

Docket Number: 20/9632

Applicant: Polk County (property owner), represented by Steve Holmes with RACOM Corporation, 210 West State Street, Marshalltown, IA 50158

Request: Approval of a Conditional Use Permit for a new 199-foot tall communication tower serving as part of the Central Iowa Regional Public Safety Communication System (CIRPSCS).

Subject Property / Surrounding Land Uses:

The subject property is located at 12668 NE 29th Street, Elkhart, and is legally described as the south 575 feet of the east 283 feet of the SE $\frac{1}{4}$ SE $\frac{1}{4}$, except the east 33 feet and south 50 feet thereof, within Section 30, Township 81 North, Range 23 West of the 5th P.M. (Elkhart Township). The subject property is approximately 3.01 acres in size and is zoned "AG" Agricultural District. The site is owned by Polk County and used as a roadway maintenance facility. The property contains an existing 4,500 square feet storage building, a small parking lot, fuel pump island, and outdoor storage of equipment and materials. The property is completely enclosed with chain link security fencing.

The subject property is located at the northwest corner of NE 29th Street and NE 126th Avenue. The site is approximately one (1) mile west of the City of Elkhart corporate limits, and approximately one-half ($\frac{1}{2}$) mile east of Interstate 35. Surrounding properties are also zoned "AG" Agricultural District and primarily utilized in row crop production. There are a few residential homes in the surrounding area, which appear to be located on existing area farming operations. See *Attachment A* for a vicinity map of the subject property and surrounding area. There is an existing communication tower located on the property directly east at 12665 NE 29th Street. An approved Conditional Use Permit and site plan were granted in 2001 for this existing tower.

Application

The Polk County Zoning Ordinance, *Article 4: Use Regulations, Division 2, Table 4.1, Table of Uses* permits Communication Towers within the "AG" Agricultural District upon the granting of a Conditional Use Permit by the Polk County Board of Adjustment. The subject property is owned by Polk County and serves as a roadway maintenance facility for Polk County Public Works. The applicants are proposing a new 199-foot tall communication tower to be located in the southwest corner of the subject property. The tower would improve radio coverage for the Polk County Sheriff's Office and agencies dispatched by Polk County. See *Attachment B* at the end of this report for a copy of the application.

The proposed tower is a self-support lattice structure without guy-wires. In addition to the tower itself, also proposed is a 200 square feet (20' x 10') equipment shelter, an underground propane tank and emergency generator, an ice bridge and framing, as well as landscaping materials. A proposed 12-foot wide access drive will connect the tower site to the main property driveway and entrance in the northeast corner of the property. Under Article 15, Construction Standard, of the Zoning Ordinance the tower drive may be a granular surface, but must maintain a durable and dust free surface. See *Attachment C* at the end of this report for a copy of the draft site plan showing the proposed location of the tower and associated improvements on the subject property.

The proposed setbacks for the tower are approximately 50 feet from the western property line, 125 feet from the south property line parallel to NE 126th Avenue, and 200 feet from the eastern property line parallel to NE 29th Street. In addition to the draft site plan, the applicants have provided documentation regarding compliance with Federal Aviation Administration (FAA), Federal Communications Commission (FCC), and National Environmental Policy Act (NEPA) regulations. The proposed tower location meets the minimum nonresidential setback requirements for the “AG” Agricultural District. However, due to the height of the tower the applicants have also provided the required structural design report and collapse radius prepared by a licensed engineer certifying that the tower would collapse entirely on the subject property if there were a structural failure. This is required because a portion of the proposed setbacks from adjacent property lines are less than the height of the tower. There is no height limit for communication towers within the “AG” Agricultural District so long as all other provisions can be met. If this Conditional Use Permit application is approved, the applicants are required to submit an engineered site plan to Polk County for review and approval prior to construction. The site plan is required to demonstrate compliance with the standards for commercial communication towers, including minimum setbacks, landscaping, and nonresidential performance standards within the “AG” Agricultural District. Following site plan approval, review of construction plans and issuance of a building permit is also required from Polk County Public Works prior to construction.

Also of note is a co-location requirement contained in the Zoning Ordinance. The Ordinance states that a new tower shall not be approved unless the equipment for the proposed tower cannot be accommodated on an existing or approved tower within a one (1) mile radius of the proposed tower due to one or more of the following: (a) The planned equipment would exceed the structural capacity of the existing or approved tower; (b) The planned equipment would cause interference materially impacting the usability of other existing or planned equipment at the tower; (c) Existing or approved towers cannot accommodate the planned equipment at a height necessary to function reasonably; and/or (d) Other unforeseen reasons that make it infeasible to locate the planned communications equipment upon an existing or approved tower. The applicants have explored the option of co-locating on the existing tower adjacent to the east, however the costs to lease space on that site is four (4) times the cost to construct the proposed tower on Polk County’s property over the initial 10-year lease period. Staff considers this financial hardship as a qualifying exception under letter “(d)” above, and therefore the proposed new tower is not contrary to the co-location requirement. Additionally, recent State legislation has significantly reduced/eliminated the ability of local jurisdictions to require co-location when reviewing submittals for new communication towers.

Public Testimony

Staff mailed out a total of five (5) notices regarding this request, including the date and time of the public hearing, to surrounding property owners within the 500-foot notification boundary. To-date staff has received zero (0) responses regarding this application.

Natural Resources / Environmental

The subject property is not located within a mapped floodplain, nor does it contain other mapped environmental hazards or features. The site topography gradually slopes from north to south. There is a high elevation of approximately 990 feet along the northern property line, and a low elevation of approximately 980 feet along the southern property line. The site contains some

existing evergreens and landscaping along the western and northern property lines. Additional landscaping would be required to screen the communication tower and associated equipment.

Roads / Utilities

The subject property has approximately 283 feet of frontage to the south onto NE 126th Avenue, and approximately 575 feet of frontage to the east onto NE 29th Street. The existing driveway entrance to the site is located in the northeast corner of the property onto NE 29th Street. The tower site will be accessed via a proposed 12-foot wide drive extending south and west from the existing property entrance and driveway. Both NE 29th Street and NE 126th Avenue are hard surface roadways maintained by Polk County. NE 126th Avenue is classified as a major collector roadway and carries higher traffic volumes connecting the City of Elkhart to Interstate 35. NE 29th Street is classified as a minor collector roadway. Water service to the County maintenance shop appears to be provided by a private onsite well that was installed when the building was constructed back in 1993. Public water is adjacent to the property along both NE 126th Avenue and NE 29th Street through Des Moines Water Works (DMWW). The maintenance shop is served by an existing septic system, which County records indicate is located southwest of the building. The proposed communication tower does not require water or sanitary utilities. However, the new tower and equipment must be located a minimum of ten (10) feet from the existing septic system per Polk County Environmental Health requirements. Compliance with these requirements must be demonstrated during a future site plan review.

Analysis

The Board of Adjustment in reviewing an application for a Conditional Use permit shall consider the proposal in terms of the following:

- 1. Existing zoning and land use in the vicinity of the uses.**
The subject property and surrounding area are zoned “AG” Agricultural District, and primarily dedicated to row crop production with a few rural residences.
- 2. Planned and proposed public and private development, which may be adversely affected by the proposed use.**
There are no major public or private developments planned in the area.
- 3. Whether and to what extent the proposed use, at the particular location for which it is suggested, is necessary or desirable to provide a development which is in the interest of the public convenience or which will contribute to the general welfare of the area or Polk County.**
The subject property was established as a Polk County roads maintenance facility dating back to 1993. The site includes a 4,500 square foot shop building and outdoor storage of materials and equipment. The proposed communication tower would be compatible with the nature of the subject property, and located a substantial distance from nearby residences. Additionally, the tower is necessary to serve the emergency communication needs of the community, including the Polk County Sheriff’s Office, Ankeny Police and Fire, as well as other public safety agencies in north central Polk County.

4. **Whether and to what extent all steps possible have been taken by the developer to minimize any adverse effects of the proposed use on the immediate vicinity and on the public health, safety and welfare in general.**

If approved, the applicants are required to provide a fully engineered site plan to demonstrate compliance with the County's siting requirements for communication towers. The applicants have provided documentation regarding compliance with Federal Aviation Administration (FAA), Federal Communications Commission (FCC), and National Environmental Policy Act (NEPA) regulations. Furthermore, they have provided a structural design report and certified collapse radius prepared by a licensed engineer.

Findings

The application shall be denied if the Board of Adjustment finds any of the following:

- a. **The application and record fail to establish compliance with the standard made applicable to the proposed development by the provision of this Ordinance.**

Following approval of the Conditional Use Permit the applicants are required to provide an engineered site plan, as well as construction plans, for review and approval by Polk County, prior to any construction.

- b. **The proposed use, developed in the proposed manner, and at the proposed location, would be inconsistent with the standards pursuant to the provisions of this Ordinance.**

The subject property has been operated as a public roadway maintenance facility by Polk County for nearly 30 years. The proposed communication tower and improvements are compatible with the existing nature of the property. Additionally, required site plan and building permit review will ensure compliance with all County requirements for the use.

- c. **The adverse impacts on the overall public health, safety and welfare are not balanced by the public or private benefits of the proposal. The Board of Adjustment shall include in this balance, any proposals of the applicant and any conditions that it might impose on the development, pursuant to the provisions of this Ordinance, to ameliorate problems associated with the development.**

Future site plan and building permit review will ensure the established standards for communication towers are met, with the intent of protecting the public health, safety and welfare.

In addition, no application for a Conditional Use Permit shall be approved unless the Board of Adjustment specifically finds the proposed conditional use appropriate in the location for which it is proposed. This finding shall be based on the following criteria:

- A. **The proposed use is not in harmony with the general purpose, goals, objectives, and standards of the following:**

1. **Polk County Comprehensive Plan:** The proposal is consistent with the goals and policies of the 2030 Polk County Comprehensive Plan.

2. **Polk County Zoning Ordinance:** The Ordinance allows the proposed use pending approval of this Conditional Use Permit by the Board of Adjustment, and pending the following: Future approval of an engineered site plan, building permit review, issuance and inspections, as well as completion of all improvements and issuance of an certificate of use by Polk County Public Works.
3. **Other plan, program, map, or ordinance adopted, or under consideration pursuant to official notice, by the County:** None.

B. The proposed location of the use is not consistent with policies or provisions of the following:

1. **Comprehensive Plan:** The proposed use is consistent with the goals and policies of the 2030 Polk County Comprehensive Plan.
2. **Polk County Zoning Ordinance:** Communication towers are allowed within the “AG” Agricultural District, subject to approval of a Conditional Use Permit by the Board of Adjustment.
3. **Other plan, program, map, or ordinance adopted, or under consideration pursuant to official notice, by the County:** None.

C. The proposed use at the proposed location results in a substantial or undue adverse effect on any of the following either as they now exist or as they may in the future be developed as a result of the implementation of provisions and policies of the Comprehensive Plan, this Ordinance, or any other plan, program, map, or ordinance adopted, or under consideration pursuant to official notice, by the County or other governmental agency having jurisdiction to guide growth and development:

1. **Adjacent property:** Adjacent properties are similarly zoned, and currently used agriculturally in row crop production. There are a few residences nearby, with the closest over 900 feet away from the proposed tower location. Most of the residences also appear to be located on active farming operations in the area and occupied by area farmers. Property owners within 500 feet were notified of this request, and no comments have been received to-date. Furthermore, there is no planned or proposed public or private development in this area that would be impacted by this proposal. The current zoning and future land use of the larger surrounding area is agricultural.
2. **Character of the neighborhood:** All surrounding property is zoned and utilized agriculturally, with the exception of a few sparse residences and an existing communication tower.
3. **Traffic conditions:** NE 126th Avenue and NE 29th Street are classified as major and minor collector roadways, respectively. Both are hard surfaced and maintained by

Polk County. The proposed use will not generate any additional traffic.

4. **Parking:** The proposed use will not generate additional onsite or offsite parking.
5. **Public improvements:** No impact upon future public improvements is anticipated.
6. **Public sites or rights-of-way:** No impact upon public sites or adjacent rights-of-way is anticipated.
7. **Other matters affecting the public health, safety, and general welfare:** None.

D. The proposed use in the proposed area is not adequately served by or imposes an undue burden on any of the following.

1. **Public improvements:** Adequate for proposed use.
2. **Public facilities:** Adequate for proposed use.
3. **Public utilities:** Adequate for proposed use.
4. **Public services:** Adequate for proposed use.

Recommendation

Staff recommends approval of the Conditional Use Permit to allow for the construction of a new 199-foot tall communication tower and associated improvements on the subject property, subject to the following conditions of approval:

1. The applicants shall submit a Major Site Plan drawing from an Iowa licensed engineer certifying the proposed tower design and associated improvements meet the minimum safety requirements and use standards for communication towers contained within the Polk County Zoning Ordinance. The Major Site Plan drawing shall be approved prior to any construction activity. Prior to issuance of a certificate of use, all required site improvements shall be completed and inspected by Polk County.
2. Building Permits are required for the tower structure, equipment shelter, and emergency generator, including electrical permits and inspections.
3. The applicants shall meet Polk County Air Quality Division construction and operation permit requirements for the proposed generator.

Attachment A Vicinity Map

Subject Property
12668 NE 29th St

I35 NB

I35 SB

NE 126th Ave

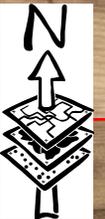
NE 29th St

NE 38th St

Elkhart

Elkhart

Ankeny



Conditional Use Permit Application

Conditional Uses are those uses which may have a special impact or uniqueness demanding closer scrutiny and analysis to the site and the surrounding environment. When such a use is proposed, a review and report by Planning Division staff of the location, design, configuration, and impact will be conducted, comparing the proposed use to fixed standards and presented to the Board of Adjustment for action at a public hearing. Notices of the request are mailed to all property owners located within 500 feet of the subject property.



Please complete the entire application, submit with fee and review the standards on page 3.

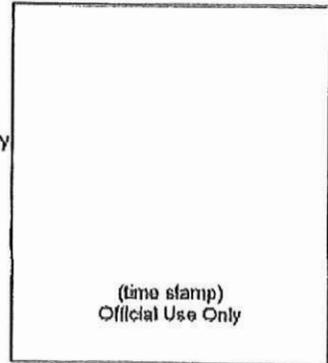
To: **Polk County Board of Adjustment**

1. The undersigned Petitioners request that the Board consider this application for a Conditional Use Permit for the following use: (Describe briefly the nature of the use.)
A 199 ft communications tower in the southwest corner of the Polk County Shop
to improve radio coverage for Polk County Sheriff's Office and agencies dispatched by Polk County

2. Subject Property Address: 12668 NE 29th St., Elkhart, Iowa 50073

3. Subject Property District and Parcel Number: 210/00446-002-000

4. Subject Property Legal Description (attach if necessary):
-EX E 33F & S 50F- S575F E 283F SE 1/4 SE 1/4 SEC 30-81-23



5. Filing Fee: - \$407.00

6. Applicant(s) Information:

RACOM Corporation - Steve Holmes

Applicant (Print Name)

[Signature]
Signature

10/6/2020
Date

Owner of tower, renter of land

steve.holmes@racom.net

Email

Interest in Property (owner, renter, perspective buyer, etc.)

210 West State Street, Marshalltown, Iowa 50158

515-681-1745

Address, City, State and Zip

Phone

Fax

7. Applicant(s) Representative:

If the appeal is going to be represented by someone other than the applicant please provide that information below.

Steve Holmes

RACOM Corporation

Applicant Representative (Print Name)

Firm or Business Name

201 West State Street, Marshalltown, Iowa 50158

Address, City, State and Zip

steve.holmes@racom.net

515-681-1745

Email

Phone

Fax

8. Property Owner Consent:

The application must be signed by all the Titleholders, Contract Purchasers, or Option Purchasers of the subject property. The application may also be signed by the Registered Agent for a corporation or other person with similar legal authority to sign for a property owner. (If additional signatures are needed please attach)

Matt McCoy
(Print Name)

[Signature]
Signature

10/8/20
Date

(Print Name)

Signature

Date

Conditional Use Permit Standards

Section 1. Review Standards

The review determines whether the proposed use should be permitted by weighing public need for and benefits to be derived from the use against the local impact which it may cause. The review shall consider the proposal in terms of:

- (A) Existing zoning and land use in the vicinity of the use; and
- (B) planned and proposed public and private developments which may be adversely affected by the proposed use; and
- (C) whether and to what extent the proposed use, at the particular location for which it is suggested, is necessary or desirable to provide a development which is in the interest of the public or which will contribute to the general welfare of the area or Polk County; and
- (D) whether and to what extent all steps possible have been taken by the developer to minimize any adverse effects of the proposed use on the immediate vicinity and on the public health, safety and welfare in general.

Section 2. General Standards

No application for a conditional use permit shall be approved unless the Board of Adjustment specifically finds the proposed conditional use appropriate in the location for which it is proposed. This finding shall be based on the following criteria:

The proposed use shall be in harmony with the general purpose, goals, objectives, and standards of the Polk County Comprehensive Plan, this Ordinance, or any other plan, program, map, or ordinance adopted, or under consideration pursuant to official notice, by the County.

- (A) The proposed location and use shall be consistent with policies or provisions of the Comprehensive Plan, this Ordinance, or other plans or programs of the County.
- (B) The proposed use at the proposed location shall not result in a substantial or undue adverse effect on adjacent property, the character of the neighborhood, traffic conditions, parking, public improvements, public sites or rights-of-way, or other matters affecting the public health, safety, and general welfare, either as they now exist or as they may in the future be developed as a result of the implementation of provisions and policies of the Comprehensive Plan, this Ordinance, or any other plan, program, map, or ordinance adopted, or under consideration pursuant to official notice, by the County or other governmental agency having jurisdiction to guide growth and development.
- (C) The proposed use in the proposed area will be adequately served by, and will not impose an undue burden on, any public improvements, facilities, utilities, and services. Where any such improvements, facilities, utilities, or services are not available or adequate to service the proposed use in the proposed location, the applicant shall, as part of the application and a condition to approval of the proposed conditional use permit, be responsible for establishing ability, willingness, and binding commitment to provide such improvements, facilities, utilities, and services in sufficient time, and in a manner consistent with the Comprehensive Plan, this Ordinance, and other plans, programs, maps, and ordinances adopted by Polk County to service the development. The approval of the conditional use permit shall be conditioned upon such improvements, facilities, utilities, and services being provided and guaranteed by the applicant.

RE: RACOM Corporation Communications Infrastructure Development at 12668 NE 29th Street, Elkhart, Iowa.

Date: October 12, 2020 - Rev 04

Submitted by: Steve Holmes, RACOM Corporation

To: Polk County Board of Adjustment

Please find the attached drawings and documents for our proposed 195 ft Self Support Tower to be located in an agricultural district near the intersection of NE 126th Ave. and NE 29th St. west of Elkhart.

The proposed Infrastructure is part of the Central Iowa Regional Public Safety Communication System (CIRPSCS) and will provide state of the art two-way radio communications for the Polk County Sheriff, Ankeny Police and Fire as well as other public safety agencies within Polk County. This new site is critical to providing enhanced coverage in north central Polk County, including the Ankeny, Elkhart and Alleman areas.

As part of this project we have entered into a long-term lease agreement with Polk County, landowner of the proposed site. This site will include antennas, transmission line, compound, shelter, propane tank and emergency generator. RACOM has thoroughly explored other co-location options in the area. *While there is a guyed tower in the area the costs to lease space at this site are unreasonable and would be over 4 times the cost to construct the tower on Polk County's property over the initial 10-year lease.*

Also, we selected this location as we feel it will have the minimal adverse visual impact on the surrounding area. The location is in a sparsely inhabited area and any residential structures close to the tower are screened by the existing trees and vegetation. We have reviewed the zoning requirements of Section 4, Sub-Section (L) – Communications Towers and have included a point by point response along with the required site plan drawings.

Please contact me with question or if any additional information is required.

We appreciate your consideration of our proposed site.

Attached Drawings and Documents:

- _Polk Co Elkhart Conditional-Use-Permit-Application SIGNED Rev 03 2020-10-08.pdf
- _Polk Co Elkhart Conditional Use App Narrative Rev 04 2020-10-12 – This document
- RACOM - Polk County – Elkhart (Ankeny North) - ZDs Rev C - 10-09-20 - (200801) - 6 Copies
- 20-5750-TJH-R2 Permit Package - Sealed and Certified 2020-09-30.pdf
- RACOM Corporation; Elkhart, IA; Fall Letter (10-7-20) - Certified.pdf
- Polk County Land Lease – Signed Elkhart Lease 8-26-20.pdf
- ✓ RACOM Network Polk County Coverage Map - _Polk Co Phase 3 P25 Project Coverage 8dB Portable Talk Back Rev 3 2020-02-10.pdf

Steve Holmes
RACOM Corporation
515-681-1745
steve.holmes@racom.net

Zoning Requirements for Special Use Permit.

(L) Communication Towers.

Radio or TV broadcasting towers, telecommunications towers, antenna arrays (except residential satellite dishes). All towers shall be located so that they do not interfere with radio and television reception in residential areas. All towers shall meet the Ankeny Regional Airport Tall Structures Zoning Ordinance.

Tower is located in sparsely populated area and will operate on licensed 700/800MHz radio frequencies and licensed 6 GHz microwave. Those licenses are currently in process with the FCC. The FAA's (TOWAIR) for a less than 199 ft tower indicates that tower registration is not required. We have also run the FAA's Notice Criteria Tool and have filed for an FAA study.

The following regulations apply to all commercial communication towers except for ham and citizen band radios.

- (1) Height. The maximum height for a commercial communication tower in the HI District and LI District is 350'. The maximum height in the GC and AT Districts is 180'. There is no maximum height for commercial communications towers in the AG District.
Tower will be located in AG District.
- (2) Setbacks. A commercial communication tower and any accompanying structure must meet the standard nonresidential setbacks for the underlying district. In addition to the setback requirements, there must be sufficient radius of clear land around the tower so that its collapse will be contained on this property. Unless the collapse radius is otherwise specified and certified by an engineer licensed in Iowa, the tower shall be set back from the property line a distance equal to the height of the tower and antenna. Also, there must be enough area for a vehicle doing maintenance to maneuver on the property.
We have proposed a 50ft fall radius set back. See certified engineer letter.
- (3) Lighting. Towers located within one (1) mile of a residential zoning district shall use dual lighting system strobe during the day and red incandescent lighting, at night or only red incandescent lighting, subject to FAA requirements.
A 199 ft tower will not require a lighting system.
- (4) Landscaping.
 - (a) The adverse visual impact of a tower shall be minimized through design, location and landscape screening around the tower base and any associated structures. Innovative camouflaging techniques may also be used to minimize the visual impact of a tower. The landscape screening requirement may be waived by the Zoning Administrator under the following situations:
 - 1) The tower is located in the midst of a wooded area and the existing vegetation will provide sufficient screening for the duration of the use.

- 2) The tower is located in a rural district and in a farm field at least 660' away from an existing or known proposed use or public space where the landscape screening will not be visible from the public roadway.
- (b) All landscaping must consist of evergreens or hedge shrubs located outside of any fenced area but within the leased area. Landscaping materials shall be adequately spaced to provide screening. Minimum plantings shall be six (6) foot minimum height for evergreen or four (4) foot minimum height for hedge shrubs at time of planting.

Our proposed drawings include the required landscaping.

- (5) Signs. No signs bearing advertising will be permitted on the fence surrounding the tower. Warning, danger, high voltage or similar signs are allowed.

Only required FCC identification and warning signs will be installed.

- (6) Co-location. An applicant shall provide a certification by a registered engineer licensed in the State of Iowa that the proposed commercial communication tower is designed, structurally and electrically, to permit at a minimum three (3) antenna systems of comparable size to be added to the original tower. A new commercial communication tower shall not be approved unless the communication equipment for the proposed tower cannot be accommodated on an existing or approved tower within a one mile search radius of the proposed tower due to one or more of the following reasons as documented by a licensed engineer in the State of Iowa:
 - (a) The planned equipment would exceed the structural capacity of the existing or approved tower.
 - (b) The planned equipment would cause interference materially impacting the usability of other existing or planned equipment at the tower.
 - (c) Existing or approved towers cannot accommodate the planned equipment at a height necessary to function reasonably.
 - (d) Other unforeseen reasons that make it infeasible to locate the planned communications equipment upon an existing or approved tower.

Our proposed tower is engineered to accommodate Polk County's antenna system along with 3 co-location antenna system of comparable size.

There is one commercial tower within a one-mile radius owned by American Tower, #50822. While American Tower did indicate that there is available space for the proposed equipment the cost to lease this space is unreasonably expensive and would be over 4 times the cost to construct the tower on Polk County's property over the initial 10-year lease.

- (7) Abandoned or Unused Towers. The applicant shall present a signed lease agreement, a recorded declaration of covenants or other satisfactory evidence showing that the owner/operator of a tower is obligated to promptly remove the tower at the end of the lease term or when the antenna thereon is no longer used, and that the site will be returned to original condition. If a tower is granted a conditional use permit, the conditional use permit will terminate when the lease for the site terminates or when the antenna is no longer in use.

See attached section 14. of the attached land lease.

- (8) Safety. The tower design and construction must be certified by a registered engineer, meeting minimum safety requirements of this Ordinance. The tower

must meet all applicable FCC and FAA requirements.

See attached tower engineer drawings from Sabre Towers. Also attached are the FAA and FCC registration filings.

- (9) Equipment Cabinets and buildings. No spacing requirements between equipment cabinets. Equipment buildings must be separated a minimum of 10 feet.
See attached site plan

DESCRIPTION OF PARENT PARCEL

(PER ACQUISITION PLAT RECORDED IN THE POLK COUNTY RECORDERS' OFFICE IN BOOK 6697, PAGE 205)

A PARCEL OF LAND LOCATED IN THE S.E. 1/4, S.E. 1/4 OF SECTION 30, T 81 N, R 23 W, OF THE 5th P.M., ELKHART TOWNSHIP, POLK COUNTY, IOWA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE S.E. CORNER OF SECTION 30, T 81 N, R23 W, OF THE 5th P.M., ELKHART TOWNSHIP, POLK COUNTY, IOWA; THENCE N 90° 00' 00" W ALONG THE SOUTH LINE OF THE S.E. 1/4, SE 1/4 OF SAID SECTION 30 A DISTANCE OF 283.00 FEET; THENCE N 00° 09' 45" W - 575.00 FEET; THENCE S 90° 00' 00" E - 283.00 FEET; THENCE S 00° 09' 45" E - 575.00 FEET TO THE POINT OF BEGINNING CONTAINING 3.736 ACRES, MORE OR LESS INCLUSIVE OF 0.723 ACRES PRESENT ESTABLISHED HIGHWAYS.

PROPERTY SUBJECT TO ALL EASEMENTS OF RECORD FOR PUBLIC UTILITIES, ROADS AND HIGHWAYS.

P.I.N.: 210.00446.002.000 GEOPARCEL: 8123.30.400.004

ADDRESS: 12668 NE 29TH ST. ELKHART, IA 50073.

PROPERTY ZONED: AG-AGRICULTURAL

PROPERTY OWNER: POLK COUNTY
CONTACT: KURT BAILEY (515) 286-3705

NOTE:
TOTAL OF RACOM IMPERVIOUS SURFACE IS ±0 SQ. FT.

TOTAL OF IMPERVIOUS SURFACE ON PARCEL IS ±7,774 SQ. FT.

SHELTER EQUIPMENT HEIGHT = 10'-0"

DESIGN FIRM

PBM WIRELESS SERVICES
3620 DEVELOPERS RD
INDIANAPOLIS, IN 46227
JAMES DOWNEY
(847) 247-8456
jdowney@pbmws.com

NOTES:

1. WORK DONE IN THE CITY RIGHT-OF-WAY REQUIRES A RIGHT-OF-WAY PERMIT AND ALL RIGHT-OF-WAY WORK SHOULD BE DONE IN ACCORDANCE WITH SUDAS AND THE CITY OF DES MOINES GENERAL SUPPLEMENTAL SPECIFICATIONS TO SUDAS EFFECTIVE AT THE TIME OF PLAN APPROVAL. (SEC. 102-707)
2. THE SITE SHALL BE MAINTAINED IN COMPLIANCE WITH ALL CITY CODE APPLICABLE ON THE DATE OF SITE PLAN APPROVAL
3. ANY NEW ROOFTOP MECHANICAL EQUIPMENT MUST BE SCREENED FROM STREET LEVEL VIEW.
4. TRANSFORMERS, JUNCTION BOXES, AIR CONDITIONERS OVER 3 FEET IN HEIGHT, OR OTHER SUCH ITEMS MAY NOT BE LOCTED IN THE REQUIRED SETBACK AREAS.
5. ANY AMENDMENTS OR CHANGES TO THE PROJECT SITE THAT DO NOT MEET WITH WHAT IS SHOWN ON THE SITE PLAN NEED TO BE APPROVED WITH THE PERMIT AND DEVELOPMENT CENTER PRIOR TO INSTALLATION/CONSTRUCTION.
6. LIGHTING MUST BE LOW GLARE CUT OFF TYPE FIXTURES TO REDUCE THE GLARE OF LIGHT POLLUTION ON SURROUNDING PROPERTIES.
7. THE REQUIRED LANDSCAPING, BOTH EXISTING AND PROPOSED, SHALL BE MAINTAINED FOR THE LIFE OF THE CERTIFICATE OF OCCUPANCY.
8. ALL DISTURBED AREAS SHOULD BE RESTORED BY SEEDING OR SODDING.
9. NO DUMPSTER WILL BE PROVIDED ON SITE WHICH WOULD REQUIRE THE NEED FOR A DUMPSTER ENCLOSURE.

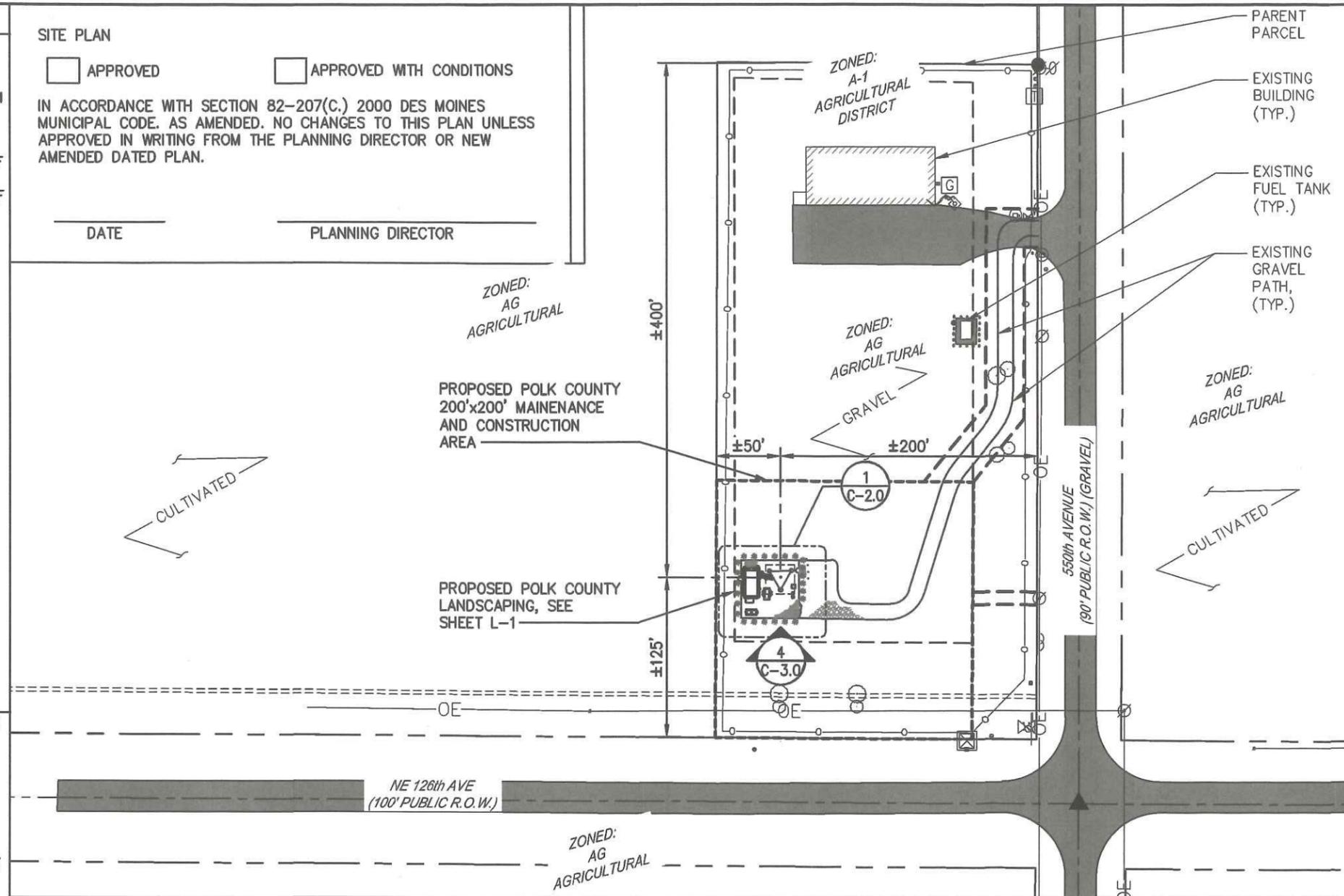
SITE PLAN

□ APPROVED □ APPROVED WITH CONDITIONS

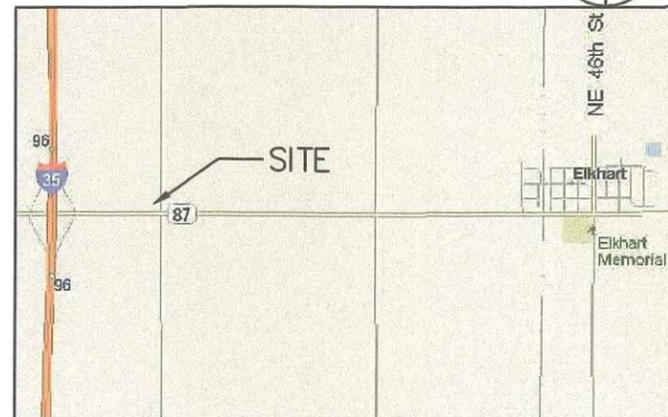
IN ACCORDANCE WITH SECTION 82-207(C.) 2000 DES MOINES MUNICIPAL CODE. AS AMENDED. NO CHANGES TO THIS PLAN UNLESS APPROVED IN WRITING FROM THE PLANNING DIRECTOR OR NEW AMENDED DATED PLAN.

DATE _____

PLANNING DIRECTOR _____



1 MINOR SITE PLAN
SCALE: 1" = 100'



VICINITY MAP



PROJECT NO: 20-08-01
DRAWN BY: JD/JAP/KS
CHECKED BY: JMD

A	03/31/20	NEPA
B	09/03/20	80% REVIEW
C	10/06/20	ZONING REV.

RACOM
POLK COUNTY
ELKHART
(ANKENY NORTH)
12668 NE 29th ST.
ELKHART, IA 50073
POLK COUNTY
RAW LAND

SHEET TITLE
**MINOR
SITE PLAN**

SHEET NUMBER
C-0.0

PARENT PARCEL POLK COUNTY MAINTENANCE FACILITY

15' SIDE/REAR YARD SETBACK

EXISTING BOLLARD (TYP.)

EXISTING FUEL TANK ON CONCRETE PAD

EXISTING GRAVEL PILE

CULTIVATED FIELD

EXISTING CHAIN LINK FENCE

PROPOSED 200'x200' CONSTRUCTION/MAINTENANCE LEASE AREA

PROPOSED 195' S.S. TOWER

PROPOSED 45'x45' COMPOUND

75' STREET YARD SETBACK (OTHER PRINCIPAL ARTERIAL)

EXISTING OVERHEAD ELECTRIC EASEMENT

EXISTING WATER LINE EASEMENT

APPROXIMATE LOCATION OF PUBLIC RIGHT-OF-WAY

PARCEL OWNER:
POLK COUNTY
PARCEL I.D.
#210.00446.002.000

550th AVENUE
(90' PUBLIC R.O.W.) (GRAVEL)

EXISTING UTILITY POLE w/ TRANSFORMER

EXISTING ELECTRICAL VAULT

EXISTING TELCO PEDESTAL

EASTERLY LINE OF SECTION 30

15' SIDE/REAR YARD SETBACK

50' STREET YARD SETBACK (LOCAL/MINOR ARTERIAL/COLLECTOR)

PROPOSED 30' WIDE ACCESS/UTILITY EASEMENT

PROPOSED 12' WIDE DRIVE

PROPOSED 10' WIDE UTILITY EASEMENT

EXISTING UTILITY POLE (TYP.)

PROPOSED TOWER ELECTRIC SERVICE: COORDINATE EXACT SERVICE REQUIREMENTS AND ROUTING WITH LOCAL UTILITY COMPANY.

EXISTING TRANSFORMER

NE 126th AVE
(100' PUBLIC R.O.W.)



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POLK COUNTY
RAW LAND

SHEET TITLE
PARTIAL
SITE PLAN

SHEET NUMBER
C-10

1 SITE PLAN
SCALE: 1" = 60'

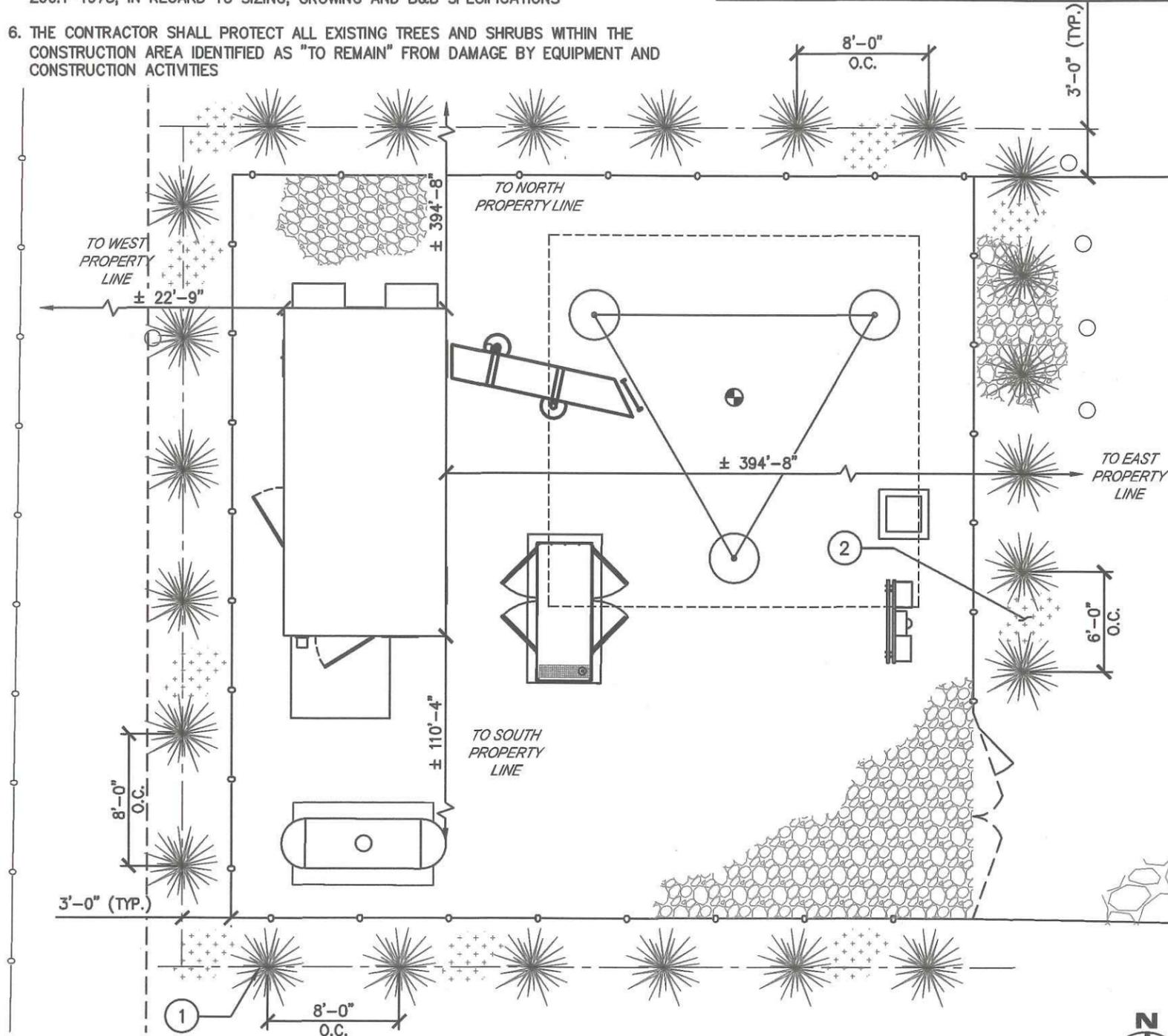


LANDSCAPING NOTES:

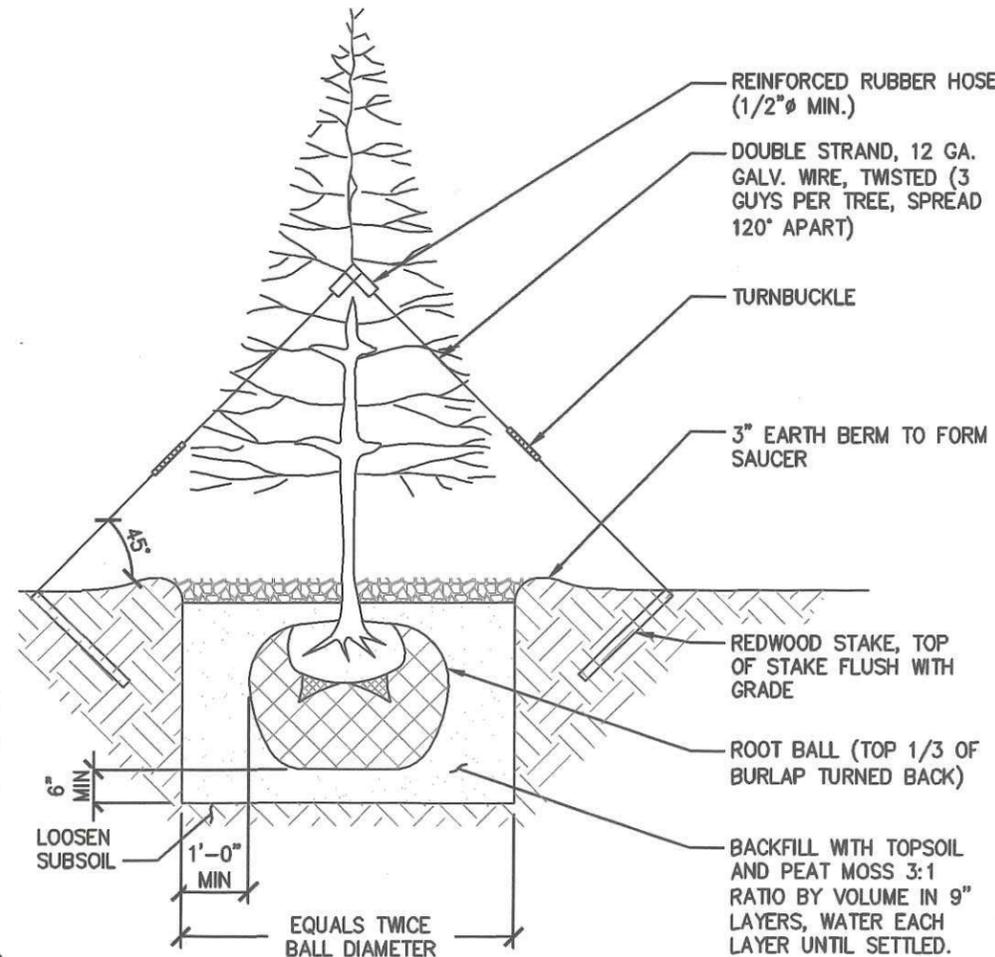
1. TOPSOIL TO BE PROVIDED BY SITE CONTRACTOR IN ROUGH GRADE TO WITHIN 1" OF FINISHED GRADE.
2. EACH PLANT TO BE IN THE TOP OF ITS CLASS AFTER SHEARING AND PRUNING
3. EACH PLANT TO BE FREE FROM DISEASE, INSECT INFESTATION, MECHANICAL INJURIES, AND IN RESPECTS BE SUITABLE FOR FIELD PLANTING
4. PLANTS TO BE FULLY GUARANTEED (LABOR AND MATERIALS) FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF INSTALLATION.
5. PLANTS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1-1973, IN REGARD TO SIZING, GROWING AND B&B SPECIFICATIONS
6. THE CONTRACTOR SHALL PROTECT ALL EXISTING TREES AND SHRUBS WITHIN THE CONSTRUCTION AREA IDENTIFIED AS "TO REMAIN" FROM DAMAGE BY EQUIPMENT AND CONSTRUCTION ACTIVITIES

PLANTING SCHEDULE

ITEM	QTY.	BOTANICAL NAME	COMMON NAME	HEIGHT @ PLANTING	HEIGHT @ MATURITY	SPREAD / CALIPER	SPACING	REMARKS
EVERGREEN TREE								
1	28	SEA GREEN	JUNIPER	3'-0" (MIN)	6'-0" (MIN)	2"	SEE PLAN	SHOWN AS  SEE DETAIL 2/L-1
MULCH								
2	-	-	MULCH	-	-	-	-	APPLY 3"-4" FROM THE TRUNK LINE TO THE DRIP LINE FOR GROUND COVER - APPLY 1"-2" DEEP



1 LANDSCAPING PLAN
SCALE: 1/8" = 1'-0"



2 PLANTING DETAIL
SCALE: NONE



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RACOM
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POLK COUNTY
RAW LAND

SHEET TITLE
LANDSCAPING
PLAN

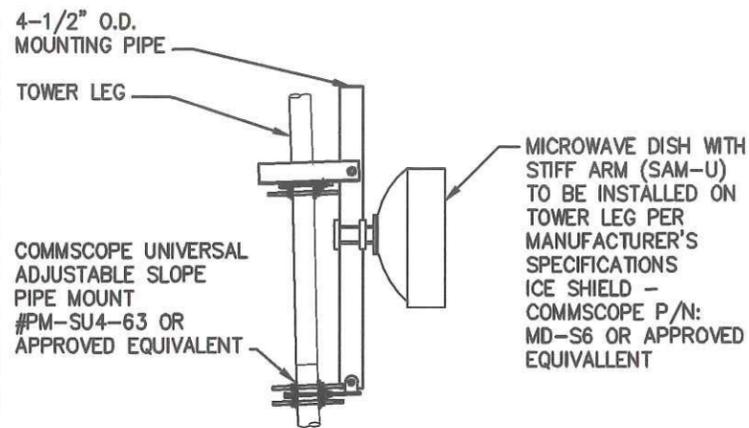
SHEET NUMBER
L-1

ANTENNA AND CABLE SCHEDULE

ANTENNA MODEL #	ELEVATION	COAX LENGTH FROM SHELTER TO ANTENNAS	AZIMUTH	COAX SIZE	NOTES
(2) 7.5' X 3" OMNI DS7C10P36U-D	℄ 185' (MOUNT @ 175')	250'	0.00°	(2) 1-1/4" ∅	(1) 700MHz P25 TX (1) 700MHz P25 RX
(3) 8' PANEL ANTENNAS	℄ 166.0' (MOUNT @ 166.0')	186'	N / A	COAX	OPTIONAL CARRIER
MW DISH HP6-5.9	℄ 150.0' (MOUNT @ 150.0')	170'	275.5°	EWP63	MICROWAVE - BIG CREEK
MW DISH HP6-5.9	℄ 125.0' (MOUNT @ 125.0')	145'	69.93°	EWP63	MICROWAVE - COLLINS
(3) 8' PANEL ANTENNAS	℄ 115.0' (MOUNT @ 115.0')	135'	N / A	COAX	OPTIONAL CARRIER
(3) 8' PANEL ANTENNAS	℄ 105.0' (MOUNT @ 105.0')	125'	N / A	COAX	OPTIONAL CARRIER

GENERAL NOTES

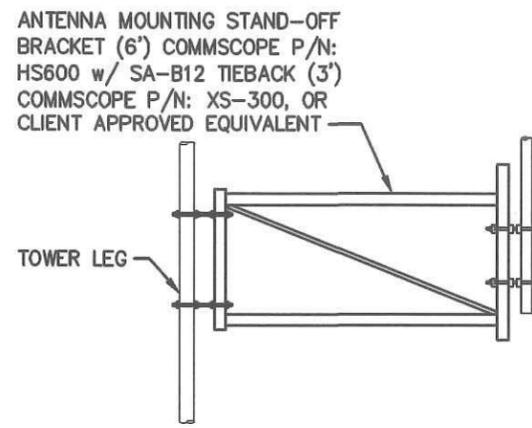
- ELEVATION IS FOR REFERENCE PURPOSE ONLY.
- ANTENNAS, COAX, SUPPORTS, & ETC. SHALL BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.
- CONTRACTOR SHALL INSTALL ANTENNAS & CABLES ON TOWER PER STRUCTURAL REPORT (PROVIDED BY OTHERS).



1 TYP. MW DISH MOUNTING DETAIL

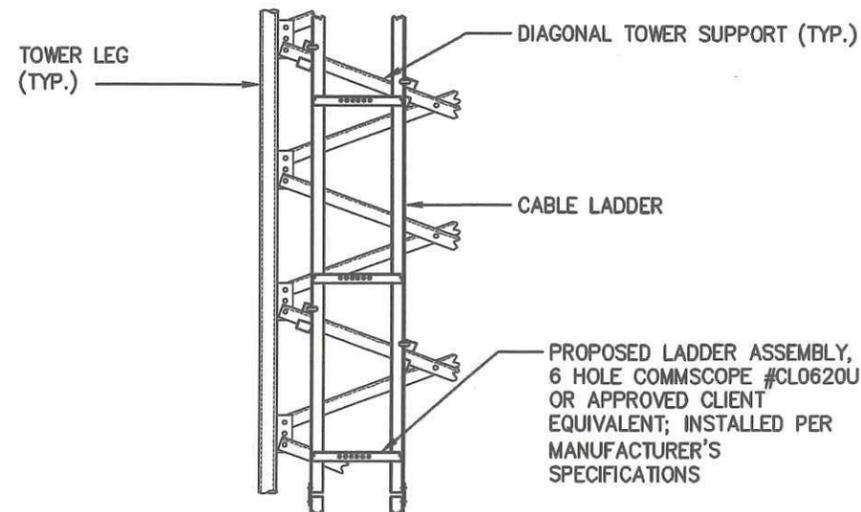
SCALE: NONE

CDS-DISH-MOUNT-SST



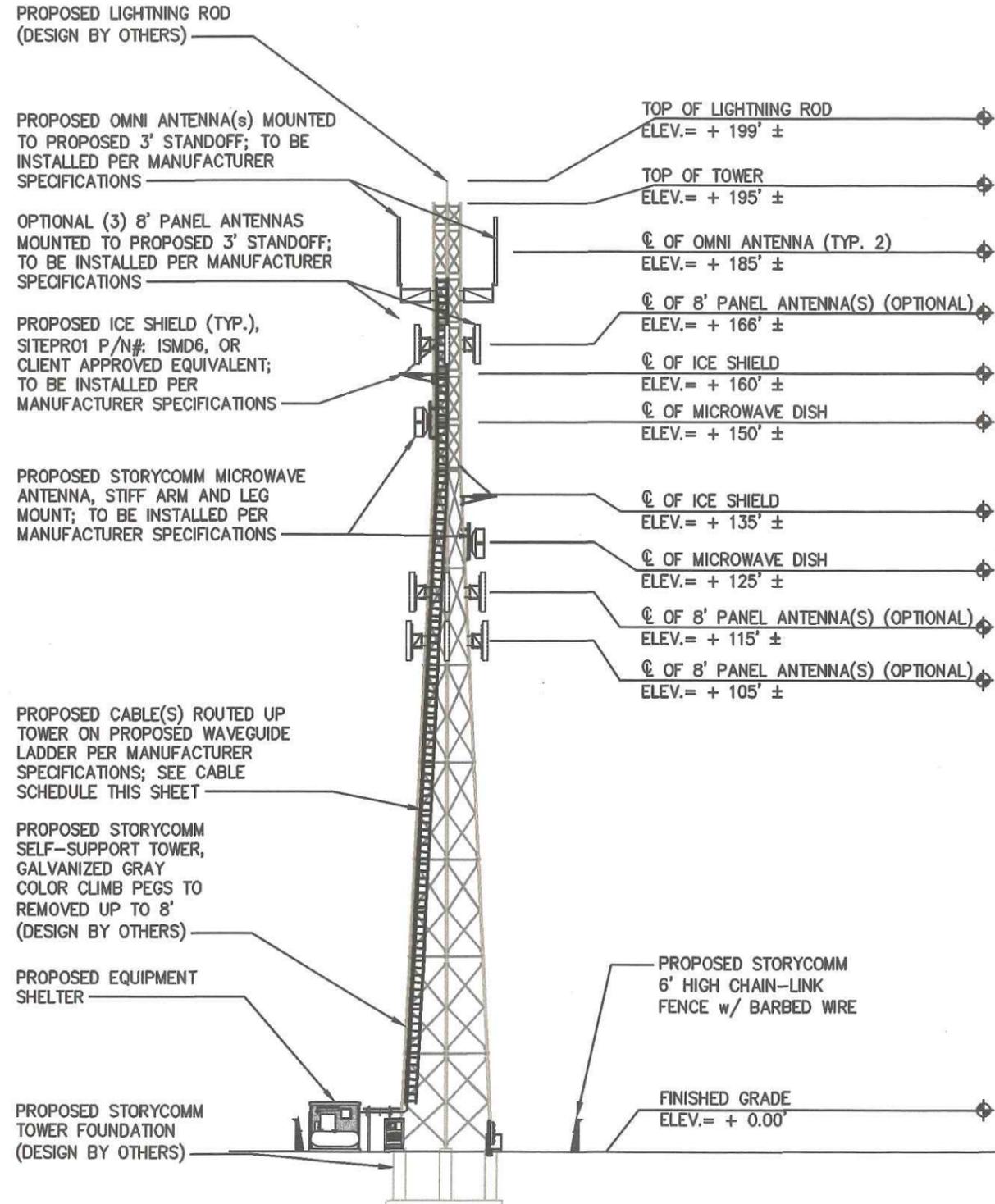
2 OMNI ANTENNA MOUNTING DETAIL

SCALE: NONE



3 CABLE LADDER DETAIL

SCALE: NONE



4 TOWER ELEVATION

SCALE: 1"=30'



PROJECT No: 20-08-01

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CHECKED BY: JMD

A 03/31/20 NEPA

B 09/03/20 80% REVIEW

C 10/08/20 ZONING REV.

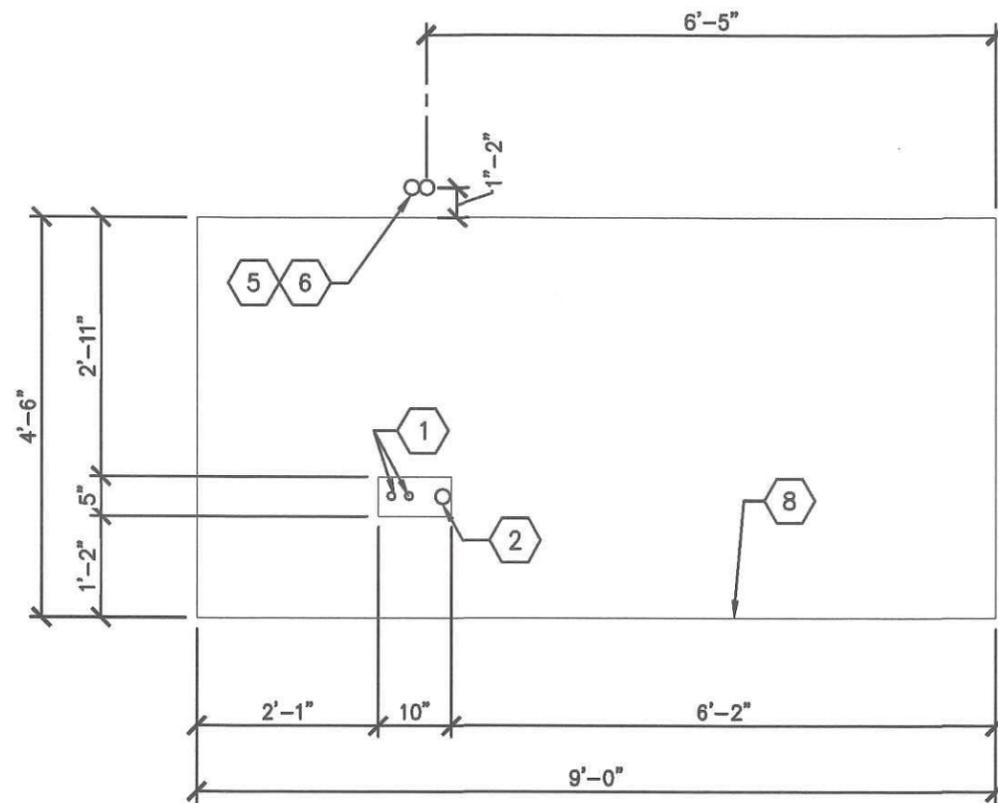
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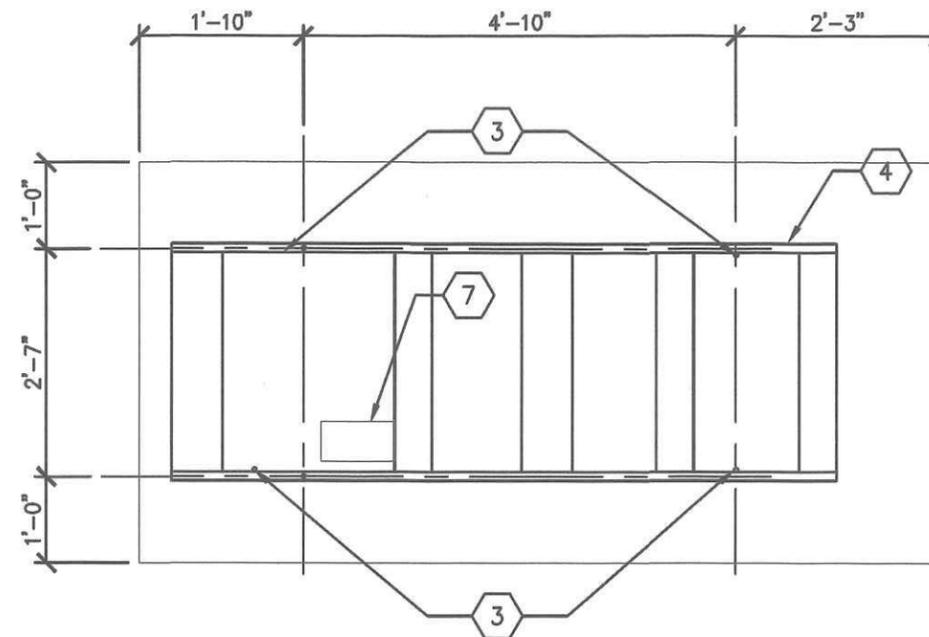
RAW LAND

SHEET TITLE
ELEVATION
& DETAILS

SHEET NUMBER
C-3.0



PROPOSED GENERATOR SLAB



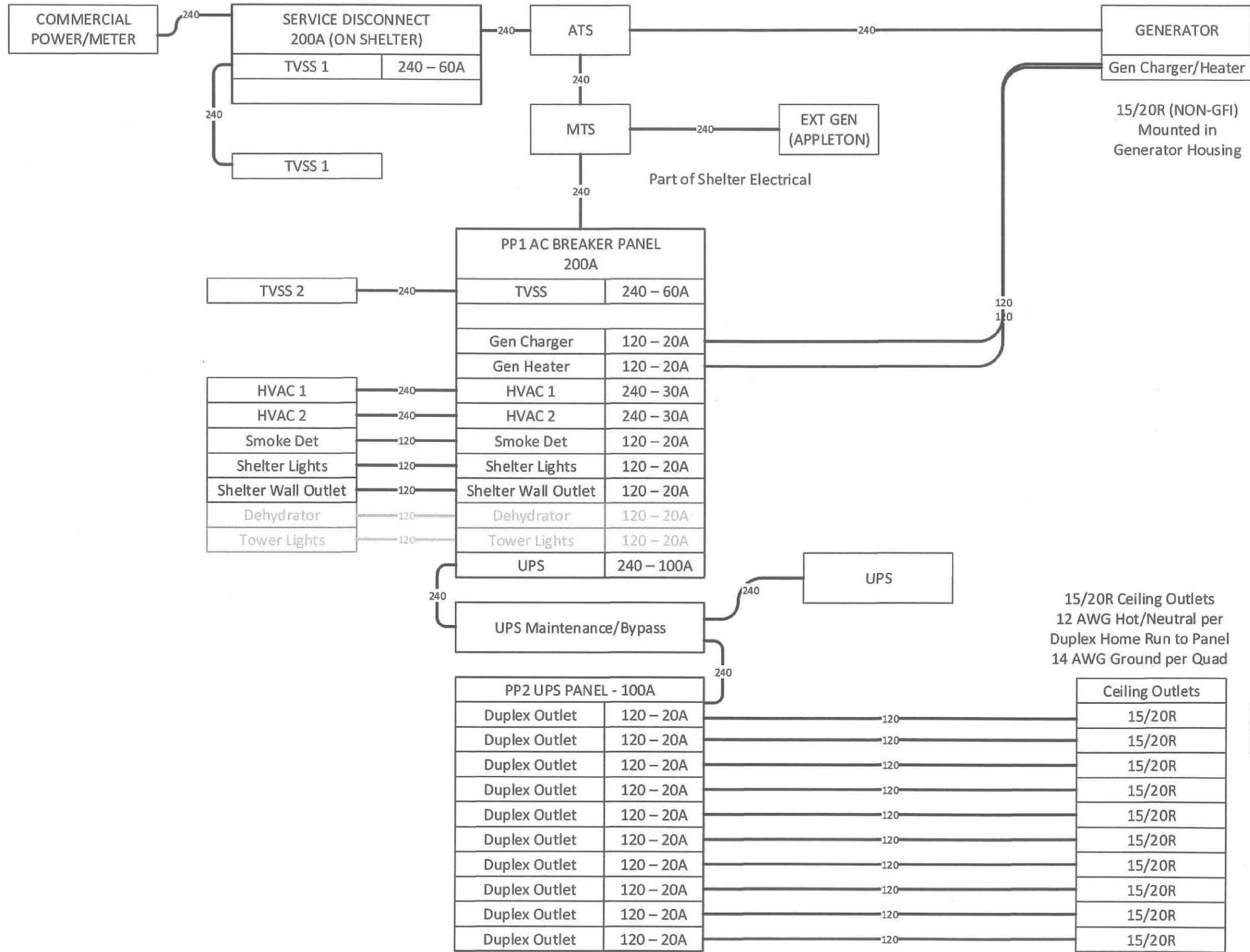
GENERATOR FRAME TOP VIEW

GENERATOR SLAB KEY NOTES:

- | | |
|--|--|
| <p>1 PROPOSED (2) 1" PVC CONDUITS FOR BATTERY CHARGER/BLOCK HEATER & COMMUNICATION.</p> <p>2 PROPOSED 2" CONDUIT FOR POWER FROM GENERATOR TO SHELTER</p> <p>3 GENERATOR ANCHOR POINT (TYP.), ATTACH USING 1/2" Ø HILTI HIT HY200 BOLT w/ 4" MIN. EMBEDMENT, REFERENCE MANUFACTURER DRAWINGS FOR EXACT LOCATION</p> | <p>4 PROPOSED OUTLINE OF GENERATOR BASE FRAME</p> <p>5 PROPOSED 2" PVC CONDUIT FOR LP SERVICE FROM PROPANE TANK TO GENERATOR</p> <p>6 PROPOSED 1" PVC; LP TANK TO GENERATOR FOR LP FUEL LEVEL</p> <p>7 PROPOSED SLAB/CONDUIT OPENINGS, COORDINATE W/ GENERATOR MANUFACTURER</p> <p>8 PROPOSED GENERATOR SLAB</p> |
|--|--|

NOTES:

- CONTRACTOR SHALL VERIFY MODEL WITH RACOM CONSTRUCTION MANAGER AND DIMENSIONS WITH MANUFACTURER PRIOR TO INSTALLATION
- SEE PLAN VIEW FOR LOCATION OF CONDUIT TERMINATION



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POLK COUNTY
RAW LAND

SHEET TITLE
TYPICAL
ELECTRICAL
DIAGRAM

SHEET NUMBER
C-3.2

1 TYPICAL INTERIOR SHELTER ELECTRICAL DIAGRAM
SCALE: NONE