



LAND USE APPLICATION SUMMARY

Property Location: 5417 33rd Ave S
Project Name: Monopole telecommunications tower
Prepared By: Joe Giant, City Planner, (612) 673-3489
Applicant: Buell Consulting, on behalf of Verizon Wireless
Project Contact: Rob Viera
Request: To construct a 45-foot monopole telecommunications tower.
Required Applications:

Conditional Use Permit	To allow a 45-foot monopole telecommunications tower in the RIA Single-Family District.
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SITE DATA

Existing Zoning	RIA Single-Family District AP Airport Overlay District
Lot Area	31,820 square feet / 0.73 acres
Ward(s)	11
Neighborhood(s)	Wenonah, adjacent to Keewaydin (both are Nokomis East Neighborhood Org.)
Designated Future Land Use	Public and Institutional
Land Use Features	None, adjacent to 54 th St E & 34 th Ave S Neighborhood Commercial Node
Small Area Plan(s)	Not Applicable

BACKGROUND

SITE DESCRIPTION AND PRESENT USE. The subject property, 5417 33rd Avenue South, is a 31,820 square foot parcel located at the southeast corner of 33rd Avenue South and 54th Street East in the Wenonah neighborhood of south Minneapolis. The property currently contains Minneapolis Fire Station #12, which is a one-story brick structure with a gross floor area of approximately 10,044 square feet. A strip of pavement approximately 30 feet wide extends along a portion of the east side of the lot adjacent to the public alley. The remainder of the site contains grass and several mature trees. The topography of the property is flat.

SURROUNDING PROPERTIES AND NEIGHBORHOOD. The subject property is located in the RIA Single-Family District and AP Airport Overlay District. Properties to the north, south, and west contain primarily single-family homes. The 54th St E and 34th Ave S Neighborhood Commercial Node is

Date Application Deemed Complete	September 15, 2015	Date Extension Letter Sent	NA
End of 60-Day Decision Period	November 14, 2015	End of 120-Day Decision Period	NA

located directly to the east of the property and contains primarily one-story retail and service uses. A three-story apartment building is located to the southeast of the subject property.

PROJECT DESCRIPTION. The applicant proposes to construct a 45-foot-tall monopole telecommunications tower and a 195-square-foot equipment shelter. According to the applicant, the purpose of the tower is to improve wireless coverage in the area and to relieve over-burdened antennas located in the general vicinity. Freestanding telecommunications towers are a conditional use in the RIA district, so the applicant has applied for a conditional use permit to allow the tower.

The proposed tower and supporting equipment would be located behind the fire station, approximately 47.5 feet from the east property line and approximately 80 feet from the south property line. The tower would be composed of a single pole with a diameter of approximately five feet at the base, tapering to a diameter of three feet at the top. The tower would be designed to accommodate a total of two antenna arrays (presumably Verizon and one additional carrier). It would be painted brown to blend in with its surroundings and designed in such a manner that all antennas would be completely contained within the structure and hidden from view. As proposed, the tower site would be surrounded by a chain link fence and screened by vegetation.

PUBLIC COMMENTS. Any correspondence received prior to the public meeting will be forwarded to the Planning Commission for consideration.

ANALYSIS

CONDITIONAL USE PERMIT

The Department of Community Planning and Economic Development has analyzed the application to allow a telecommunications tower based on the following findings:

- 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.*

Provided the development complies with all applicable development standards, building codes, and life safety ordinances, the proposed monopole telecommunications tower and supporting base equipment would not be detrimental to the health, safety, comfort, or welfare of the general public. A fence with a locked gate would surround the tower and equipment shelter, and the tower would be designed to discourage unauthorized climbing. Telecommunications towers must observe a setback from the nearest residential structure equal to twice the height of the tower. Therefore, a 45-foot tower requires a 90-foot setback. The nearest residential structure is located more than 101 feet from the base of the tower.

The Federal Communications Commission (FCC) regulates commercial telecommunications activities. In order to receive FCC approval, the antennas within the tower must comply with all FCC guidelines pertaining to radio frequency (RF) emissions. The applicant has provided proof of FCC licensure.

- 2. The conditional use will not be injurious to the use and enjoyment of other property in the vicinity and will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district.*

The proposed tower would not be injurious to the use and enjoyment of other properties in the vicinity, and would not impede orderly development. Per Section 535.520 of the zoning code, freestanding telecommunications towers are a conditional use in residential zoning districts,

provided they are located on institutional sites no less than 20,000 square feet in area. The purpose of this provision is to balance the need for wireless telecommunications infrastructure in all urban settings, including low-density residential districts, with the goal of promoting an aesthetically pleasing environment. The minimum lot area requirement, in combination with the setback requirement for residential districts, minimizes the likelihood that the tower would be imposing or obtrusive to adjacent uses, and ensures that the tower would be located a safe distance from residential structures. The subject property has an area of 31,820 square feet and contains a fire station, which is considered an institutional use. Although the tower would be located an acceptable distance from adjacent structures, the tower would be visible from other properties and from public rights-of-way.

Staff finds that the visual impact created by the tower would be largely offset by a number of factors. Most notably, all antennas would be completely contained within the tower. Typically, antennas and transmission equipment mounted to monopole telecommunications towers protrude several feet from the top and sides of the tower, often resulting in visual clutter. Antennas and supporting equipment attached to the proposed tower would be concealed completely within the structure and would not be visible.

The tower would be painted brown to blend in with the brick fire station and nearby brick commercial buildings. The site plan indicates that the base of the tower and the equipment shelter would be screened from adjacent residential uses to the south by vegetation, and a fence would surround the compound.

Although the compound would be screened from the adjacent residential use to the south, it would not be screened from the 34th Ave S right-of-way. A surface parking lot is located across the alley directly to the east of the tower site, providing an unobstructed view of the tower site. A photo from this vantage point is attached. In order to minimize visual impact, staff recommends as a condition of approval that the fencing surrounding the compound be composed of an ornamental or decorative material (including vinyl-coated chain link), and that the east side of the project area be screened by vegetation that meets the screening requirements of Section 530.160(b) of the zoning code.

The area around the tower is fully developed. The presence of the tower would not affect the redevelopment potential of surrounding properties.

3. *Adequate utilities, access roads, drainage, necessary facilities or other measures, have been or will be provided.*

Existing infrastructure is sufficient to provide access to the site, and the site is already connected to existing utilities. The applicant would be required to work with the Public Works Department, the Plan Review section of CPED, and the various utility companies during the duration of the development to ensure that all procedures are followed in compliance with City and other applicable requirements.

4. *Adequate measures have been or will be taken to minimize traffic congestion in the public streets.*

The proposed tower should not have any impact on traffic or congestion. The applicant has indicated that once the tower is constructed, the site will typically be inspected once monthly for purposes of routine maintenance.

5. *The conditional use is consistent with the applicable policies of the comprehensive plan.*

The proposed development would be consistent with the following general land use policies of The Minneapolis Plan for Sustainable Growth:

Land Use Policy 1.1: Establish land use regulations to achieve the highest possible development standards, enhance the environment, protect public health, support a vital mix of land uses, and promote flexible approaches to carry out the comprehensive plan.

- 1.1.5 Ensure that land use regulations continue to promote development that is compatible with nearby properties, neighborhood character, and natural features; minimizes pedestrian and vehicular conflict; promotes street life and activity; reinforces public spaces; and visually enhances development.

Land Use Policy 1.2: Ensure appropriate transitions between uses with different size, scale, and intensity.

- 1.2.1 Promote quality design in new development, as well as building orientation, scale, massing, buffering, and setbacks that are appropriate with the context of the surrounding area.

Economic Development Policy 4.3: Develop and maintain the city's technological and information infrastructure to ensure the long-term success and competitiveness of Minneapolis in regional, national and global markets.

- 4.3.1 Promote the use of best available technology in upgrading communication linkages to the region and the world.
- 4.3.2 Develop new and innovative means for city government to communicate with businesses.
- 4.3.3 Develop technological and information infrastructure in order to offer high quality working environments for businesses.

- 6. *The conditional use shall, in all other respects, conform to the applicable regulations of the district in which it is located.*

In all other respects, the tower complies with the requirements of the RIA Single-Family District.

Additional standards for communication towers, antennas, and base units

In addition to the required findings for a CUP, approval of a communication tower/antenna requires the applicant to submit written documentation indicating compliance with the following standards in section 535.530 and 535.540:

- 1. *TOWER TYPE. Communication towers shall be of a monopole design. The city planning commission may consider the substitution of alternative tower types in cases where structural, radio frequency, and design considerations, location or the number of co-locators suggests a tower other than a monopole.*

The proposed tower is of a monopole design, with internally located antennas. The upper portion of the tower would be constructed of a non-conductive RF-transparent screen to allow radio signal pass-through while the lower section would be composed of steel.

- 2. *CO-LOCATION OF COMMUNIATION ANTENNAS. Shared use of existing communication towers shall be preferred to the construction of a new tower.*

According to the applicant, the purpose of the proposed tower is to provide improved coverage in the area and to provide capacity offload for existing, overburdened Verizon sites located in the vicinity (specifically, at the VA Medical Center, Nokomis Square Cooperative Senior Living

Community at 5015 35th Ave S, and Hope Evangelical Lutheran Church at 5728 Cedar Ave). The new tower must be placed close enough to the overburdened sites to provide effective capacity offload, but not so close as to create redundant coverage, interference, or coverage gaps. The applicant has provided a letter from an RF (radio frequency) engineer stating that collocation on existing sites in the vicinity operated by other carriers is not a viable option. Said letter is attached.

According to the letter, two potential existing sites exist within one mile of the subject property. These sites were evaluated for collocation opportunities. The first option, Wenonah Elementary School, located at 5627 23rd Ave S, is located too far south to provide adequate capacity offload to the overburdened Verizon site at 5015 35th Ave S, and is located too close to the existing Verizon site located at 5728 Cedar Ave.

The second option is a very short single-carrier tower located just north of the MSP Airport perimeter fence at 4319 59th St E. This tower would not work for similar reasons as the first. It is even closer to an existing site than the first option, and even further from the loci of the overburdened sites.

3. HEIGHT OF FREESTANDING TOWERS AND ANTENNAS.

- a) *Residence, office residence and commercial districts. The height of freestanding communication towers and antennas located in the residence, office residence and commercial districts shall not exceed seventy-five (75) feet.*
- b) *Industrial districts. The height of freestanding communication towers and antennas located in the industrial districts shall not exceed one hundred (100) feet.*
- c) *Excess height. The city planning commission may increase the height of freestanding towers and antennas, provided that in the residence, office residence and commercial districts such increase shall not exceed the maximum height by more than fifty (50) percent. The applicant shall submit an inventory of existing and approved communication towers within a one (1) mile radius of the proposed site outlining opportunities for shared use as an alternative to the construction of a new tower, and shall demonstrate to the satisfaction of the city planning commission the following:*
 1. *The proposed antenna cannot be accommodated on an existing or approved tower due to one (1) or more of the following reasons:*
 - i. *The unwillingness of the owner of the existing or approved tower to co-locate an additional antenna.*
 - ii. *The planned antenna would exceed the structural capacity of existing or approved tower.*
 - iii. *The planned antenna would cause radio frequency interference with other existing or planned equipment, which cannot reasonably be prevented.*
 - iv. *Other reasons affecting technical performance, system coverage and system capacity make it impractical to place the proposed equipment on existing or approved towers.*
 - v. *The proposed co-location on an existing or approved tower would not conform to the requirements of the zoning ordinance.*
 2. *The surrounding topography, structures, vegetation and other factors make a tower that complies with the district height regulations impractical.*
 3. *The proposed tower is designed to structurally accommodate both the applicant's antenna and at least one (1) additional user. The applicant shall submit a letter indicating the proposed tower is available for co-location with a phone number for interested parties to call.*

The maximum height of a telecommunications tower in residence districts is 75 feet. The proposed tower would have a height of 45 feet, plus a two-foot lightning rod extending from the top of the tower. At 45 feet (or 47 feet, if the lightning rod is included), the tower would still be substantially

below the maximum allowed height. Because the proposed tower is within the allowed height, it is not subject to the requirements of section c) *Excess Height*, listed above.

After a tower is constructed, an applicant is allowed a one-time increase in the height of a tower by up to 15 feet, provided the maximum height is not exceeded (535.500(a)(3)). A 15-foot extension would increase the height of the tower to 60 feet, which is still lower than the 75-foot maximum. However, a 15-foot height extension would increase the required setback from the nearest residential structure to 120 feet, as the required setback is equal to twice the height of the tower. The nearest home is 101.5 feet from the base of the tower, so the 15-foot height extension could not be permitted.

4. *HEIGHT OF ALL OTHER TOWERS AND ANTENNAS ALLOWED BY CONDITIONAL USE. The maximum height of all other towers and antennas shall be as approved by conditional use permit.*

Not applicable.

5. *ENCROACHMENTS AND SETBACKS.*

- a) *The tower site and setback shall be of adequate size to contain guyed wires, debris and the tower in the event of a collapse.*

The tower is located more than 47 feet from the property line to the east, more than 60 feet from the property across the alley, and approximately 76 feet from the property line to the south. In the event of a collapse, the subject property is of adequate size to contain the tower. The tower would not require guyed wires.

- b) *Communication towers shall maintain a minimum distance from the nearest residential structure equal to twice the height of the tower. For the purposes of this article, residential structures shall also include any parking structure attached to a principal residential structure.*

With a height of 45 feet, the tower must be located at least 90 feet from the nearest residential structure. The closest residential structure is a single-family home located on the adjacent lot to the south. This structure is approximately 101.6 feet from the base of the tower.

- c) *No part of any communication tower, antenna, base unit, equipment, guyed wires or braces shall extend across or over any part of a public right-of-way.*

The tower does not contain guyed wires, and no part of the structure extends across the public right-of-way.

- d) *Communication towers, antennas and base units shall comply with applicable regulations as established by the Federal Aviation Administration.*

The applicant has submitted documentation from the Federal Aviation Administration (FAA) stating that the proposed tower does not exceed obstruction standards and would not be a hazard to air navigation, and that markings and lighting are not necessary for aviation safety. A copy of this determination letter is attached.

Due to the proximity of the Minneapolis-St. Paul International Airport, the subject property is located in the AP Airport Overlay District. Certain areas of this overlay district are subject to maximum height requirements due to the presence of low-flying aircraft. According to the map

of the overlay district, the subject property must observe a maximum height requirement of 140 feet. The proposed tower would be safely below this height limit.

- e) *Communication towers, antennas and base units shall comply with the minimum yard requirements of the district in which they are located.*

The subject property must observe a front yard setback along 33rd Ave S equal to the setback established by the principal residential structure on the adjacent lot to the south. The established setback is approximately 47 feet. At its closest point, the project area is approximately 82 feet from the property line adjacent to 33rd Ave S.

The tower and equipment shelter are subject to an interior and rear yard setback equal to five feet, plus two feet for every story above the first story. The maximum first story height of a non-residential structure is equal to 20 feet above grade, and each additional 14 feet or fraction thereof constitutes an additional story (Chapter 520.160, height). Therefore, a 45-foot tower would be tantamount to a three-story building and require a nine-foot setback from the rear and interior side property lines. The proposed structure is approximately 47.5 feet from the rear property line and 76 feet from the south interior side property line.

6. *COMPATIBILITY WITH NEARBY PROPERTIES. Communication towers, antennas and base units shall utilize building materials, colors and textures that are compatible with the existing principal structure and that effectively blend the tower facilities into the surrounding setting and environment to the greatest extent possible. Metal towers shall be constructed of, or treated with, corrosive resistant material. Outside of the industrial districts, unpainted, galvanized metal, or similar towers shall be prohibited, unless a self-weathering tower is determined to be more compatible with the surrounding area.*

The proposed telecommunications tower would be located behind the fire station. The top of the tower would be visible from nearby properties. The plans indicate that the tower would be painted brown in order to blend in with the brick fire station and nearby commercial buildings to the greatest extent possible. As a condition of approval, staff recommends that both the equipment shelter and tower be constructed of materials and/or painted to blend in with the fire station.

7. *SCREENING AND LANDSCAPING. A screening and landscaping plan designed to screen the base of the tower and the base unit shall be submitted. The plan shall show location, size, quantity and type of landscape materials. Landscape materials shall be capable of screening the site all year. One (1) row of evergreen shrubs or trees capable of forming a continuous hedge at least six (6) feet in height within two (2) years of planting shall be provided to effectively screen the base of the tower and the base unit, except for towers and antennas designed for private reception of television and radio signals and used for amateur or recreational purposes. A maintenance plan for the landscape materials shall also be submitted. The city planning commission may consider the substitution of other architectural screening plans such as a decorative fence or masonry wall in lieu of planted materials.*

The lower half of the proposed tower and the entire base unit would be screened from the 33rd Ave right-of-way and the 54th St right-of-way by the fire station. The base unit and base of the tower would be screened from the adjacent residential use to the south by a row of vegetation that meets the screening requirements of Section 530.160(b) of the zoning code.

As previously mentioned, a surface parking lot exists directly to the east of the location of the proposed tower. As such, the tower and equipment shelter would be visible from the 34th Ave right-of-way. Staff reaffirms its recommendation that a condition of approval be adopted requiring that the fencing surrounding the compound be composed of an ornamental or decorative material

(including vinyl-coated chain link), and that the east side of the project area be screened by vegetation that meets the screening requirements of Section 530.160(b) of the zoning code.

8. **ROOFTOP MOUNTED TOWERS AND ANTENNAS.** *Rooftop mounted communication towers and antennas shall not be located on residential structures less than fifty (50) feet in height, except for towers and antennas designed for private reception of television and radio signals and used for amateur or recreational purposes.*

Not applicable. Antennas mounted to telecommunications towers are considered façade-mounted.

9. **FAÇADE MOUNTED ANTENNAS.**

- a) *Mounted on freestanding towers and poles. A façade mounted antenna shall not extend above the façade of the tower or pole on which it is mounted, but otherwise may project outward beyond such façade.*
- b) *Mounted on all other structures. A façade mounted antenna shall be mounted flush against the structure on which it is mounted and shall not extend beyond the façade of such structure, except that antennas designed for private reception of television and radio signals, used for amateur or recreational purposes, may extend above the façade of the structure.*

Antennas would be contained completely within the proposed tower. In order to mitigate future impacts, staff recommends a condition of approval that all tower-mounted antennas and transmission equipment, present and future, be contained completely within the tower.

10. **BASE UNITS.** *Base units shall not exceed five hundred (500) square feet of gross floor area. The city may require as a condition of approval that base units be located underground.*

The proposed base unit has an area of approximately 192 square feet and a height of approximately ten feet.

11. **SECURITY.** *All sites shall be reasonably protected against unauthorized climbing. The bottom of the tower, measured from ground level to twelve (12) feet above ground level, shall be designed in a manner to discourage unauthorized climbing.*

A locked chain link fence would surround the leased area containing the tower and the equipment shelter. The applicant may substitute the chain link fence for another type of fence provided a comparable level of security is maintained. In no case would barbed wire or razor wire be allowed. The tower would not have climbing pegs.

12. **SIGNAGE.** *Advertising or identification of any kind on towers, antennas and base units shall be prohibited, except for applicable warning and equipment information signage required by the manufacturer or by federal, state or local regulations.*

The applicant has stated that the only signage on the structure would be signage required by government agencies.

13. **LIGHTING.** *Communication towers and antennas shall not be illuminated by artificial means, except when mounted on an existing light pole or where the illumination is specifically required by the Federal Aviation Administration or other federal, state or local regulations.*

No lighting is proposed.

14. *HERITAGE PRESERVATION ORDINANCE COMPLIANCE. Communication towers and antennas proposed for any locally designated historic structures or locally designated historic districts shall be subject to all requirements of the city's Heritage Preservation Ordinance.*

The applicant has provided a letter from the Minnesota State Heritage Preservation Organization (SHPO) stating that the project would have no effect on historic properties. A copy of the SHPO letter is attached.

15. *RADIO FREQUENCY EMISSIONS AND NONINTERFERENCE. The applicant shall comply with all applicable Federal Communication Commission standards.*

The applicant has provided proof of a valid FCC license and has stated that all applicable FCC standards will be observed.

16. *PUBLIC SAFETY COMMUNICATION SYSTEM. The location of the proposed antenna, if located on publicly owned property, shall not be needed for use by the public safety communication system, or if needed, it shall be determined by the director of the property services division of the finance department that co-location of the proposed antenna with a public safety antenna is agreeable.*

The tower would be located on publicly owned property. Staff has received correspondence directly from the City's property services division stating that the location is not needed for the public safety communication system.

RECOMMENDATIONS

The Department of Community Planning and Economic Development recommends that the City Planning Commission adopt staff findings for the application by Buell Consulting, on behalf of Verizon Wireless, for the property located at 5417 33rd Avenue South:

A. Conditional Use Permit to allow a 45-foot monopole telecommunications tower.

Recommended motion: **Approve** the conditional use permit application for a 45-foot monopole telecommunications tower in the RIA Single-Family District, subject to the following conditions:

1. The conditional use permit shall be recorded with Hennepin County as required by Minn. Stat. 462.3595, subd. 4 before building permits may be issued or before the use or activity requiring a conditional use permit may commence. Unless extended by the zoning administrator, the conditional use permit shall expire if it is not recorded within two years of approval.
2. All site improvements shall be completed by October 19, 2017, unless extended by the Zoning Administrator, or the permit may be revoked for non-compliance.
3. CPED Planning staff shall review and approve the final site, elevation, and landscaping plans before building permits may be issued.
4. The equipment shelter and tower shall be constructed of a material and/or painted to blend in with the fire station.
5. Vegetative screening that meets the requirements of Section 530.160(b) of the zoning code shall be installed along the east side of the project area in order to screen the equipment shelter and base of the tower.
6. The fence shall be composed of a decorative or ornamental material. Vinyl coated chain link shall qualify for purposes of this condition. Barbed wire and razor wire are prohibited.

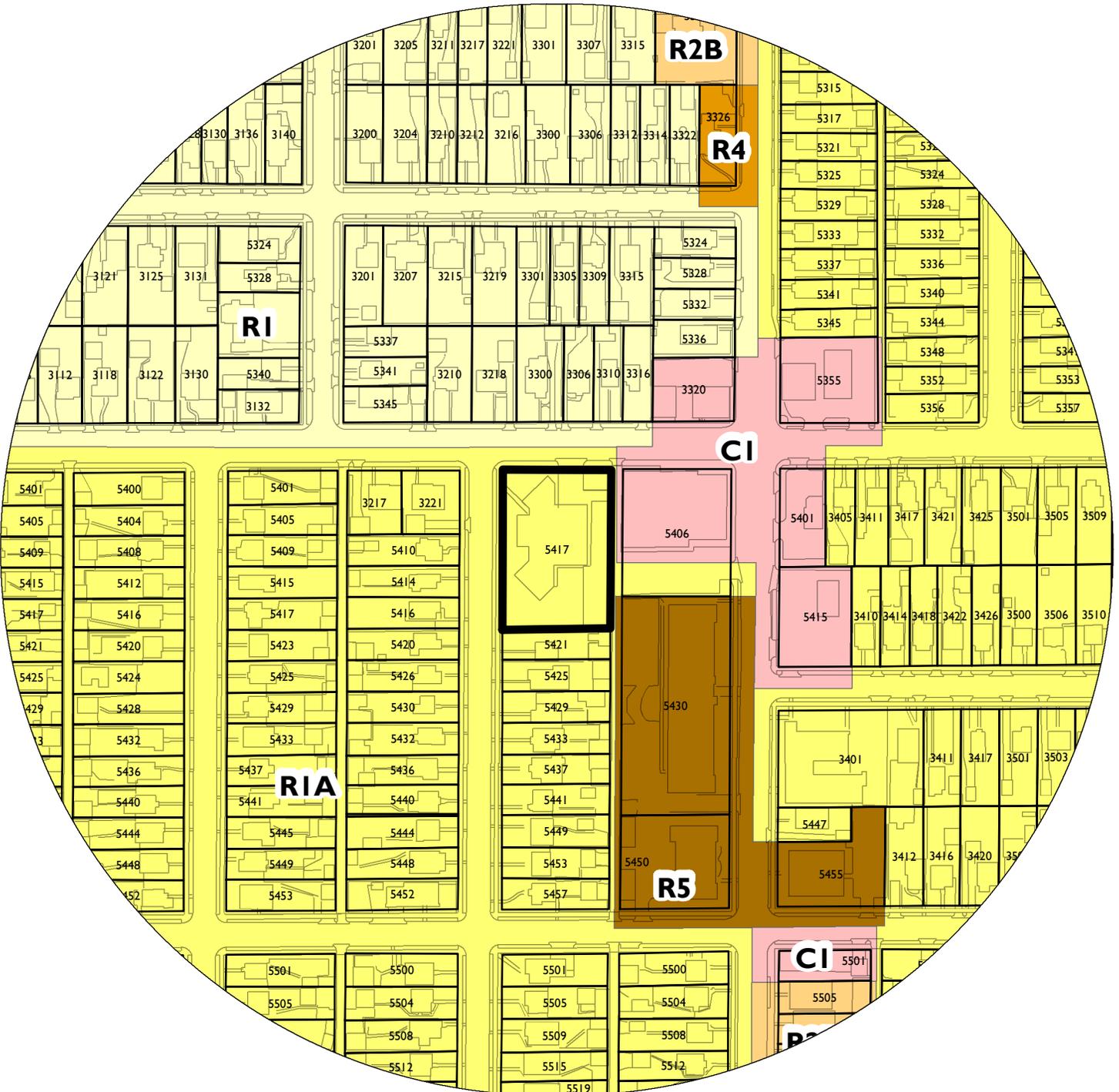
7. All tower-mounted antennas and transmission equipment, present and future, must be completely contained within the tower.

ATTACHMENTS

1. Zoning maps
2. Written description, findings, and letter of necessity submitted by applicant
3. Land survey
4. Construction plans and structure elevations
5. Photo simulations / existing condition photos
6. SHPO historic status determination letter
7. Federal Aviation Administration (FAA) determination of no hazard letter
8. Letters to Ward II and Nokomis East Neighborhood Organization
9. Correspondence

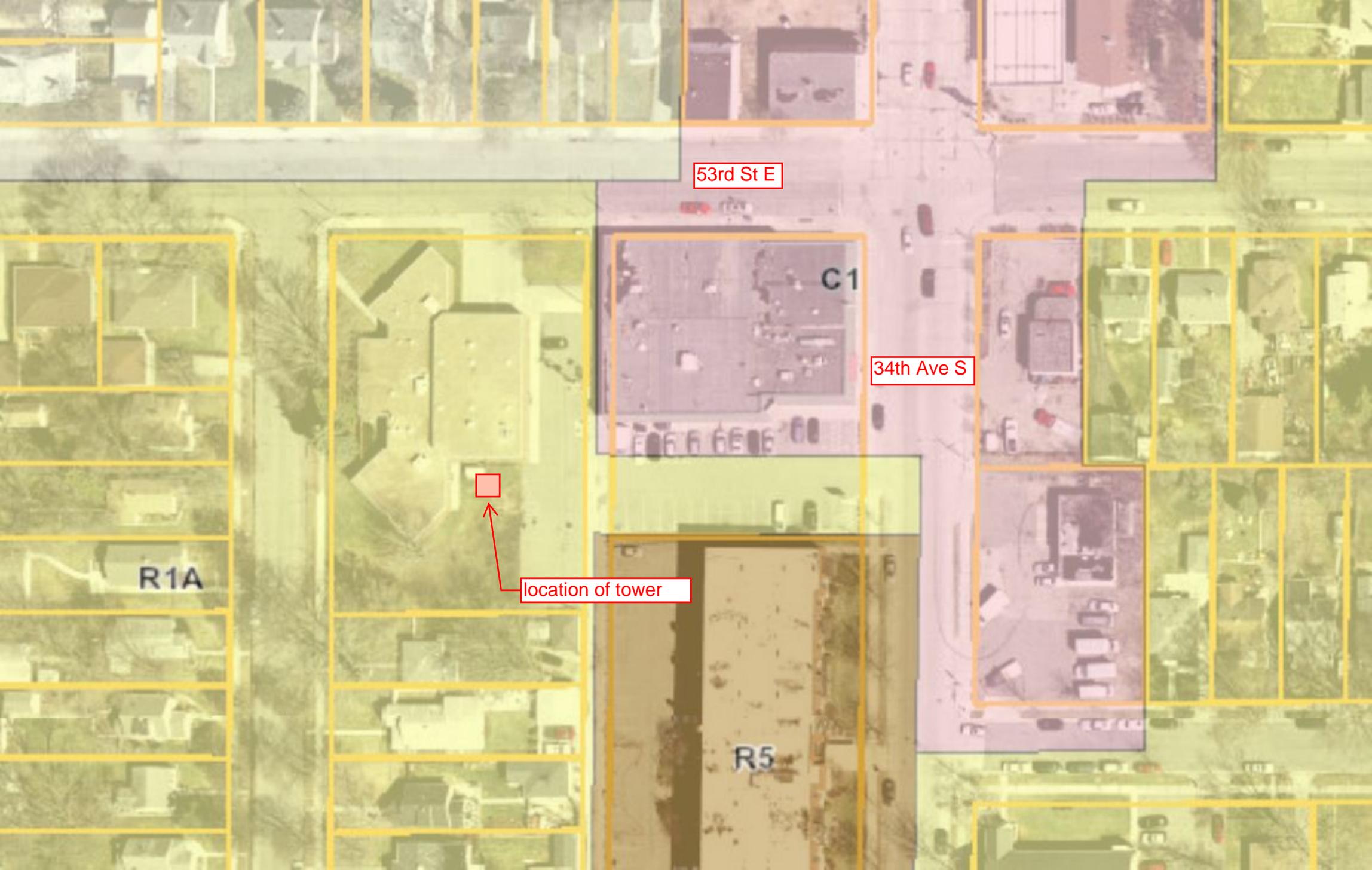
NAME OF APPLICANT

WARD



PROPERTY ADDRESS
5417 33rd Ave S

FILE NUMBER
BZZ-7366



53rd St E

34th Ave S

R1A

C1

R5

location of tower

Minneapolis Fire Department



Nearest residence (over 100' away)

Proposed lease area

August 13, 2015

City of Minneapolis
Community Planning & Economic Development
Development Services Division
250 South 4th Street, Room 300
Minneapolis, MN 55415

Re: Statement of Proposed Use – Verizon Wireless – 5401/5417 33rd Ave S

To Whom It May Concern:

Verizon Wireless is proposing to install a 45' stealth, wireless communication monopole and 12' x 16' equipment building on the property of this Mpls Fire Dept in order to improve its wireless communications coverage in this area of South Mpls. We are proposing to place the monopole and shelter in the back of the property just off the alley.

I've enclosed detailed construction drawings, photo simulations, a letter from RF Engineer, John Mullins, explaining why other towers w/in a mile radius aren't viable, SHPO determination, FAA letter, copies of emails sent to Council Member Quincy and the neighborhood association, Nokomis East, mailing labels of residents w/in 350' of the subject property, applicable fees, and additional information for staff's review.

Please feel free to contact me should you have any further questions or require additional information.

Thank you.

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August 13, 2015

City of Minneapolis
Community Planning & Economic Development
Development Services Division
250 4th Street, Room 300
Minneapolis, MN 55415-1316

Re: Proposed Conditional Use Permit – Verizon Wireless – 5401/5417 33rd Ave S

- 1 – Verizon Wireless is proposing to build a tower and equipment shelter that will adhere to all FCC regulations and city, state, and federal laws.
- 2 – Verizon Wireless is proposing to place the stealth monopole and shelter in the back of the property well screened by landscaping on the south side as well as natural vegetation/trees. Verizon's proposed construction will not impede the ability of any adjoining properties from development or improvement. The goal is to improve the poor wireless coverage in the area.
- 3 – Adequate utilities (fiber, power) will be provided to operate the facilities and are depicted on our construction drawings. An access road to the site isn't necessary. Verizon Wireless technicians that visit the site on a regular basis to maintain the site, and will park in a designated spot at the fire department, just off of the alley.
- 4 – This isn't applicable as only one maintenance vehicle will access the proposed shelter/tower approximately once a month for basic maintenance purposes.
- 5 – The proposed use is allowed per a conditional use permit and is consistent with the applicable policies of the Comprehensive Plan.
- 6 – I have reviewed the zoning regulations for this district and the proposed structures will conform to the applicable regulations of the zoning district.

Please let me know of questions or if you require additional information.

Thank you.

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August 13, 2015

City of Minneapolis
Community Planning & Economic Development
Development Services Division
250 4th Street, Room 300
Minneapolis, MN 55415-1316

Re: Section 535.530 – Specific standards for conditional uses– Verizon Wireless – 5401/5417 33rd Ave S

1 – Verizon Wireless is proposing a stealth monopole with the antennas internal to the monopole

2 – There are no existing towers w/in the search area that meet Verizon's coverage objectives. The two towers w/in a mile radius of this proposed tower have been analyzed by, John Mullins, Verizon RF Engineer. Please see the enclosed letter/map. Both are too close to existing Verizon antenna locations.

3(a) – The proposed tower will be 45' (w/ a 2' lightning rod).

3(b) – Not Applicable

3(c) – Letter and map of existing towers w/in a 1 mile radius are included with this application.

3(iv) – Is applicable as the two existing towers w/in a one mile radius were fully vetted by Verizon. The letter and map from John Mullins describe in detail why these two towers aren't viable.

3(2) – Not applicable

3(3) – Verizon Wireless' stealth monopole will be designed to accommodate another wireless communications provider.

4 – Not applicable

Please feel free to contact me should you have any questions.

Thank you.

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August 13, 2015

City of Minneapolis
Community Planning & Economic Development
Development Services Division
250 4th Street, Room 300
Minneapolis, MN 55415-1316

Re: Section 535.540 – Development standards for all permitted and conditional communication towers, antennas, and base units – Verizon Wireless – 5401/5417 33rd Ave S

1 (a) – The 45' tower will be setback over 47' from the property line to the east and approximately 85' from the property line to the south.

(b) – The proposed tower is 101'8" from the nearest residence to the SW.

(c) – No part of the tower or ground equipment extends over the ROW

(d) – A FAA notice is included w/in this application.

(e) – The equipment building will be set back over 40' from the nearest property line (east). All setbacks have been met.

2 – The stealth monopole will be painted brown to blend in well w/ the surrounding area, the shelter will be designed to match the exterior of the fire department, and the southern border of Verizon's lease area will be screened from view by a row of evergreen trees.

3 – The southern border of Verizon's lease area will be screened from view by a row of evergreen trees.

4 – Not applicable.

5 (a) and (b) – Not applicable

6 – We are proposing to construct a 12' x 16' equipment building (192 SF)

7 – Proposed monopole will not have any climbing pegs that would make it easier to climb the structure.

8 – Verizon will only place signage as required by city, state, or local governmental agencies.

9 – No lighting is proposed for this project

10 – Not Applicable. Please see the enclosed letter from the MN SHPO.

11 – Verizon Wireless will comply with all applicable FCC standards.

12 – Not applicable as this proposed tower will be located on private property.



July 28, 2015

RE: VZW RF Review & Disqualification for those nearest Existing Towers to our Proposed tower location at MPLS Fire Department #12.

I am the Verizon Wireless Radio Frequency Design Engineer responsible for this project. I have been requested by our Real Estate team to evaluate whether or not one of the tower locations nearest our proposed tower site at FD #12 could be utilized to solve the capacity and coverage problems we are having for which this project was created. This new project is required as it will provide the necessary capacity relief to our Lake Nokomis, Cross-town and Fort Snelling cell site locations as well as providing valuable in-building coverage for those businesses and residences within the surrounding area. The demand and usage on the VZW network is growing exponentially. This is illustrated by the fact that our Lake Nokomis site at 5015 35th Ave S, which was constructed last year, is already experiencing so much usage that it is almost at full capacity. The two existing tower locations that I reviewed as possible alternate siting options are identified as Location A and Location B on the map enclosed.

Tower Location A, the Wenonah Elementary School specifically at 5627 23rd Ave S, has both a communications tower and smoke stack on the property. This property will not work for two reasons both of which have to do with its specific geographic location. Firstly, the location is too far south to provide the coverage and capacity offload to our Lake Nokomis site and this location is too close to our existing Cross-town site located at the church on 5728 Cedar Ave S. Tower location A would create too much overlapping coverage creating interference with our Cross-town site and provide no capacity relief to our Lake Nokomis site and no coverage improvement to those streets surrounding the vicinity of E 54th street and S. 34th street.

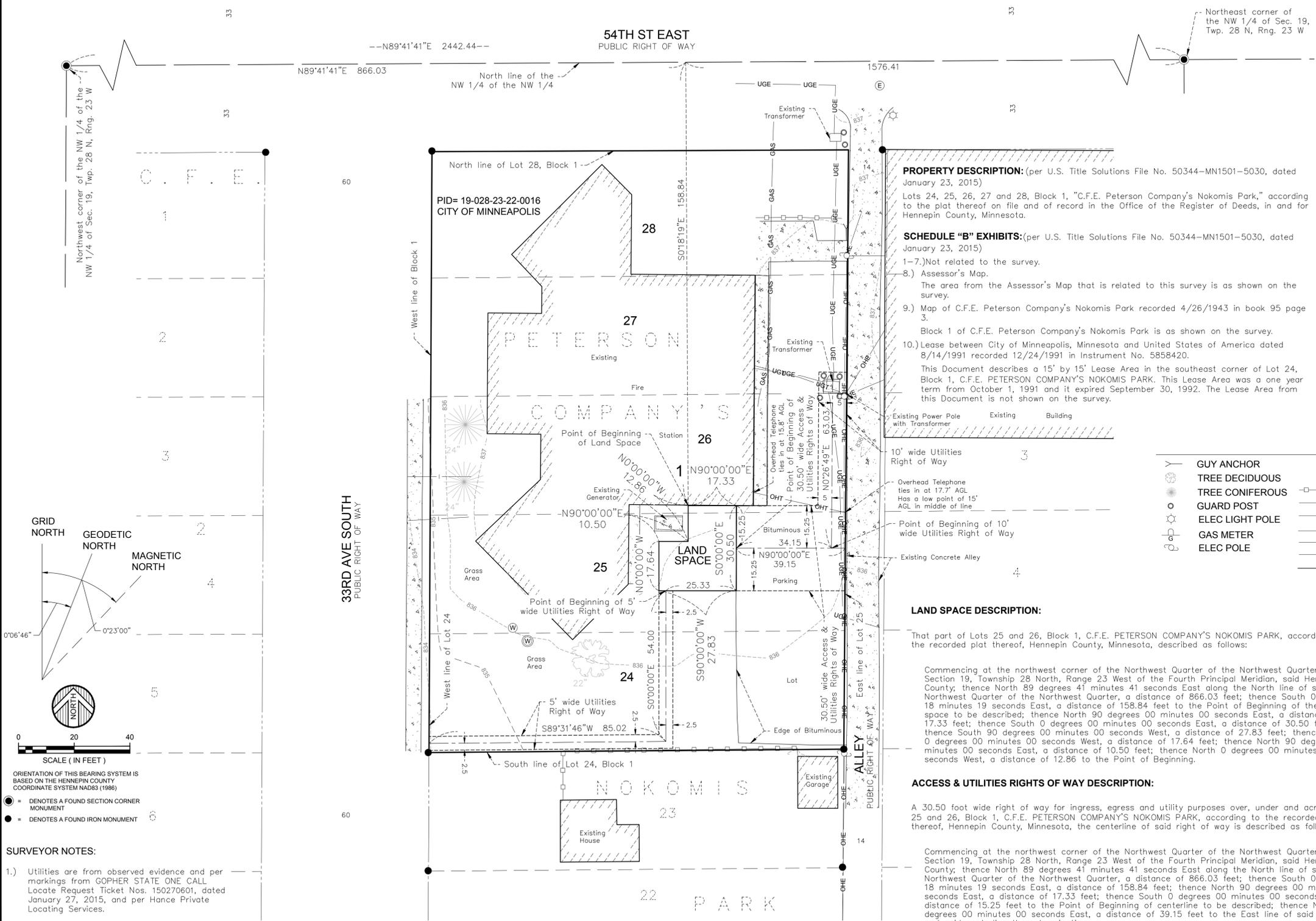
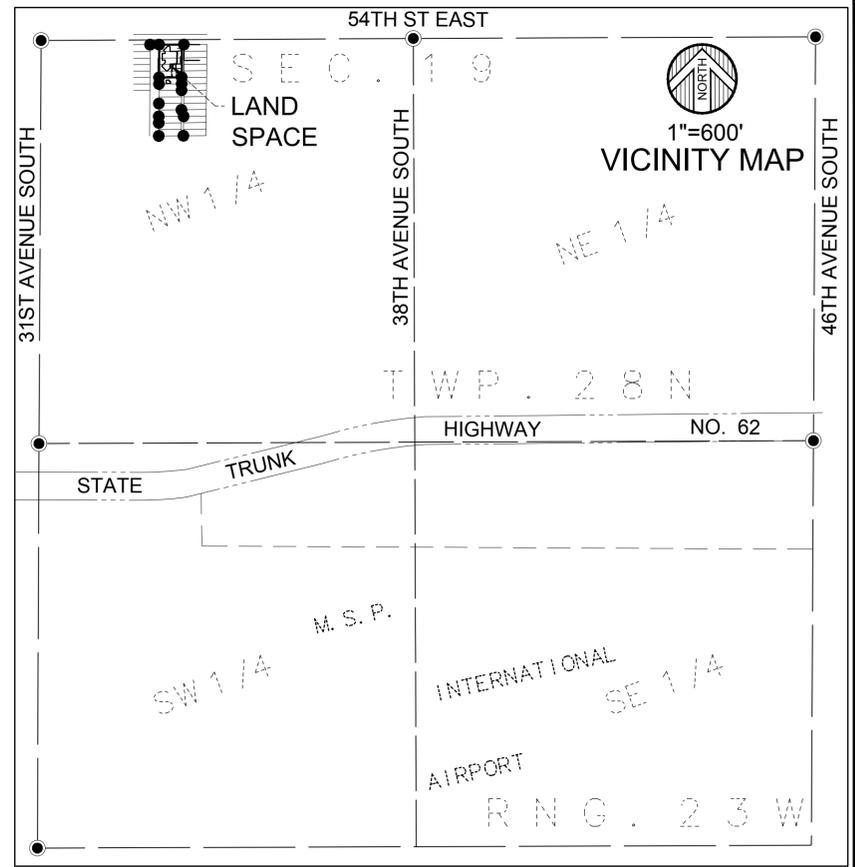
Tower Location B, at address of 4319 59th Street E and more specifically located within the right of way between E. 59th street and Military Hwy, has a very short one carrier tower. This location will not work for the same reasons as location A. This location is even farther south and away from our Lake Nokomis location and far too close to our existing Fort Snelling site at the VA hospital.

In conclusion neither locations reviewed would work as a solution. In fact both locations, A & B, would create more damage than improvement to our network. I have included a map that shows our existing sites, proposed new site and tower locations A & B to supplement my narrative above. If you have any questions please contact me at

A handwritten signature in black ink that reads "John R. Mellis". The signature is written in a cursive style with a large initial "J" and "M".



SITE SURVEY



PROPERTY DESCRIPTION: (per U.S. Title Solutions File No. 50344-MN1501-5030, dated January 23, 2015)
 Lots 24, 25, 26, 27 and 28, Block 1, "C.F.E. Peterson Company's Nokomis Park," according to the plat thereof on file and of record in the Office of the Register of Deeds, in and for Hennepin County, Minnesota.

SCHEDULE "B" EXHIBITS: (per U.S. Title Solutions File No. 50344-MN1501-5030, dated January 23, 2015)
 1-7.) Not related to the survey.
 8.) Assessor's Map.
 The area from the Assessor's Map that is related to this survey is as shown on the survey.
 9.) Map of C.F.E. Peterson Company's Nokomis Park recorded 4/26/1943 in book 95 page 3.
 Block 1 of C.F.E. Peterson Company's Nokomis Park is as shown on the survey.
 10.) Lease between City of Minneapolis, Minnesota and United States of America dated 8/14/1991 recorded 12/24/1991 in Instrument No. 5858420.
 This Document describes a 15' by 15' Lease Area in the southeast corner of Lot 24, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK. This Lease Area was a one year term from October 1, 1991 and it expired September 30, 1992. The Lease Area from this Document is not shown on the survey.

LAND SPACE DESCRIPTION:
 That part of Lots 25 and 26, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet to the Point of Beginning of the Land Space to be described; thence North 90 degrees 00 minutes 00 seconds East, a distance of 17.33 feet; thence South 0 degrees 00 minutes 00 seconds East, a distance of 30.50 feet; thence South 90 degrees 00 minutes 00 seconds West, a distance of 27.83 feet; thence North 0 degrees 00 minutes 00 seconds West, a distance of 17.64 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 10.50 feet; thence North 0 degrees 00 minutes 00 seconds West, a distance of 12.86 to the Point of Beginning.

ACCESS & UTILITIES RIGHTS OF WAY DESCRIPTION:
 A 30.50 foot wide right of way for ingress, egress and utility purposes over, under and across Lots 25 and 26, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, the centerline of said right of way is described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 30.50 feet; thence South 90 degrees 00 minutes 00 seconds West, a distance of 25.33 feet to the Point of Beginning of the centerline to be described; thence South 0 degrees 00 minutes 00 seconds East, a distance of 54.00 feet; thence South 89 degrees 31 minutes 46 seconds West, a distance of 85.02 feet to the West line of said Lot 24 and said centerline there terminating.

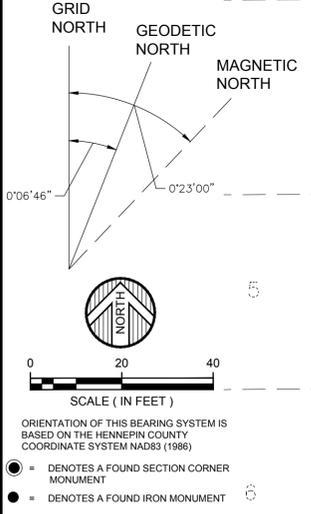
The sidelines of said right of way shall be shortened or lengthened to terminate at said East line of Lot 25 and the East line of said Lot 26.

- LEGEND**
- | | | | | | |
|--|-----------------|--|-------------------------|--|----------------------|
| | GUY ANCHOR | | ELEC MANHOLE | | QUARTER LINE |
| | TREE DECIDUOUS | | WATER MANHOLE | | SIXTEENTH LINE |
| | TREE CONIFEROUS | | WOOD FENCE | | BOUNDARY LINE |
| | GUARD POST | | UNDERGROUND TELE | | RIGHT OF WAY LINE |
| | ELEC LIGHT POLE | | OVERHEAD ELEC | | LOT LINE |
| | GAS METER | | UNDERGROUND ELEC | | EASEMENT LINE |
| | ELEC POLE | | UNDERGROUND NATURAL GAS | | EASEMENT CENTER LINE |
| | | | OVERHEAD TELEPHONE | | LAND SPACE |
| | | | SECTION LINE | | BUILDING WALL HATCH |
| | | | | | CONCRETE SURFACE |

UTILITIES RIGHT OF WAY DESCRIPTIONS:
 A 10.00 foot wide right of way for utility purposes over, under and across Lots 25, 26 and 27, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, the centerline of said right of way is described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 17.33 feet; thence South 0 degrees 00 minutes 00 seconds East, a distance of 15.25 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 34.15 feet to the Point of Beginning of the centerline to be described; thence North 0 degrees 26 minutes 49 seconds East, a distance of 63.03 feet centerline there terminating.

AND
 A 5.00 foot wide right of way for utility purposes over, under and across Lots 24 and 25, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, the centerline of said right of way is described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 30.50 feet; thence South 90 degrees 00 minutes 00 seconds West, a distance of 25.33 feet to the Point of Beginning of the centerline to be described; thence South 0 degrees 00 minutes 00 seconds East, a distance of 54.00 feet; thence South 89 degrees 31 minutes 46 seconds West, a distance of 85.02 feet to the West line of said Lot 24 and said centerline there terminating.

The sidelines of said right of way shall be shortened or lengthened to terminate at said West line of Lot 24.



- SURVEYOR NOTES:**
- Utilities are from observed evidence and per markings from GOPHER STATE ONE CALL Locate Request Ticket Nos. 150270601, dated January 27, 2015, and per Hance Private Locating Services.
 - The Land Space together with all Access and Utilities Rights of Way are within the area described in the Property Description contained herein.



SITE NAME: MINC BOSS			Hennepin County, MN		
No.	Date	REVISIONS	By	CHK	APPD
1	4/6/15	REVISED OVERHEAD TELEPHONE / ADDED CABLE HEIGHT	SMK	SMK	SMK
FIELD WORK: 2/4/15		CHECKED BY: SMK	DRAWN BY: NTG/JMB		

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Shawn M. Kupcho*
 SHAWN M. KUPCHO, L.S.
 LICENSE # 49021

DATE: 4/2/15

FULL SCALE ON 22"x34"
 HALF SCALE ON 11"x17"
 0494A1544.000

WIDSETH SMITH NOLTING
 Engineering | Architecture | Surveying | Environmental

© 2015 WIDSETH SMITH NOLTING

VERIZON WIRELESS

MINC BOSS NEW BUILD

PROJECT INFORMATION

SITE NAME: MINC BOSS
 SITE ADDRESS: 33RD AVENUE S. MINNEAPOLIS, MN 55417
 COUNTY: HENNEPIN
 LATITUDE: N44° 54' 17.66" (NAD83)
 LONGITUDE: W93° 13' 25.80" (NAD83)
 DRAWING BASED ON SITE DATA FORM DATED: 02-27-15
 OCCUPANCY: B
 BUILDING TYPE: V-B
 SITE AREA: 715 S.F.
 ROOF LOAD: LIVELOAD = 105 PSF

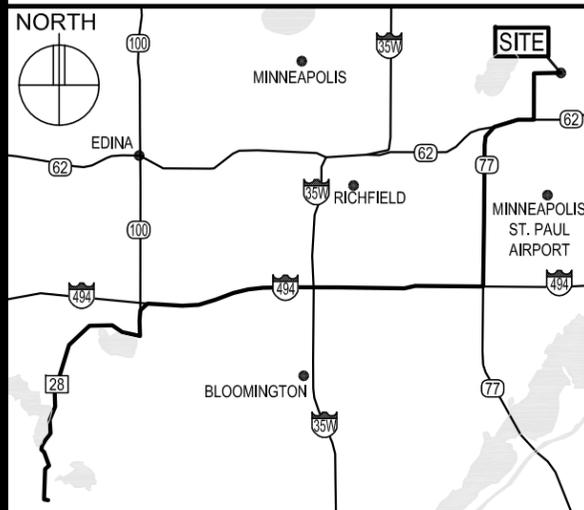
ISSUE SUMMARY

REV.	DESCRIPTION	SHEET OR DETAIL
A	ISSUED FOR REVIEW 03-13-15	ALL
B	ISSUED FOR OWNER APPROVAL 03-27-15	ALL
C	ELECTRICAL/FOUNDATION NOTES 05-27-15	T-1, A-2 & U-1
D	VAPOR BARRIER/BORING NOTES 06-18-15	T-1, A-1 & U-1

SHEET INDEX

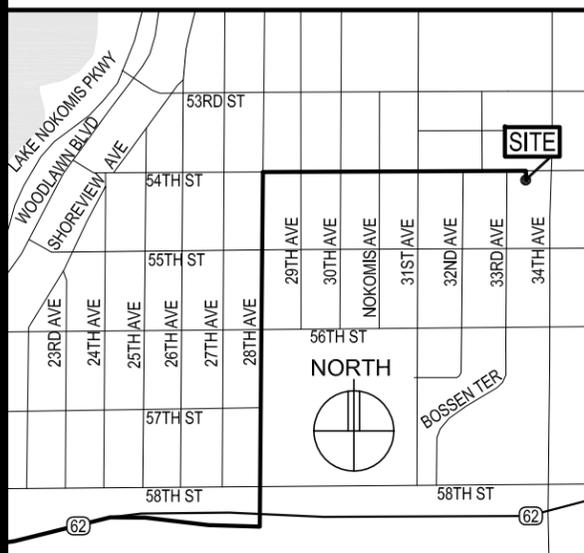
SHEET	SHEET DESCRIPTION
T-1	PROJECT INFORMATION, TOWER ELEVATION, AND SHEET INDEX
A-1	SITE PLAN, STANDARD DETAIL CHECKLIST
A-2	ENLARGED SITE PLAN
A-3	ANTENNA AND COAX KEY, CABLE BRIDGE PLAN, NOTES
A-4	OUTLINE SPECIFICATIONS
G-1	GROUNDING SPECIFICATIONS
G-2	GROUNDING PLAN AND DETAILS
U-1	SITE UTILITY PLAN
	SURVEY

AREA MAP



DIRECTIONS FROM BLOOMINGTON RNC:
 TAKE I-494 EAST FOR 5.2 MILES. TAKE EXIT 2B AND MERGE ONTO MN-77 FOR 2.3 MILES. TAKE MN-62 EAST EXIT FOR 0.7 MILE. TAKE 28TH AVE EXIT AND TURN NORTH (0.6 MILE). TURN EAST ON ON E 54TH STREET. SITE WILL BE ON THE SOUTH SIDE OF 54TH 0.4 MILE FROM INTERSECTION.

VICINITY MAP



VERIZON WIRELESS DEPARTMENTAL APPROVALS

	NAME	DATE
RF ENGINEER	NITHYA JAIPURIYAR	03-17-15
OPERATIONS MANAGER	RON SIMMONS	03-17-15
CONSTRUCTION ENGINEER	STEVE COLLIN	03-17-15

LESSOR / LICENSOR APPROVAL

SIGNATURE	PRINTED NAME	DATE

LESSOR / LICENSOR: PLEASE CHECK THE APPROPRIATE BOX BELOW
 NO CHANGES. CHANGES NEEDED. SEE COMMENTS.

CONTACTS

LESSOR / LICENSOR: CITY OF MINNEAPOLIS
 350 SOUTH 5TH STREET
 MINNEAPOLIS, MN 55415
 REBECCA LAW (612) 673-5064

LESSEE: VERIZON WIRELESS
 10801 BUSH LAKE ROAD
 BLOOMINGTON, MN 55438
 RON REITER 612/720-0052

POWER UTILITY COMPANY CONTACT: XCEL ENERGY
 1518 CHESTNUT AVE
 MINNEAPOLIS, MN 55403
 BUILDERS LINE: 800-628-2121
 RYAN KAZECK (763) 458-2756

TELCO UTILITY COMPANY CONTACT: T.B.D.

ARCHITECT: DESIGN 1 OF EDEN PRAIRIE, LLC.
 9973 VALLEY VIEW ROAD
 EDEN PRAIRIE, MN 55344
 (952) 903-9299

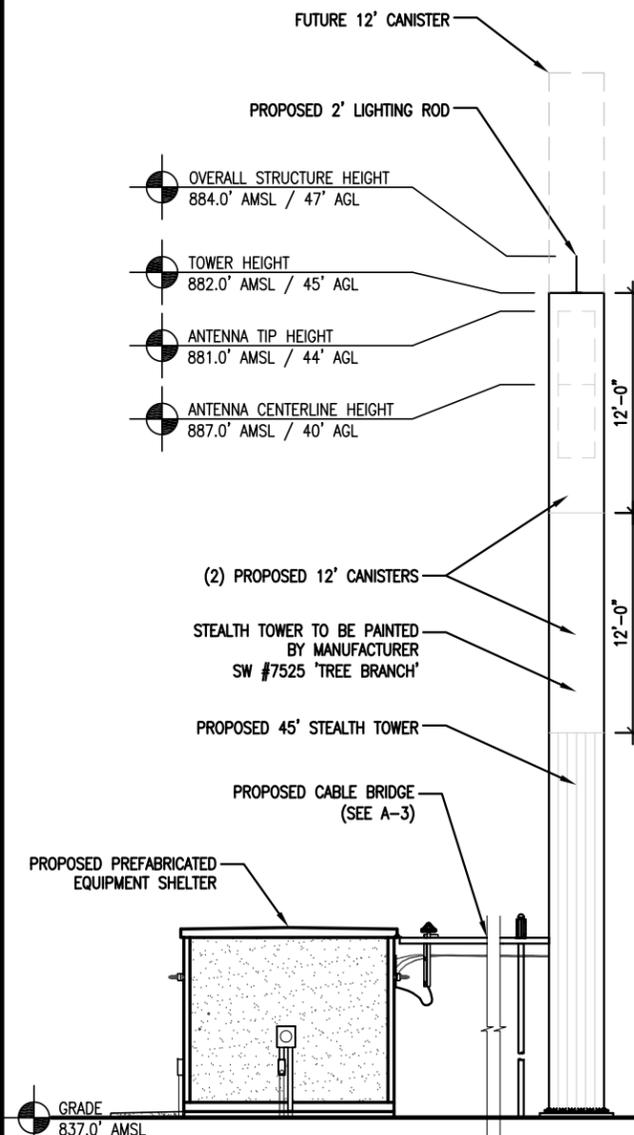
SURVEYOR: WIDSETH SMITH NOLTING
 610 FILLMORE STREET - PO BOX 1028
 ALEXANDRIA, MN 56308-1028
 320-762-8149

STRUCTURAL ENGINEER: N/A

GEOTECHNICAL ENGINEER: T.B.D.

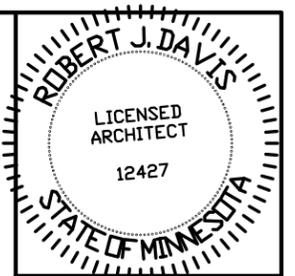
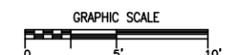
TOWER ELEVATION

NOTE:
 1.) TOWER TO BE ERECTED AND INSTALLED IN ACCORDANCE WITH TOWER MANUFACTURER'S DRAWINGS NOT INCLUDED WITH THIS PACKAGE. DISCREPANCIES BETWEEN TOWER DRAWINGS AND ARCHITECTURAL DRAWINGS TO BE REPORTED TO VERIZON WIRELESS AND THE ARCHITECT IMMEDIATELY.
 2.) TOWER FOUNDATION AND THE SHELTER FOUNDATION TO BE EXCAVATED AND CONSTRUCTED IN ACCORDANCE WITH RECOMMENDATIONS AND SPECIFICATIONS OF THE GEOTECHNICAL REPORT WHICH IS NOT INCLUDED IN THIS PACKAGE. DISCREPANCIES BETWEEN THE REPORT AND THE OTHER DOCUMENTS TO BE IMMEDIATELY REPORTED TO VERIZON WIRELESS AND THE ARCHITECT.



NOTE: FENCE NOT SHOWN FOR CLARITY

1 EAST ELEVATION
 SCALE: 1" = 10'



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota.
 ROBERT J. DAVIS, Reg. No. 12427

Robert J. Davis
 Signed: _____
 06-18-15
 Date: _____



9973 VALLEY VIEW RD.
 EDEN PRAIRIE, MN 55344
 (952) 903-9299
 WWW.DESIGN1EP.COM

VERIZON WIRELESS
 10801 BUSH LAKE ROAD
 BLOOMINGTON, MN 55438
 (612) 720-0052

PROJECT
 20130880042

MINC
 BOSS

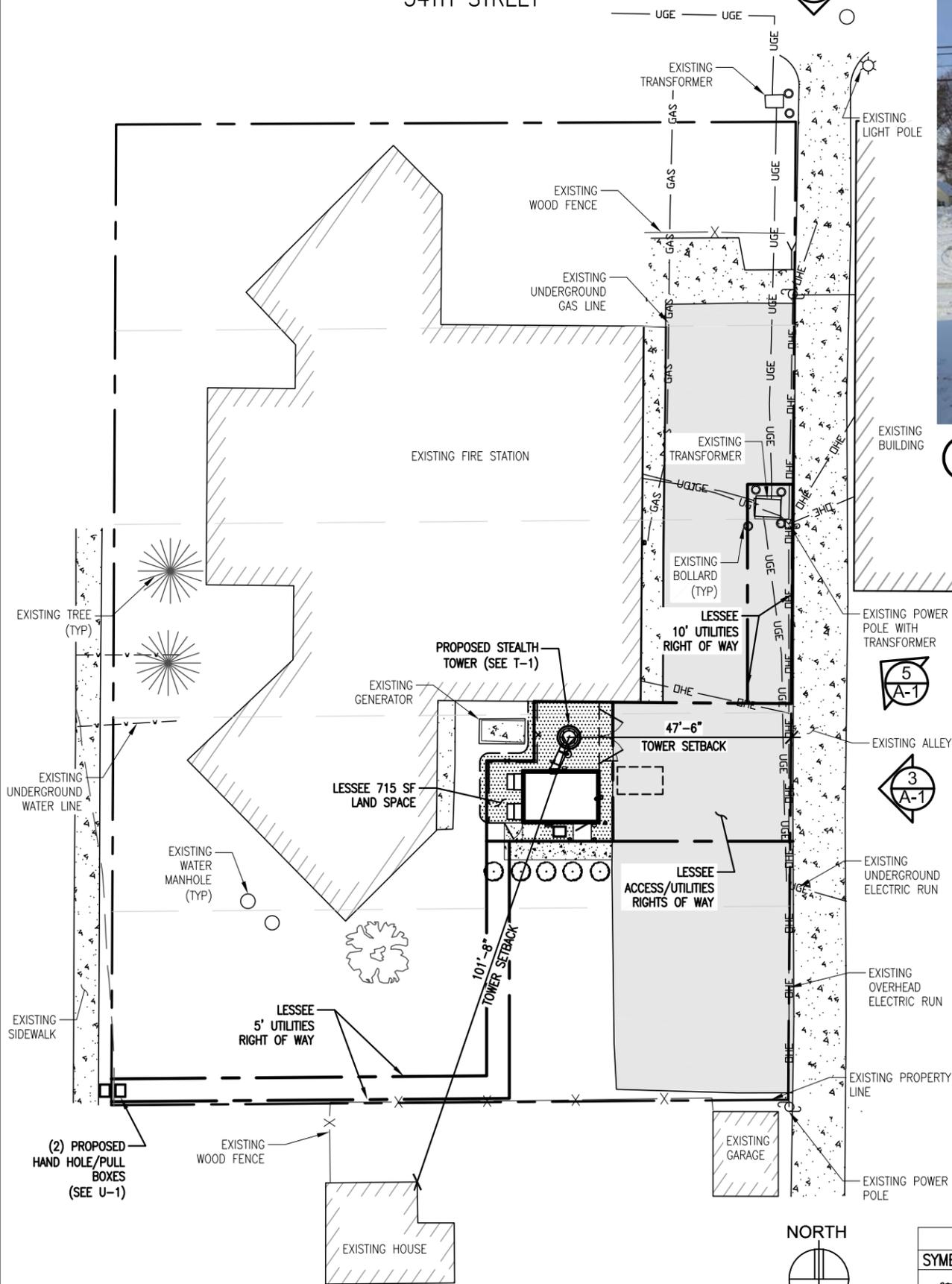
33RD AVENUE S.
 MINNEAPOLIS, MN 55417

SHEET CONTENTS:
 CONTACTS
 ISSUE SUMMARY
 SHEET INDEX
 DEPARTMENTAL APPROVALS
 LESSOR APPROVAL
 PROJECT INFORMATION
 AREA & VICINITY MAPS
 GENERAL NOTES

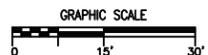
DRAWN BY: STACEY R.
 DATE: 01-22-15
 CHECKED BY: CDB
 REV. A 03-13-15
 REV. B 03-27-15
 REV. C 05-27-15
 REV. D 06-18-15

T-1

54TH STREET



2 SITE PLAN
SCALE: 1" = 30'-0"



3 PHOTO - PROPOSED SITE
LOOKING WEST



5 PHOTO - SITE ACCESS
LOOKING NORTHWEST



4 PHOTO - SITE ACCESS
LOOKING SOUTH

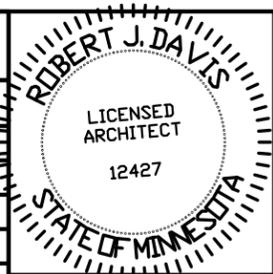
GENERATOR TYPE:
N/A - CAM-LOK

FROST DEPTH
DESIGN = 4'-0"

VAPOR BARRIER
BELOW EQUIPMENT
SHELTER SLAB
REQUIRED

DETAIL INDEX

DETAIL	DETAIL DESCRIPTION
SHELTER	PREFABRICATED EQUIPMENT SHELTER V212.16-1C-FB
1.1	BOLLARD DETAIL
2.1	FENCE SECTION
3.1	CABLE BRIDGE SECTION
4.1	CABLE BRIDGE ELEVATION
5.1	ROAD SECTION (NOT USED)
6.1	GATE DETAIL
7.1	GPS MOUNTING DETAIL
8.1	TELCO ENTRY DETAIL
9.1	CMPH DETAIL
10.1	ONE-LINE ELECTRICAL RISER DIAGRAM



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota. ROBERT J. DAVIS, Reg. No. 12427

Signed: *Robert J. Davis*
Date: 06-18-15



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PROJECT
20130880042

MINC
BOSS

33RD AVENUE S.
MINNEAPOLIS, MN 55417

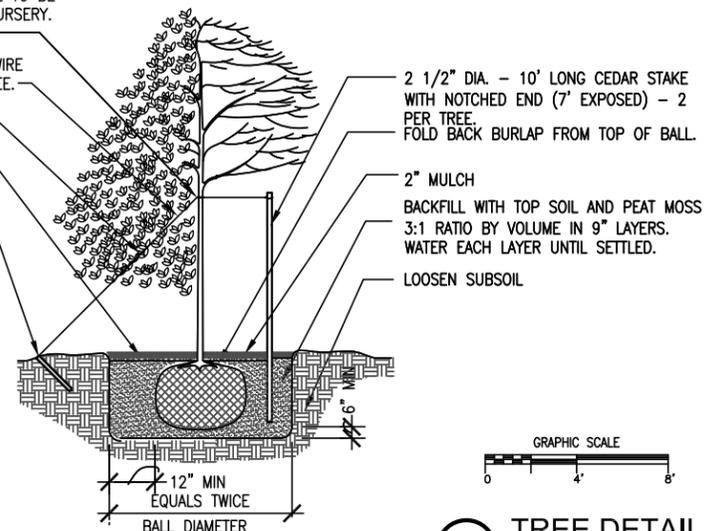
SHEET CONTENTS:
SITE PLAN
PHOTOS
TREE DETAIL

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

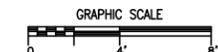
LANDSCAPE KEY					
SYMBOL	QTY.	COMMON NAME	BOTANICAL NAME	PLANTING SIZE	MATURE SIZE
	5	ARBORVITAE	'THUJA OCCIDENTALIS'	H: 6'	H: 10'-15' W: 3'-4'

NOTE:
EVERGREEN TREE - GROUND LINE TO BE THE SAME AS EXISTED AT THE NURSERY.
GARDEN HOSE

- 3 GUYS OF 10 GAUGE TWISTED WIRE 120 DEGREES APART AROUND TREE.
- TURNBUCKLE
- 4" SOIL SAUCER
- 24"x2"x2" STAKE DRIVEN FLUSH WITH FINISHED GRADE.



TREE

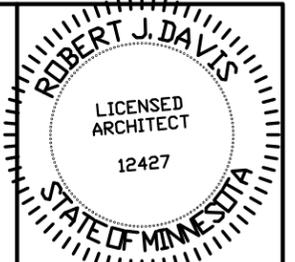
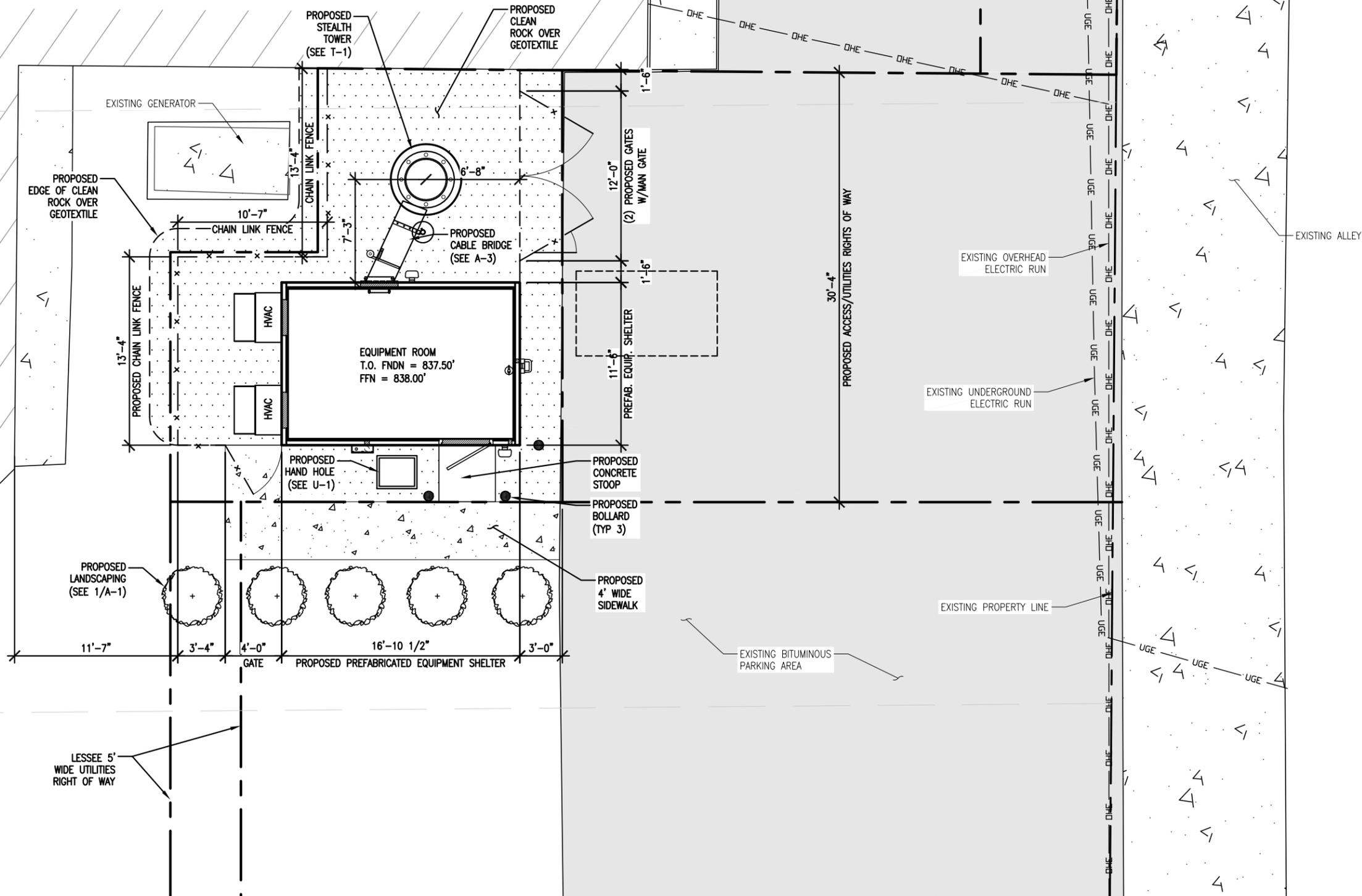


1 TREE DETAIL
SCALE: 1/8" = 1'-0"

A-1

NOTES:
 1) TOWER FOUNDATION PREFERENCE AT THIS SPECIFIC LOCATION IS REINFORCED CONCRETE MAT FOUNDATION
 2) TOWER TO BE ERECTED AND INSTALLED IN ACCORDANCE WITH TOWER MANUFACTURER'S DRAWINGS NOT INCLUDED WITH THIS PACKAGE. DISCREPANCIES BETWEEN TOWER DRAWINGS AND ARCHITECTURAL DRAWINGS TO BE REPORTED TO VERIZON WIRELESS AND THE ARCHITECT IMMEDIATELY.
 2.) TOWER FOUNDATION AND THE SHELTER FOUNDATION TO BE EXCAVATED AND CONSTRUCTED IN ACCORDANCE WITH RECOMMENDATIONS AND SPECIFICATIONS OF THE GEOTECHNICAL REPORT WHICH IS NOT INCLUDED IN THIS PACKAGE. DISCREPANCIES BETWEEN THE REPORT AND THE OTHER DOCUMENTS TO BE IMMEDIATELY REPORTED TO VERIZON WIRELESS AND THE ARCHITECT.

NOTE: CONTRACTOR TO COORDINATE PUBLIC AND PRIVATE UTILITY LOCATES PRIOR TO CONSTRUCTION START. NOTIFY THE ARCHITECT AND THE VZW CONSTRUCTION ENGINEER IMMEDIATELY OF ANY UTILITY LINE ISSUES.



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota. ROBERT J. DAVIS, Reg. No. 12427

Signed: *Robert J. Davis*
 Date: 06-18-15

DESIGN 1
 9973 VALLEY VIEW RD.
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PROJECT
 20130880042

MINC BOSS

33RD AVENUE S.
 MINNEAPOLIS, MN 55417

SHEET CONTENTS:
 ENLARGED SITE PLAN

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

A-2

1 ENLARGED SITE PLAN
 SCALE: 1/8" = 1'-0"



ANTENNA KEY												
	AZIMUTH	POSITION	FUNCTION	QTY	MANUFACTURER	MODEL	MOD TYPE	ANTENNA LENGTH	ANTENNA TIP	ANTENNA CENTER	ELEC DOWNTILT	MECH DOWNTILT
"X" SECTOR	30°	1.1	TX/RX0	1	QUINTEL	QS8658-3	PCS +45	96"	44'	40'	2'	0'
	30°	1.2	TX/RX1	-	-	2ND PORT	PCS -45	-	-	-	-	-
	30°	1.3	TX/RX0	-	-	3RD PORT	700 +45	-	-	-	2'	0'
	30°	1.4	TX/RX1	-	-	4TH PORT	700 -45	-	-	-	-	-
	30°	1.5	TX/RX0	-	-	5TH PORT	FUTURE	-	-	-	2'	0'
	30°	1.6	TX/RX1	-	-	6TH PORT	FUTURE	-	-	-	-	-
	30°	1.7	TX/RX0	-	-	7TH PORT	AWS +45	-	-	-	2'	0'
	30°	1.8	TX/RX1	-	-	8TH PORT	AWS -45	-	-	-	-	-
"Y" SECTOR	150°	1.1	TX/RX0	1	QUINTEL	QS8658-3	PCS +45	96"	44'	40'	2'	0'
	150°	1.2	TX/RX1	-	-	2ND PORT	PCS -45	-	-	-	-	-
	150°	1.3	TX/RX0	-	-	3RD PORT	700 +45	-	-	-	2'	0'
	150°	1.4	TX/RX1	-	-	4TH PORT	700 -45	-	-	-	-	-
	150°	1.5	TX/RX0	-	-	5TH PORT	FUTURE	-	-	-	2'	0'
	150°	1.6	TX/RX1	-	-	6TH PORT	FUTURE	-	-	-	-	-
	150°	1.7	TX/RX0	-	-	7TH PORT	AWS +45	-	-	-	2'	0'
	150°	1.8	TX/RX1	-	-	8TH PORT	AWS -45	-	-	-	-	-
"Z" SECTOR	270°	1.1	TX/RX0	1	QUINTEL	QS8658-3	PCS +45	96"	44'	40'	2'	0'
	270°	1.2	TX/RX1	-	-	2ND PORT	PCS -45	-	-	-	-	-
	270°	1.3	TX/RX0	-	-	3RD PORT	700 +45	-	-	-	2'	0'
	270°	1.4	TX/RX1	-	-	4TH PORT	700 -45	-	-	-	-	-
	270°	1.5	TX/RX0	-	-	5TH PORT	FUTURE	-	-	-	2'	0'
	270°	1.6	TX/RX1	-	-	6TH PORT	FUTURE	-	-	-	-	-
	270°	1.7	TX/RX0	-	-	7TH PORT	AWS +45	-	-	-	2'	0'
	270°	1.8	TX/RX1	-	-	8TH PORT	AWS -45	-	-	-	-	-

COAX KEY						
QTY	COAX TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIAMETER (INCH)	RUN (FEET)
DIPLEXED WITH AWS TO THE E15S09P91 TMA						
DIPLEXED WITH AWS TO THE E15S09P91 TMA						
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
DIPLEXED WITH 700MHz (FUTURE)						
DIPLEXED WITH 700MHz (FUTURE)						
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
DIPLEXED WITH AWS TO THE E15S09P91 TMA						
DIPLEXED WITH AWS TO THE E15S09P91 TMA						
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
DIPLEXED WITH 700MHz (FUTURE)						
DIPLEXED WITH 700MHz (FUTURE)						
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
1	MAIN	ANDREW	AVA6-50	FOAM	1-1/4"	60'
30	JUMPER	ANDREW	LDF4-50	FOAM	1/2"	10'

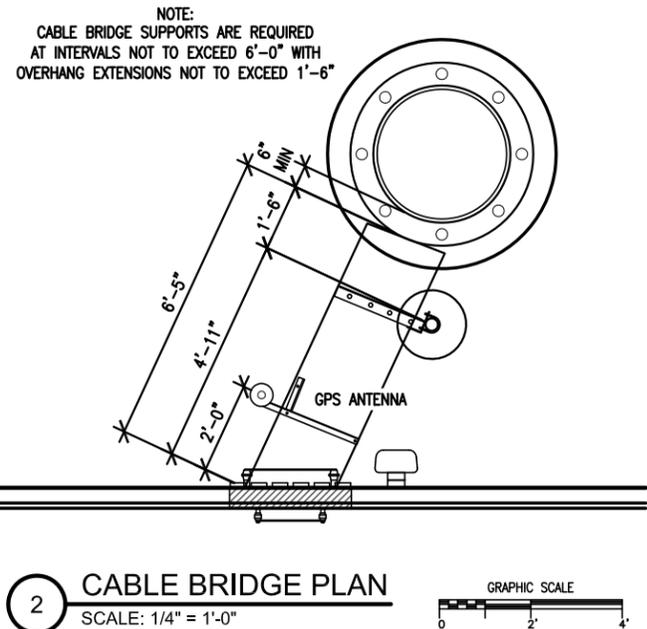
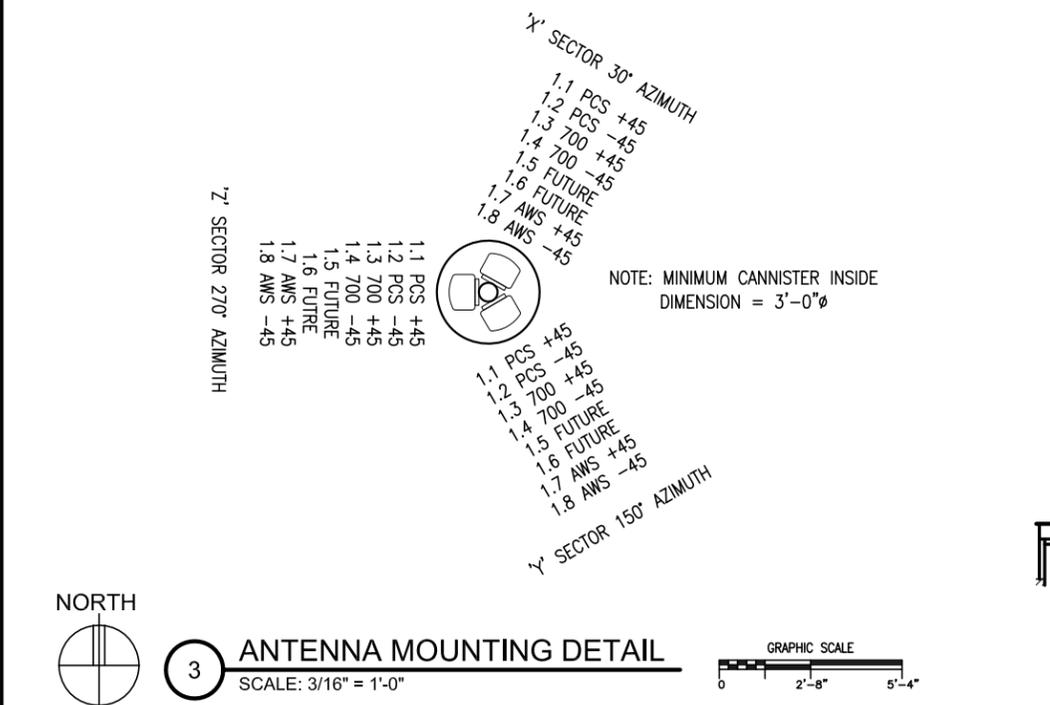
TTA KEY	
QTY	MODEL
SHARED W/AWS LISTED BELOW	
SHARED W/AWS LISTED BELOW	
1	COMMSCOPE E15R05P19
(TWIN)	COMMSCOPE E15R05P19
FUTURE	
FUTURE	
1	COMMSCOPE E15S09P91
1	COMMSCOPE E15S09P91
SHARED W/AWS LISTED BELOW	
SHARED W/AWS LISTED BELOW	
1	COMMSCOPE E15R05P19
(TWIN)	COMMSCOPE E15R05P19
FUTURE	
FUTURE	
1	COMMSCOPE E15S09P91
1	COMMSCOPE E15S09P91
SHARED W/AWS LISTED BELOW	
SHARED W/AWS LISTED BELOW	
1	COMMSCOPE E15R05P19
(TWIN)	COMMSCOPE E15R05P19
FUTURE	
FUTURE	
1	COMMSCOPE E15S09P91
1	COMMSCOPE E15S09P91

ADDITIONAL:
 (3) COMMSCOPE ATCB-B01-002 CONTROL CABLES (700 TMA TO ANTENNA - 1/SECTOR) LENGTH OF AISG CABLES ARE APPROXIMATE
 (6) TERMINATORS 1-2 W 50Ω TERMINATION
 (3) COMMSCOPE ATBTK-xx RET BIAS-T KIT
 (6) COMMSCOPE E15S09P74 CROSSBAND COUPLER (IN SHELTER)
 (1) COMMSCOPE AT C300-1000 RET CONTROL UNIT (IN SHELTER)

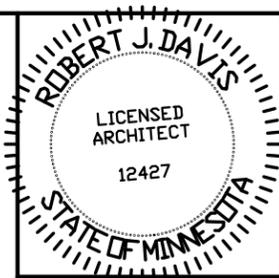
4 ANTENNA KEY
SCALE: NONE

5 COAX KEY
SCALE: NONE

6 PHOTO - SITE
LOOKING NORTHEAST



1 PHOTO - SITE ACCESS
LOOKING EAST



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota. ROBERT J. DAVIS, Reg. No. 12427

Signed: *Robert J. Davis*
 06-18-15
 Date:



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VERIZON WIRELESS
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PROJECT
20130880042

MINC BOSS

33RD AVENUE S.
 MINNEAPOLIS, MN 55417

SHEET CONTENTS:
 COAX, ANTENNA, & TTA KEY
 CABLE BRIDGE PLAN
 ANTENNA MOUNTING DETAIL
 PHOTOS

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

GENERAL CONDITIONS

00 0001 PERMITS

Construction Permit shall be acquired by, or in the name of, Verizon Wireless, to be hereinafter referred to as the OWNER. Other permits shall be acquired by the Contractor.

00 0002 SURVEY FEES

Survey shall be furnished by the Architect. Layout Staking shall be coordinated with the Surveyor per "Request For Quote", (RFQ).

01 0010 INSURANCE & BONDS

Contractor is to furnish insurance certificates for themselves and subcontractors. Contractor will provide any required Bonding. Contractor agrees to warranty the project for (1) one year after completion.

01 0400 SUPERVISION & COORDINATION

Contractor shall provide supervision throughout the Project, coordinating the work of the Subcontractors, and delivery & installation of Owner-furnished items. Contractor's responsibilities include arranging & conducting of Underground Utilities Locates. Contractor shall comply with municipal, county, state and/or federal codes, including OSHA.

01 0600 TESTING

Contractor is responsible for providing Agencies with sufficient notice to arrange for Test Samples (i.e.: Concrete Cylinders), and for Special Inspections.

01 2000 MEETINGS

Contractor shall make themselves aware of, and attend, meetings with the Owner and/or Architect. Contractor is to attend a Pre-Construction Meeting of all parties involved, prior to the start of construction.

01 5100 TEMPORARY UTILITIES

Contractor shall maintain the job site in a clean and orderly fashion, providing temporary sanitary facilities, waste disposal, and security (fence area or trailer module).

01 5300 EQUIPMENT RENTAL

Contractor shall furnish equipment necessary to expedite work.

01 5900 FIELD OFFICES & SHEDS

Contractor shall provide security (fence area or trailer module) for tools and materials that remain overnight on site.

01 7000 CLEAN UP & CLOSE OUT

Contractor shall clean up the Site to the satisfaction of Owner. Contractor shall complete the items listed on the Owner's Punch List, and shall sign and return the List to the Owner. Contractor shall maintain a set of drawings during the job, on which changes shall be noted in red ink. **A full set of redlined drawings (As-Builts) are to be given to the Architect at Job completion and submit "construction work complete memo" to Construction Engineer.**

01 8000 TRUCKS & MILEAGE

Contractor shall provide transportation for their own personnel.

01 8300 TRAVEL TIME & PER DIEM

Contractor shall provide room and board for their own personnel, and reasonable time for traveling to & from job site.

01 9200 TAXES

Contractor shall pay sales and/or use tax on materials and taxable services.

SITework

02 1000 SITE PREPARATION

Contractor is to mobilize within 7 calendar days of the Owner issuing a 'START' document. Contractor will immediately report to Architect if any environmental considerations arise. Site shall be scraped to a depth of 3" minimum to remove vegetative matter, and scrapings shall be stockpiled on site. Excess material to be disposed of in accordance with RFQ. A Perimeter Silt Fence is to be maintained for the duration of the work.

02 1100 ROAD IMPROVEMENT & CONSTRUCTION

N/A

02 2000 EARTHWORK & EXCAVATION

Excavation material shall be used for surface grading as necessary; excess to be stockpiled on site. Excess material to be disposed of in accordance with RFQ. For dewatering excavated areas, contractor shall utilize sock or sediment filter for filtering of water discharge.

02 5000 PAVING & SURFACING

New paving shall be according to plans, or match existing adjacent paving. Concrete paving shall be 5" thick, reinforced with 6"x6" welded wire mesh or #3 steel bars 18" o.c.e.w., over a 3" sand cushion.

02 7800 POWER TO SITE

Contractor shall coordinate the electrical service to the building with the Utility Provider. Conduits shall include pull strings. Underground conduits shall be 2-1/2" Schedule 40 PVC. (schedule 80 PVC under roads and drives) Cable to be 3/0 THWN CU. Trenches shall be backfilled in a timely fashion, using a compactor, and including two (2) detectable ribbons; one each at 3" and 15" above conduit. Service shall be 200 amp, single phase, 120/240 volt. Service type shall be "General Time-Of-Day" if available, and meter base shall be approved by utility provider.

02 7900 TELCO TO SITE

Contractor shall provide 2" schedule 40 PVC conduit, (schedule 80 PVC under roads and drives) with 'large sweep' elbows & pull string for TELCO service as noted on plans. Cable to be fiber optic lines, source and provider T.B.D. Trenches shall be as in 02 7800.

02 8000 SITE IMPROVEMENTS

Areas bounded by fence and adjacent to shelter shall receive polyethylene geotextile, 200 mesh woven, topped with 3" deep 3/4" to 1 1/2" clean rock (no fines), raked smooth.

02 8001 FENCING

All fence materials and fittings shall be galvanized steel. Fence shall be 6'-0" high x 9 ga. X 2" chain link fabric, w/ 7 ga. bottom tension wire. Corner and Gate posts shall be 2 7/8" O.D. sch 40 steel pipe, driven 60" below grade. Line posts shall be 2 3/8" O.D. sch 40 steel pipe. Top Rails shall be 1 5/8" O.D. steel pipe. Gate frames shall be 1 5/8" O.D. welded pipe. Fence top shall be three (3) strands barbed wire to 7'-0" above grade, canted outward. Bracing shall be 3/8" truss rods and 1 5/8" O.D. pipe mid-rails at corners. Gate latch shall be commercial grade, "Cargo" or equal. Fabric shall extend to within 1" of finish grade. Fence enclosures shall be completed within 7 days of tower erecting.

02 8500 IRRIGATION SYSTEMS

N/A

02 9000 LANDSCAPING

Contractor to restore turf areas damaged by construction by preparing soil, seeding & watering to maintain grass survival for 1 year.

CONCRETE

03 1000 CONCRETE FORMWORK

Concrete forms shall be dimension lumber, modular, or steel.

03 6000 GROUT

Contractor shall grout baseplates according to Tower Manufacturer drawings.

03 8000 TOWER FOUNDATION

Contractor shall arrange for delivery of anchors, and shall furnish and install materials per Tower Manufacturer Plans. Tower foundation concrete and reinforcing to be per tower manufacturer's specification, or 6% ±1% air entrained, 4,000 PSI @ 28 days, with Grade 60 (ASTM 615) reinforcing steel, whichever is greater. Contractor shall comply with the Owner's Standard CONSTRUCTION SPECIFICATIONS MINIMUM CONCRETE STANDARDS.

03 8001 CATHODIC PROTECTION

N/A

03 8050 TRANSPORT AND ERECT TOWER/ANTENNA MOUNTS

Contractor shall schedule delivery of Owner-furnished Tower, and provide cranes for unloading and erecting. Contractor to furnish and install antenna mounts. Contractor shall provide temporary security fence at base of Tower.

03 9000 SHELTER FOUNDATION

Contractor shall furnish & install materials for Shelter foundation. Concrete shall be 6% ±1% air entrained, and 4,000 psi at 28 days. All reinforcing steel is to be Grade 60 (ASTM 615). Anchor bolts are furnished by Contractor. Contractor shall comply with the Owner's Standard CONSTRUCTION SPECIFICATIONS MINIMUM CONCRETE STANDARDS.

03 9050 TRANSPORT AND SET SHELTER

Contractor shall provide crane(s) and/or truck for setting shelter per RFQ. Contractor shall install items shipped loose within shelter, including but not limited to: exterior light and sensor and buss bars.

MASONRY

04 0000 MASONRY

N/A

METALS

05 0000 METALS

Contractor will furnish and install structural and fabricated steel items not specifically furnished by Owner, and install Owner-furnished items. Structural steel shall be fabricated and erected per AISC specifications. Welding shall conform to AWS standards. Field welding shall be as shown on Shop Drawings, performed by AWS Certified Welders, and inspected as prescribed by the Structural Engineer. Steel shall be ASTM A992 OR A36, and 3/4" field bolts shall be A325. Temporary erecting bolts, clip hangers, and bracing shall be furnished by Contractor. Fabrications shall be shop welded if possible, and galvanized before delivery to site. Structural steel, and miscellaneous iron and steel, shall be hot dipped galvanized per ASTM A123 thickness grade 55. Fabricated iron and steel hardware shall be hot dipped galvanized per ASTM A153. Repair of damaged or uncoated galvanized surfaces shall be per ASTM A780.

Contractor shall ensure the existence of a 3/8" cable safety climb system (DBI/SALA or equal) on tower.

WOOD & PLASTICS

06 1000 ROUGH CARPENTRY

N/A

06 2000 FINISH CARPENTRY

N/A

THERMAL & MOISTURE

07 2000 INSULATION

N/A

07 2500 FIREPROOFING

N/A

07 3000 SHINGLES AND ROOFING TILES

N/A

07 5000 MEMBRANE ROOFING

N/A

07 6000 FLASHING AND SHEET METAL

N/A

DOORS AND HARDWARE

08 0000 DOORS AND HARDWARE

PREFAB: Door is furnished and installed by Prefab Manufacturer with 'Construction' key core.

FINISHES

09 2600 DRYWALL

N/A

09 5700 FLOOR COVERING

N/A

09 9000 PAINTING

Monopole tower to be painted by manufacturer Sherwin Williams color #SW 7525 'Tree Branch'. Touchup paint construction related scrapes & scratches.

SPECIAL CONSTRUCTION

13 1250 WAVE GUIDE, (Coaxial Cables)

LDF4-50A = 1/2" nominal, .63 in. actual diameter; 5" min. bending radius; .15 lbs/ft
AVA5-50 = 7/8" nominal, 1.102 in. actual dia.; 10" min. bending radius; .30 lbs/ft
AVA7-50 = 1 5/8" nominal, 1.98 in. actual dia.; 15" min. bending radius; .72 lbs/ft

13 1260 CABLE BRIDGE

Cable bridge to be 24 inch wide, 12 gauge, 'grip strut' supported no more than 6'-0" on center by 3 1/2" steel pipe and 3" x 5" x 1/4" x 30" long angle. Cable bridge overhang extensions not to exceed 1'-6". Steel to be hot dipped galvanized.

13 1400 ANTENNA INSTALL

Contractor shall install Owner's antennas and feed lines during erecting. Contractor shall sweep coax lines for continuity and copies of results to be left in equipment room before leaving site.

MECHANICAL

15 4000 PLUMBING

N/A

15 5000 HVAC

PREFAB: Shelter is factory-equipped with two through-wall package units of 5-ton and 10 KW capacity.

ELECTRIC

16 5000 LIGHTING AND ELECTRICAL

Contractor shall perform work as described on the Electrical Plans. Contractor shall provide labor and materials as necessary to complete the work shown on plans.

16 6000 GROUNDING

Contractor shall make themselves familiar with and follow the current GROUNDING STANDARDS of VERIZON WIRELESS. Contractor shall perform work as shown on Grounding Plans. Any site-specific grounding issues not covered by the GROUNDING STANDARD are to be addressed by the Contractor to the Owner.

OWNER-FURNISHED EQUIPMENT & FEES

PREFABRICATED EQUIPMENT SHELTER
STEALTH TOWER
COAXIAL CABLES,
ANTENNAS AND DOWNTILT BRACKETS
CABLE BRIDGE (FIRST 10')
BUILDING PERMIT FEE
MATERIALS TESTING FEES
SPECIAL INSPECTIONS FEES

CONTRACTOR-FURNISHED EQUIPMENT

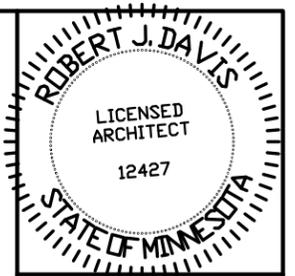
POWER TO SITE, TELCO TO SITE.
CONNECTORS, BOOTS, RELATED HARDWARE
CONCRETE STOOP

SCOPE OF WORK:

CONTRACTOR SHALL PROVIDE MATERIALS, LABOR, TOOLS, TRANSPORTATION, SUPERVISION, ETC. TO FULLY EXECUTE WORK. WORK REQUIREMENTS ARE DETAILED ON THE DRAWINGS AND SPECIFICATIONS AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:

SITE PREPARATION
SITE WORK
SHELTER AND TOWER FOUNDATIONS
SITE GROUNDING
ELECTRICAL AND TELEPHONE SERVICES
ERECT TOWER AND SET SHELTER
INSTALL ANTENNAS & CABLES
CABLE BRIDGE
GRAVEL SURFACING AND FENCING
CONCRETE STOOP AND SIDEWALK

Contractor to compare drawings against Owner's "Request for Quote", (RFQ). If discrepancies arise, Contractor shall verify with Owner that the RFQ supersedes the drawings.



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota. ROBERT J. DAVIS, Reg. No. 12427

Signed: *Robert J. Davis*
06-18-15
Date:



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PROJECT
20130880042

MINC
BOSS

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MINNEAPOLIS, MN 55417

SHEET CONTENTS:
OUTLINE SPECIFICATIONS

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

A-4

GENERAL GROUNDING NOTES:

An external buried ground ring (Lead 1) shall be established around the equipment shelter and tower foundations. Lead 1 shall be kept 24" from foundations; if foundations are less than 48" apart, keep Lead 1 centered between them. If the tower base is over 20'-0" from the equipment shelter, a separate Lead 1 shall be established around each foundation, and the two Lead 1s shall be bonded with two parallel leads at least 6 feet apart horizontally. Connections between the two Lead 1s shall be bi-directional.

All subgrade connections shall be by exothermic weld, brazed weld, or gas-tight UL467-listed compression fittings pre-filled with anti-oxidant compound. Subgrade connections shall not be 'cold galvanize' coated.

Lead 1 shall be #2 solid bare tin-clad (SBTC) copper wire buried at local frost depth. Lead 1 bends shall be minimum 24" radius. 'Whip' lead bends may be of 12" radius.

Ground rods shall be galvanized steel, 5/8"Ø, spaced ten feet apart, or as shown. Rods shall be kept min. 24 inches from foundations. Ground rods are required to be installed at their full specified length. Depth shall be as shown in Detail 1/G1.

SPECIAL CONSIDERATIONS FOR GROUND RODS:

When ground rods are not specified to be backfilled w/ Bentonite Slurry: If boulders, bedrock, or other obstructions prevent driving of ground rods, the Contractor will need to have drilling equipment bore a hole for ground rod placement. Hole to be backfilled w/ Bentonite Slurry.

When specified with slurried Bentonite encasement, drilling equipment will be used to be bore a hole for ground rod placement. Slurry shall be made from pelletized material ("Grounding Gravel"); powdered Bentonite is not allowed. If boulders, bedrock, or other obstructions are found, Contractor shall drill to the specified depth and provide Bentonite encasements.

Above-grade connections shall be by lugs w/ two-hole tongues unless noted otherwise, joined to solid leads by welding (T&B 54856BE "BROWN"), self-threading (RECOGNIZED, EM 2522DH.75.312), or 10,000psi crimping (BURNDY YA3C 2TC 14E2). Surfaces that are galvanized or coated shall have coating(s) removed prior to bolting. Bolts shall be stainless steel with flat washers on each side of the connection and a lock washer beneath the fastening nut. Star-tooth washers shall be used between lug & dissimilar metal (copper-to-steel, etc) but are not required between tin-clad CU lugs & tin-clad CU bus bars. Lug tongues shall be coated with anti-oxidant compound, and excess compound wiped clean after bolting. The connection shall then be coated with cold-galvanizing compound, or with color-matching paint.

Ground bars exposed to weather shall be tin-clad copper, and shall be clean of any oxidation prior to lug bolting.

Galvanized items shall have zinc removed within 1" of weld area, and below lug surface contact area. After welding or bolting, the joint shall be coated with cold galvanizing compound.

Ground Bar leads

Ground bars are isolated electrically from tower bottoms and equipment shelters by their standoff mounts. Leads from each ground bar to the ground ring shall be a pair of #2 SBTC, each connected to Lead 1 bi-directionally with #2 SBTC 'jumpers'. Pairs of #2 SBTC may be required between ground bars. Leads shall be routed to ground bars as follows:

- * The Main Ground Bar (MGB), typically mounted inside on the equipment shelter 'back' wall.
- * The Entry Cable Port Ground Bars (ECPGB), mounted inside and outside on the equipment shelter walls beneath the transmission line port. Note: Transmission line grounds also attach to the ECPGBs.
- * The Transmission Line Ground Bar (TGB) mounted at the base of the tower to which the transmission line grounds are attached. Transmission line grounds also attach to the TGBs.

NOTE: Contractor shall confirm that TGBs exist at 75-foot vertical intervals on any guyed or self-support tower, and that transmission lines are grounded to each TGB. Only the bottom-most TGB is isolated from the tower steel frame; upper TGBs may use the tower steel frame as common ground, requiring no copper leads between TGBs.

#2 SBTC Whip leads

'Whip' leads shall connect the buried external ground ring to the following items:

Monopole Towers:

- * Three whips to flanges on the monopole base, at least 90° apart. If none are provided, attach to the baseplate or consult tower manufacturer.

Self-Support Towers:

- * Two whips to flange(s) on each tower leg base. If none are provided, attach to the baseplate or consult tower manufacturer.

Guyed Towers:

- * Two whips to flange(s) on the tower base. If none are provided, attach to the baseplate or consult tower manufacturer.
- * Establish a Lead 1 within the fence enclosure of each guy anchor, at least 40 foot perimeter and having 4 ground rods.
- * #2 SBTC leads shall extend up, and be clamped (bronze clamshell or equal), to any two guy wires. NEVER weld leads to the guy wires. The lead to the guy anchor 'hand' plate may be welded.

Fences:

Metallic fence within 25 feet of tower Lead 1, or within 6 feet of shelter lead 1, shall have whip leads as follows:

- * Each corner post.
- * Each pair of gate posts.
- * Any line post over 20'-0" from a grounded post.
- * Each gate leaf to its respective gatepost using braided strap (3/4", tin-clad copper w/ lug ends).
- * Fences around guy anchors shall be grounded in similar fashion.

Fuel tanks:

NEVER WELD to any fuel enclosure. NEVER penetrate the fuel containment. Metal tanks shall have one whip lead attached. Use an approved clamp or two-hole lug on an available flange.

Equipment Shelter and Other General Requirements:

- * Extend new Lead 21B up to shelter halo, remaking two-way connections as needed. Generator-equipped shelters have 6 such connections. Connections within the shelter shall be by compression; NEVER weld inside the shelter.
- * Each vertical support pipe of the exterior cable bridge. Bridge end shall be kept at least 6" from the tower structure. The cable bridge shall be jumpered to the vertical support pipes with #2 SBTC at each vertical support pipe.
- * Opposite corners of the roof shield over the equipment shelter.
- * Each HVAC unit shield, if separate (may be 'jumpered' to main roof shield).
- * Each HVAC package unit.
- * Commercial electric meter box.
- * Generator receptacle, if present.
- * Steel building skid, if shelter is metal frame.
- * Each air intake or exhaust fan vent louver.
- * Each generator vent hood or louver.
- * Generator exhaust stack, external.
- * Opposite corners of generator support frame, if separate from shelter.
- * Generator fuel tank, if separate from generator unit.
- * Host building rain gutter, downspouts, and roof flashings within 25 feet.
- * Telco MPOP (Main Point of Presence), if external to equipment shelter.
- * Within cable vaults, one each to the ladder and to the manhole rim.

Note: The door frame is connected to the interior ground halo, and need no separate connection to the external ground ring.

Inspection & Testing

Test lead #1 and ground rods after installation but before backfilling or connecting to any other grounding, using the 3-point fall of potential method. Contractor to notify Verizon Wireless senior construction engineer at least 48 hours prior to testing. Document installation and test results with photographs.

SYMBOL AND NOTE LEGEND

- ① #2 SBTC AROUND SHELTER, TOWER, OR GUY ANCHOR
- 5/8" X 10'-0" GALVANIZED STEEL GROUND ROD
- ⊙ TEST WELL PREFERRED LOCATION
- #2 SBTC 'WHIP' LEAD
- ⑤ (2) #2 SBTC FROM MGB, PGB, OR TGB TO LEAD 1
- ⑥ AC HVAC UNIT
- ②1B BC BUILDING CORNER
- ⑥ BO BOLLARD
- ⑥ CBS CABLE BRIDGE SUPPORT POST
- ⑥ FAN GUY ANCHOR PLATE
- ⑥ FP FENCE POST
- ⌒ GP GATE POST, 3/4" BRAID STRAP TO LEAF
- ⑥ GUY GUY WIRE, MECH. CLAMP ONLY - NO WELDS
- ⑥ HL HOOD OR LOUVER
- ⑥ HB OUTSIDE OF HOFFMAN BOX
- ⑥ EM COMMERCIAL ELECTRICAL METER
- ④ EL ELECTRICAL SERVICE GROUND
- ⑥ MU GENERATOR MUFFLER
- ⑥ RBR FOUNDATION REINFORCING
- ⑥ RS ROOF SHIELD
- ⑥ SB STEEL BEAM
- ⑥ SP STEEL POST
- ⑥ TEL HOFFMAN BOX
- ⑥ TWR TOWER BASE
- ⑥ VP DIESEL FUEL VENT PIPE

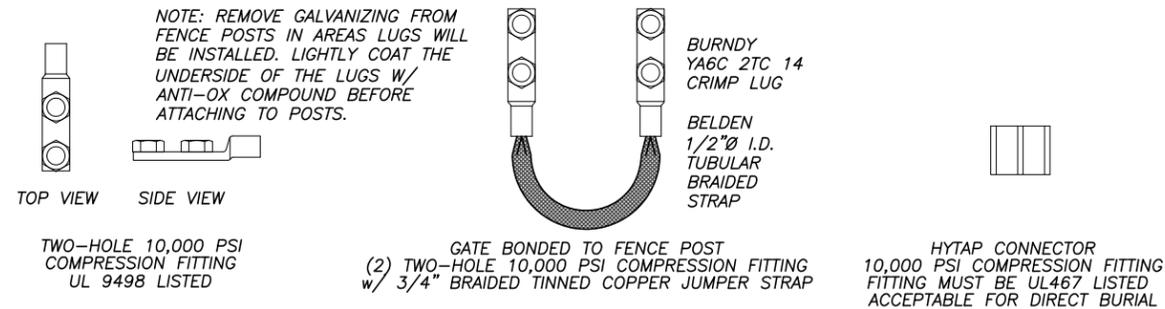
Note:

Contractor to provide #2 solid bare tin-clad (SBTC) copper wire lead from #1 ground ring to air conditioner & ice shield if provided by VZW.

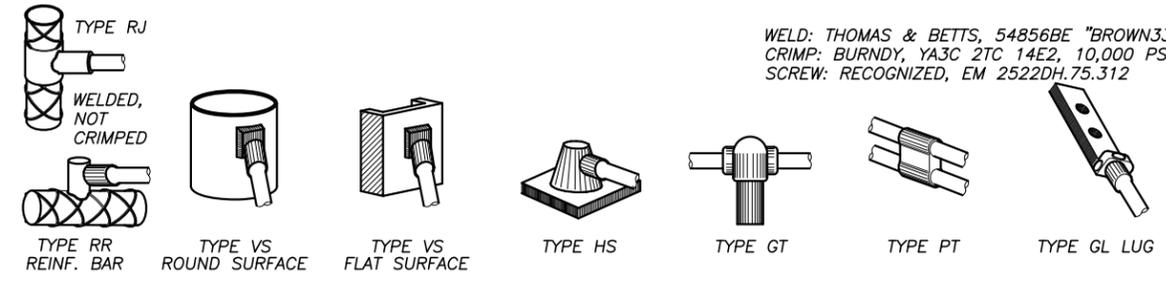
LEAD IDENTIFICATION & DESCRIPTION:

- 1 RING, EXTERNAL BURIED W/ RODS #2 SBTC
- 1A RING, CONCRETE ENCASED #2 SBTC
- 2 DEEP ANODE (TO IMPROVE OHMS) ROD OR PIPE
- 3 RING TO BLDG STL FRAME #2 SBTC
- 4 MAIN AC PANEL NEUTRAL BUS TO (2) GROUND RODS, ISOLATED FROM LEAD #1 NEC 250.66
- 5 RING TO GROUND BAR (2) #2 SBTC
- 6 RING TO EXT MTL OBJECT #2 SBTC
- 7 DEEP ANODE TO MGB NSTD33-9
- 8 AC PANEL TO WATER METER NEC 250.66
- 9 EXT WATER TO INT WATER PIPES NSTD33-9
- 10 INT WATER PIPE TO MGB NSTD33-9
- 11-12 NOT USED
- 13 AC PANEL TO MGB NSTD33-9
- 14 MGB/FGB TO BLDG STL FRAME #2/0 I-STR
- 14C MGB/FGB TO ROOF/WALL MTL PNL #1/0 I-STR
- 15 MGB/FGB TO FGB-HE SAME FLOOR #2/0 I-STR
- 16 NOT USED
- 16A ECPGB TO CABLE ENTRY RACK #1/0 I-STR
- 17 MGB TO CABLE SHIELDING #6 I-STR
- 17A ECPGB TO CABLE SHIELDING #6 I-STR
- 17B MGB/FGB TO F-0 SPLICE SHELF #1 I-STR
- 18 LOWEST MGB/FGB TO HIGHEST FGB #2/0 I-STR
- 19 LEAD 18 TO OTHER FGBs, <6' #2/0 I-STR
- 20 MGB/FGB TO BRANCH AC PNL #6 I-STR
- 20A NEAREST GRND TO DISCONNECT PNL NEC 250.66
- 20B GWB TO AC DISTR PNL #6 I-STR
- 21 MGB/FGB TO INT HALO #2 I-STR
- 21A INTERIOR 'GREEN' HALO #2 I-STR
- 21B INT HALO TO EXT RING #2 SBTC
- 21C INT HALO TO EQUIPMENT MTL #6 I-STR
- 22 ROOF TOWER RING TO ROOF GRND NFPA 780
- 23 MGB/FGB TO ECPGB, SAME FLOOR #1 I-STR
- 23A MGB/FGB TO CXR-HF LINR PROT #6 I-STR
- 24 ECPGB TO EACH PROTECTOR ASSEMBLY #6 I-STR
- 24A LOWER PROT ASSY TO UPPER #6 I-STR

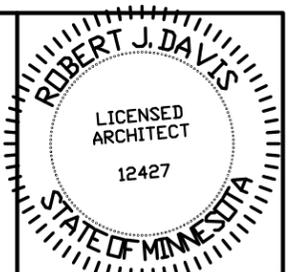
- 25 RING TO NEAREST LIGHTNING ROD #2 SBTC
- 26 LGHTNG ROD SYS TO NEARBY MTL NFPA 780
- 27 RING TO TOWER RING (2) #2 SBTC
- 28 RING TO SHELTER RING (2) #2 SBTC
- 29 BRANCH AC PNL TO BITTY CHG FRM NSTD33-11
- 30 BRANCH AC PNL TO OUTLETS NSTD33-11
- 31 MGB/FGB TO PWR, BITY FRAMES #2/0 I-STR
- 32 #31 TO BATTERY CHARGER FRAME #6 I-STR
- 33 #31 TO BATTERY RACK FRAME #6 I-STR
- 34 #31 TO PCU FRAME #6 I-STR
- 35 #31 TO DSU FRAME #6 I-STR
- 36 #31 TO PDU FRAME #6 I-STR
- 37 MGB/FGB TO BITY RETURN NSTD33-14.5
- 37A MGB/FGB TO RTN TERM CARR SUPP #6 I-STR
- 38 FGB TO PDU GB #750MCM I-STR
- 38A FGB TO PDU GB CARRIER SUPPLY #2/0 I-STR
- 39 DC BUS DUCT TO NEXT SECTION #6 I-STR
- 40 DC BUS DUCT TO MGB/FGB #6 I-STR
- 41A MGB/FGB TO #58 #2/0 I-STR
- 42-44 NOT USED
- 45 MAIN AC PNL TO BRANCH AC PNL NSTD33-11
- 46 BRANCH AC PNL TO DED OUTLET NSTD33-11
- 47 FGB TO INTEG FRM #2 I-STR
- 48 LEAD #31 TO INTEG FRM #6 I-STR
- 49 INTEG FRM TO EQUIP SHELF BY FASTENERS
- 50 PDU BITY RET TO #51 #2/0 I-STR
- 51 #50 TO TRANS FRM ISO DC PWR #6 I-STR
- 52 TRANS FRM FUSE TO FRM OR BAR #8 I-STR
- 53A MGB/FGB TO PDF/BDFB NSTD33-22
- 54 MGB/FGB TO STATIC DEVICES #6 I-STR
- 55 MGB/FGB TO CABLE AT ENTRY #6 I-STR
- 56 MGB/FGB TO AC PWR RADIO XMTR #6 I-STR
- 57A MGB/FGB TO CBL GRID/RUNWAY #2/0 I-STR
- 58A #41A TO AISLE FRAME #2 I-STR
- 59A #58A TO EACH SGL FRAME GRND #6 I-STR
- 60-89 NOT USED
- 90 GENERATOR FRAME TO EXT RING #2 SBTC



2 COMPRESSION CONNECTOR DETAILS
SCALE: NONE



1 EXOTHERMIC WELD DETAILS
SCALE: NONE



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota. ROBERT J. DAVIS, Reg. No. 12427

Signed: *Robert J. Davis*
06-18-15
Date:

DESIGN 1

9973 VALLEY VIEW RD.
EDEN PRAIRIE, MN 55344
(952) 903-9299
WWW.DESIGN1EP.COM

VERIZON WIRELESS

10801 BUSH LAKE ROAD
BLOOMINGTON, MN 55438
(612) 720-0052

PROJECT
20130880042

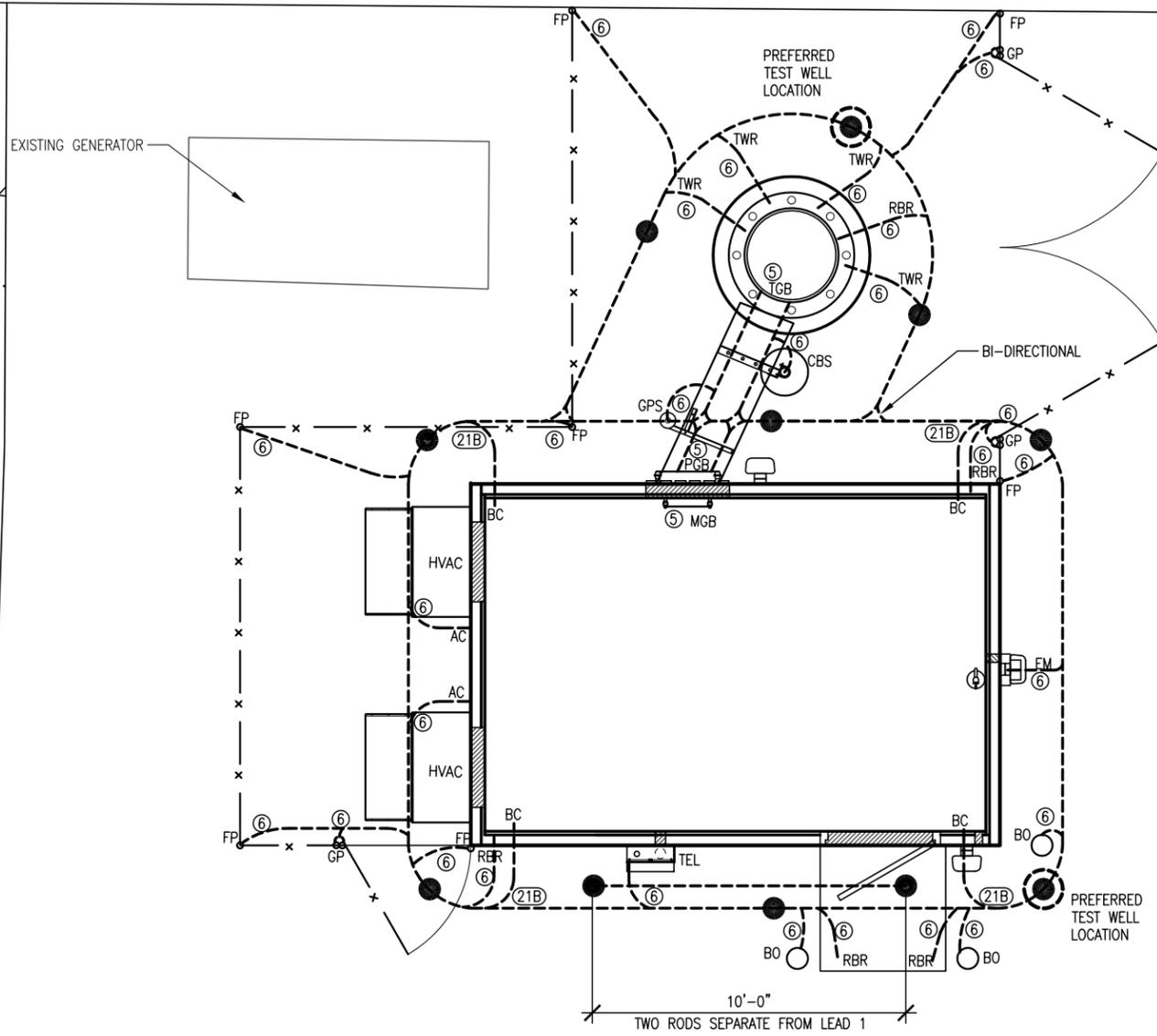
MINC BOSS

33RD AVENUE S.
MINNEAPOLIS, MN 55417

SHEET CONTENTS:
GROUNDING NOTES

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

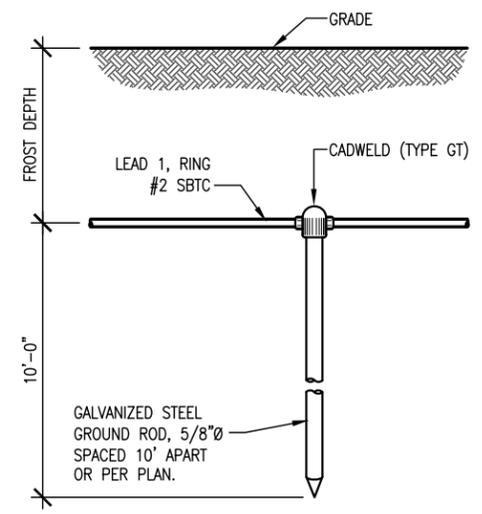
G-1



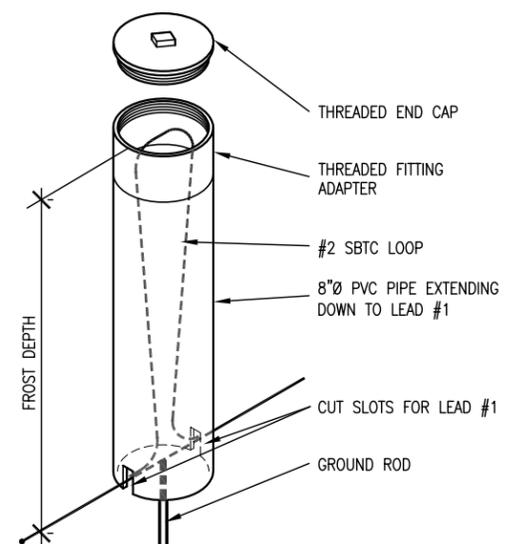
1 GROUNDING PLAN
SCALE: NONE



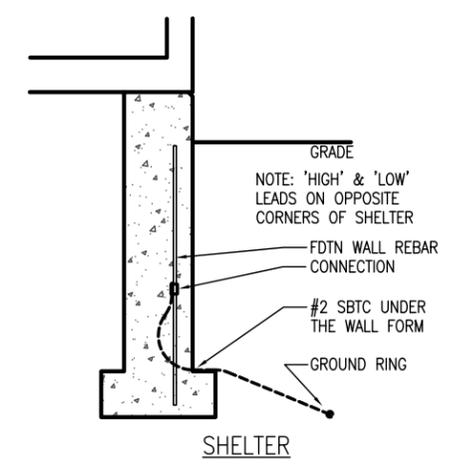
NOTE:
CONTRACTOR SHALL ENSURE THAT EACH WHIP IS ROUTED TO LEAD 1 BY THE SHORTEST PATH, AND BENDS SHALL NOT BE LESS THAN 12" RADIUS



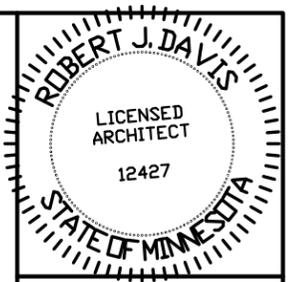
1 GROUND ROD DETAIL
SCALE: 1/2" = 1'-0"



2 TEST WELL DETAIL
SCALE: 3/4" = 1'-0"



3 REBAR GROUNDING
SCALE: 3/8" = 1'-0"



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Architect under the laws of the State of Minnesota. ROBERT J. DAVIS, Reg. No. 12427

Signed: *Robert J. Davis*
06-18-15
Date:



9973 VALLEY VIEW RD.
EDEN PRAIRIE, MN 55344
(952) 903-9299
WWW.DESIGN1EP.COM

VERIZON WIRELESS
10801 BUSH LAKE ROAD
BLOOMINGTON, MN 55438
(612) 720-0052

PROJECT
20130880042

MINC
BOSS

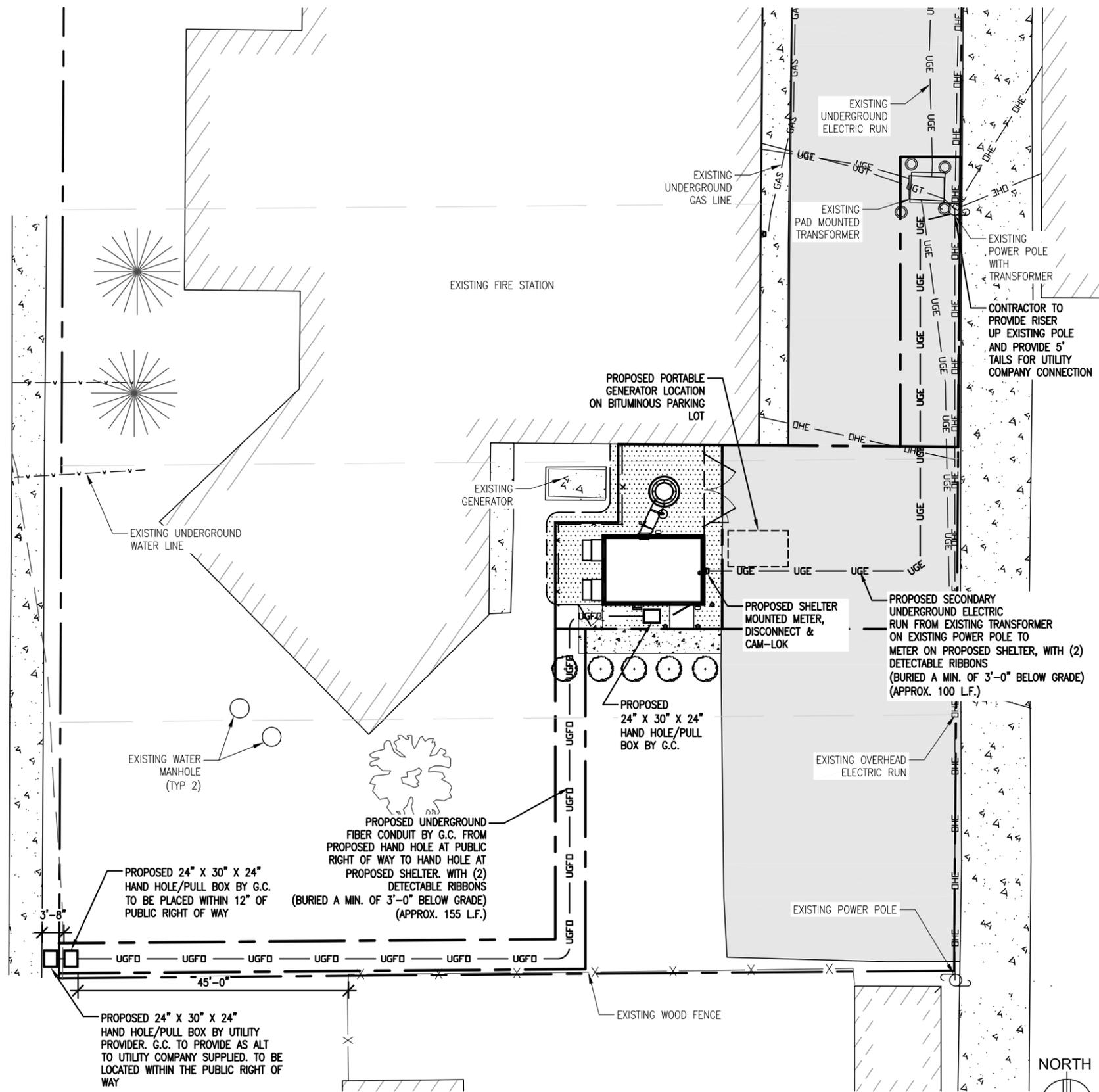
33RD AVENUE S.
MINNEAPOLIS, MN 55417

SHEET CONTENTS:
GROUNDING PLAN
GROUNDING DETAILS

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

G-2

**DIRECTIONAL BORING
OF FIBER & ELECTRICAL
SERVICES REQUIRED**



2 SITE UTILITY PLAN
SCALE: 1" = 20'-0"



4 PHOTO - EXISTING TRANSFORMER
LOOKING NORTH



3 PHOTO - EXISTING OVERHEAD LINES
LOOKING SOUTHWEST



2 PHOTO - EXISTING GENERATOR
LOOKING NORTH

DESIGN 1

9973 VALLEY VIEW RD.
EDEN PRAIRIE, MN 55344
(952) 903-9299
WWW.DESIGN1EP.COM

VERIZON WIRELESS

10801 BUSH LAKE ROAD
BLOOMINGTON, MN 55438
(612) 720-0052

PROJECT
20130880042

MINC BOSS

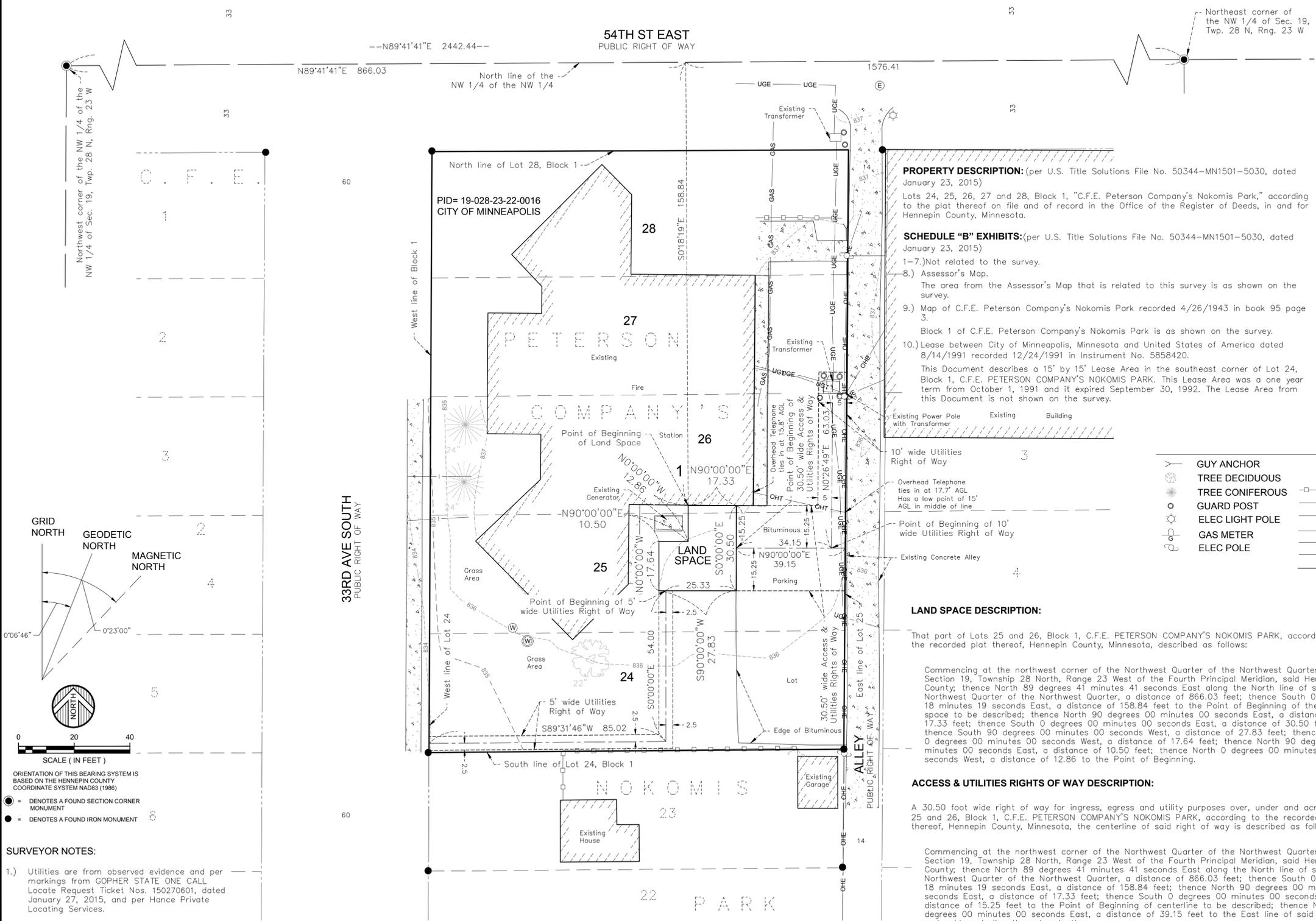
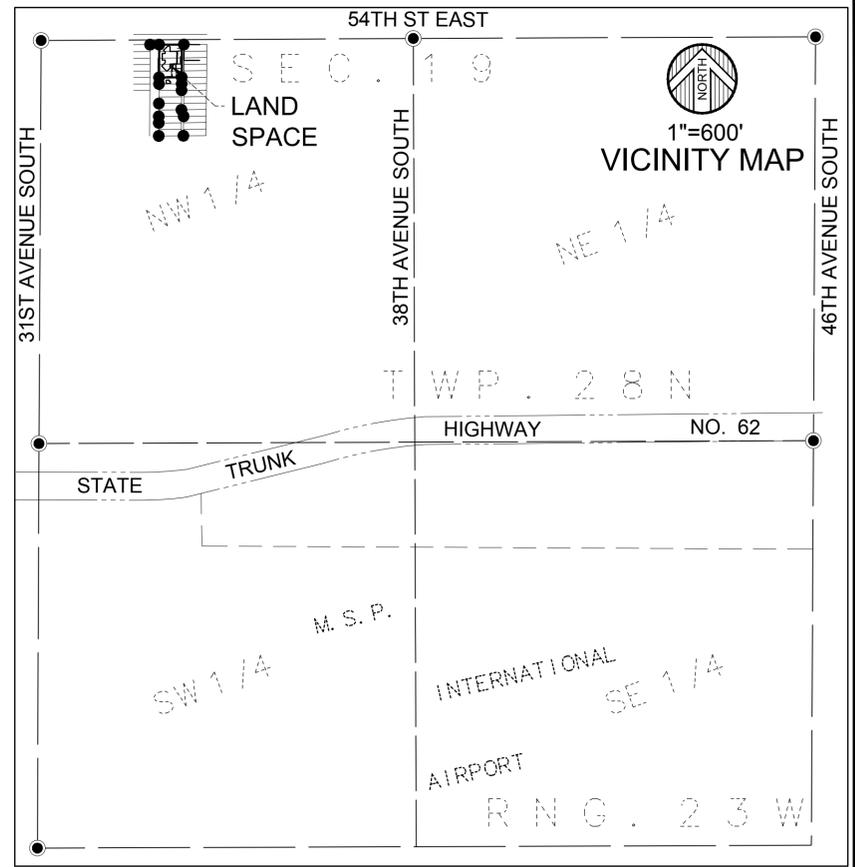
33RD AVENUE S.
MINNEAPOLIS, MN 55417

SHEET CONTENTS:
SITE UTILITY PLAN
MISC. PHOTOS

DRAWN BY:	STACEY R.
DATE:	01-22-15
CHECKED BY:	CDB
REV. A	03-13-15
REV. B	03-27-15
REV. C	05-27-15
REV. D	06-18-15

U-1

SITE SURVEY



PROPERTY DESCRIPTION: (per U.S. Title Solutions File No. 50344-MN1501-5030, dated January 23, 2015)
 Lots 24, 25, 26, 27 and 28, Block 1, "C.F.E. Peterson Company's Nokomis Park," according to the plat thereof on file and of record in the Office of the Register of Deeds, in and for Hennepin County, Minnesota.

SCHEDULE "B" EXHIBITS: (per U.S. Title Solutions File No. 50344-MN1501-5030, dated January 23, 2015)
 1-7.) Not related to the survey.
 8.) Assessor's Map.
 The area from the Assessor's Map that is related to this survey is as shown on the survey.
 9.) Map of C.F.E. Peterson Company's Nokomis Park recorded 4/26/1943 in book 95 page 3.
 Block 1 of C.F.E. Peterson Company's Nokomis Park is as shown on the survey.
 10.) Lease between City of Minneapolis, Minnesota and United States of America dated 8/14/1991 recorded 12/24/1991 in Instrument No. 5858420.
 This Document describes a 15' by 15' Lease Area in the southeast corner of Lot 24, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK. This Lease Area was for a one year term from October 1, 1991 and it expired September 30, 1992. The Lease Area from this Document is not shown on the survey.

LAND SPACE DESCRIPTION:
 That part of Lots 25 and 26, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet to the Point of Beginning of the Land Space to be described; thence North 90 degrees 00 minutes 00 seconds East, a distance of 17.33 feet; thence South 0 degrees 00 minutes 00 seconds East, a distance of 30.50 feet; thence South 90 degrees 00 minutes 00 seconds West, a distance of 27.83 feet; thence North 0 degrees 00 minutes 00 seconds West, a distance of 17.64 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 10.50 feet; thence North 0 degrees 00 minutes 00 seconds West, a distance of 12.86 to the Point of Beginning.

ACCESS & UTILITIES RIGHTS OF WAY DESCRIPTION:
 A 30.50 foot wide right of way for ingress, egress and utility purposes over, under and across Lots 25 and 26, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, the centerline of said right of way is described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 30.50 feet; thence South 90 degrees 00 minutes 00 seconds West, a distance of 25.33 feet to the Point of Beginning of the centerline to be described; thence South 0 degrees 00 minutes 00 seconds East, a distance of 54.00 feet; thence South 89 degrees 31 minutes 46 seconds West, a distance of 85.02 feet to the West line of said Lot 24 and said centerline there terminating.

The sidelines of said right of way shall be shortened or lengthened to terminate at said East line of Lot 25 and the East line of said Lot 26.

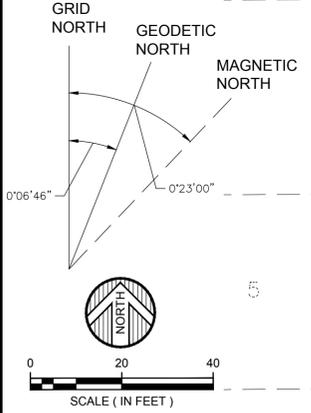
LEGEND

	GUY ANCHOR		ELEC MANHOLE		QUARTER LINE
	TREE DECIDUOUS		WATER MANHOLE		SIXTEENTH LINE
	TREE CONIFEROUS		WOOD FENCE		BOUNDARY LINE
	GUARD POST		UNDERGROUND TELE		RIGHT OF WAY LINE
	ELEC LIGHT POLE		OVERHEAD ELEC		LOT LINE
	GAS METER		UNDERGROUND ELEC		EASEMENT LINE
	ELEC POLE		UNDERGROUND NATURAL GAS		EASEMENT CENTER LINE
			OVERHEAD TELEPHONE		LAND SPACE
			SECTION LINE		BUILDING WALL HATCH
					CONCRETE SURFACE

UTILITIES RIGHT OF WAY DESCRIPTIONS:
 A 10.00 foot wide right of way for utility purposes over, under and across Lots 25, 26 and 27, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, the centerline of said right of way is described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 17.33 feet; thence South 0 degrees 00 minutes 00 seconds East, a distance of 15.25 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 34.15 feet to the Point of Beginning of the centerline to be described; thence North 0 degrees 26 minutes 49 seconds East, a distance of 63.03 feet said centerline there terminating.

AND
 A 5.00 foot wide right of way for utility purposes over, under and across Lots 24 and 25, Block 1, C.F.E. PETERSON COMPANY'S NOKOMIS PARK, according to the recorded plat thereof, Hennepin County, Minnesota, the centerline of said right of way is described as follows:
 Commencing at the northwest corner of the Northwest Quarter of the Northwest Quarter of Section 19, Township 28 North, Range 23 West of the Fourth Principal Meridian, said Hennepin County; thence North 89 degrees 41 minutes 41 seconds East along the North line of said Northwest Quarter of the Northwest Quarter, a distance of 866.03 feet; thence South 0 degrees 18 minutes 19 seconds East, a distance of 158.84 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 30.50 feet; thence South 90 degrees 00 minutes 00 seconds West, a distance of 25.33 feet to the Point of Beginning of the centerline to be described; thence South 0 degrees 00 minutes 00 seconds East, a distance of 54.00 feet; thence South 89 degrees 31 minutes 46 seconds West, a distance of 85.02 feet to the West line of said Lot 24 and said centerline there terminating.

The sidelines of said right of way shall be shortened or lengthened to terminate at said West line of Lot 24.



ORIENTATION OF THIS BEARING SYSTEM IS BASED ON THE HENNEPIN COUNTY COORDINATE SYSTEM NAD83 (1986)

● DENOTES A FOUND SECTION CORNER MONUMENT
 ● DENOTES A FOUND IRON MONUMENT

SURVEYOR NOTES:

- Utilities are from observed evidence and per markings from GOPHER STATE ONE CALL Locate Request Ticket Nos. 150270601, dated January 27, 2015, and per Hance Private Locating Services.
- The Land Space together with all Access and Utilities Rights of Way are within the area described in the Property Description contained herein.

DESIGN 1

SITE NAME: MINC BOSS
 Hennepin County, MN

No.	Date	REVISIONS	By	CHK	APPD
1	4/6/15	REVISED OVERHEAD TELEPHONE / ADDED CABLE HEIGHT	SMK	SMK	SMK

FIELD WORK: 2/4/15 CHECKED BY: SMK DRAWN BY: NTG/JMB

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Shawn M. Kupcho*
 SHAWN M. KUPCHO, L.S.
 LICENSE # 49021

DATE: 4/2/15

FULL SCALE ON 22"x34"
 HALF SCALE ON 11"x17"
 0494A1544.000

WIDSETH SMITH NOLTING
 Engineering | Architecture | Surveying | Environmental

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View from 34th Ave S Neighborhood Commercial Node



← approximate location of tower

S 34th Ave



S 34th Ave



VIEW TYPE: Original Photograph - View 1
SITE ADDRESS: 33rd Avenue South
CITY: Minneapolis **STATE:** MN
SITE NAME: MINC BOSS
VIEW DESCRIPTION: Looking northeast

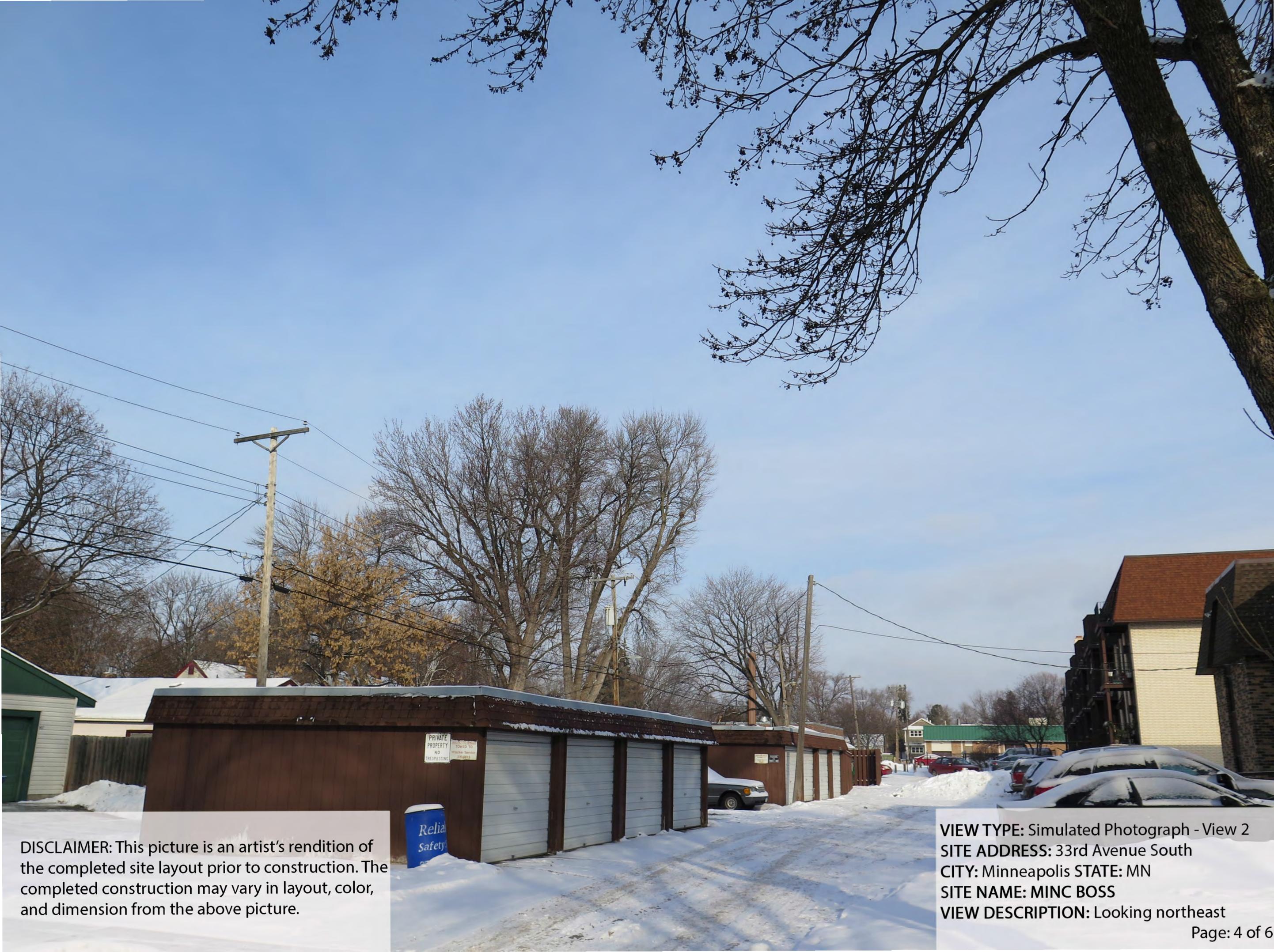


DISCLAIMER: This picture is an artist's rendition of the completed site layout prior to construction. The completed construction may vary in layout, color, and dimension from the above picture.

VIEW TYPE: Simulated Photograph - View 1
SITE ADDRESS: 33rd Avenue South
CITY: Minneapolis **STATE:** MN
SITE NAME: MINC BOSS
VIEW DESCRIPTION: Looking northeast



VIEW TYPE: Original Photograph - View 2
SITE ADDRESS: 33rd Avenue South
CITY: Minneapolis **STATE:** MN
SITE NAME: MINC BOSS
VIEW DESCRIPTION: Looking north



DISCLAIMER: This picture is an artist's rendition of the completed site layout prior to construction. The completed construction may vary in layout, color, and dimension from the above picture.

VIEW TYPE: Simulated Photograph - View 2
SITE ADDRESS: 33rd Avenue South
CITY: Minneapolis **STATE:** MN
SITE NAME: MINC BOSS
VIEW DESCRIPTION: Looking northeast



VIEW TYPE: Original Photograph - View 3
SITE ADDRESS: 33rd Avenue South
CITY: Minneapolis **STATE:** MN
SITE NAME: MINC BOSS
VIEW DESCRIPTION: Looking southwest



DISCLAIMER: This picture is an artist's rendition of the completed site layout prior to construction. The completed construction may vary in layout, color, and dimension from the above picture.

VIEW TYPE: Simulated Photograph - View 3
SITE ADDRESS: 33rd Avenue South
CITY: Minneapolis **STATE:** MN
SITE NAME: MINC BOSS
VIEW DESCRIPTION: Looking southwest

June 1, 2015

Tetra Tech Inc.
Attn: Kate Schindler
2001 Killebrew Drive, Suite 141
Bloomington, MN 55425

RE: Verizon Wireless MIN BOSS
Construction of a 47 ft stealth telecommunications tower and associated equipment building
5401 33rd Avenue South, Minneapolis, Hennepin County
SHPO Number: 2015-1912

Dear Ms. Schindler:

Thank you for the opportunity to comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and implementing federal regulations at 36 CFR 800, and pursuant to the provisions of the nationwide programmatic agreement governing telecommunications facilities.

We have reviewed the documentation included with your submittal of 6 May 2015 and we agree with your consultant's recommendation that there are no historic properties within the area of potential effects (APE) for direct effects for this project. We also agree that there are two historic properties within the APE for indirect visual effects, Keewaydin School and Morris Park Elementary School, both of which have been determined eligible for listing in the National Register of Historic Places. It appears that the proposed telecommunications tower will not be visible from either of these properties, therefore, we concur with your determination that this project will have **no effect** on historic properties.

Please contact our Compliance Section at (651) 259-3455 if you have any questions regarding our review of this project.

Sincerely,



Sarah J. Beimers, Manager
Government Programs and Compliance



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2015-AGL-4948-OE

Issued Date: 05/08/2015

Regulatory
 Verizon Wireless (VAW) LLC
 1120 Sanctuary Pkwy
 #150 GASA5REG
 Alpharetta, GA 30009

**** 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: Monopole MIN BOSS
 Location: Minneapolis, MN
 Latitude: 44-54-17.66N NAD 83
 Longitude: 93-13-25.80W
 Heights: 837 feet site elevation (SE)
 47 feet above ground level (AGL)
 884 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:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

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 and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 11/08/2016 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 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 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 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.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

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 (847) 294-8084. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2015-AGL-4948-OE.

Signature Control No: 247304450-251589622

(DNE)

Carole Bernacchi
Technician

Attachment(s)
Frequency Data

cc: FCC

Search

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Compose

Navigation icons: back, forward, delete, move, spam, more

Collapse All

- MINC Aim (5)
- MINC Alice (3)
- MINC Almon... (3)
- MINC Beagle (1)
- MINC Berry (7)
- MINC Best Server
- MINC Bobbl... (1)
- MINC Boss
- MINC Bryant (5)
- MINC Clifford (5)
- MINC Clinton (2)
- MINC Clover
- MINC Dakota (1)
- MINC Dunaway

- MINC Eclair
- MINC Emerson
- MINC Fern (1)
- MINC Flight ... (2)
- MINC Gallagher
- MINC Goldy (1)
- MINC Gopher
- MINC Halle (1)
- MINC Hamel (5)
- MINC High Deductible
- MINC Hornet (1)
- MINC Humb... (2)
- MINC Jimmy
- MINC Johanna
- MINC Jon (7)
- MINC Juicy Lucy
- MINC Lake Nokomis
- MINC Lewis (1)
- MINC Mayfl... (5)
- MINC McColl (5)
- MINC McRae
- MINC Medicine Lake
- MINC Memory Park
- MINC Mentos (1)
- MINC Mill Ci... (2)
- MINC Nessie
- MINC Nordeast
- MINC Nutra... (2)
- MINC Platin... (1)
- MINC Plymouth
- MINC Polar (1)
- MINC Polk
- MINC Roy
- MINC Shady... (1)
- MINC Shorel... (1)
- MINC Silver ... (4)
- MINC Slope (1)
- MINC Starbu... (1)

Verizon Wireless Proposed Stealth Monopole - 5401/5417 33rd Ave S (3) People
 operate the system. I've attached detailed construction drawings and photo simulations for your reference. Please feel free to contact should you have any questions. Thank you.

Rob Viera
Buell Consulting, Inc.
 5096 Merrimac Lane N
 Plymouth, MN 55446
robertjviera@yahoo.com
 612.801.2228 - mobile
 651.225.0795 - fax

2 Attachments | View all | Download all

- RevB_MINC_Boss_0....pdf View Download
- MINC_Boss_Photo_....pdf View Download

Reply, Reply All or Forward | More

Rob Viera
 To Rob Viera, nena@nokomiseast.org

Today at 8:57 AM

Nokomis East Neighborhood Association:

I neglected to mention in my email to you (below; sent on Aug 10) that the city requires that Verizon obtain a Conditional Use Permit and Building Permit before commencing construction.

I'm writing this email to inform you of Verizon Wireless' plans to improve its wireless coverage in your area. Verizon Wireless is proposing to construct a 45' stealth monopole at the city fire dept property at 5401/5417 33rd Ave S. There'd also be an equipment shelter at the base of the monopole necessary to operate the system. I've attached detailed construction drawings and photo simulations for your reference. Please feel free to contact should you have any questions. Thank you.

Rob Viera
Buell Consulting, Inc.
 5096 Merrimac Lane N
 Plymouth, MN 55446
robertjviera@yahoo.com
 612.801.2228 - mobile
 651.225.0795 - fax

Show original message

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Click to reply all

Send [Rich Text Editor Icons]



Search

Search Mail Search Web



Compose

Navigation icons: back, forward, delete, move, spam, more

Collapse All

- MINC Aim (5)
- MINC Alice (3)
- MINC Almon... (3)
- MINC Beagle (1)
- MINC Berry (7)
- MINC Best Server
- MINC Bobbl... (1)
- MINC Boss
- MINC Bryant (5)
- MINC Clifford (5)
- MINC Clinton (2)
- MINC Clover
- MINC Dakota (1)
- MINC Dunaway

Proposed Verizon Wireless Stealth Monopole - 5417 33rd Ave S (3)

People

5401/5417 33rd Ave S. There'd also be an equipment shelter at the base of the monopole necessary to operate the system. I've attached detailed construction drawings for your reference. Please feel free to contact should you have any questions. Thank you.

Rob Viera
Buell Consulting, Inc.
 5096 Merrimac Lane N
 Plymouth, MN 55446
robertjviera@yahoo.com
 612.801.2228 - mobile
 651.225.0795 - fax

RevB_MINC_Boss_0...pdf

View Download

Reply, Reply All or Forward | More

Rob Viera

Today at 8:55 AM

To Rob Viera, john.quincy@minneapolismn.gov

Council Member Quincy-

I neglected to mention in my email to you (below; sent on Aug 10) that the city requires that Verizon obtain a Conditional Use Permit and Building Permit before commencing construction.

I'm writing this email to inform you of Verizon Wireless' plans to improve its wireless coverage in your district. Verizon Wireless is proposing to construct a 45' stealth monopole at the city fire dept property at 5401/5417 33rd Ave S. There'd also be an equipment shelter at the base of the monopole necessary to operate the system. I've attached detailed construction drawings for your reference. Please feel free to contact should you have any questions. Thank you.

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