1870.000-1885.000	1950.000-1965.000	.000-.000	.000-.000	754.38	1640	469.00	Active	added	Yes
KNLH214	Madison, WI	CW	BTA272	E	WI	Dane	AirTouch Cellular	Yes	10.000	1885.000-1890.000	1965.000-1970.000	.000-.000	.000-.000	754.38	1640	469.00	Active	added	Yes
WQVP249	Madison, WI	AT	CMA113	G	WI	Dane	Cellco Partnership	Yes	10.000	1755.000-1760.000	2155.000-2160.000	.000-.000	.000-.000	377.19	1640	469.00	Active	added	Yes
WQVN981	Madison, WI-IL-IA	AT	BEA104	H	WI	Dane	Cellco Partnership	Yes	10.000	1760.000-1765.000	2160.000-2165.000	.000-.000	.000-.000	377.19	1640	469.00	Active	added	Yes
CBRS_CALL UNLICENSED		3.5 GHz	UNLICENSED	UNLICENSED	WI	Dane	UNLICENSED	UNLIC	UNLICENSED	UNLICENSED-UNLICENSED	UNLICENSED-UNLICENSED	UNLICENSED-UNLICENSED	UNLICENSED-UNLICENSED	28.03		469.00	Active	added	No
WRNF758	Madison, WI	PM	PEA122	A1	WI	Dane	Cellco Partnership	Yes	20.000	3700.000-3720.000	.000-.000	.000-.000	.000-.000	1365.07	1640	469.00	Active	added	Yes
WRNF759	Madison, WI	PM	PEA122	A2	WI	Dane	Cellco Partnership	Yes	20.000	3720.000-3740.000	.000-.000	.000-.000	.000-.000	1365.07	1640	469.00	Active	added	Yes
WRNF760	Madison, WI	PM	PEA122	A3	WI	Dane	Cellco Partnership	Yes	20.000	3740.000-3760.000	.000-.000	.000-.000	.000-.000	1365.07	1640	469.00	Active	added	Yes
WQGA717	Great Lakes	AW	REA003	F	WI	Dane	Cellco Partnership	Yes	20.000	1745.000-1755.000	2145.000-2155.000	.000-.000	.000-.000	377.19	1640	469.00	Active	added	Yes
WREF949	C55025 - Dane, WI	UU	C55025	L1	WI	Dane	Cellco Partnership	Yes	425.000	27500.000-27925.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF325	Madison, WI	UU	PEA122	M1	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	37600.000-37700.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF326	Madison, WI	UU	PEA122	M10	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38500.000-38600.000	.000-.000	.000-.000	.000-.000			469.00	Active	N/A	No
WRHF327	Madison, WI	UU	PEA122	M2	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	37700.000-37800.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF328	Madison, WI	UU	PEA122	M3	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	37800.000-37900.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF329	Madison, WI	UU	PEA122	M4	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	37900.000-38000.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF330	Madison, WI	UU	PEA122	M5	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38000.000-38100.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF331	Madison, WI	UU	PEA122	M6	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38100.000-38200.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF332	Madison, WI	UU	PEA122	M7	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38200.000-38300.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF333	Madison, WI	UU	PEA122	M8	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38300.000-38400.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF334	Madison, WI	UU	PEA122	M9	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38400.000-38500.000	.000-.000	.000-.000	.000-.000			469.00	Active		Yes
WRHF335	Madison, WI	UU	PEA122	N1	WI	Dane	Straight Path Spectrum, LLC	Yes	100.000	38600.000-38700.000	.000-.000	.000-.000	.000-.000			469.00	Active	N/A	No

WRNF761	Madison, WI	PM	PEA122	A4	WI	Dane	Cellco Partnership	Yes	20.000	3760.000-3780.000	.000-.000	.000-.000	.000-.000		1640	469.00	Active	Yes
WRNF762	Madison, WI	PM	PEA122	A5	WI	Dane	Cellco Partnership	Yes	20.000	3780.000-3800.000	.000-.000	.000-.000	.000-.000		1640	469.00	Active	Yes
WRNF763	Madison, WI	PM	PEA122	B1	WI	Dane	Cellco Partnership	Yes	20.000	3800.000-3820.000	.000-.000	.000-.000	.000-.000		1640	469.00	Active	No
WRNF764	Madison, WI	PM	PEA122	B2	WI	Dane	Cellco Partnership	Yes	20.000	3820.000-3840.000	.000-.000	.000-.000	.000-.000		1640	469.00	Active	No





- LEGEND-
- = 1" X 18" IRON PIPE SET
  - = 1" IRON PIPE FOUND
  - ⊙ = COUNTY MONUMENT FOUND
  - ⊞ = TELEPHONE PEDESTAL
  - ⊞ = EXISTING POWER POLE
  - SAN — = SANITARY SEWER MAIN
  - DPL — = OVERHEAD ELECTRIC
  - F — F — = BURIED FIBER OPTIC LINE
  - \* — \* — = FENCE LINE
  - · — · — = PROPERTY LINE
  - ⊕ = EXISTING TREE

CALL DIGGERS HOTLINE TOLL FREE  
1(800)242-8511  
OPERATES 24 HOURS A DAY  
365 DAYS A YEAR

WARNING  
CALL BEFORE YOU DIG  
48 HOURS BEFORE YOU DIG

BEARINGS REFERENCED TO THE DANE COUNTY COORDINATE SYSTEM AND THE WEST LINE OF THE SE1/4, SECTION 29, T.6N., R.11E., WHICH BEARS: N00°-22'-46"W

SURVEY NOTES:

- THE LOCATION OF THE EXISTING UTILITIES, AS SHOWN ON THIS PLAN, ARE APPROXIMATE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATION AND DEPTH OF ALL EXISTING UTILITIES. THE OWNER AND THE SURVEYOR SHALL NOT BE RESPONSIBLE FOR ANY OMISSION OR VARIATION FROM THE LOCATION SHOWN.
- DIGGERS HOTLINE TICKET NO. 20224705335.
- PRIVATE UTILITIES MARKED ON 11-23-2022.
- THIS IS NOT A BOUNDARY SURVEY OF THE PARENT PARCEL. THIS SURVEY REPRESENTS THE LEASE AREA AND EASEMENTS ONLY.
- ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD MAPS, THE PROPOSED TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", FIRM PANEL NO. 55025C0628H AND 55025C0629H, DATED SEPTEMBER 17 2014, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. ZONE "X" IS DESIGNATED AS: "AREA OF MINIMAL FLOOD HAZARD".

WETLAND NOTE:  
-THE PRESENCE AND LOCATION OF WETLANDS HAS NOT BEEN DETERMINED ON THIS PROPERTY. WETLANDS SHOULD ONLY BE DETERMINED BY ACTUAL FIELD DELINEATION PERFORMED BY A QUALIFIED WETLAND SPECIALIST.

SURVEYED FOR:

600 Busse Highway  
Park Ridge, IL 60068  
OFFICE: (847) 698-6400  
FAX: (678) 444-4472

SURVEYED FOR:

750 W. Center St. Floor 3  
West Bridgewater, MA 02379  
MOBILE: (401) 533-1679

**MERIDIAN**  
SURVEYING, LLC

N9637 Friendship Drive Office: 920-993-0881  
Kaukauna, WI 54130 Fax: 920-273-6037

SITE NAME:  
LAKE KEGONSA NB

SITE NUMBER:  
W1040-A

SITE ADDRESS:  
1896 WILLIAMS DRIVE  
STOUGHTON, WI 53589

PROPERTY OWNER:  
NATHAN MOE  
1896 WILLIAMS DRIVE  
STOUGHTON, WI 53589

PARCEL NO.:  
046/0611-294-9140-4

ZONED:  
FP-35, GENERAL FARMLAND PRESERVATION

DEED REFERENCE:  
DOC. NO. 5362240

**LEASE EXHIBIT**  
FOR  
**TOWER NORTH**  
BEING A PART OF THE SW1/4 OF THE SE1/4, SECTION 29, T.6N., R.11E., TOWN OF PLEASANT SPRINGS, DANE COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
2	2-14-23	Added Lease and Easement	JD
1	12-1-22	Preliminary Survey	JD

DRAWN BY: J.D. FIELD WORK DATE: 11-23-22

CHECKED BY: C.A.K. FIELD BOOK: X

JOB NO.: 14226 SHEET 1 OF 3

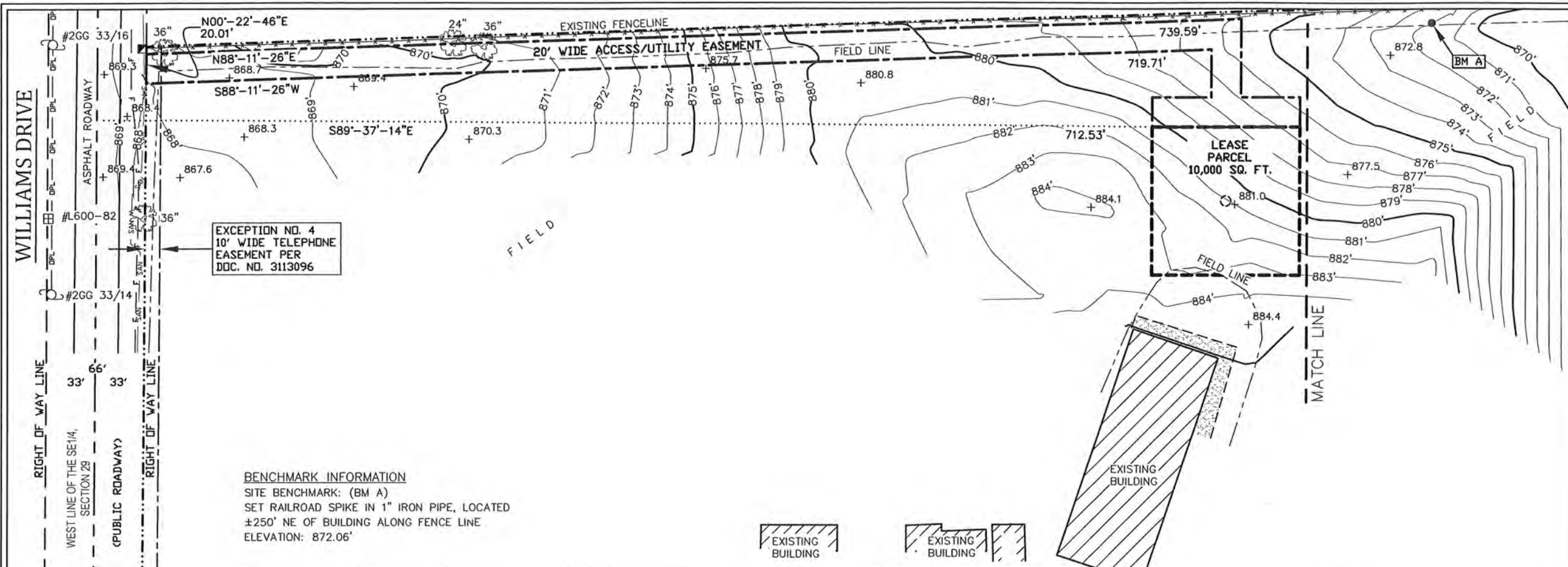
SURVEYOR'S CERTIFICATE

I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC., certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this 14th day of FEBRUARY, 2023.

*Craig A. Keach*  
WISCONSIN PROFESSIONAL LAND SURVEYOR  
Craig A. Keach, 2333





SURVEYED FOR:

600 Busse Highway  
Park Ridge, IL 60068  
OFFICE: (847) 698-6400  
FAX: (678) 444-4472

SURVEYED FOR:

**TowerNorth**  
750 W. Center St. Floor 3  
West Bridgewater, MA 02379  
MOBILE: (401) 533-1679

**MERIDIAN**  
SURVEYING, LLC

N9637 Friendship Drive Office: 920-993-0881  
Kaukauna, WI 54130 Fax: 920-273-6037

**SITE NAME:**  
LAKE KEGONSA NB

**SITE NUMBER:**  
W1040-A

**SITE ADDRESS:**  
1896 WILLIAMS DRIVE  
STOUGHTON, WI 53589

**PROPERTY OWNER:**  
NATHAN MOE  
1896 WILLIAMS DRIVE  
STOUGHTON, WI 53589

**PARCEL NO.:**  
046/0611-294-9140-4

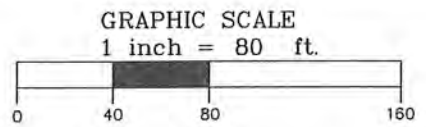
**ZONED:**  
FP-35, GENERAL FARMLAND PRESERVATION

**DEED REFERENCE:**  
DOC. NO. 5362240

**LEASE EXHIBIT**  
FOR  
**TOWER NORTH**  
BEING A PART OF THE SW1/4 OF THE SE1/4, SECTION 29, T.6N., R.11E., TOWN OF PLEASANT SPRINGS, DANE COUNTY, WISCONSIN

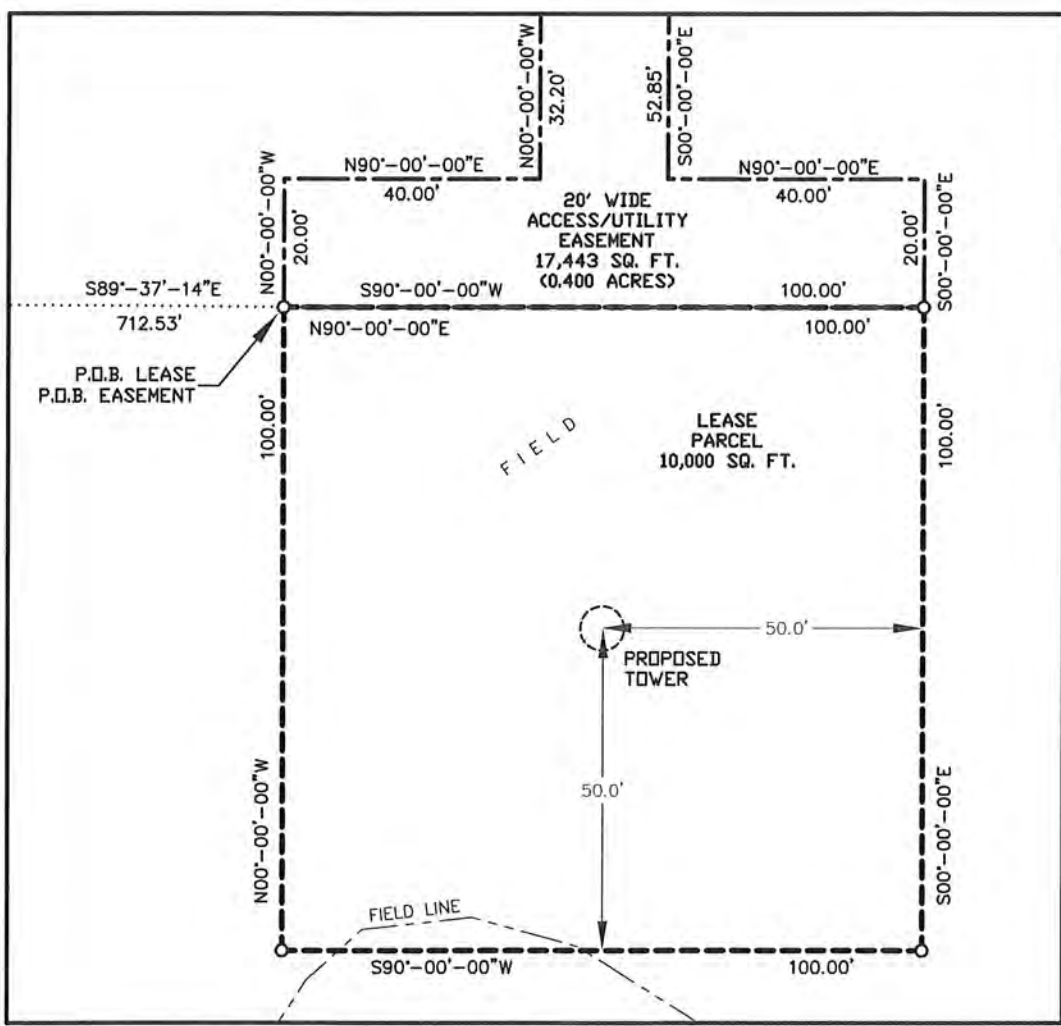
NO.	DATE	DESCRIPTION	BY
2	2-14-23	Added Lease and Easement	JD
1	12-1-22	Preliminary Survey	JD

<b>DRAWN BY:</b> J.D.	<b>FIELD WORK DATE:</b> 11-23-22
<b>CHECKED BY:</b> C.A.K.	<b>FIELD BOOK:</b> X
<b>JOB NO.:</b> 14226	<b>SHEET 2 OF 3</b>



**PROPOSED TOWER BASE**  
 LATITUDE: 42°-57'-02.18"  
 LONGITUDE: 89°-13'-05.52"  
 (Per North American Datum of 83/2011)

Ground Elevation: 881.0'  
 (Per North American Vertical Datum of 1988)

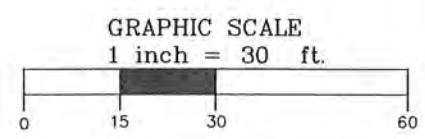


**SURVEYOR'S CERTIFICATE**  
I, Craig A. Keach, Professional Land Surveyor of Meridian Surveying, LLC, certify that I have surveyed the described property and that the map shown is a true and accurate representation thereof to the best of my knowledge and belief.

Dated this 14th day of FEBRUARY, 2023.

*Craig A. Keach*  
WISCONSIN PROFESSIONAL LAND SURVEYOR  
Craig A. Keach, S-2333

BEARINGS REFERENCED TO THE DANE COUNTY COORDINATE SYSTEM AND THE WEST LINE OF THE SE1/4, SECTION 29, T.6N., R.11E., WHICH BEARS: N00°-22'-46"W



**LEASE PARCEL**

A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION TWENTY-NINE (29), TOWNSHIP SIX (6) NORTH, RANGE ELEVEN (11) EAST, TOWN OF PLEASANT SPRINGS, DANE COUNTY, WISCONSIN CONTAINING 10,000 SQUARE FEET (0.230 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE SOUTH QUARTER CORNER OF SAID SECTION 29; THENCE N00°-22'-46"W 1098.00 FEET ALONG THE WEST LINE OF THE SE1/4 OF SAID SECTION 29; THENCE S89°-37'-14"E 712.53 FEET TO THE POINT OF BEGINNING; THENCE N90°-00'-00"E 100.00 FEET; THENCE S00°-00'-00"E 100.00 FEET; THENCE S90°-00'-00"W 100.00 FEET; THENCE N00°-00'-00"W 100.00 FEET TO THE POINT OF BEGINNING; BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

**20 FOOT WIDE ACCESS AND UTILITY EASEMENT**

A PART OF THE SOUTHWEST QUARTER (SW1/4) OF THE SOUTHEAST QUARTER (SE1/4) OF SECTION TWENTY-NINE (29), TOWNSHIP SIX (6) NORTH, RANGE ELEVEN (11) EAST, TOWN OF PLEASANT SPRINGS, DANE COUNTY, WISCONSIN CONTAINING 17,443 SQUARE FEET (0.400 ACRES) OF LAND AND BEING DESCRIBED BY:

COMMENCING AT THE SOUTH QUARTER CORNER OF SAID SECTION 29; THENCE N00°-22'-46"W 1098.00 FEET ALONG THE WEST LINE OF THE SE1/4 OF SAID SECTION 29; THENCE S89°-37'-14"E 712.53 FEET TO THE POINT OF BEGINNING; THENCE N00°-00'-00"W 20.00 FEET; THENCE N90°-00'-00"E 40.00 FEET; THENCE N00°-00'-00"W 32.20 FEET; THENCE S88°-11'-26"W 719.71 FEET TO A POINT ON THE EAST RIGHT OF WAY LINE OF WILLIAMS DRIVE; THENCE N00°-22'-46"E 20.01 FEET ALONG SAID EAST RIGHT OF WAY LINE; THENCE N88°-11'-26"E 739.59 FEET; THENCE S00°-00'-00"E 52.85 FEET; THENCE N90°-00'-00"E 40.00 FEET; THENCE S00°-00'-00"E 20.00 FEET; THENCE S90°-00'-00"W 100.00 FEET TO THE POINT OF BEGINNING; BEING SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD.

**PARENT PARCEL**

THE SOUTH HALF OF THE SOUTHEAST QUARTER OF SECTION 29, TOWNSHIP 6 NORTH, RANGE 11 EAST, EXCEPT THE NORTH 165 FEET THEREOF, TOWN OF PLEASANT SPRINGS, DANE COUNTY, WISCONSIN.

**TITLE REPORT REVIEW**

TITLE REPORT: BADGER TITLE COMPANY

COMMITMENT NO.: 2249790311

EFFECTIVE DATE: JANUARY 9, 2023

FEE SIMPLE TITLE VESTED IN: NATHAN M. MOE

NOTE: THE STATEMENT OF APPLICABILITY REFERS TO THE LEASE SITE AND ANY EASEMENTS PERTINENT THEREUNTO WHERE SPECIFIC ENCUMBRANCES AFFECT THE LEASED PREMISES AND/OR A PERTINENT EASEMENT, THEY ARE IDENTIFIED AS SUCH.

**SCHEDULE B-II**

- (1) CONVEYANCE OF LANDS FOR HIGHWAY PURPOSES TO THE TOWN OF PLEASANT SPRINGS DATED 11/26/1949 AND RECORDED AS DOC. 816385. **DOES NOT APPLY.**
- (2) CONVEYANCE OF LANDS FOR HIGHWAY PURPOSES TO THE TOWN OF PLEASANT SPRINGS DATED 6/22/1971 AND RECORDED AS DOC. 1294282. **DOES APPLY AND IS PLOTTED AND SHOWN.**
- (3) GRANT AGREEMENT REGARDING PRIVATE SEWAGE SYSTEM DATED 8/3/83 AND RECORDED AS DOC. 1793754. GRANT AND AGREEMENT REGARDING PRIVATE SEWER SYSTEM. **DOES APPLY BUT IS NOT A SURVEY RELATED MATTER.**
- (4) EASEMENT TO WISCONSIN BELL, INC. D/B/A AMERITECH WISCONSIN DATED 3/1/1999 AND RECORDED AS DOC. 3113096. GRANT OF EASEMENT FOR TRANSMISSION OF SIGNALS. **DOES APPLY AND IS PLOTTED AND SHOWN.**

FEBRUARY 14, 2023

SURVEYED FOR:



600 Busse Highway  
Park Ridge, IL 60068  
OFFICE: (847) 698-6400  
FAX: (678) 444-4472

SURVEYED FOR:



**TowerNorth**

750 W. Center St. Floor 3  
West Bridgewater, MA 02379  
MOBILE: (401) 533-1679

**MERIDIAN**

**SURVEYING, LLC**

N9637 Friendship Drive Office: 920-993-0881  
Kaukauna, WI 54130 Fax: 920-273-6037

SITE NAME: LAKE KEGONSA NB
SITE NUMBER: W1040-A
SITE ADDRESS: 1896 WILLIAMS DRIVE STOUGHTON, WI 53589

PROPERTY OWNER: NATHAN MOE 1896 WILLIAMS DRIVE STOUGHTON, WI 53589
PARCEL NO.: 046/0611-294-9140-4
ZONED: FP-35, GENERAL FARMLAND PRESERVATION
DEED REFERENCE: DOC. NO. 5362240

**LEASE EXHIBIT**  
FOR  
**TOWER NORTH**

BEING A PART OF THE SW1/4 OF THE SE1/4, SECTION 29, T.6N., R.11E., TOWN OF PLEASANT SPRINGS, DANE COUNTY, WISCONSIN

NO.	DATE	DESCRIPTION	BY
2	2-14-23	Added Lease and Easement	JD
1	12-1-22	Preliminary Survey	JD

DRAWN BY: J.D.	FIELD WORK DATE: 11-23-22
CHECKED BY: C.A.K.	FIELD BOOK: X
JOB NO.: 14226	SHEET 3 OF 3



## EXHIBIT F

November 29, 2023

Ms. Mary Caulfield  
Site Development Manager  
TowerNorth

RE: Proposed 180' Sabre Self-Supporting Tower for WI1040-A Lake Kegonsa, WI

Dear Ms. Caulfield,

Upon receipt of order, we propose to design a tower for the above referenced project for an ultimate Wind Speed of 115 mph and 40 mph + 3/4" radial ice, Structure Class II, Exposure Category D, and Topographic Category 1 in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas". The tower will be designed to support a total of four (4) wireless carriers at the following elevations: 175', 163', 153' and 143' (AGL).

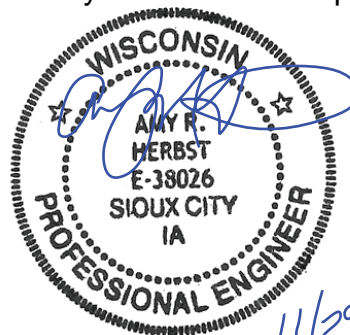
When designed according to this standard, the wind pressures and steel strength capacities include several safety factors. Therefore, it is highly unlikely that the tower will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

Should the wind speed increase beyond the capacity of the built-in safety factors, to the point of failure of one or more structural elements, the most likely location of the failure would be within one or more of the tower members in the upper portion. This would result in a buckling failure mode, where the loaded member would bend beyond its elastic limit (beyond the point where the member would return to its original shape upon removal of the wind load).

Therefore, it is likely that the overall effect of such an extreme wind event would be localized buckling of a tower section. Assuming that the wind pressure profile is similar to that used to design the tower, the tower is most likely to buckle at the location of the highest combined stress ratio in the upper portion of the tower. This would result in the portion of the tower above the failure location "folding over" onto the portion of the tower below the failure location. *Please note that this letter only applies to the above referenced tower designed and manufactured by Sabre Towers & Poles.* In the unlikely event of total separation, this would result in a fall radius less than or equal to 127.5'.

Sincerely,

Amy R. Herbst, P.E.  
Senior Design Engineer



11/29/23

# EXHIBIT G

# REGIONAL MAP



## PROJECT INFORMATION

PROJECT TYPE: PROPOSED WIRELESS COMMUNICATION TOWER

PROJECT CONSULTANT: TERRA CONSULTING GROUP  
600 BUSSE HIGHWAY  
PARK RIDGE, IL 60068  
(847) 698-6400

LATITUDE: 42° 57' 02.18" N (1A CERTIFICATION)

LONGITUDE: 89° 13' 05.10" W (1A CERTIFICATION)

APPLICANT: TOWNORTH DEVELOPMENT, LLC

## LAKE KEGONSA



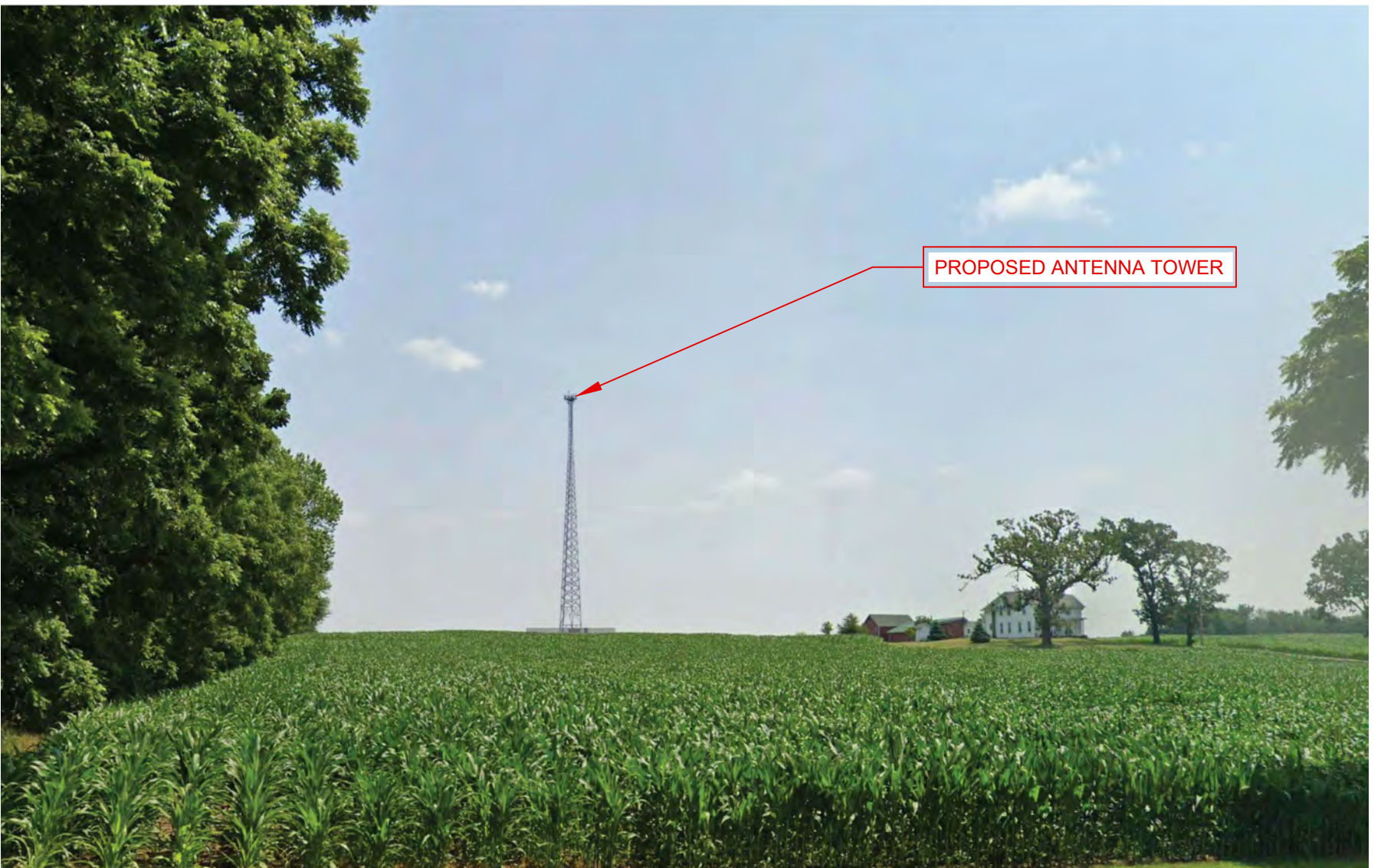
600 Busse Highway, Park Ridge, IL 60068  
Phone: 847.698.6400 Fax: 847.698.6401  
TCG#170051



VIEW 1



BEFORE



AFTER

NOTE: THIS PHOTO SIMULATION IS A VISUAL INTERPRETATION OF THE PROPOSED DESIGN. FINAL CONSTRUCTION MAY DIFFER FROM WHAT IS PRESENTED HERE.

# LAKE KEGONSA

View from West looking East



600 Busse Highway, Park Ridge, IL 60068  
Phone: 847.698.6400 Fax: 847.698.6401  
TCG#170051



VIEW 2



BEFORE



PROPOSED ANTENNA TOWER

AFTER

NOTE: THIS PHOTO SIMULATION IS A VISUAL INTERPRETATION OF THE PROPOSED DESIGN. FINAL CONSTRUCTION MAY DIFFER FROM WHAT IS PRESENTED HERE.

# LAKE KEGONSA

View from Southwest looking Northeast



## EXHIBIT H



Mail Processing Center  
Federal Aviation Administration  
Southwest Regional Office  
Obstruction Evaluation Group  
10101 Hillwood Parkway  
Fort Worth, TX 76177

Aeronautical Study No.  
2023-AGL-3797-OE

Issued Date: 04/18/2023

Leslie Lindeman  
Palm-Tech Consulting, LLC  
11365 Little Bear Way  
Boca Raton, FL 33428

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Antenna Tower Lake Kegonsa WI1040-A  
Location: Stoughton, WI  
Latitude: 42-57-02.18N NAD 83  
Longitude: 89-13-05.52W  
Heights: 881 feet site elevation (SE)  
185 feet above ground level (AGL)  
1066 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Emissions from this site must be in compliance with the parameters set by collaboration between the FAA and telecommunications companies and reflected in the FAA 5G C band compatibility evaluation process (such as power, frequencies, and tilt angle). Operational use of this frequency band is not objectionable provided the Wireless Providers (WP) obtain and adhere to the parameters established by the FAA 5G C band compatibility evaluation process. **Failure to comply with this condition will void this determination of no hazard.**

**See attachment for additional condition(s) or information.**

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 10/18/2024 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within



6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination of No Hazard is granted provided the following conditional statement is included in the proponent's construction permit or license to radiate:

Upon receipt of notification from the Federal Communications Commission that harmful interference is being caused by the licensee's (permittee's) transmitter, the licensee (permittee) shall either immediately reduce the power to the point of no interference, cease operation, or take such immediate corrective action as is necessary to eliminate the harmful interference. This condition expires after 1 year of interference-free operation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2525, or [natalie.schmalbeck@faa.gov](mailto:natalie.schmalbeck@faa.gov). On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2023-AGL-3797-OE.

**Signature Control No: 574304364-581709214**

Natalie Schmalbeck  
Technician

( DNE )

Attachment(s)  
Additional Information  
Frequency Data  
Map(s)

cc: FCC

## **BASIS FOR DECISION**

Part 77 authorizes the FAA to evaluate a structure or object's potential electromagnetic effects on air navigation, communication facilities, and other surveillance systems. It also authorizes study of impact on arrival, departure, and en route procedures for aircraft operating under visual or instrument flight rules, as well as the impact on airport traffic capacity at existing public use airports. Broadcast in the 3.7 to 3.98 GHz frequency (5G C band) currently causes errors in certain aircraft radio altimeters and the FAA has determined they cannot be relied upon to perform their intended function when experiencing interference from wireless broadband operations in the 5G C band. The FAA has adopted Airworthiness Directives for all transport and commuter category aircraft equipped with radio altimeters that prohibit certain operations when in the presence of 5G C band.

This determination of no hazard is based upon those mitigations implemented by the FAA and operators of transport and commuter category aircraft, and helicopters operating in the vicinity of your proposed location. It is also based on telecommunication industry and FAA collaboration on acceptable power levels and other parameters as reflected in the FAA 5G C band evaluation process.

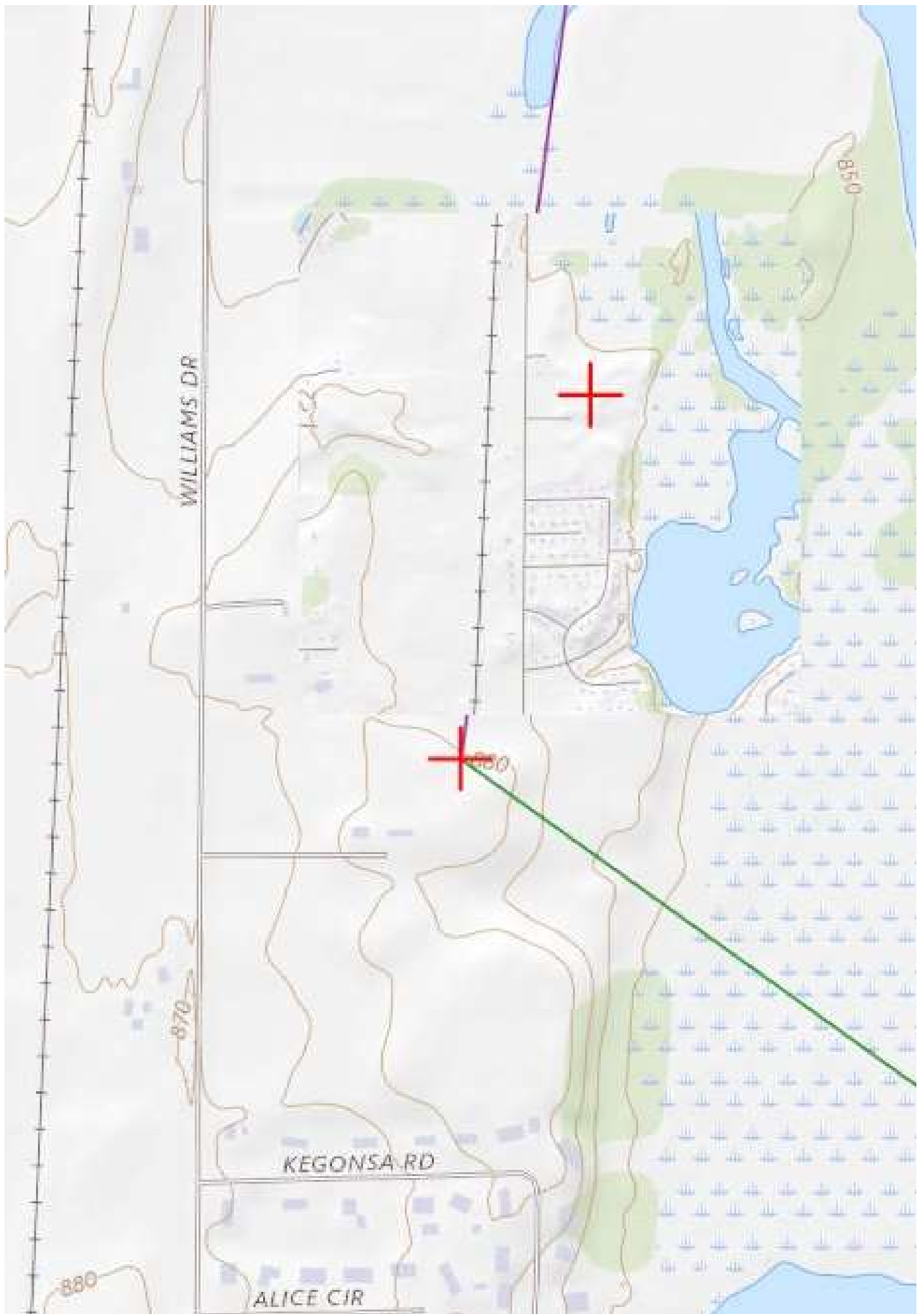
The FAA 5G C band compatibility evaluation is a data analytics system used by FAA to evaluate operational hazards related to aircraft design. The FAA 5G C band compatibility evaluation process refers to the process in which the telecommunication companies and the FAA have set parameters, such as power output, locations, frequencies, and tilt angles for antenna that mitigate the hazard to aviation. As the telecommunication companies and FAA refine the tools and methodology, the allowable frequencies and power levels may change in the FAA 5G C band compatibility evaluation process. Therefore, your proposal will not have a substantial adverse effect on the safe and efficient use of the navigable airspace by aircraft provided the equipment and emissions are in compliance with the parameters established through the FAA 5G C band compatibility evaluation process.

Any future changes that are not consistent with the parameters listed in the FAA 5G C band compatibility evaluation process will void this determination of no hazard.

**Frequency Data for ASN 2023-AGL-3797-OE**

<b>LOW FREQUENCY</b>	<b>HIGH FREQUENCY</b>	<b>FREQUENCY UNIT</b>	<b>ERP</b>	<b>ERP UNIT</b>
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	2000	W
614	698	MHz	1000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W
3700	3980	MHz	1640	W





# EXHIBIT I

## Octave Band Sound Data SD030 2.4 Liter Diesel

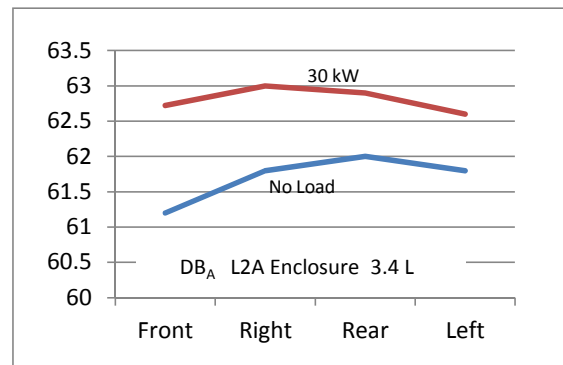
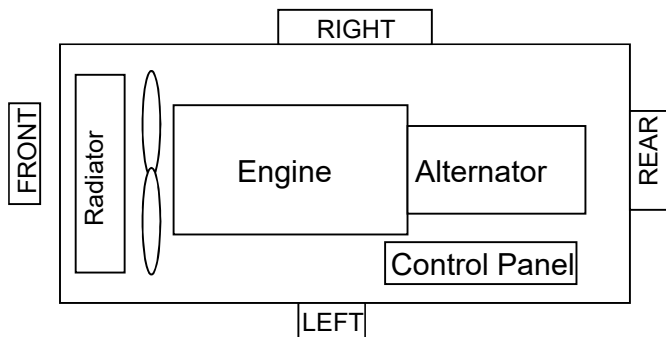
<b>Test Date</b>	3/14/2013	<b>Engine Firing Frequency</b>	60
<b>Test Request #</b>	A-2-3738A- T12	<b>Alt Fan Frequency</b>	480
<b>Generator Model</b>	SD030 2.4 Liter	<b>Cooling Fan Frequency</b>	416
<b>Enclosure</b>	Level 2 A Verizon	<b>Test Conditions</b>	Sunny
<b>Unit Dimensions</b>		<b>Temp ° F</b>	58
<b>Engine</b>	2.4 Liter Generac Diesel	<b>Barometric Pres</b>	30.65
<b>Alternator</b>	30 kW 390 mm 240V 1 Ø	<b>Wind Speed mph</b>	2-4
<b>Engine Speed</b>	1800	<b>Muffler</b>	Standard
<b>Test Location</b>	Waukesha	<b>Fuel</b>	#2 Diesel
<b>Instrument</b>	TES1358		

**Test Load: 0 kW**      240 Volt      Distance 7 Meters

MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY									
	31.5	63	125	250	500	1000	2000	4000	8000	dB <sub>A</sub>
FRONT	24.9	50.0	55.5	49.6	55.1	47.5	45.7	41.5	33.9	61.2
RIGHT	25.0	52.0	55.5	50.5	56.5	48.2	50.4	42.3	38.4	61.8
REAR	26.8	47.4	52.5	52.1	56.5	51.5	48.3	44.8	35.8	62
LEFT	24.0	43.4	54.6	48.0	57.2	46.6	46.7	43.6	36.9	61.8
Average	25.2	48.2	54.5	50.0	56.3	48.4	47.8	43.0	36.3	61.7

**Test Load: 30 kW**      240 Volt      Distance 7 Meters

MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY									
	31.5	63	125	250	500	1000	2000	4000	8000	dB <sub>A</sub>
FRONT	21.7	59.7	54.3	49.1	56.1	47.5	46.5	42.1	34.5	62.7
RIGHT	21.3	58.5	56.4	52.5	55.4	50.7	53.0	44.2	38.8	63.0
REAR	24.1	55.9	51.9	53.1	56.7	52.0	48.8	45.0	34.8	62.9
LEFT	26.6	47.7	53.5	48.8	57.5	47.2	48.1	43.4	37.4	62.6
Average	23.4	55.5	54.0	50.9	56.4	49.4	49.1	43.7	36.4	62.8



1. All positions at 23 feet (7 meters) from side faces of generator set.
2. Test conducted on a 100 foot diameter asphalt surface.
3. Data subject to change without notice



## EXHIBIT J

**NEPA CO-LOCATION STRUCTURE COMPLIANCE VERIFICATION**  
**(Construction After March 16, 2001)**

DATE: July 14, 2023

Re: Proposed Collocation of telecommunication equipment by Verizon Wireless or one of its affiliates ("Tenant") on that certain tower, known as LAKE KEGONSA NB WI1040-A and located at address 1896 WILLIAMS DRIVE, STOUGHTON, WI 53589, latitude N 42° 57' 02.182" and longitude W 89° 13' 05.520" in the county of Dane, State of Wisconsin (the "Tower") owned by TowerNorth Development, LLC ("Owner")

To whom it may concern:

To facilitate Tenant's collocation of its telecommunications equipment on the above referenced Tower in compliance with the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas executed by the Federal Communication Commission, the National Conference of State Historic Preservation Officers and the Advisory Council on Historic Preservation (the "Programmatic Agreement"), Owner makes the following statements:

1. Tower construction or redevelopment was completed after March 16, 2001.
2. The proposed collocation does not require a substantial increase in the size of the tower based on the plans provided by Lessee.
3. Owner has no knowledge of having received any written or electronic notification that the FCC has determined that the Tower has an effect on one or more historic properties, or if such an effect has been found, such effect has been found to be not adverse through a no adverse effect finding, or if found to be adverse or potentially adverse, the effect has been resolved through a conditional no adverse effect determination, a Memorandum of Agreement, a programmatic agreement, or otherwise in compliance with Section 106 and Subpart B of 36 CFR Part 800.
4. Owner has no knowledge of having received any written or electronic notification that the Tower is the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the National Historic Preservation Act.
5. Owner has no knowledge of having received any written or electronic notification that the FCC is in receipt of a complaint from a member of the public, a State Historic Preservation Office, or the Advisory Council On Historic Preservation that the collocation has or will have an adverse effect on one or more historic properties.

As a lessee and FCC licensee on this structure, Verizon Wireless or one of its affiliates is obligated to ensure that owners are compliant with FAA/FCC regulations. *As explained in FCC Rule Part 17.47, the owner of any antenna structure must provide and properly maintain an automatic alarm system designed to detect any failure of all such lights or make an observation of the lights at least once each 24 hours to ensure that all such lights are functioning properly as required.*

Type of structure circle one: BLDG w/Tower Lattice Monopole Guyed Tower Other: \_\_\_\_\_

- This structure is **not** currently marked or lighted in accordance with FAA/FCC regulations  
 This structure **is** currently marked and lighted in accordance with FAA/FCC regulations  
 This structure is electronically monitored by the owner.  
 This structure is electronically monitored by someone else.  
 This structure is monitored by other means. (Please describe below)

  
\_\_\_\_\_  
Liz Rutkowski  
Site Development Manager  
401-533-1679  
Lrutkowski@towernorth.com

TowerNorth Development, LLC  
750 W Center Street · Suite 301 · W Bridgewater, MA 02379  
888-315-0220 x3

# EXHIBIT K

---

**From:** Elizabeth Erbes  
**Sent:** Thursday, July 13, 2023 6:07 PM  
**To:** GOODRICH, BRENTON; FLOWERS, ANDREW T; THEODORE, TOM  
**Cc:** Mary Caulfield; Liz Rutkowski; Bert Stern  
**Subject:** TowerNorth Site List July 2023 and Lake Kegonsa Highlight  
**Attachments:** TowerNorth Site List 7.13.23.xlsx; AT&T - Lake Kegonsa WI1040.png

Hi AT&T Team,

I thought I would check in with you again and send you our latest site list as it's growing! Please see attached and below recap.

TowerNorth's existing portfolio in the Midwest Region consists of:

- 37 Existing towers built in the last 24 months. All anchored by Verizon Wireless.
- All sites have available structural capacity to add at least 2 additional wireless tenants.
- Many were built in areas that lack AT&T coverage today.
- 60 "In Development" BTS towers for Verizon that will be delivered in the next 12-24 months.
- 6 of the "In Development" are newer sites are in MN/Great Plains, please let me know if you still cover that market or who does?
- 3 of the 6 sites ON HOLD, do have active ground leases in place. TowerNorth is seeking an anchor tenant.

One site that is "In Development" that I wanted to highlight is WI1040 Lake Kegonsa. This site is slated to be delivered Q12024. We found through our desktop analysis that AT&T could also benefit in coverage for the area. It's a popular fishing and recreation area that attracts tourist with a small downtown area as well as a large state park. (see picture attached).

Thank you and I look forward to hearing from you.



---

**From:** Elizabeth Erbes  
**Sent:** Thursday, July 13, 2023 6:14 PM  
**To:** Pilgrim, Joanne; chris.lytle@t-mobile.com; mike.blassuti@t-mobile.com  
**Cc:** Mary Caulfield; Liz Rutkowski; Bert Stern  
**Subject:** TowerNorth Site List July 2023 and Lake Kegonsa Highlight  
**Attachments:** TowerNorth Site List 7.13.23.xlsx; T-Mobile TowerNorth Lake Kegonsa WI1040.png

Hi T-Mobile Team,

I thought I would check in with you again and send you our latest site list as it's growing! Please see attached and below recap.

TowerNorth's existing portfolio in the Midwest Region consists of:

- 37 Existing towers built in the last 24 months. All anchored by Verizon Wireless.
- All sites have available structural capacity to add at least 2 additional wireless tenants.
- Many were built in areas that T-Mobile coverage can improve today.
- 60 "In Development" BTS towers for Verizon that will be delivered in the next 12-24 months.
- 6 of the "In Development" are newer sites are in MN/Great Plains, please let me know if you still cover that market or who does?
- 3 of the 6 sites ON HOLD, do have active ground leases in place. TowerNorth is seeking an anchor tenant.

One site that is "In Development" that I wanted to highlight is WI1040 Lake Kegonsa. This site is slated to be delivered Q12024. We found through our desktop analysis that T-Mobile could also benefit in coverage for the area. It's a popular fishing and recreation area that attracts tourist with a small downtown area as well as a large state park. (see picture attached).

Thank you and I look forward to hearing from you.



---

**From:** Elizabeth Erbes  
**Sent:** Thursday, July 13, 2023 6:18 PM  
**To:** Vandenberg, Brandi L  
**Cc:** Mary Caulfield; Liz Rutkowski; Bert Stern  
**Subject:** TowerNorth Site List July 2023 and Lake Kegonsa Highlight  
**Attachments:** TowerNorth Site List 7.13.23.xlsx; US Cellular - TowerNorth Lake Kegonsa WI1040.png

Hi Brandi,

I thought I would check in with you again and send you our latest site list as it's growing! Please see attached and below recap.

TowerNorth's existing portfolio in the Midwest Region consists of:

- 37 Existing towers built in the last 24 months. All anchored by Verizon Wireless.
- All sites have available structural capacity to add at least 2 additional wireless tenants.
- Many were built in areas that US Cell's coverage can improve today.
- 60 "In Development" BTS towers for Verizon that will be delivered in the next 12-24 months.
- 6 of the "In Development" are newer sites are in MN/Great Plains, please let me know if you still cover that market or who does?
- 3 of the 6 sites ON HOLD, do have active ground leases in place. TowerNorth is seeking an anchor tenant.

One site that is "In Development" that I wanted to highlight is WI1040 Lake Kegonsa. This site is slated to be delivered Q12024. We found through our desktop analysis that US Cell could also benefit in coverage for the area. It's a popular fishing and recreation area that attracts tourist with a small downtown area as well as a large state park. (see picture attached).

Thank you and I look forward to hearing from you.



---

**From:** Elizabeth Erbes  
**Sent:** Thursday, July 13, 2023 6:37 PM  
**To:** Chris Craven  
**Cc:** Mary Caulfield; Liz Rutkowski; Bert Stern  
**Subject:** TowerNorth Site List July 2023 and Lake Kegonsa Highlight  
**Attachments:** Broadband One - TowerNorth Lake Kegonsa WI1040.png; TowerNorth Site List 7.13.23.A.xlsx

Hi Chris,

I thought I would check in with you again and send you our latest site list as it's growing! Please see attached and below recap.

TowerNorth's existing portfolio in the Midwest Region consists of:

- 37 Existing towers built in the last 24 months. All anchored by Verizon Wireless.
- All sites have available structural capacity to add at least 2 additional wireless tenants.
- 67 "In Development" BTS towers for Verizon that will be delivered in the next 12-24 months.
- 6 of the "In Development" are newer sites are in MN/Great Plains
- Another 6 "In Development" are in TX/Gulf Coast/Houston area.
- 3 of the 6 sites ON HOLD, do have active ground leases in place. TowerNorth is seeking an anchor tenant.

One site that is "In Development" that I wanted to highlight is WI1040 Lake Kegonsa. This site is slated to be delivered Q12024. We found through our desktop analysis that Broadband One could also benefit in coverage for the area. It's a popular fishing and recreation area that attracts tourist with a small downtown area as well as a large state park. (see picture attached).

Thank you and I look forward to hearing from you.



## Liz Rutkowski

---

**From:** Elizabeth Erbes  
**Sent:** Friday, June 2, 2023 1:35 PM  
**To:** Mike Johnson; scarney@team.nxlink.com  
**Subject:** TowerNorth Site List June 2023.2.xlsx  
**Attachments:** TowerNorth Site List June 2023.2.xlsx

Hi Mike and Sam,

Thank you for your time yesterday. I'm attaching our latest site list for your reference and review.

Please let me know if you have any trouble opening it as I downloaded it from our database and it sometimes gets corrupted.

Anything else I can provide you with, please let me know.

Thank you and have a nice weekend.



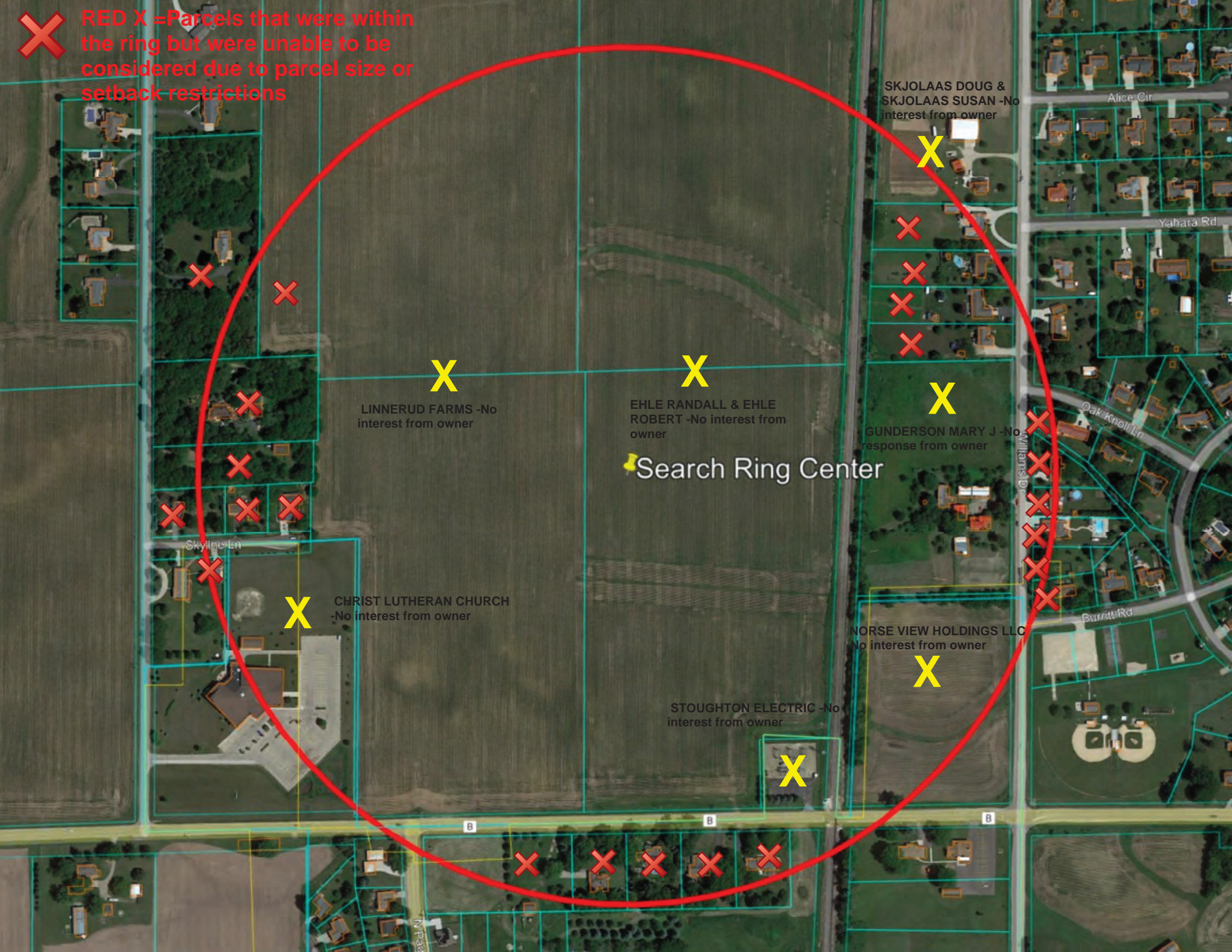
Liz Erbes  
Business Development Director  
Mobile: 773-575-7440  
Email: eerbes@towernorth.com



S:Status	S:Site Name	S:Search Ring ID	C:Candidate ID	C:Candidate Name	P:A:8000 Construction Comp	C:Latitude	C:Longitude	C:Structure Type	C:Pole/Building Height (ft)	C:AMSL (ft)	C:Address	C:City	C:State	C:Country	C:Zip
In Development	Lake Kegonsa NB	<a href="#">W11040</a>	<a href="#">W11040-A</a>	Lake Kegonsa NB		42.95060600	-89.21820000	Self Support	180.00	1066.00	1896 Williams Drive	Stoughton	WI	<a href="#">USA</a>	53589



**RED X =Parcels that were within the ring but were unable to be considered due to parcel size or setback restrictions**



SKJOLAAS DOUG & SKJOLAAS SUSAN -No interest from owner



LINNERUD FARMS -No interest from owner



EHLE RANDALL & EHLE ROBERT -No interest from owner

Search Ring Center



GUNDERSON MARY J -No response from owner



CHRIST LUTHERAN CHURCH -No interest from owner



NORSE VIEW HOLDINGS LLC -No interest from owner



STOUGHTON ELECTRIC -No interest from owner





26 E. Scranton Avenue, #188  
Lake Bluff, IL 60044

June 12, 2023

Matson Airport-2WI6  
Matson Developers, Inc.  
Po Box 333  
Stoughton, WI 53589

RE: Dane County Communication Tower Ordinance – Section 10.103 / Notification to Nearby Airports / Telecommunications Tower Facility on Parcel #061129491404 / 1896 Williams Drive Stoughton, WI [Lake Kegonsa]

Dear Mr. Matson,

TowerNorth and Verizon have proposed a new telecommunications tower facility located at 1896 Williams Drive Stoughton, WI to improve its customer experience and address its network objective. This letter serves as notice to Matson Airport-2WI6, per Section 10.103 of the Dane County Communication Tower Ordinance.

If you have any questions regarding this request, please contact me directly at (630)746-5433 or [pgray@mountainltd.com](mailto:pgray@mountainltd.com).

Sincerely,

---

Trish Gray  
Agent on Behalf of Verizon Wireless  
MOUNTAIN LTD.

**P**

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ZONE 2 FLAT-RATE ENVELOPE  
ComBasPrice

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6931318  
FROM 60148



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endicia  
06/12/2023

**USPS PRIORITY MAIL®**

Trish Gray  
Mountain LTD  
434 N Main St  
Lombard IL 60148-1631

SHIP TO: Matson Airport-2W/6  
Matson Developers, Inc.  
Po Box 333  
Stoughton WI 53589-0333

**USPS TRACKING #**



9405 5112 0620 3788 0805 86



26 E. Scranton Avenue, #188  
Lake Bluff, IL 60044

June 12, 2023

Quale Airport  
Richard B. Quale  
3114 North Star Road  
Cottage Grove, WI 53527

RE: Dane County Communication Tower Ordinance – Section 10.103 / Notification to Nearby Airports / Telecommunications Tower Facility on Parcel #061129491404 / 1896 Williams Drive Stoughton, WI [Lake Kegonsa]

Dear Mr. Quale,

TowerNorth and Verizon have proposed a new telecommunications tower facility located at 1896 Williams Drive Stoughton, WI to improve its customer experience and address its network objective. This letter serves as notice to Quale Airport, per Section 10.103 of the Dane County Communication Tower Ordinance.

If you have any questions regarding this request, please contact me directly at (630)746-5433 or [pgray@mountainltd.com](mailto:pgray@mountainltd.com).

Sincerely,

---

Trish Gray  
Agent on Behalf of Verizon Wireless  
MOUNTAIN LTD.

**P**

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062S0001441567  
6931318  
FROM 60148



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06/12/2023

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Trish Gray  
Mountain LTD  
434 N Main St  
Lombard IL 60148-1631

SHIP TO: Quale Airport  
Richard B. Quale  
3114 N Star Rd  
Cottage Grove WI 53527-9409

**USPS TRACKING #**



**9405 5112 0620 3788 0896 71**



26 E. Scranton Avenue, #188  
Lake Bluff, IL 60044

June 12, 2023

Wisersky Airport  
David C. And Megan M. Wisersky  
1458 Kaas Road  
Stoughton, WI 53589

RE: Dane County Communication Tower Ordinance – Section 10.103 / Notification to Nearby Airports / Telecommunications Tower Facility on Parcel #061129491404 / 1896 Williams Drive Stoughton, WI [Lake Kegonsa]

Dear Mr. & Mrs. Wisersky,

TowerNorth and Verizon have proposed a new telecommunications tower facility located at 1896 Williams Drive Stoughton, WI to improve its customer experience and address its network objective. This letter serves as notice to Wisersky Airport, per Section 10.103 of the Dane County Communication Tower Ordinance.

If you have any questions regarding this request, please contact me directly at (630)746-5433 or [pgray@mountainltd.com](mailto:pgray@mountainltd.com).

Sincerely,

---

Trish Gray  
Agent on Behalf of Verizon Wireless  
MOUNTAIN LTD.

**P**

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ComBasPrice

06250001443270  
6931318  
FROM 60148



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endicia  
06/12/2023

**USPS PRIORITY MAIL®**

Trish Gray  
Mountain LTD  
434 N Main St  
Lombard IL 60148-1631

SHIP TO: Wisersky Airport  
David C. And Megan M. Wisersky  
1458 Kaase Rd  
Stoughton WI 53589-3634

**USPS TRACKING #**



9405 5112 0620 3788 0627 66





52 Farm View Drive, Suite 201

New Gloucester, ME 04260

December 14, 2023

Uff-Da Airport-2W11

Donald Halverson

3671 Halverson Rd.

Stoughton, WI 53589

RE: Dane County Communication Tower Ordinance Section 10.103 / Notification to Nearby Airports / Telecommunications Tower Facility on Parcel #061129491404 / 1896 Williams Drive Stoughton, WI [Lake Kegonsa]

Dear Mr. Halverson,

TowerNorth and Verizon have proposed a new telecommunications tower facility located at 1896 Williams Drive Stoughton, WI to improve its customer experience and address its network objective. This letter serves as notice to Uff-Da Airport- 2W11, per Section 10.103 of the Dane County Communication Tower Ordinance.

If you have any questions regarding this request, please contact me directly at (919)627-0770 or [bwilliams@mountainltd.com](mailto:bwilliams@mountainltd.com).

Sincerely,

Ben Williams  
Agent on Behalf of Verizon Wireless  
MOUNTAIN LTD.