



**CPED STAFF REPORT**  
Prepared for the City Planning Commission

CPC Agenda Item #6  
August 11, 2014  
BZZ-6652

**LAND USE APPLICATION SUMMARY**

*Property Location:* 875 ½ Hennepin Avenue East (1133 Taylor Street Northeast)  
*Project Name:* MINC Keds  
*Prepared By:* [Mei-Ling Anderson](#), City Planner, (612) 673-5342  
*Applicant:* Verizon  
*Project Contact:* Ralph Wyngarden, Faulk & Foster  
*Request:* To construct a new 100 foot tall, freestanding monopole communication tower and nine-foot lighting rod.

*Required Applications:*

<b>Conditional Use Permit</b>	To allow a new 100 foot tall, freestanding monopole communication tower and nine-foot lightning rod on the property located at 875 ½ Hennepin Avenue East (1133 Taylor Street Northeast) in the 11 Light Industrial District.
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**SITE DATA**

<b>Existing Zoning</b>	11 Light Industrial District
<b>Lot Area</b>	8,243 square feet / 0.19 acres
<b>Ward(s)</b>	3
<b>Neighborhood(s)</b>	Beltrami Neighborhood Council
<b>Designated Future Land Use</b>	Transitional Industrial
<b>Land Use Features</b>	Not applicable
<b>Small Area Plan(s)</b>	Not applicable

<b>Date Application Deemed Complete</b>	July 11, 2014	<b>Date Extension Letter Sent</b>	Not applicable
<b>End of 60-Day Decision Period</b>	September 9, 2014	<b>End of 120-Day Decision Period</b>	Not applicable

## BACKGROUND

**SITE DESCRIPTION AND PRESENT USE.** The subject site is approximately 8,243 square feet, is triangular in shape, and is currently vacant. Although it is landlocked on all three sides, the site can be accessed from East Hennepin Avenue via a portion of Taylor Street Northeast that has been vacated. A portion of the site is bituminous and the remainder is undeveloped.

**SURROUNDING PROPERTIES AND NEIGHBORHOOD.** The site is located within the II Light Industrial District and all of the adjacent parcels are also zoned II. The Sam Miller Bag Company owns the lots to the west and south along with the subject site. The Burlington Northern Railroad Company owns the railroad tracks that are located approximately 111 feet from the subject parcel's northeast property line. The closest residential uses are approximately 250 feet from the location of the proposed pole, and they are on the opposite side of the railroad tracks.

**PROJECT DESCRIPTION.** The applicant, Verizon Wireless, is proposing to construct a 100-foot freestanding monopole communication tower with a nine-foot lighting rod to provide lighting protection, for a total of 109 feet. The proposal requires a conditional use permit in the II Light Industrial Zoning District. The applicant is also proposing to place an equipment and generator building at the tower base that would be approximately 339 square feet in area (11.5 feet by 30 feet). A six-foot tall, galvanized steel chain link fence with barbed wire would enclose the tower and equipment room on the southwestern portion of the site. As part of the project, the applicant is also proposing to remove the existing bituminous on the site and construct a gravel access drive from the easement to the subject site.

**PUBLIC COMMENTS.** As of the printing of this report, staff has not received any comments regarding this project. Any correspondence received prior to the public meeting will be forwarded on 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 109 foot tall, freestanding monopole communication 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.*

The proposed freestanding monopole communication tower and equipment shelter would not be detrimental to or endanger the public health, safety, comfort, or general welfare. The tower would be located approximately 25 feet from the south and west property lines, and approximately 70 feet from the eastern property. The nearest public street, East Hennepin Avenue, would be approximately 230 feet south of the proposed tower, and the nearest residential structure would be approximately 250 feet away from the tower.

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.*

Constructing the communication tower would not be injurious to the use and enjoyment of other property in the vicinity, nor would it impede development and improvement of property in the area. The properties to the north, south, and west of the site are already developed and contain industrial uses. The east side of the property runs parallel to active railroad tracks. Staff is recommending that the tower, antennae, and all supporting structures be painted a light brown color and effectively screened to blend in with the existing landscape and industrial buildings in the area.

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

The applicant would be required to work closely 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 order to comply with city and other applicable requirements.

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

The use is not expected to have any impact on the amount of traffic coming to and from the site. The site would be unstaffed and would be visited by a technician for maintenance no more than one or twice per month.

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*:

**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.
- 4.3.4 Electronically link schools, libraries and community centers into telecommunications and information infrastructure.

The site is designated as Transitional Industrial in the future land use map and is not located within an Industrial Employment District. Transitional Industrial parcels have the potential evolve into other uses compatible with surrounding development eventually, but may also remain industrial for some time.

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

If the requested land application is approved, the proposal will comply with all provisions of the II Light Industrial 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 applicant is proposing to construct a new, freestanding communication tower of a monopole design. The proposed monopole structure would be 100 feet in height and would accommodate internally located antennas as well as a nine-foot lighting rod located above the tower.

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

The applicant has identified three towers within a one-mile radius of the subject site, but has indicated that none of them are feasible for co-location because those sites would not address Verizon's target service area. However, the proposed monopole tower would be able to accommodate up to two future providers.

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.*

In the II Light Industrial District, a telecommunications tower may be constructed up to 100 feet in height. The applicant is proposing to construct a 100-foot tall tower and the antenna tip would not extend more than 100 feet above grade. The proposed tower and antennas therefore comply with the district maximum.

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.*
- 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.*
- 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.*
- d. *Communication towers, antennas and base units shall comply with applicable regulations as established by the Federal Aviation Administration.*
- e. *Communication towers, antennas and base units shall comply with the minimum yard requirements of the district in which they are located.*

The subject site would be large enough to contain the telecommunications tower and the related base equipment without negatively affecting nearby properties in the case of a collapse. The proposed tower is 100 feet in height and the nearest residential structure is approximately 250 feet away from the center of the tower, which is more than twice the height of the monopole. No part of the proposed structures would extend across or over any part of a public right-of-way. The applicant has stated that all towers, antennas, and base units would be designed to comply with the applicable Federal Aviation Administration (FAA) regulations and applicable minimum yard requirements, of which there are none in the II district.

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 monopole tower would be located in the southwest corner of the site, which is approximately 250 feet from the nearest residential property. The site, itself, is located next to industrial and transportation uses. The applicant has indicated that the tower finish would be a metal gray color with a galvanized steel finish, and that the antennae would be white. Staff recommends that the Planning Commission require that the tower and all supporting structures be constructed of a corrosive resistant material and painted a light brown color to match nearby properties as

much as possible. In addition, staff recommends that the base of the tower and unit be effectively screened from view on all four sides.

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 applicant is not proposing to install landscaping or screening on the site give the industrial setting of the site and its surroundings. There would be a six-foot tall, metal chain link fence surrounding the base equipment, which does not meet the screening requirements for this development. The applicant shall be required to provide a decorative fence or masonry wall to comply with the code's screening requirements.

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.

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.*

The antenna tip height will not extend above the height of the monopole.

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.*

According to the applicant, the base equipment would occupy an area of 339 square feet, or 29'-5.5" by 11'-6." The base equipment would not exceed the maximum allowed area of 500 square 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.*

The site would be secured with a six-foot chain link fence on all sides. The applicant is proposing to add three strands of barbed wire above the fence to prevent unauthorized climbing. However, staff is recommending that the Planning Commission add the condition that barbed wire shall not be allowed to be installed above the required screen. As conditioned, the required screen would consist of a decorative fence or masonry wall, and the site would be reasonably protected against unauthorized climbing.

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 indicated that they will affix only the applicable warning and equipment information signage required by the manufacturer or by federal, state, or local regulations.

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.*

The tower will not be illuminated.

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 State Historic Preservation Office (SHPO) has evaluated this site. In a letter dated February 14, 2014, the Manager of Government Programs and Compliance for the SHPO indicated that no properties would be affected by this project.

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

The applicant has indicated that they will meet all applicable regulations established by the Federal Communication Commission.

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.*

Not applicable.

## RECOMMENDATIONS

### **Recommendation of the Department of Community Planning and Economic Development for the Conditional Use Permit:**

The Department of Community Planning and Economic Development recommends that the City Planning Commission adopt the above findings and **approve** the application for a conditional use permit to allow a new 100 foot tall, freestanding monopole communication tower and nine-foot lightning rod on the property located at 875 ½ Hennepin Avenue East (1133 Taylor Street Northeast) in the 11 Light Industrial 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. The base of the tower and base unit shall be screened with a decorative fence or masonry wall to comply with the screening requirements in section 535.540 (3) of the zoning code.

3. No barbed wire shall be allowed on the required screening.
4. The monopole, antennae, and all supporting structures shall be painted a light brown color and treated with or constructed with a non-corrosive material.
5. All driveway and maneuvering areas shall be surfaced per section 541.300 of the zoning code.

## ATTACHMENTS

1. Written description and findings submitted by applicant
2. Zoning map
3. Survey
4. Plans
5. Photo simulations

## STATEMENT OF PROPOSED USE AND PROJECT DESCRIPTION

Application: Conditional Use Permit

Verizon Site Name: MINC Keds

Project Description: Verizon Wireless proposes to construct a 100' monopole with 9' lightning rod. Verizon's antennas will be attached at a centerline of 96'. Verizon will also place an 11'6" x 29'5.5" equipment/generator building at the tower base. Please see enclosed drawings for details.

PID: 1302924330066

Address: 1133 Taylor Street NE, Minneapolis, MN

Property Owner: Sam Miller Bag Company

Zoning: I1 - Light Industrial District

Verizon Wireless proposes to construct a 100' monopole communications tower with 9' lightning rod. Verizon's antennas will be attached at a centerline of 96'. Verizon will also place an 11'6" x 29'5.5" equipment/generator building at the tower base as shown in the drawings provided.

This proposed use is allowed as a conditional use under Section 535.520(a)(1). It is of monopole design as required by Section 535.530(1). The monopole height is limited to 100' as required by Section 535.530(3)b. The project is in the I1-Light Industrial District and meets the development standards in Section 535.540.

The area is industrial in character with lots of bare earth and utilitarian buildings. While there is a residential area to the northeast it is buffered by the railroad corridor with an active track.

The site will be accessed from an existing entry point of E. Hennepin Avenue. The lease area will be graveled and the base of the monopole fenced as shown in the site plan on Sheet A-2 of the drawings submitted as Exhibit G. The monopole will be 100' in height. A 9' lightning rod will provide lightning protection. Photo simulation views are also provided as Exhibit E.

EXHIBIT B

## STATEMENT REGARDING CONDITIONAL USE FINDINGS

Application: Conditional Use Permit

Verizon Site Name: MINC Keds

Project Description: Verizon Wireless proposes to construct a 100' monopole with 9' lightning rod. Verizon's antennas will be attached at a centerline of 96'. Verizon will also place an 11'6" x 29'5.5" equipment/generator building at the tower base. Please see enclosed drawings for details.

PID: 1302924330066

Address: 1133 Taylor Street NE, Minneapolis, MN

Property Owner: Sam Miller Bag Company

Zoning: I1 - Light Industrial District

Verizon Wireless provides the following response to the list of CUP findings in the General Land Use Application :

(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.

***The only impact of the proposed site location on public health and safety, comfort or general welfare is to improve it by facilitating better communication, particularly in times of emergency such as accidents, health events, crimes, floods, fires, blizzards or tornadoes.***

(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 surrounding property is either already developed or built or open to future industrial development. The presence of the proposed monopole would not impede such future development or injure the current use or enjoyment of property in the vicinity. The project is consistent with the industrial character of surrounding parcels and the active railroad track to the northeast.***

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

***All necessary access and utilities are provided for and shown on the drawings. This is an unstaffed location which will not generate significant traffic, use water, generate waste or sewage or otherwise burden public facilities.***

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

***Because this is an unstaffed location which will only be visited by a technician for maintenance no more than once or twice a month, no significant traffic is generated.***

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

***The proposed use is consistent because the area is planned, zoned and built industrial.***

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

***The site is designed to meet the city's I1 - Light Industrial District and communication tower requirements. Verizon Wireless will conform to all applicable regulations.***

EXHIBIT H

## RESPONSE TO SECTIONS 535.530 AND 535.540

Application: Conditional Use Permit

Verizon Site Name: MINC Keds

Project Description: Verizon Wireless proposes to construct a 100' monopole with 9' lightning rod. Verizon's antennas will be attached at a centerline of 96'. Verizon will also place an 11'6" x 29'5.5" equipment/generator building at the tower base. Please see enclosed drawings for details.

PID: 1302924330066

Address: 1133 Taylor Street NE, Minneapolis, MN

Property Owner: Sam Miller Bag Company

Zoning: I1 - Light Industrial District

Verizon Wireless states the following in response to Sections 535.530 and 535.540:

### **535.530. Specific standards for conditional uses.**

All communication towers and antennas requiring a conditional use permit shall be subject to the provisions of Chapter 525, Administration and Enforcement, and the submittal requirements of section 535.510(b). In addition, the applicant shall comply with the following standards and submit written documentation indicating such compliance:

(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 as required.***

(2) *Co-location of communication antennas.* Shared use of existing communication towers shall be preferred to the construction of a new tower.

### ***Verizon Wireless has reviewed co-location opportunities and none are feasible. Please see Exhibit N.***

(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 proposed monopole height of 100' does not exceed the industrial district height limit.***

(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.

**No response necessary.**

EXHIBIT I

**535.540. Development standards for all permitted and conditional communication towers, antennas and base units.**

In addition to the standards of sections 535.490, 535.500 and 535.530 above, all communication towers, antennas and base units shall be subject to the following standards:

- (1) *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.
  - 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.
  - 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.
  - d. Communication towers, antennas and base units shall comply with applicable regulations as established by the Federal Aviation Administration.
  - e. Communication towers, antennas and base units shall comply with the minimum yard requirements of the district in which they are located.

***The proposed design and location meets all of the above requirements. Verizon Wireless will comply with all applicable federal state and local regulations.***

- (2) *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.

***A photo simulation package is attached as Exhibit E. An equipment shelter photo is attached as Exhibit J. This location is inside of the industrial district and the materials used are in character with the district and nearby uses.***

- (3) *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.

***No landscaping or screening is proposed given the industrial district location and the site's actual physical surroundings. Verizon Wireless is flexible in its approach and willing to consider any concerns that may arise in the course of the review process. However, in the absence of substantial justification, Verizon Wireless respectfully requests relief from and landscaping or screening requirement at this location.***

- (4) *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.***

- (5) *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.

***Antenna tip height will not extend above the height of the monopole as shown on sheet A-3 of the drawings provided as Exhibit G.***

- (6) *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.

***This requirement is met. The proposed 29' 5 1/2" x 11'6" equipment/generator shelter occupies 339 square feet.***

(7) *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.

***The site will be secured 6' chain link fence topped by three strands of barbed wire angled outward.***

***The tower will be designed to prevent unauthorized climbing as required.***

(8) *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.

***Verizon Wireless will comply with this requirement.***

(9) *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.

***This tower will not be illuminated. There is no FAA lighting requirement for a tower of this height in this location.***

(10) *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.

***This location will not have historic impact. A copy of the finding of the Minnesota State Historic Preservation Office has been provided as Exhibit L.***

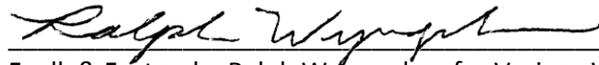
(11) *Radio frequency emissions and noninterference.* The applicant shall comply with all applicable Federal Communication Commission standards.

***Verizon Wireless will comply with all applicable FCC standards.***

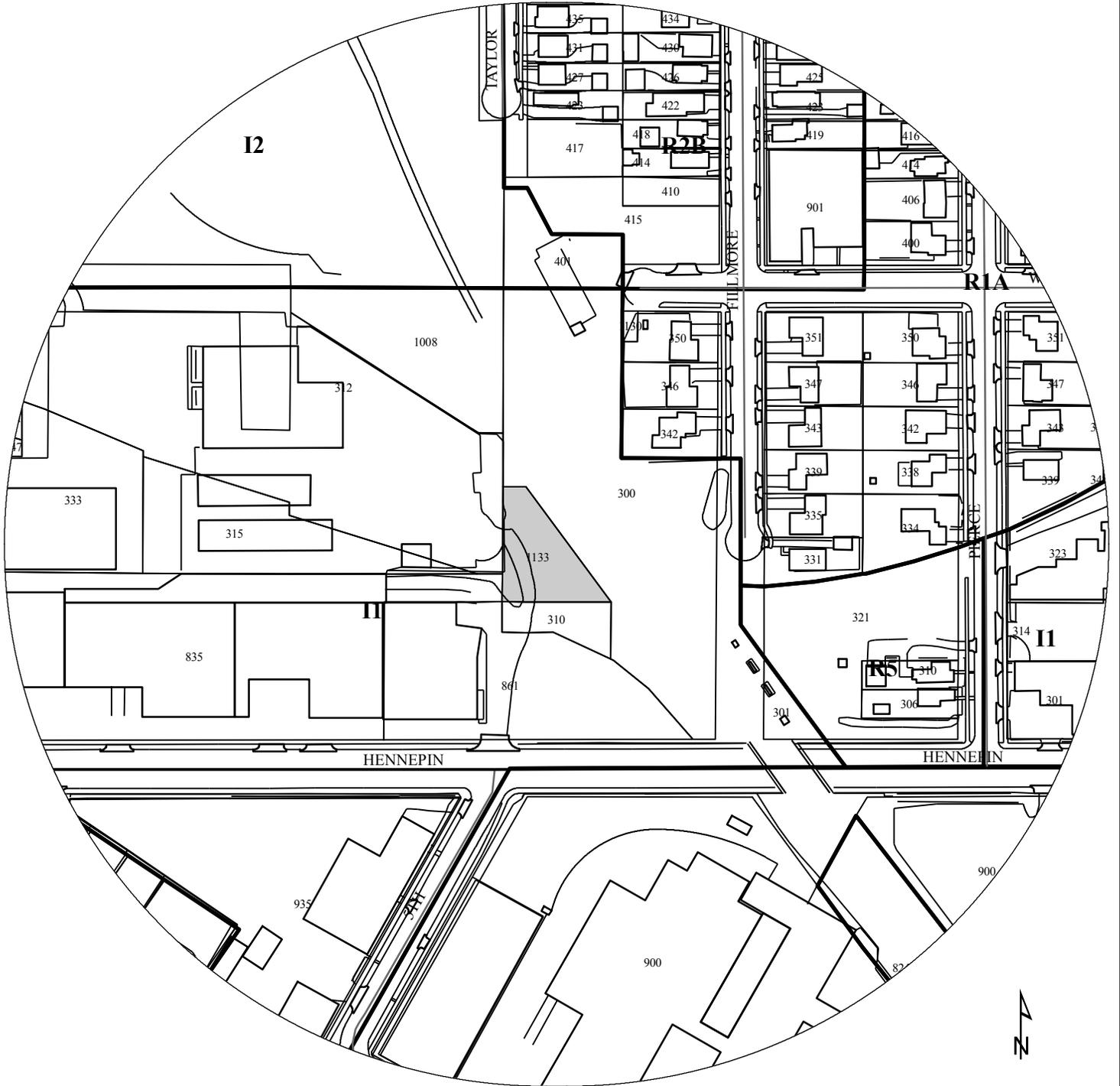
(12) *Public safety communication system.* The location of the proposed antenna, if located on publicly owned property, shall not be needed for use by the public safety communication system, or if needed, it shall be determined by the director of the property services division of the finance department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

***Not applicable.***

Respectfully submitted,



Faulk & Foster, by Ralph Wyngarden, for Verizon Wireless

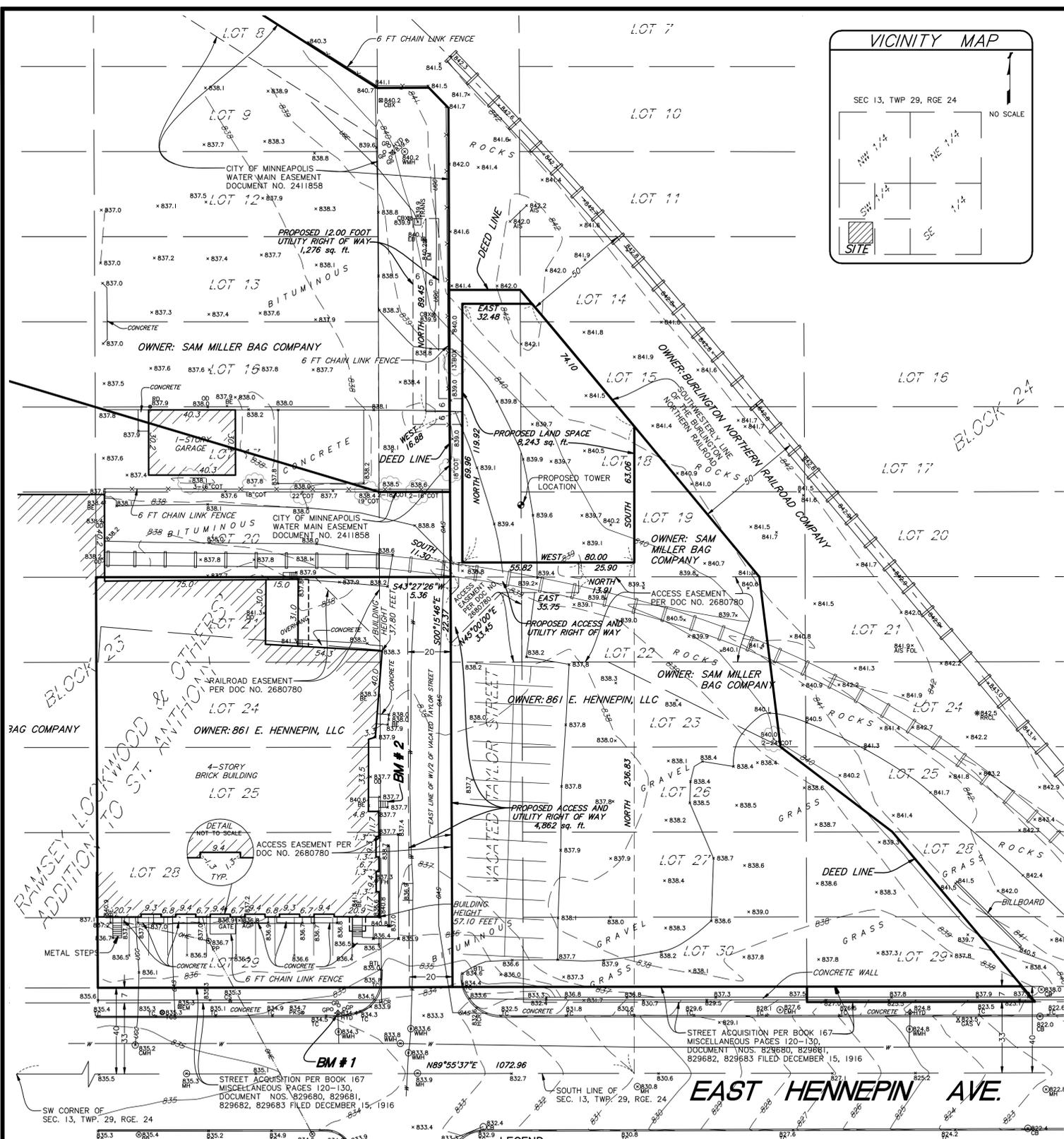


PROPERTY ADDRESS

875 1/2 Hennepin Ave E (1133 Taylor St NE)

FILE NUMBER

BZZ-6652



**DESCRIPTION OF PROPERTIES**

(Per U.S. Title Solutions, Report of Title File No. 43885-MN1306-5010, Dated June 21, 2013)

That part of Lots 14, 15, 18 and 19, Block 24, "Ramsey, Lockwood & Others Addition" to St. Anthony, lying Westerly of the Southwesterly right-of-way line of the Burlington Northern Inc., Formerly Great Northern Railway Company and Northerly of the Northerly right-of-way line of Burlington Northern Inc., formerly Northern Pacific Railway Company including that part of the East 1/2 of adjoining Taylor Street, vacated, lying South of the extension across it of the North line of said Lot 14 and North of the right-of-way line of said Burlington Northern Inc.

AND

(Per U.S. Title Solutions, Report of Title File No. 44686-MN1308-5030, Dated September 4, 2013)

All that portion of Lots 22 and 23, Block 24, and vacated Taylor Street, N.E., "Ramsey, Lockwood & Others Addition", to St. Anthony described as follows: Commencing at the Southwest corner of said Lot 23; thence on an assumed bearing of South 89° 44' 52" East, along the South line of said Lot 23 a distance of 120.00 feet to the actual Point of Beginning; thence North 07° 35' 08" West, 79.34 feet to its intersection with a line parallel with and distant 50.00 feet Southwesterly of the centerline of the existing railroad track and the North line of said Lot 22; thence Westerly, along said North line and its Westerly extension, 142.46 feet to the centerline of vacated Taylor Street; thence Southerly, along said centerline to its intersection with the Westerly extension of the North line of said Lot 23; thence Easterly, along said extension and the North line to a point distant 40.00 feet Easterly of the Northwest corner of said Lot 23; thence Southerly, to the actual Point of Beginning.

AND

(Per U.S. Title Solutions, Report of Title File No. 44687-MN1308-5030, Dated August 6, 2012)

DEED INSTRUMENT NO. T4997410

Par 1: All of Lots 24, 25 and 28, and that part of Lot 21, Block 23, "Ramsey, Lockwood & Others Addition" To St. Anthony, described as follows: Commencing at a point on the South line of Lot 21 a distance of .85 feet East of the Southwest corner or said lot; thence Northeasterly 16.53 feet to a point 2.2 feet East of the West line of said lot; thence Southeasterly to a point on the East line of said lot, 5.6 feet North of the Southeast corner thereof; thence South to the Southeast corner of said lot, thence West to point of beginning.

Par 2: Lot 27, and the North 32.3 feet of Lot 30; That part of the East 1/2 of Taylor Street vacated lying between extensions across said land of the South Line of the North 32.3 feet of said Lot 30 and the North line of lot 23, all in Block 24, "Ramsey, Lockwood & Others Addition" To St. Anthony.

Par 3: That part of Lots 23, 25, 26, 28 and 29, Block 24, "Ramsey, Lockwood & Others Addition" To St. Anthony, which lies Westerly of line 1 described below:

Line 1. Beginning at a point on the North line of said Lot 23 distant 40 feet Easterly of the Northwest corner thereof; thence run Southeasterly to a point on the South line of said Lot 23 distant 120 feet Easterly of the Southwest corner thereof; thence run Southeasterly to a point on the South line of said Lot 23 distant 40 feet Easterly of the Northwest corner thereof; thence run Southeasterly to a point on the South line of the North 32.3 feet of said Lot 29 distant 100 feet Easterly of the Southwest corner thereof; thence continue Southeasterly on the last described course to the South line of said Lot 29 and there terminating.

Par 4: That part of the West half of vacated Taylor Street, dedicated in the plat of "Ramsey, Lockwood and Others Addition" to St. Anthony as Cummings Street, which lies between the Easterly extension of the South line of Lot 28, Block 23, said addition, and a line drawn Easterly at right angles from the East line of Lot 21, said block and addition, distant 5.6 feet Northerly from the Southeast corner of said Lot 21.

DEED INSTRUMENT NO. T4997411

That part of lot 21, block 23, "Ramsey, Lockwood & Others Addition" to St. Anthony which lies Westerly and Northerly of a line described as beginning at a point on the South line of said lot 21 distant .85 feet Easterly from the Southwest corner of said lot 21; thence Northerly 16.53 feet East from the West line of said lot 21; thence Southeasterly to a point on the East line of said lot 21 distant 5.6 feet Northerly from the Southeast corner of said lot 21; That part of lot 29, block 23, "Ramsey, Lockwood & Others Addition" to St. Anthony, lying North of the South 7 feet thereof; That part of the West half of vacated Taylor Street, dedicated in the plat of "Ramsey, Lockwood & Others Addition" to St. Anthony as Cummings Street, which lies between the Easterly extension of the South line of lot 20, block 23, said addition, and a line drawn Easterly at right angles from the East line of lot 21, said block and addition, distant 5.6 feet Northerly from the Southeast corner of said lot 21; (and that part of the West half of said vacated Taylor Street which lies between the Easterly extensions of the North line of lot 29, and the North line of South 7 feet of lot 29, said block and addition.

AND

(Per U.S. Title Solutions, Report of Title File No. 45474-MN1309-5010, Dated October 14, 2013 [This report contains additional property outside the area surveyed.]

Lots 1, 2, 3, 4, 5, 6, 8 and 9, Block 22;

That part of Lots 7 and 10, Block 22 lying North of a line described as follows: Beginning at a point on the West line of Lot 7 distant 28.6 feet North from the Southwest corner of Lot 7; thence Southeasterly to a point on the South line of Lot 7 distant 64.8 feet East from said Southwest corner; thence Southeasterly to a point on the East line of Lot 10 distant 8.3 feet North from the Southeast corner of Lot 10 and there terminating; That part of Lot 12, Block 22 lying Northerly of a line drawn from the Northwest corner thereof to the Southeast corner thereof;

Lots 7, 10, 11, 12, 13, 14 and 16, Block 23;

That part of Lots 2 and 3, Block 23 lying Southerly of a line drawn from the Northwest corner of said Lot 2 to a point on the South line of said Lot 3 distant 124.08 feet East of the Southwest corner thereof;

That part of Lots 5, 6, 8 and 9, Block 23 lying Southerly of a line drawn from a point on the North line of said Lot 6 distant 124.08 feet East of the Northwest corner thereof to a point on the East line of said Lot 9 distant 29.5 feet North of the Southeast corner thereof;

That part of Lot 15, Block 23 lying Northerly of a line drawn from the Northwest corner of said Lot 15 to the Southeast corner of said Lot 15;

That part of Lot 17, Block 23 lying Northerly of a line drawn from the Northwest corner of said Lot 17 to the Southeast corner of said Lot 17;

That part of Palk Street in the City of Minneapolis lying South of a line drawn from the Northeast corner of Lot 9, Block 22 to the Northwest corner of Lot 10, Block 23 and North of a line drawn from a point on the East line of Lot 12, Block 22 distant 38.63 feet South of the Northeast corner thereof to a point on the West line of Lot 14, Block 23 distant 58.28 feet South of the Southwest corner of Lot 10, Block 23;

That part of the West 1/2 of vacated Taylor Street lying North of the Easterly extension of the South line of Lot 17, Block 23 and South of a line described as beginning at a point on the East line of Lot 9, Block 23 distant 29.5 feet North of the Southeast corner thereof; thence East at right angles to East line a distance of 23.96 feet; thence Southeasterly, deflecting to the right 46 degrees 2 minutes, a distance of 13.02 feet to the centerline of said vacated Taylor Street and said line there terminating, "Ramsey, Lockwood & others addition" to St. Anthony.

**UTILITY NOTES**

- Utility information from plans and markings was combined with observed evidence of utilities to develop a view of the underground utilities shown hereon. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, excavation may be necessary.
- Other underground utilities of which we are unaware may exist. Verify all utilities critical to construction or design.
- Some underground utility locations are shown as marked onsite by those utility companies whose locators responded to our Gopher State One Call, ticket number 131580684.
- Contact GOPHER STATE ONE CALL at 651-454-0002 (800-252-1166) for precise onsite location of utilities prior to any excavation.

**GENERAL NOTES**

- Survey coordinate basis: Hennepin County Coordinate system
- This Deed Survey is based upon reference informational Report of Title No. 43885-MN1306-5010, Report of Title File No. 44686-MN1308-5030, Report of Title File No. 44687-MN1308-5030, Report of Title File No. 45474-MN1309-5010, All prepared by U.S. Title Solutions. Easements, appurtenances, and encumbrances may exist in addition to those shown hereon. No search for record documents or monumentation in the ground has been performed. This Deed Survey was prepared without the benefit of a current title insurance commitment and is subject to revision upon receipt of a current title insurance commitment or attorney's title opinion.

**PROPOSED LAND SPACE DESCRIPTION**

That part of Lots 14, 15, 18 and 19, Block 24, and vacated Taylor Street, Ramsey Lockwood & Others Addition to St. Anthony, according to the recorded plat thereof, Hennepin County, Minnesota, described as commencing at the southwest corner of Section 13, Township 29, Range 24; thence on an assumed bearing of North 89 degrees 55 minutes 37 seconds East, along the south line of said Section 13, a distance of 1072.96 feet; thence on a bearing of North 236.83 feet to the point of beginning of the land space to be described; thence on a bearing of West 80.00 feet; thence North 119.92 feet; thence on a bearing of East 32.48 feet to the southwesterly right of way line of the Burlington Northern Inc. Railroad; thence southeasterly, along said southwesterly right of way line, 74.10 feet to the intersection with a line bearing North from the point of beginning; thence on a bearing of South 63.06 feet to the point of beginning.

**PROPOSED ACCESS AND UTILITY RIGHT OF WAY DESCRIPTION**

The East 20.00 feet of the west half of vacated Taylor Street lying south of the easterly extension of the north line of Lot 21, Block 23 Ramsey Lockwood & Others Addition to St. Anthony, according to the recorded plat thereof, Hennepin County, and lying north of the easterly extension of the north line of the south 7.00 feet of Lot 29, said Block 23. Together with that part of Lots 19 and 22, Block 24 and vacated Taylor Street, Ramsey Lockwood & Others Addition to St. Anthony, according to the recorded plat thereof, Hennepin County, Minnesota, described as commencing at the southwest corner of Section 13, Township 29, Range 24; thence on an assumed bearing of North 89 degrees 55 minutes 37 seconds East, along the south line of said Section 13, a distance of 1072.96 feet; thence on a bearing of North 236.83 feet to the point of beginning of the access and utility right of way to be described; thence continuing on a bearing of West 55.82 feet; thence on a bearing of South 11.30 feet; thence South 43 degrees 27 minutes 26 seconds West 5.36 feet to the west line of the east half of the vacated Taylor Street; thence South 00 degrees 15 minutes 46 seconds East, along said west line, a distance of 22.37 feet; thence North 45 degrees 00 minutes 00 seconds East 33.45 feet; thence on a bearing of East 35.75 feet; thence on a bearing of North 13.91 feet to the point of beginning.

**PROPOSED 12.00 FOOT UTILITY RIGHT OF WAY DESCRIPTION**

A 12.00 foot wide utility right of way over, under and across vacated Taylor Street, Ramsey Lockwood & Others Addition to St. Anthony, according to the recorded plat thereof, Hennepin County, Minnesota. The centerline of said utility right of way is described as commencing at the southwest corner of Section 13, Township 29, Range 24; thence on an assumed bearing of North 89 degrees 55 minutes 37 seconds East, along the south line of said Section 13, a distance of 1072.96 feet; thence on a bearing of North 236.83 feet; thence on a bearing of West 80.00 feet; thence on a bearing of North 69.96 feet to the point of beginning of the centerline to be described; thence on a bearing of West 16.88 feet; thence on a bearing of North 89.45 feet and said centerline there terminating.

I hereby certify that this survey, plan, or report 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.

Dated this 19th day of November, 2013.  
 SUNDE LAND SURVEYING, LLC.  
 By: *Arnold F. Carlson*  
 Leonard F. Carlson, P.L.S. Minn. Lic. No. 44890

- BENCH MARKS (BM)**
- Top of top nut of fire hydrant at the northwest quadrant of East Hennepin Ave. and Taylor Street.  
Elevation = 836.65 feet (NAVD 1988)
  - Top of scribed "X" in the top northeast corner of the bottom step at 306 Taylor Street in the middle of the east side of the existing building.  
Elevation = 838.21 feet (NAVD 1988)

**LEGEND**

AGP	Denotes above ground pipes	GAS V	Denotes gas valve
AIS	Denotes advertisement/information sign	GM	Denotes gas meter
BE	Denotes building entrance	GP	Denotes guard post
BOX	Denotes Boxelder tree	GW	Denotes guy wire
BTL	Denotes beaver tail curb	HCR	Denotes handicap ramp
CB	Denotes catch basin	HYD	Denotes fire hydrant
CBX	Denotes communication box	LD	Denotes loading dock
CMH	Denotes communication manhole	LP	Denotes light pole
COT	Denotes Cottonwood tree	MH	Denotes manhole
EB	Denotes electric box	MPL	Denotes Maple tree
EM	Denotes electric meter	OD	Denotes overhead door
EMH	Denotes electric manhole	OHE	Denotes overhead electric line
FH	Denotes fire hookup	(P)	Denotes per plan/not field verified
FOL	Denotes fiber optic line	PP	Denotes power pole
		PVC	Denotes polyvinyl chloride pipe
		RCP	Denotes reinforced concrete pipe
		ST S	Denotes storm sewer
		TC	Denotes top of concrete curb
		TCS	Denotes traffic control sign
		UGE	Denotes underground electric line

Coordinates of position designated hereon as such  $\bullet$  per NAD 83 coordinate conversion are as follows:

**LATITUDE AND LONGITUDE**

Latitude = 44°59'31.9" N Longitude = 93°14'36.2" W

**MINC KEDS**  
 HENNEPIN COUNTY  
 MINNESOTA



Revision: \_\_\_\_\_ By: \_\_\_\_\_ Date: \_\_\_\_\_

Drawing Title: \_\_\_\_\_

**SURVEY FOR: DESIGN 1**  
**MINC KEDS ALT 1**

**SUNDE LAND SURVEYING**  
 9001 East Bloomington Freeway (35W) • Suite 118  
 Bloomington, Minnesota 55420-3435  
 952-881-2455 (Fax: 952-888-9526)  
 www.sunde.com

Project: 2012-220-ALT1 Bk/Pg: 865/30 Date: 11/19/2013  
 Township: 29 Range: 24 Section: 13  
 File: 2012220ALT1001.DWG Sheet: 1 of 1



Mark S. Hanson, PLS, Principal  
Arlee J. Carlson, PLS, Principal  
Lenny F. Carlson, PLS, Principal

August 5, 2013

**DESIGN 1**

9973 Valley View Road  
Eden Prairie, MN 55344

Attention: Tom Bothun

**GEOGRAPHIC COORDINATES**

Latitude	N 44 degrees	59 minutes	31.9 seconds	(NAD 1983)
Longitude	W 93 degrees	14 minutes	36.2seconds	(NAD 1983)

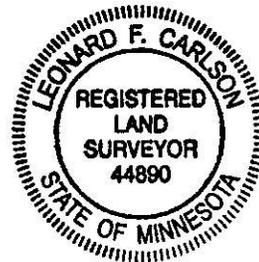
Elevation at ground:	839.7 feet	(NAVD 1988)
Source:	Conventional survey methods.	

Re: **MINC KEDS, Hennepin County, Minnesota**

I certify that the latitude of N 44 degrees 59 minutes 31.9 seconds and the longitude of W 93 degrees 14 minutes 36.2 seconds are accurate to within plus or minus of 20 feet horizontally; and that the site elevation at ground of 839.7 feet AMSL is accurate to within plus or minus 3 feet vertically. The horizontal datum (coordinates) are in terms of the North American Datum of 1983 (NAD 1983) and are expressed as degrees, minutes and seconds to the nearest tenth of a second. The vertical datum (heights) is in terms of the North American Vertical Datum of 1988 and is determined to the nearest tenth of a foot.

SUNDE LAND SURVEYING, LLC.

Leonard F. Carlson, P.L.S. Minn. Lic. No. 44890

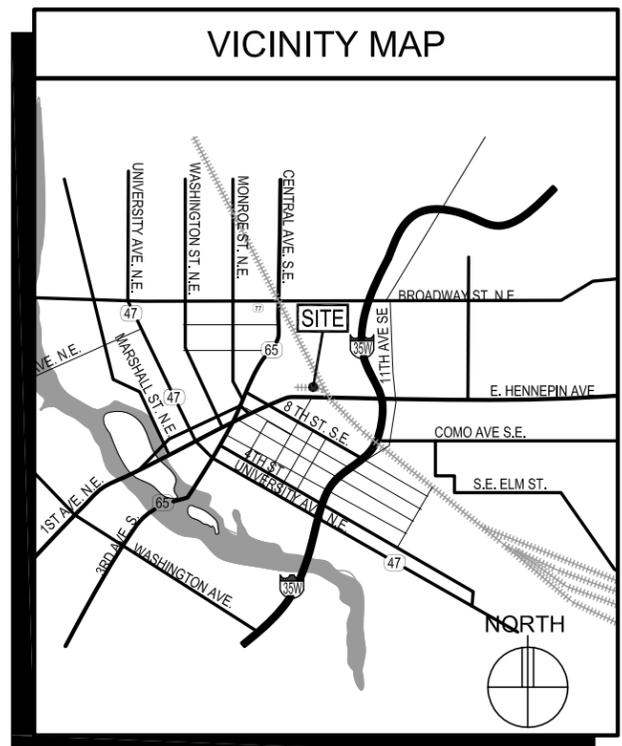
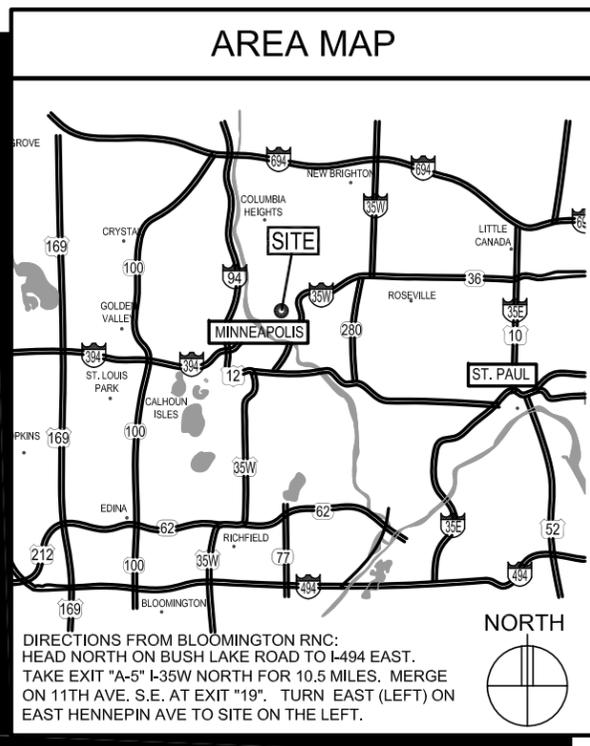


2012-220-ALT 1/Design1(1A) MINC KEDS-20130805.doc

Minnesota Office  
9001 E Bloomington Fwy, Ste 118  
Bloomington, MN 55420-3435  
Phone: 952.881.2455 / Fax: 952.888.9526

North Dakota Office  
103 4<sup>th</sup> Avenue North West  
Mandan, ND 58554-3133  
Phone: 701.663.5562 / Fax: 701.663.5562

# VERIZON WIRELESS



### VERIZON WIRELESS DEPARTMENTAL APPROVALS

	NAME	DATE
RF ENGINEER	CRAIG CIECMIEROWSKI	DECEMBER 02, 2013
OPERATIONS MANAGER		
CONSTRUCTION ENGINEER		
CONSTRUCTION MANAGER	RON REITER	DECEMBER 03, 2013
REAL ESTATE MANAGER		

### SHEET INDEX

SHEET	SHEET DESCRIPTION
T-1	PROJECT INFORMATION, MAPS, DIRECTIONS, AND SHEET INDEX
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	TOWER ELEVATION, COAX AND ANTENNA KEY, NOTES, AND DETAILS
A-4	PREFABRICATED SHELTER PLANS, ELEVATIONS, NOTES, & DETAILS
A-5	MISCELLANEOUS DETAILS
A-6	OUTLINE SPECIFICATIONS
G-1	GROUNDING NOTES AND DETAILS
G-2	GROUNDING PLAN AND NOTE KEY
G-3	EXTERIOR GROUNDING DETAILS
U-1 & U-1.1	ELECTRICAL AND TELCO PLAN, ENLARGED ELECTRICAL PLAN, NOTES, AND DETAILS
U-2	ELECTRICAL AND TELCO NOTES, AND DETAILS
	SURVEY

NOT FOR CONSTRUCTION

**DESIGN 1**

ROBERT J DAVIS, AIA  
 ARCHITECT  
 9973 VALLEY VIEW RD.  
 EDEN PRAIRIE, MN 55344  
 (952) 903-9299

### LESSOR / LICENSOR APPROVAL

SIGNATURE	PRINTED NAME	DATE

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

### ISSUE SUMMARY

REV.	DESCRIPTION	SHEET OR DETAIL
A	ISSUED FOR REVIEW w/ Preliminary Survey 11.04.13	ALL
A	ISSUED FOR REVIEW 11.21.13	ALL
B	ISSUED FOR OWNER APPROVAL 12.03.13	ALL

### PROJECT INFORMATION

SITE NAME:	MINC KEDS
PROJECT NUMBER:	20120828190
SITE ADDRESS:	TAYLOR STREET N.E. MINNEAPOLIS, MN 55458
COUNTY:	HENNEPIN
LATITUDE:	N44° 59' 31.9" (NAD 1983)
LONGITUDE:	W 93° 14' 36.2" (NAD 1983)
GROUND ELEVATION:	839.7' AMSL
ANTENNA TIP HEIGHT:	939.7' AMSL - 100' AGL
ANTENNA CENTERLINE HEIGHT:	935.7' AMSL - 96' AGL
TOWER HEIGHT:	939.7' AMSL - 100' AGL
OVERALL STRUCTURE HEIGHT:	948.7' AMSL - 109' AGL
DRAWING BASED ON SITE DATA FORM DATED:	07.31.13
OCCUPANCY:	S2
BUILDING TYPE:	V-B
SITE AREA:	8,234 S.F.
ROOF LOAD:	LIVELOAD = 105 PSF
PARKING:	PROVIDED
ESTIMATED COAX RUN:	"X" COAX RUN = (2) 1 5/8" LINES @ 130' EA "X" COAX RUN = (2) 7/8" LINES @ 130' EA "Y" COAX RUN = (2) 1 5/8" LINES @ 130' EA "Y" COAX RUN = (2) 7/8" LINES @ 130' EA "Z" COAX RUN = (2) 1 5/8" LINES @ 130' EA "Z" COAX RUN = (2) 7/8" LINES @ 130' EA
PROJECT DESCRIPTION:	TO INSTALL A MONOPOLE TOWER WITH LIGHT, ANTENNAS, AND PREFABRICATED EQUIPMENT SHELTER TO IMPROVE COMMUNICATION SERVICE IN THE MINNEAPOLIS, MN AREA.

### CONTACTS

LESSOR / LICENSOR:	SAM MILLER BAG CORP. P.O. BOX 581398 MINNEAPOLIS, MN 55458 612.339.2651
LESSEE:	VERIZON WIRELESS 10801 BUSH LAKE ROAD BLOOMINGTON, MN 55438 MIKE COGAR (612) 720-0030
POWER UTILITY COMPANY CONTACT:	XCEL ENERGY BOX 9477 MINNEAPOLIS, MN 55484 CONTACT: WAYNE LOT (OFFICE - 612.630.4409)
TELCO UTILITY COMPANY CONTACT:	QWEST COMMUNICATIONS 1801 CALIFORNIA STREET DENVER CO, 80202 1-800-603-6000
ARCHITECT:	DESIGN 1 OF EDEN PRAIRIE, LLC. 9973 VALLEY VIEW ROAD EDEN PRAIRIE, MN 55344 (952) 903-9299
SURVEYOR:	SUNDE LAND SURVEYING 9001 E. BLOOMINGTON FREEWAY, SUITE 118 BLOOMINGTON, MN 55420 (952) 881-2455
STRUCTURAL ENGINEER:	N/A
GEOTECHNICAL ENGINEER:	T.B.D

**VERIZON WIRELESS**  
 10801 BUSH LAKE ROAD  
 BLOOMINGTON, MN 55438  
 (612) 720-0030

PROJECT  
20120828190

MINC  
KEDS

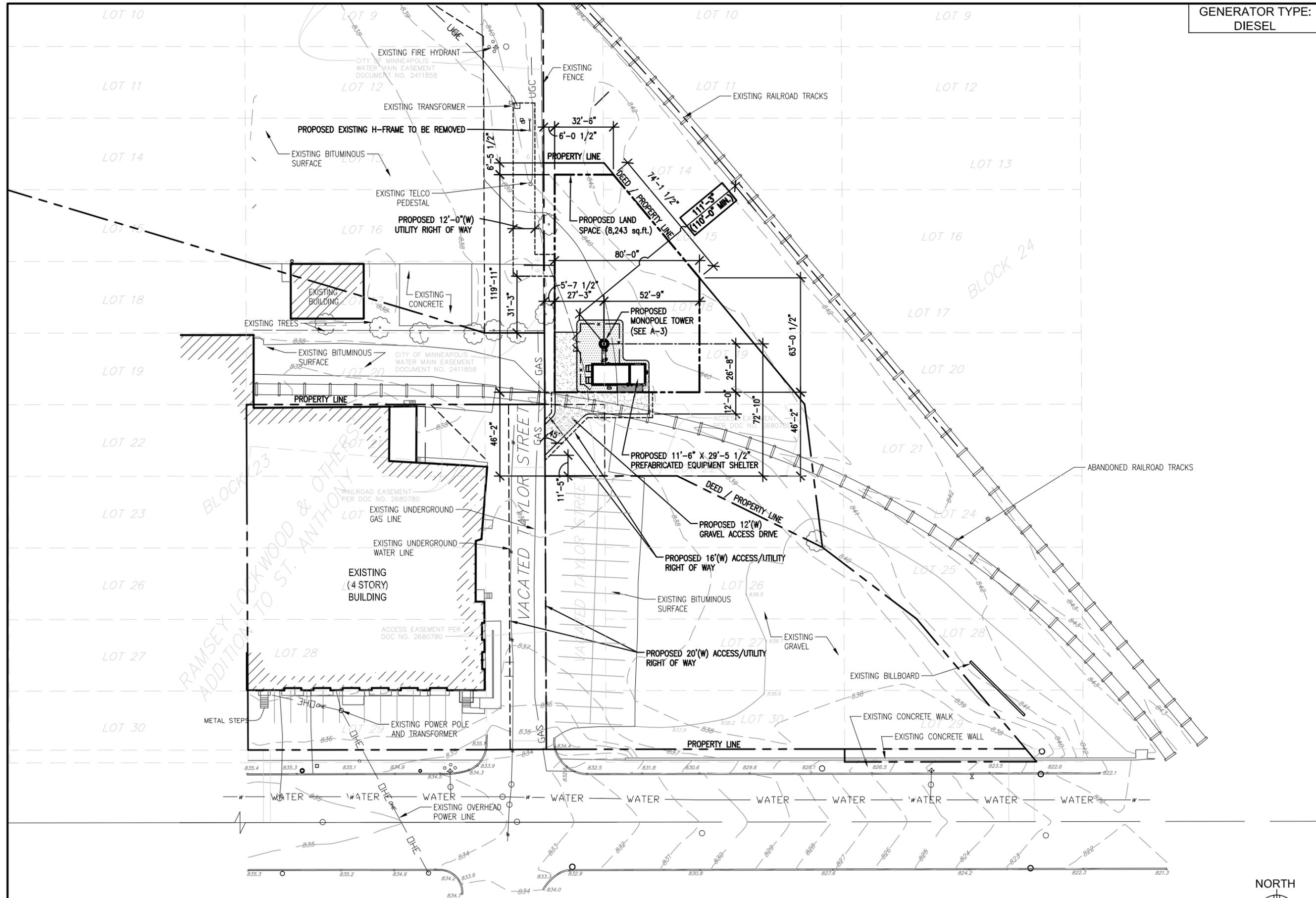
TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

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

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A/W PRELIM SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

- ### GENERAL NOTES
- In the event that Special Inspections are not performed in compliance with the contract terms, bid specifications and/or specified form, the General Contractor will be liable for all damages, construction performance, failures, and corrective actions related to the same.
  - The following general notes shall apply to drawings and govern unless otherwise noted or specified.
  - The work delineated in these drawings and described in the specifications shall conform to codes, standards and regulations that have jurisdiction in the state of MINNESOTA, and the city of MINNEAPOLIS.
  - Requirements and regulations pertaining to R.F., safety codes and practices must be incorporated in the work even though they may not be listed individually and separately in either the drawings or the specifications.
  - Compare field conditions with architectural and engineering drawings. Any discrepancies shall be directed to the Architect for clarification prior to fabrication and/or construction. Submit necessary shop drawings prior to fabrication for approval by the Architect. No information or details on these sheets may be used without the permission of the owner, or the architect.
  - Do not scale drawings! 11" x 17" drawings to scale 24" x 36" drawings scale multiply by 2
  - Unless otherwise shown or noted, typical details shall be used where applicable.
  - Details shall be considered typical at similar conditions.
  - Safety measures: The contractor shall be solely and completely responsible for the conditions of the job site, including safety of the persons and property and for independent engineering reviews of these conditions. The Architect's or Engineers' job site review is not intended to include review of the adequacy of the contractor's safety measures.
  - Within these plans and specifications, "Owner" implies VERIZON WIRELESS.
  - The work is the responsibility of the general contractor unless noted otherwise.
  - The terms "contractor" and "g.c." refer to the owner's general contractor and the general contractor's sub-contractors. It is the general contractor's responsibility to determine the division of work among sub-contractors.
  - The general contractor is responsible in obtaining necessary public and private underground utility locate services prior to start of excavating / construction.
  - General Contractor to assemble/erect/construct tower per manufacturers drawings not included in this package.

T-1



GENERATOR TYPE:  
DIESEL

NOT FOR  
CONSTRUCTION

**DESIGN 1**

ROBERT J DAVIS, AIA  
ARCHITECT  
9973 VALLEY VIEW RD.  
EDEN PRAIRIE, MN 55344  
(952) 903-9299

**VERIZON  
WIRELESS**

10801 BUSH LAKE ROAD  
BLOOMINGTON, MN 55438  
(612) 720-0030

PROJECT  
20120828190

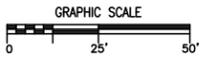
**MINC  
KEDS**

TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

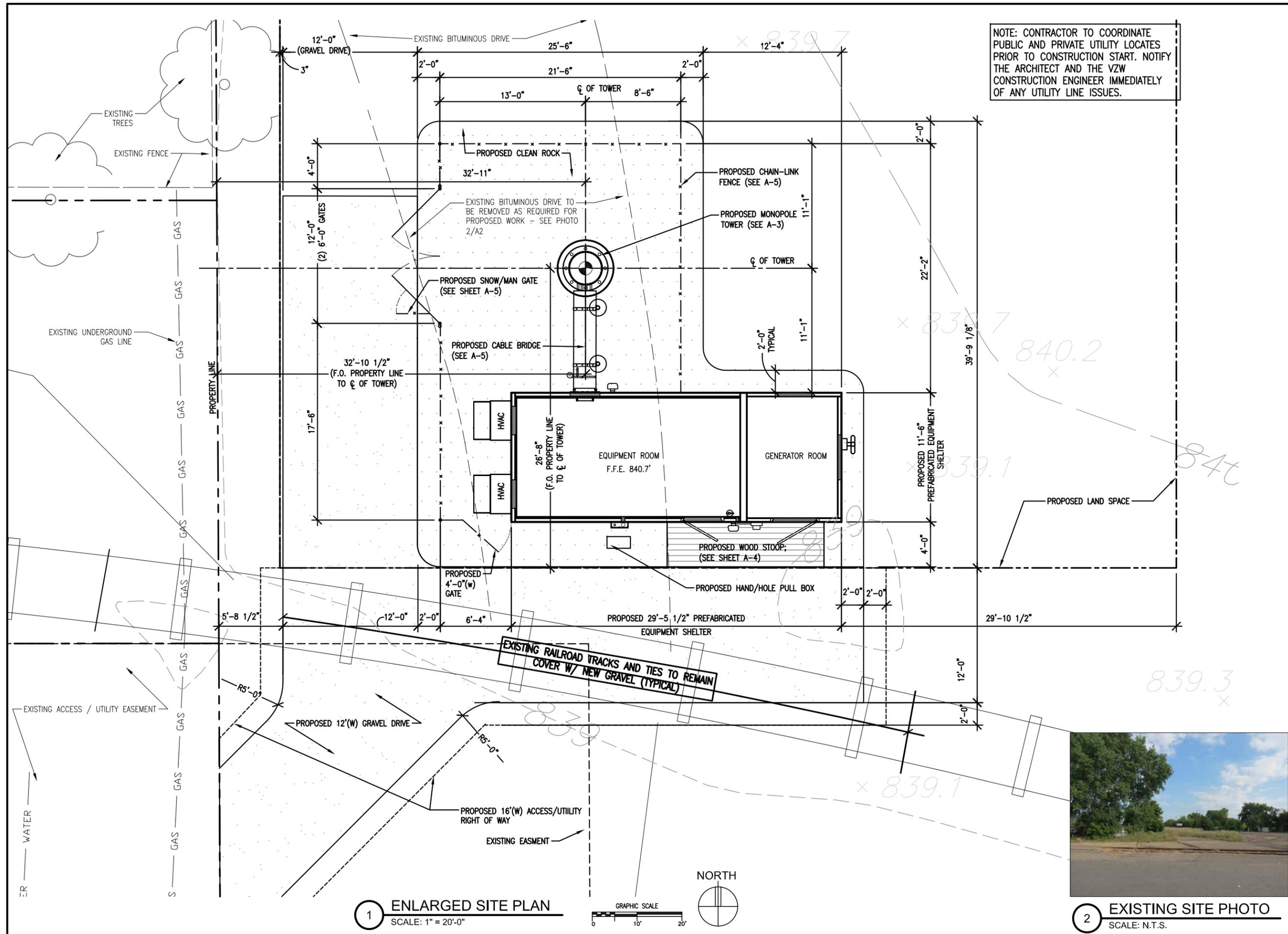
SHEET CONTENTS:  
SITE PLAN

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A / W PRELIM SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

**1 SITE PLAN**  
SCALE: 1" = 50'-0"



**A-1**



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.

NOT FOR CONSTRUCTION

**DESIGN 1**

ROBERT J DAVIS, AIA  
ARCHITECT  
9973 VALLEY VIEW RD.  
EDEN PRAIRIE, MN 55344  
(952) 903-9299

**VERIZON WIRELESS**

10801 BUSH LAKE ROAD  
BLOOMINGTON, MN 55438  
(612) 720-0030

PROJECT  
20120828190

**MINC KEDS**

TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

SHEET CONTENTS:  
ENLARGED SITE PLAN

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A / W PRELIM SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13



2 EXISTING SITE PHOTO  
SCALE: N.T.S.

1 ENLARGED SITE PLAN  
SCALE: 1" = 20'-0"

A-2

ANTENNA KEY													COAX KEY					ADDITIONAL	
AZIMUTH	POSITION	FUNCTION	QTY	MANUFACTURER	MODEL	MOD TYPE	ANTENNA LENGTH	ANTENNA TIP	ANTENNA CENTER	ELEC DOWNTILT	MECH DOWNTILT	QTY	COAX TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIAMETER (INCH)		RUN (FEET)
"X" SECTOR	335°	1.1	TX/RX0	1	COMMSCOPE	LNx-651DS-VTM	CELLULAR +45	96.4"	100'	96'	4'	3'	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	130'
	335°	1.2	TX/RX1	-		2ND PORT	LTE -45	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	130'
	335°	2.1	TX/RX0	1	ANTEL	WBX065X17M050	PCS +45	54.7"	98.4'	96'	2'	2'	0	DIPLEXED	COMMSCOPE	E15S09P49	DIPLEXED W/ 850		
	335°	2.2	TX/RX1	-		2ND PORT	AWS -45	-	-	-	-	-	1	RRU	ERICSSON	RRUS-12	(1) COMMSCOPE Rxx412-2S30-12 FIBER FEED TAIL DIST. BOX TO RRU		
	335°	3.1	TX/RX0	1	ANTEL	WBX065X17M050	AWS +45	54.7"	98.4'	96'	2'	2'	0	DIPLEXED	COMMSCOPE	E15S09P49	DIPLEXED W/ 850		
	335°	3.2	TX/RX1	-		2ND PORT	PCS -45	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	130'
"Y" SECTOR	95°	1.1	TX/RX0	1	COMMSCOPE	LNx-651DS-VTM	CELLULAR +45	96.4"	100'	96'	4'	3'	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	130'
	95°	1.2	TX/RX1	-		2ND PORT	LTE -45	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	130'
	95°	2.1	TX/RX0	1	ANTEL	WBX065X17M050	PCS +45	54.7"	98.4'	96'	3'	3'	0	DIPLEXED	COMMSCOPE	E15S09P49	DIPLEXED W/ 850		
	95°	2.2	TX/RX1	-		2ND PORT	AWS -45	-	-	-	-	-	1	RRU	ERICSSON	RRUS-12	(1) COMMSCOPE Rxx412-2S30-12 FIBER FEED TAIL DIST. BOX TO RRU		
	95°	3.1	TX/RX0	1	ANTEL	WBX065X17M050	AWS +45	54.7"	98.4'	96'	3'	3'	0	DIPLEXED	COMMSCOPE	E15S09P49	DIPLEXED W/ 850		
	95°	3.2	TX/RX1	-		2ND PORT	PCS -45	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	130'
"Z" SECTOR	215°	1.1	TX/RX0	1	COMMSCOPE	LNx-651DS-VTM	CELLULAR +45	96.4"	100'	96'	5'	5'	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	130'
	215°	1.2	TX/RX1	-		2ND PORT	LTE -45	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	130'
	215°	2.1	TX/RX0	1	ANTEL	WBX065X17M050	PCS +45	54.7"	98.4'	96'	3'	5'	0	DIPLEXED	COMMSCOPE	E15S09P49	DIPLEXED W/ 850		
	215°	2.2	TX/RX1	-		2ND PORT	AWS -45	-	-	-	-	-	1	RRU	ERICSSON	RRUS-12	(1) COMMSCOPE Rxx412-2S30-12 FIBER FEED TAIL DIST. BOX TO RRU		
	215°	3.1	TX/RX0	1	ANTEL	WBX065X17M050	AWS +45	54.7"	98.4'	96'	3'	5'	0	DIPLEXED	COMMSCOPE	E15S09P49	DIPLEXED W/ 850		
	215°	3.2	TX/RX1	-		2ND PORT	PCS -45	-	-	-	-	-	1	MAIN	ANDREW	AVA5-50	FOAM	7/8"	130'
215°	4.1	TX/RX0	1	COMMSCOPE	LNx-651DS-VTM	LTE +45	96.4"	100'	96'	5'	5'	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	130'	
215°	4.2	TX/RX1	-		2ND PORT	CELLULAR -45	-	-	-	-	-	1	MAIN	ANDREW	AVA7-50	FOAM	1-5/8"	130'	
												24	JUMPER	ANDREW	LDF4-50A	FOAM	1/2"	10'	

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, SHELTER FOUNDATION AND THE ACCESS DRIVE 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 OBTAIN CURRENT FINAL SDF & FAA DETERMINATION FROM VZW PRIOR TO CONSTRUCTION COMMENCEMENT

NOT FOR CONSTRUCTION

**DESIGN**

ROBERT J DAVIS, AIA  
 ARCHITECT  
 9973 VALLEY VIEW RD.  
 EDEN PRAIRIE, MN 55344  
 (952) 903-9299

**VERIZON WIRELESS**

10801 BUSH LAKE ROAD  
 BLOOMINGTON, MN 55438  
 (612) 720-0030

PROJECT  
 20120828190

**MINC KEDS**

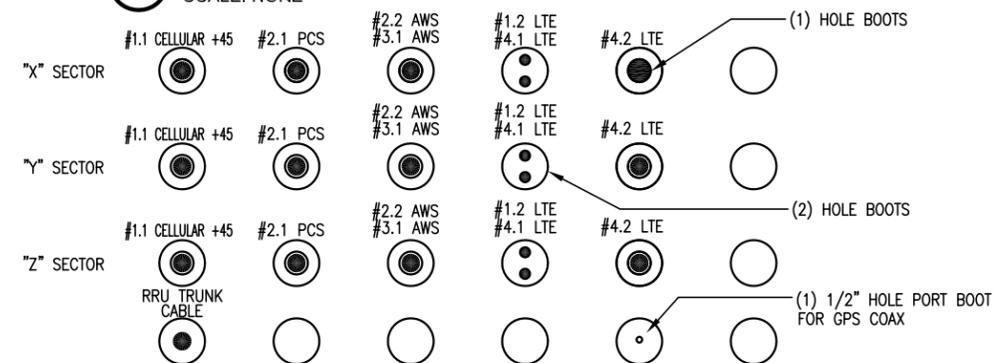
TAYLOR STREET N.E.  
 MINNEAPOLIS, MN 55458

SHEET CONTENTS:  
 TOWER ELEVATION  
 COAX & ANTENNA KEY  
 AWS ONE-LINE DIAGRAM  
 ANTENNA MOUNTING DETAIL  
 COAX ENTRY DETAIL

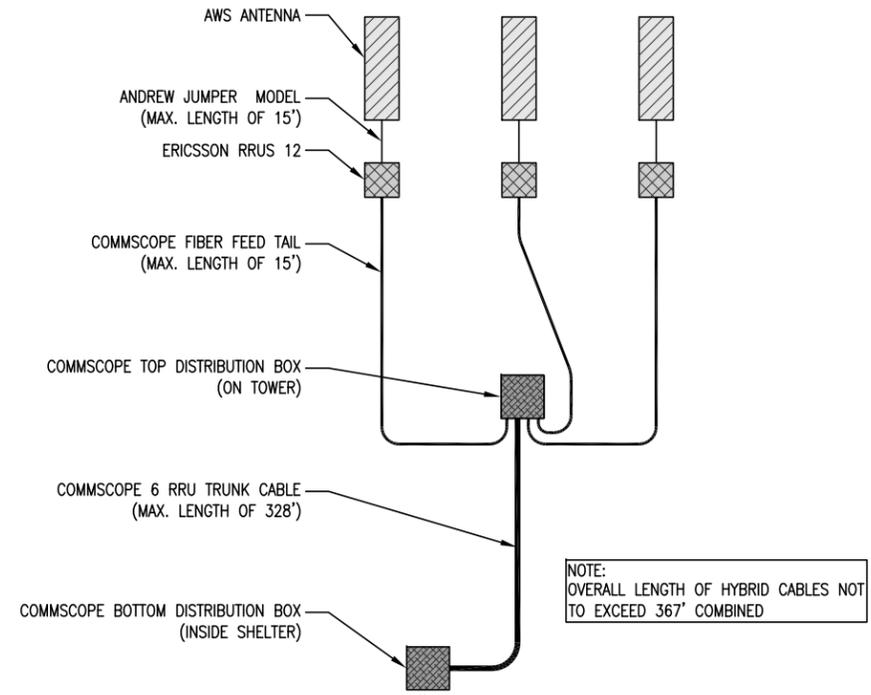
DRAWN BY: KJM  
 DATE: 08.14.13  
 CHECKED BY: C.Davis & CB  
 REV. A/W PRELIM SURVEY 11.04.13  
 REV. A 11.21.13  
 REV. B 12.03.13

**A-3**

3 ANTENNA KEY  
 SCALE: NONE

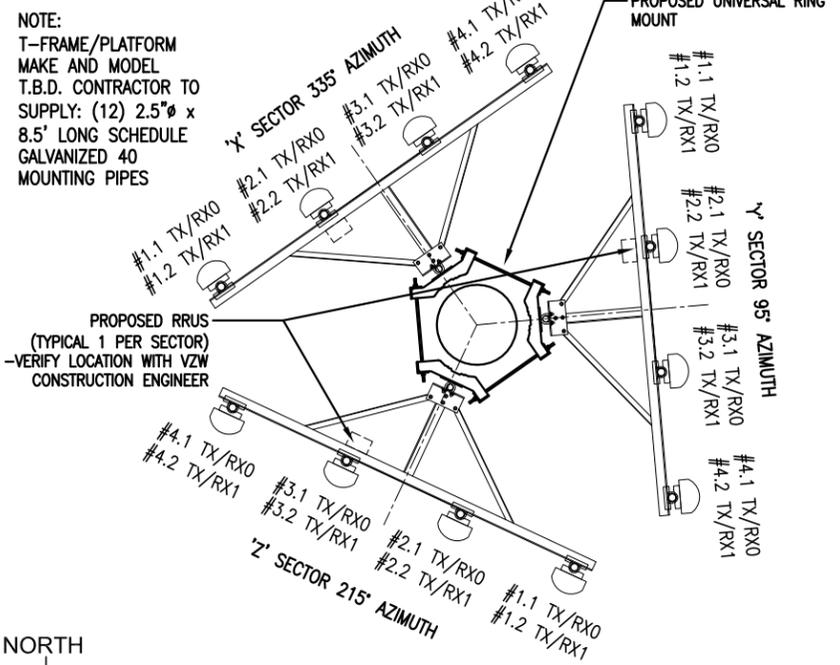


2 COAX KEY  
 SCALE: NONE

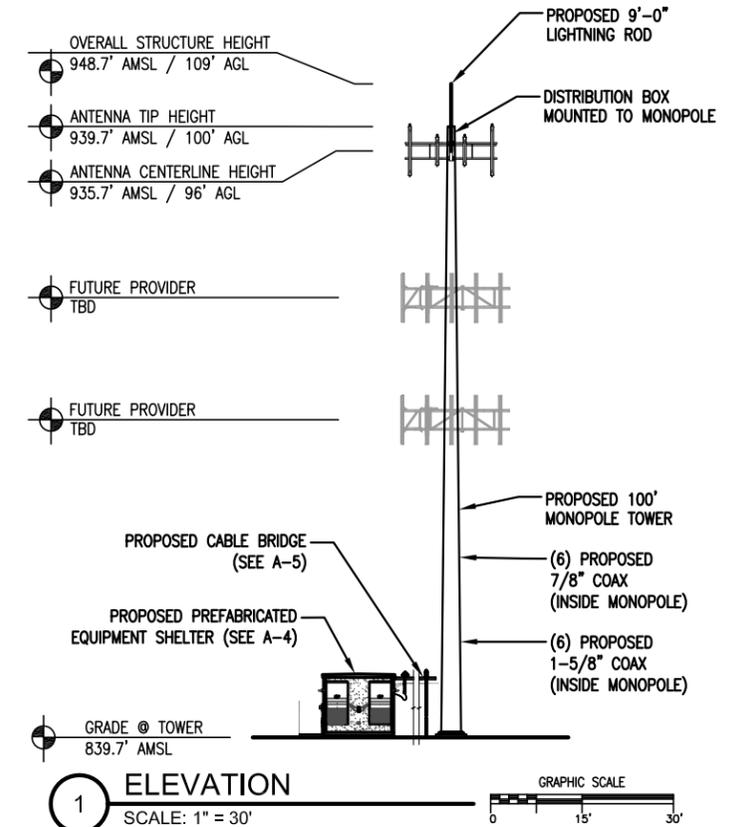
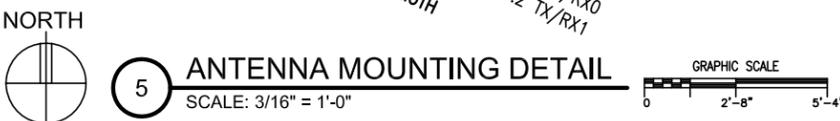


8 AWS ONE-LINE DIAGRAM  
 SCALE: NONE

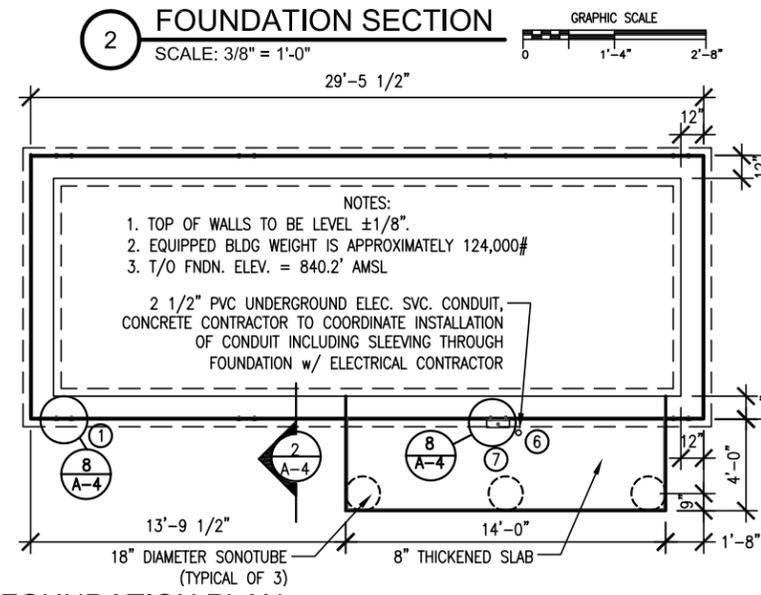
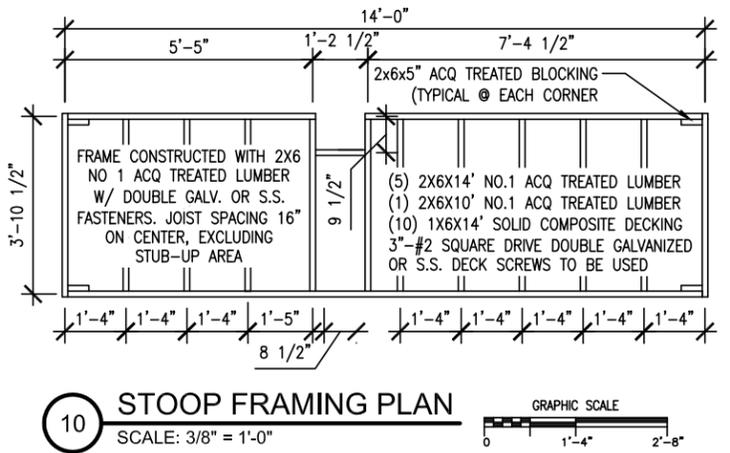
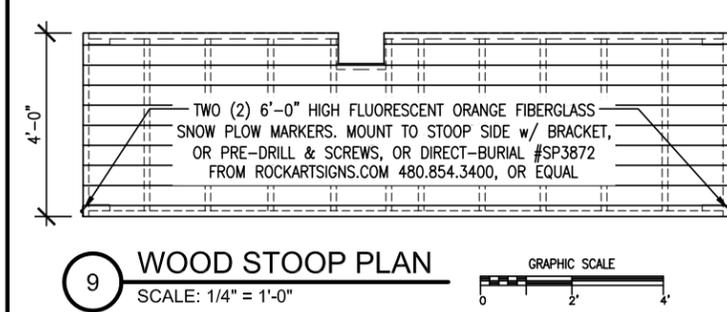
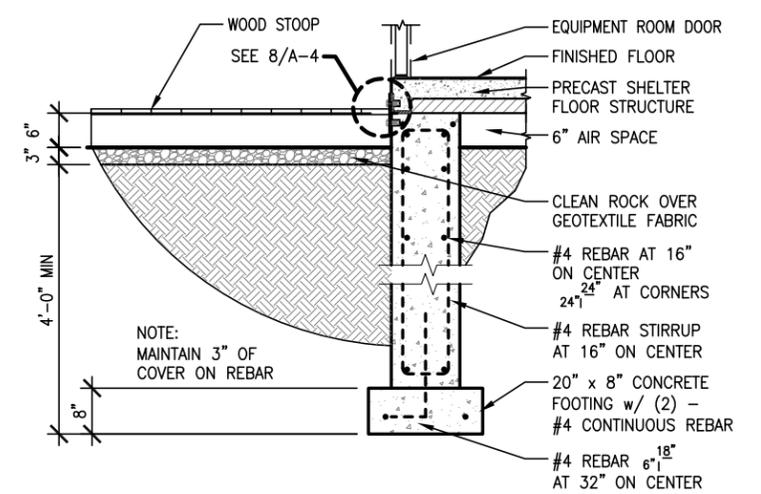
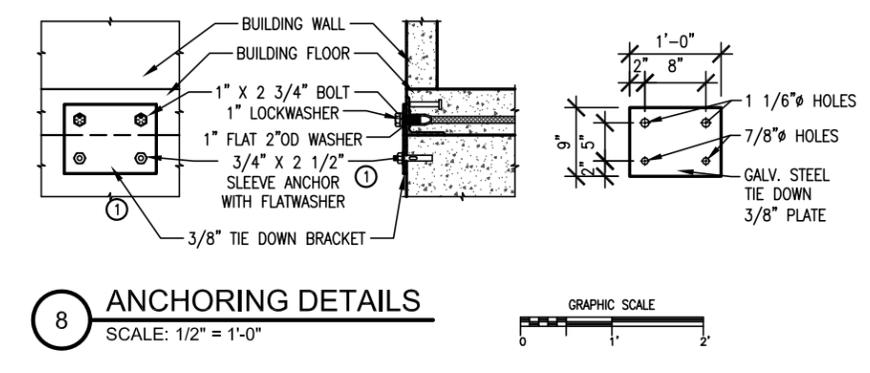
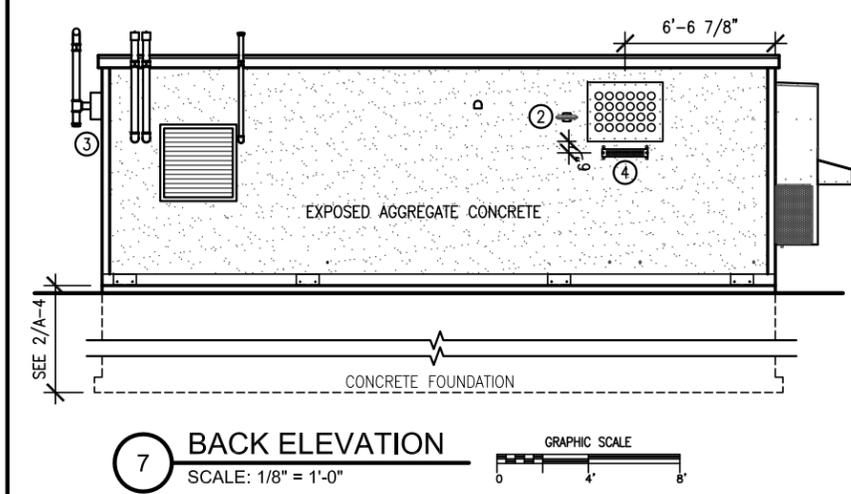
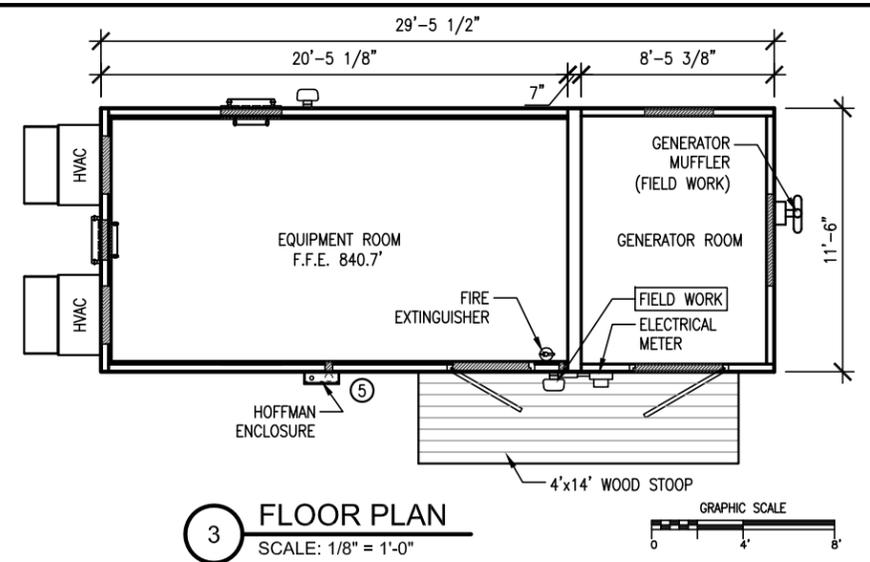
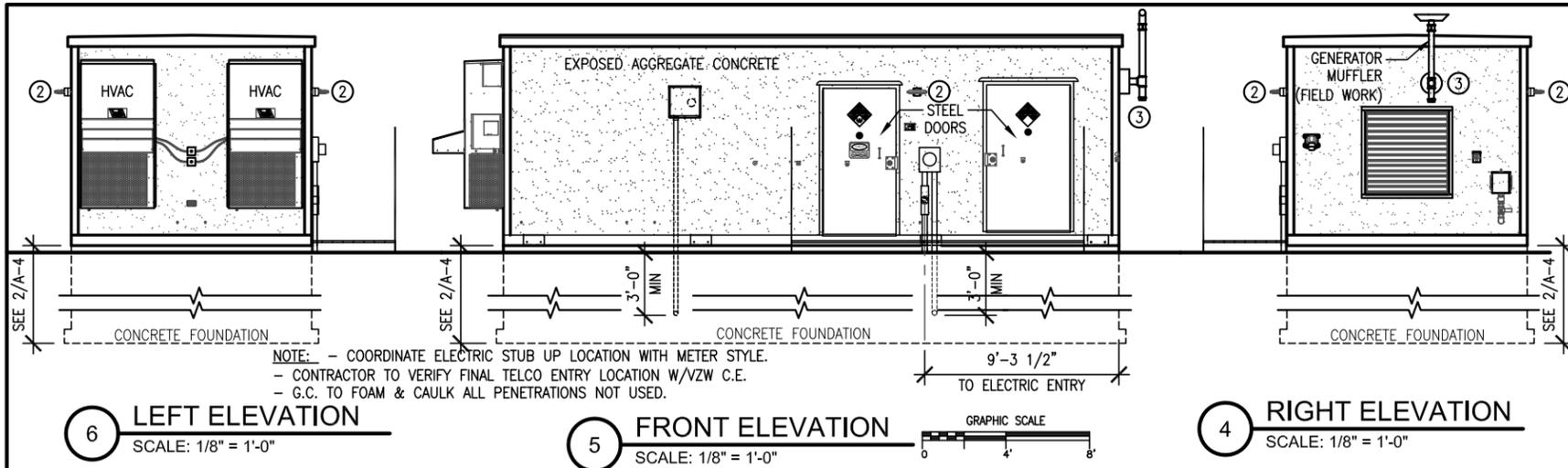
4 COAX ENTRY DETAIL (VIEW FROM INSIDE)  
 SCALE: NONE



5 ANTENNA MOUNTING DETAIL  
 SCALE: 3/16" = 1'-0"



1 ELEVATION  
 SCALE: 1" = 30'



- FIELD-APPLIED ITEMS**  
SHIPPED LOOSE WITHIN PREFAB
- ① ANCHORING PLATES
  - ② EXTERIOR LIGHT FIXTURE
  - ③ GENERATOR MUFFLER
  - ④ BUSS BAR
- CONTRACTOR-FURNISHED ITEMS**
- ⑤ HOFFMAN ENCLOSURE (18" x 18" x 6")
  - ⑥ PVC CONDUIT & FITTINGS
  - ⑦ FABRICATED ANCHORING ANGLES

**PREFABRICATED BUILDING BY:**  
**Fibrebond Corporation**  
1300 Davenport Drive  
Minden, LA 71055  
800-824-2614  
ATTN: MIKE GOODWIN

NOT FOR CONSTRUCTION

**DESIGN 1**  
ROBERT J DAVIS, AIA  
ARCHITECT  
9973 VALLEY VIEW RD.  
EDEN PRAIRIE, MN 55344  
(952) 903-9299

**VERIZON WIRELESS**  
10801 BUSH LAKE ROAD  
BLOOMINGTON, MN 55438  
(612) 720-0030

PROJECT  
20120828190

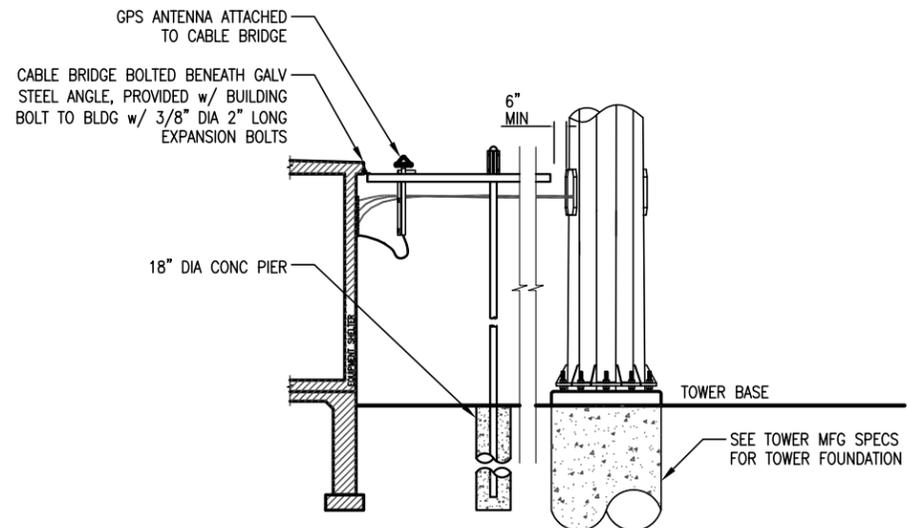
**MINC KEDS**

TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

**SHEET CONTENTS:**  
FOUNDATION PLAN & DETAILS  
FLOOR PLAN  
ELEVATIONS  
ANCHORING DETAILS

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A/W PRELIMI SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

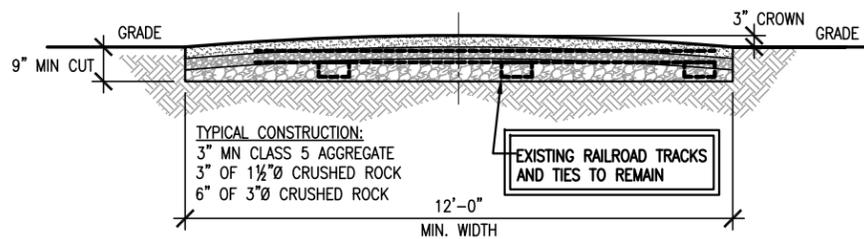
A-4



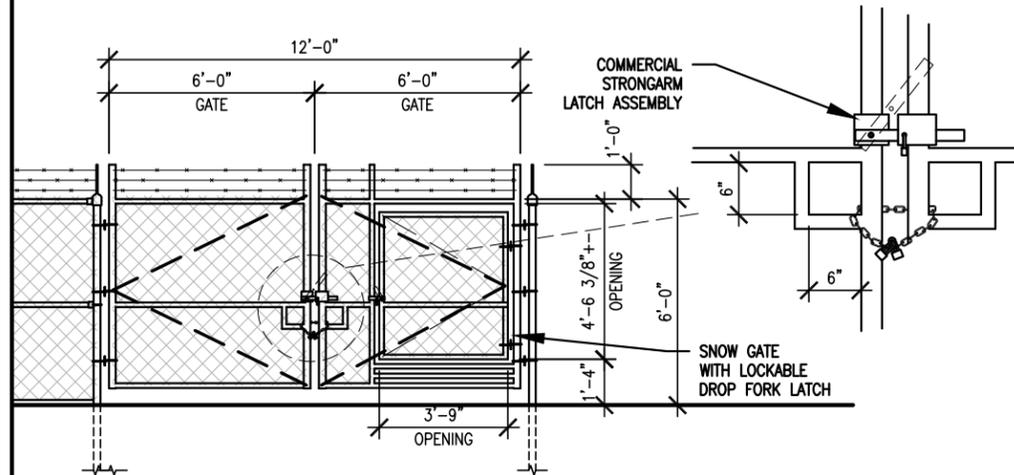
**5 CABLE BRIDGE ELEVATION**  
SCALE: 1/8" = 1'-0"



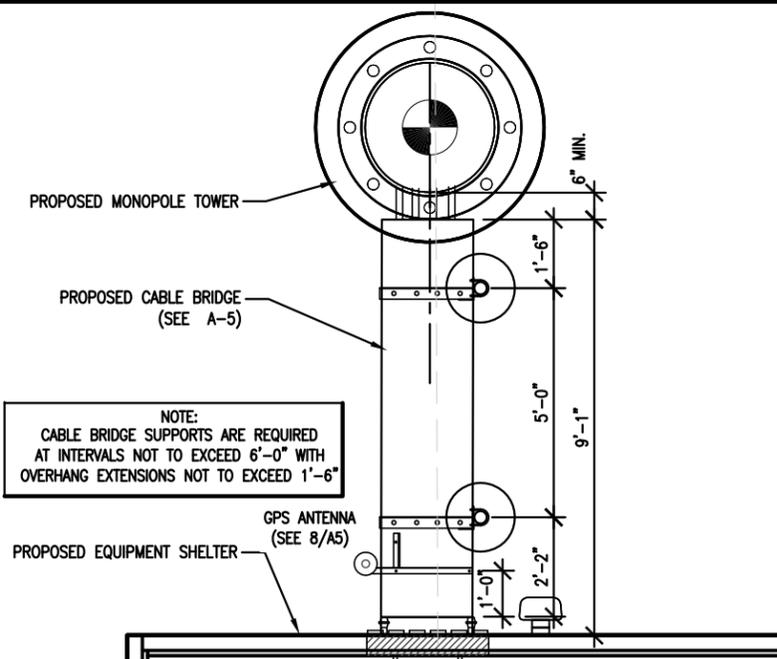
ANY VARIANCE FROM THIS ROADWAY DESIGN MUST BE SUBMITTED AND APPROVED PRIOR TO BID



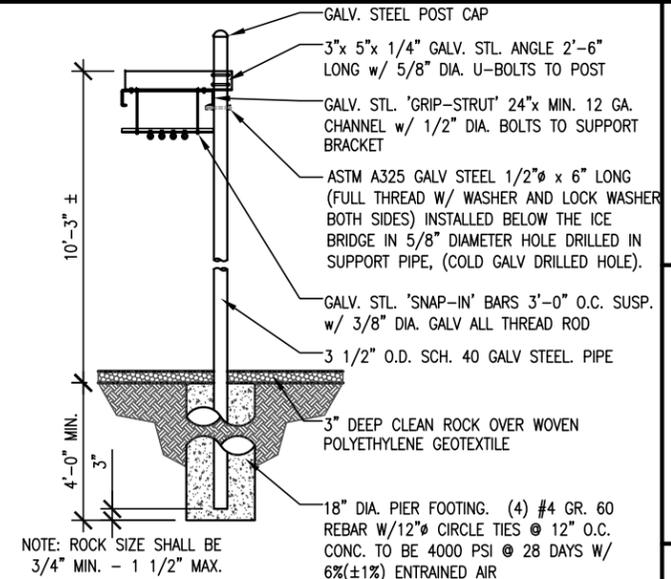
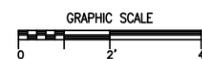
**6 GRAVEL ROAD SECTION**  
SCALE: 1/4" = 1'-0"



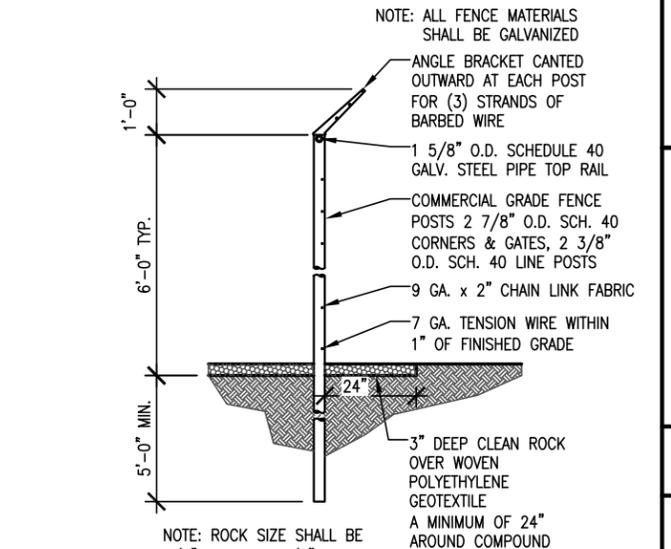
**7 SNOW GATE DETAIL**  
SCALE: 3/16" = 1'-0"



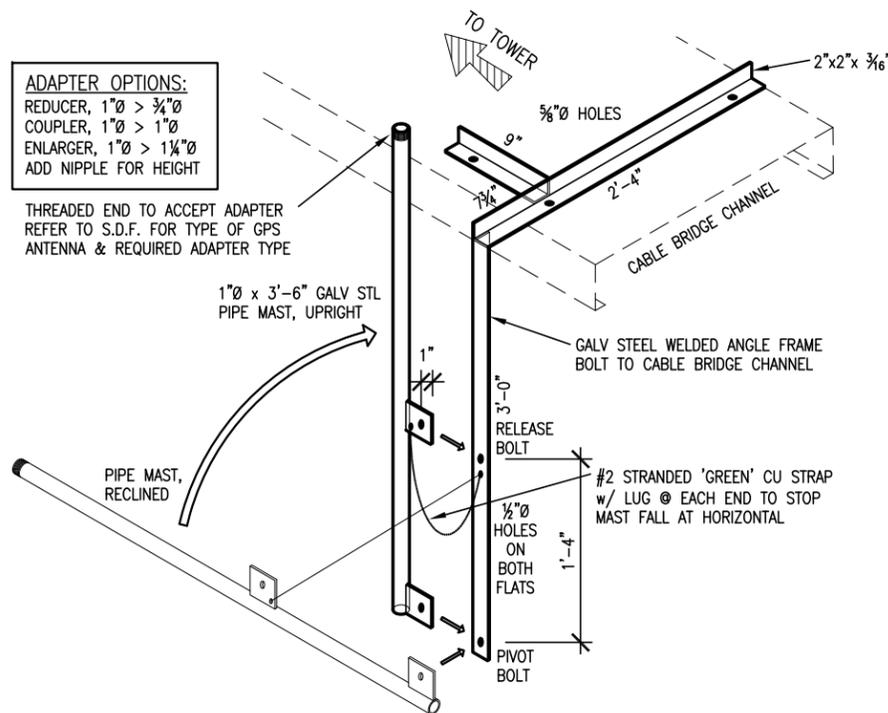
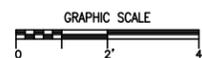
**4 CABLE BRIDGE PLAN**  
SCALE: 1/4" = 1'-0"



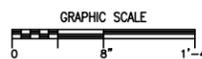
**3 CABLE BRIDGE SECTION**  
SCALE: 1/4" = 1'-0"



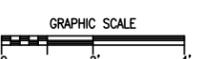
**2 FENCE SECTION**  
SCALE: 1/4" = 1'-0"



**8 GPS MOUNTING DETAIL**  
SCALE: 3/4" = 1'-0"



**1 NOT USED**  
SCALE:



NOT FOR CONSTRUCTION

**DESIGN 1**

ROBERT J DAVIS, AIA  
ARCHITECT  
9973 VALLEY VIEW RD.  
EDEN PRAIRIE, MN 55344  
(952) 903-9299

**VERIZON WIRELESS**

10801 BUSH LAKE ROAD  
BLOOMINGTON, MN 55438  
(612) 720-0030

PROJECT  
20120828190

**MINC  
KEDS**

TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

**SHEET CONTENTS:**  
FENCE SECTION  
CABLE BRIDGE SECTION  
DRIVEWAY SECTION  
GPS MOUNTING DETAIL  
MISC. DETAILS

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A / W PRELIM SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

**A-5**

**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.

**SITWORK**

**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.

**02 1100 ROAD IMPROVEMENT & CONSTRUCTION**

Contractor shall furnish materials for, and install, a twelve foot (12') wide gravel roadway from the road access to the work area, for truck and crane access to site. Base course shall be 6" deep, 3"+ crushed rock, topped with 3" deep, 1 1/2" crushed rock, topped with 3" deep MN Class 5. Contractor shall furnish & install culverts as necessary to prevent ponding or washing-out from normal surface runoff. Contractor shall obtain city, county, state and/or federal approvals for road approach and culvert work within or adjacent to right-of ways. Road shall be graded smooth, and edges dressed, at job completion.

**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**

Gravel paving shall be as described in 02 8000.

**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. Contractor shall protect existing landscape elements that are not in the Scope of Work. Reasonable precautions shall be taken to assure the health of existing trees and shrubbery. If conflicts arise regarding the location of root systems, branch lines, etc., the Architect must be contacted prior to performing Work that may cause damage. Damage resulting from disregard of this Article shall be compensated by the Responsible Party and at a cost to be determined by the Property Owner, Architect, and Owner.

**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 install antenna mounts. Contractor shall ensure the existence of a 3/8" cable safety climb (DBI/Sala or equal) on the Tower. 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**

Contractor shall provide materials, labor for wood stoops per architectural documents, see sheet A-4.

**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**

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  
AVAS-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 per current Verizon standards.

**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  
MONOPOLE, T-FRAMES, CABLE BRIDGE (FIRST 10'-0")  
COAXIAL CABLES,  
ANTENNAS AND DOWNTILT BRACKETS  
BUILDING PERMIT FEE  
MATERIALS TESTING FEES  
SPECIAL INSPECTIONS FEES

**CONTRACTOR-FURNISHED EQUIPMENT**

POWER TO SITE, TELCO TO SITE.  
CABLE BRIDGE (BEYOND 10'-0")  
CONNECTORS, BOOTS, RELATED HARDWARE  
WOOD 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 AND ROAD CONSTRUCTION  
SHELTER AND TOWER FOUNDATIONS  
SITE GROUNDING  
ELECTRICAL AND TELEPHONE SERVICES  
ERECT TOWER AND SET SHELTER  
INSTALL ANTENNAS & CABLES  
INSTALL CABLE BRIDGE  
GRAVEL SURFACING AND FENCING

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.

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PROJECT  
20120828190

MINC  
KEDS

TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

SHEET CONTENTS:  
OUTLINE SPECIFICATIONS

DRAWN BY: KJM

DATE: 08.14.13

CHECKED BY: C.Davis & CB

REV. A / W PRELIM SURVEY 11.04.13

REV. A 11.21.13

REV. B 12.03.13

A-6

**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 used to 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**

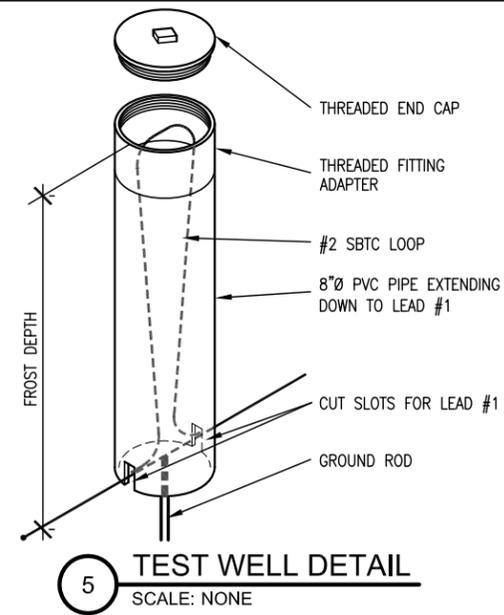
Test lead #1 and ground rods after installation but before backfilling or connecting to any other grounding, using the 3-point fall of potential method. Contractor to notify Verizon Wireless senior construction engineer at least 48 hours prior to testing. Document installation and test results with photographs.

**SYMBOL AND NOTE LEGEND**

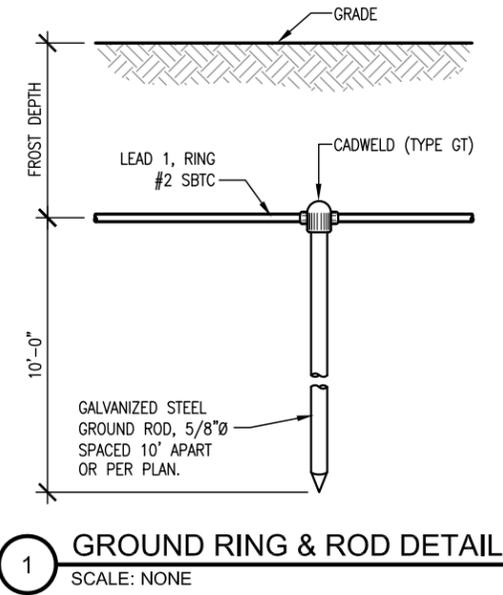
- ① #2 SBTC AROUND SHELTER, TOWER, OR GUY ANCHOR
- 5/8" X 10'-0" GALVANIZED STEEL GROUND ROD
- ⊙ TEST WELL PREFERRED LOCATION
- #2 SBTC 'WHIP' LEAD
- ⑤ (2) #2 SBTC FROM MGB, PGB, OR TGB TO LEAD 1
- ⑥ AC HVAC UNIT
- ②①B BC BUILDING CORNER
- ⑥ BO BOLLARD
- ⑥ CBS CABLE BRIDGE SUPPORT POST
- ⑥ FAN GUY ANCHOR 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 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.

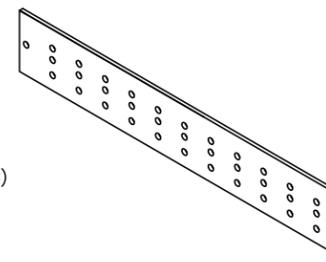


**5 TEST WELL DETAIL**  
SCALE: NONE

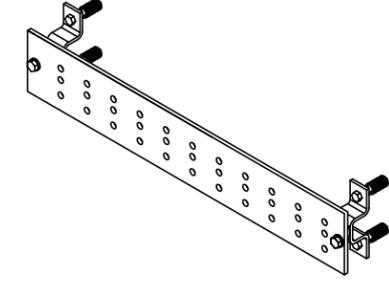


**1 GROUND RING & ROD DETAIL**  
SCALE: NONE

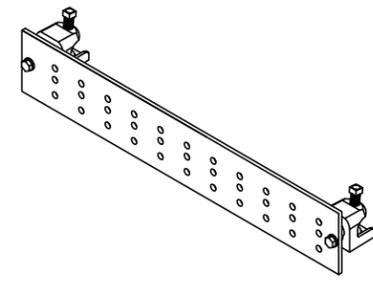
ALL BUSS BARS SHALL BE TIN-CLAD COPPER



GROUND BUSS BAR

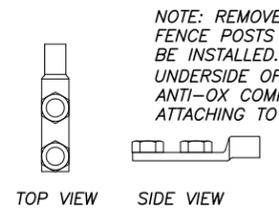


GROUND BUSS BAR w/ WALL BRACKETS

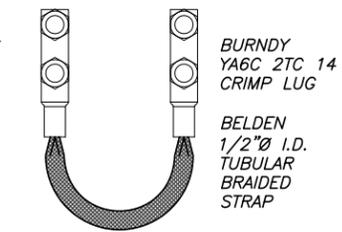


GROUND BUSS BAR w/ ANGLE ADAPTERS

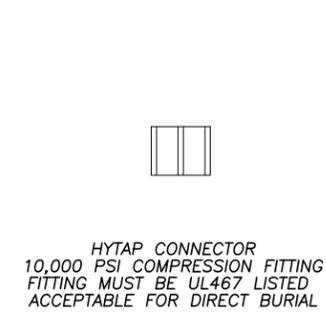
**2 GROUND BUSS BAR DETAILS**  
SCALE: NONE



TWO-HOLE 10,000 PSI COMPRESSION FITTING UL 9498 LISTED

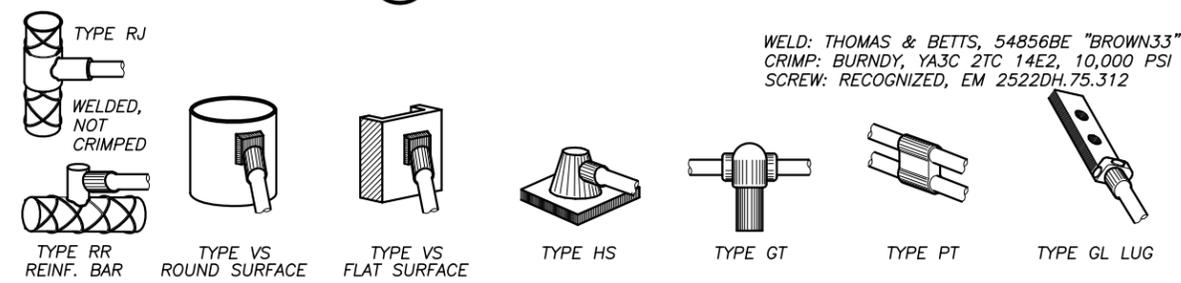


GATE BONDED TO FENCE POST (2) TWO-HOLE 10,000 PSI COMPRESSION FITTING w/ 3/4" BRAIDED TINNED COPPER JUMPER STRAP



HYTAP CONNECTOR 10,000 PSI COMPRESSION FITTING MUST BE UL467 LISTED ACCEPTABLE FOR DIRECT BURIAL

**3 COMPRESSION CONNECTOR DETAILS**  
SCALE: NONE



**4 EXOTHERMIC WELD DETAILS**  
SCALE: NONE

WELD: THOMAS & BETTS, 54856BE "BROWN33" CRIMP: BURNDY, YA3C 2TC 14E2, 10,000 PSI SCREW: RECOGNIZED, EM 2522DH.75.312

NOT FOR CONSTRUCTION

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**PROJECT**

20120828190

**MINC KEDS**

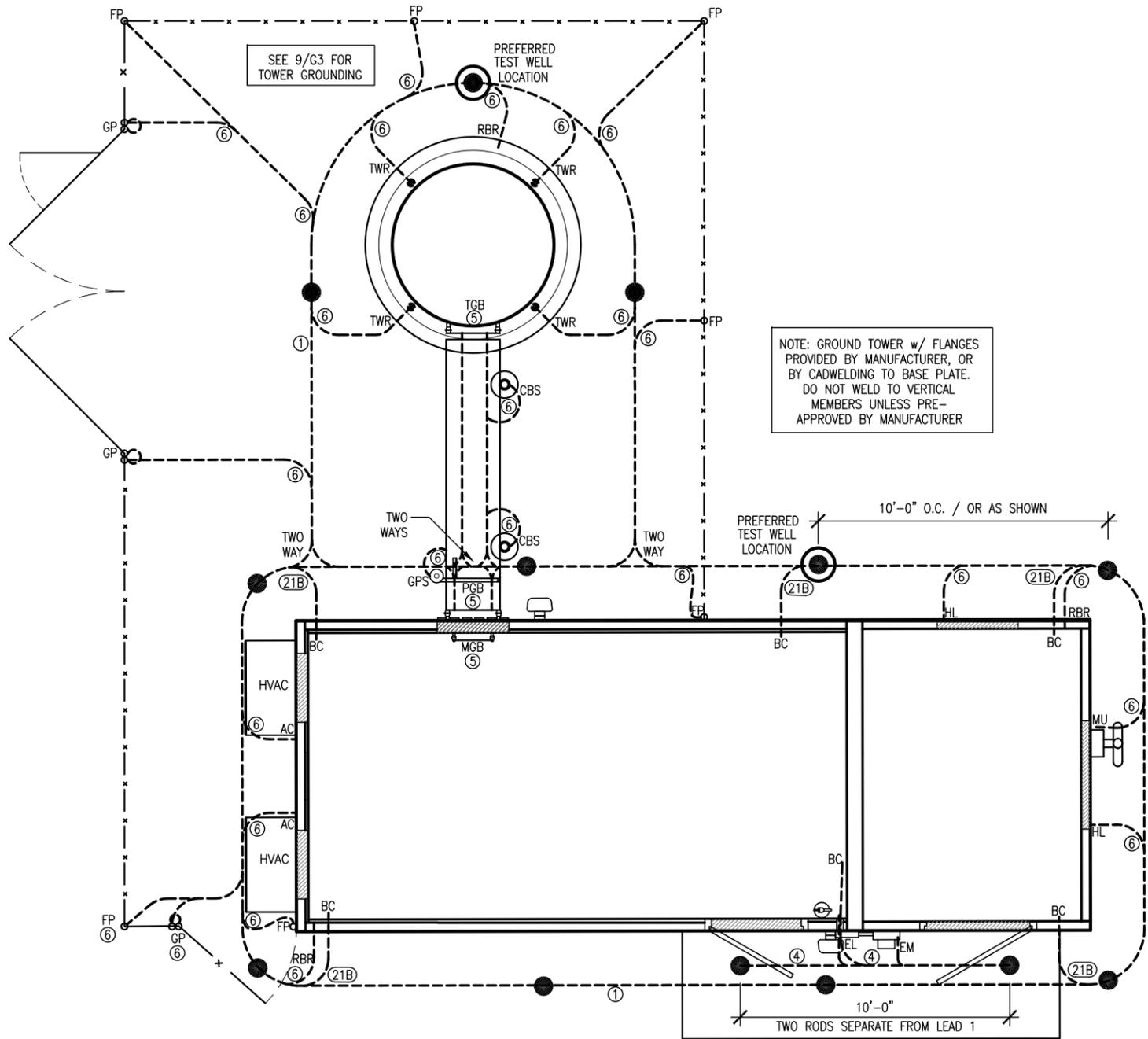
TAYLOR ST. N.E.  
MINNEAPOLIS, MN 55458

**SHEET CONTENTS:**

- GENERAL NOTES
- GROUND RING & ROD DETAIL
- BUSS BAR DETAILS
- CONNECTOR DETAILS
- EXOTHERMIC WELD DETAILS
- TEST WELL DETAIL

DRAWN BY:	KM & LGB
DATE:	11.20.13
CHECKED BY:	CDB
REV. A	11.21.13
REV. B	12.03.13

**G-1**



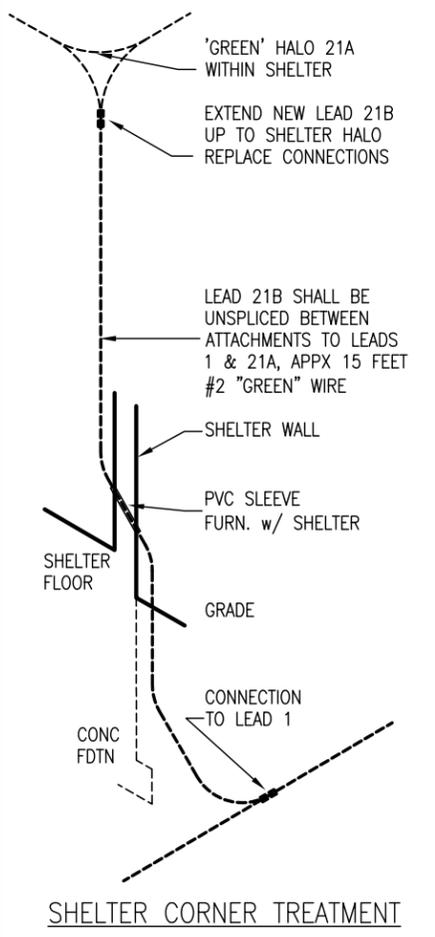
1 GROUNDING PLAN  
SCALE: NONE



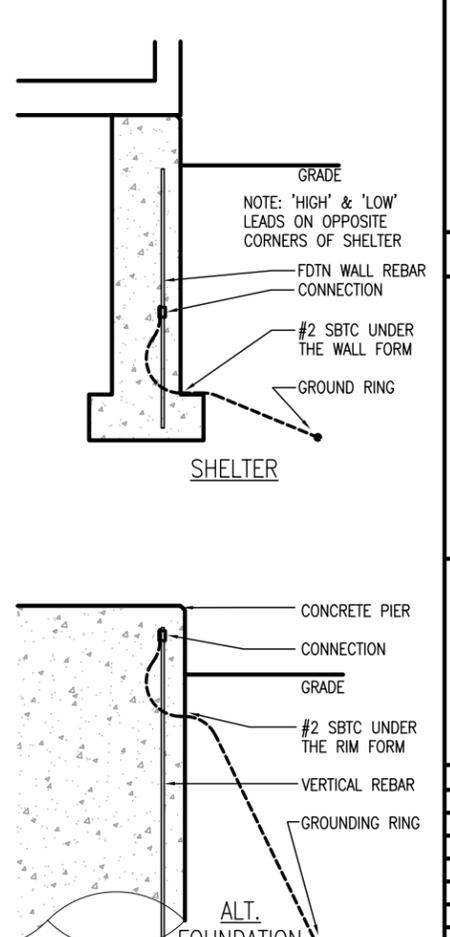
NOTE: CONTRACTOR SHALL ENSURE THAT EACH WHIP IS ROUTED TO LEAD 1 BY THE SHORTEST PATH, AND BENDS SHALL NOT BE LESS THAN 12" RADIUS

**LEAD IDENTIFICATION & DESCRIPTION:**

1 RING, EXTERNAL BURIED w/ RODS	#2 SBTC	25 RING TO NEAREST LIGHTNING ROD	#2 SBTC
1A RING, CONCRETE ENCASED	#2 SBTC	26 LIGHTING ROD SYS TO NEARBY MTL	NFPA 780
2 DEEP ANODE (TO IMPROVE OHMS)	ROD OR PIPE	27 RING TO TOWER RING	(2) #2 SBTC
3 RING TO BLDG STL FRAME	#2 SBTC	28 RING TO SHELTER RING	(2) #2 SBTC
4 MAIN AC PANEL NEUTRAL BUS TO (2) GROUND RODS, ISOLATED FROM LEAD #1	NEC 250.66	29 BRANCH AC PNL TO BTY CHG FRM	NSTD33-11
5 RING TO GROUND BAR	(2) #2 SBTC	30 BRANCH AC PNL TO OUTLETS	NSTD33-11
6 RING TO EXT MTL OBJECT	#2 SBTC	31 MGB/FGB TO PWR, BTY FRAMES	#2/0 I-STR
7 DEEP ANODE TO MGB	NSTD33-9	32 #31 TO BATTERY CHARGER FRAME	#6 I-STR
8 AC PANEL TO WATER METER	NEC 250.66	33 #31 TO BATTERY RACK FRAME	#6 I-STR
9 EXT WATER TO INT WATER PIPES	NSTD33-9	34 #31 TO PCU FRAME	#6 I-STR
10 INT WATER PIPE TO MGB	NSTD33-9	35 #31 TO DSU FRAME	#6 I-STR
11-12 NOT USED		36 #31 TO PDU FRAME	#6 I-STR
13 AC PANEL TO MGB	NSTD33-9	37 MGB/FGB TO BTY RETURN	NSTD33-14.5
14 MGB/FGB TO BLDG STL FRAME	#2/0 I-STR	37A MGB/FGB TO RTN TERM CARR SUPP	#6 I-STR
14A MGB/FGB TO ROOF/WALL MTL PNL	#1/0 I-STR	38 FGB TO PDU GB	#750MCM I-STR
14B MGB/FGB TO F-0 SPLICE SHELF	#1 I-STR	38A FGB TO PDU GB CARRIER SUPPLY	#2/0 I-STR
14C MGB/FGB TO ROOF/WALL MTL PNL	#1/0 I-STR	39 DC BUS DUCT TO NEXT SECTION	#6 I-STR
15 MGB/FGB TO FGB-HF SAME FLOOR	#2/0 I-STR	40 DC BUS DUCT TO MGB/FGB	#6 I-STR
16 NOT USED		41A MGB/FGB TO #58	#2/0 I-STR
16A ECPGB TO CABLE ENTRY RACK	#1/0 I-STR	42-44 NOT USED	
17 MGB TO CABLE SHIELDING	#6 I-STR	45 MAIN AC PNL TO BRANCH AC PNL	NSTD33-11
17A ECPGB TO CABLE SHIELDING	#6 I-STR	46 BRANCH AC PNL TO DED OUTLET	NSTD33-11
17B MGB/FGB TO F-0 SPLICE SHELF	#1 I-STR	47 FGB TO INTEG FRM	#2 I-STR
18 LOWEST MGB/FGB TO HIGHEST FGB	#2/0 I-STR	48 LEAD #31 TO INTEG FRM	#6 I-STR
19 LEAD 18 TO OTHER FGBs, <6'	#2/0 I-STR	49 INTEG FRM TO EQUIP SHELF	BY FASTENERS
20 MGB/FGB TO BRANCH AC PNL	#6 I-STR	50 PDU BTY RET TO #51	#2/0 I-STR
20A NEAREST GRND TO DISCONNECT PNL	NEC 250.66	51 #50 TO TRANS FRM ISO DC PWR	#6 I-STR
20B GWB TO AC DISTR PNL	#6 I-STR	52 TRANS FRM FUSE TO FRM OR BAR	#8 I-STR
21 MGB/FGB TO INT HALO	#2 I-STR	53A MGB/FGB TO PDF/BDFB	NSTD33-22
21A INTERIOR 'GREEN' HALO	#2 I-STR	54 MGB/FGB TO STATIC DEVICES	#6 I-STR
21B INT HALO TO EXT RING	#2 SBTC	55 MGB/FGB TO CABLE AT ENTRY	#6 I-STR
21C INT HALO TO EQUIPMENT MTL	#6 I-STR	56 MGB/FGB TO AC PWR RADIO XMTR	#6 I-STR
22 ROOF TOWER RING TO ROOF GRND	NFPA 780	57A MGB/FGB TO CBL GRID/RUNWAY	#2/0 I-STR
23 MGB/FGB TO ECPGB, SAME FLOOR	#1 I-STR	58A #41A TO AISLE FRAME	#2 I-STR
23A MGB/FGB TO CXR-HF LINR PROT	#6 I-STR	59A #58A TO EACH SGL FRAME GRND	#6 I-STR
24 ECPGB TO EACH PROTECTOR ASSEMBLY	#6 I-STR	60-89 NOT USED	
24A LOWER PROT ASSY TO UPPER	#6 I-STR	90 GENERATOR FRAME TO EXT RING	#2 SBTC



2 SHELTER HALO  
SCALE: 3/16" = 1'-0"



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

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PROJECT

20120828190

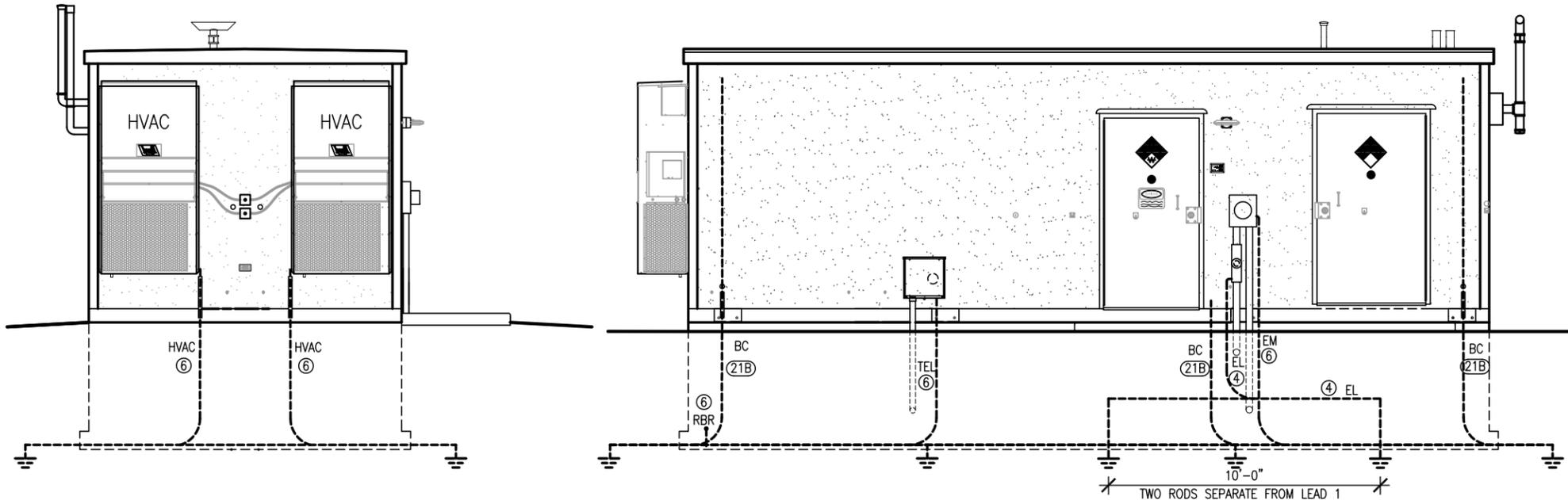
MINC  
KEDS

TAYLOR ST. N.E.  
MINNEAPOLIS, MN 55458

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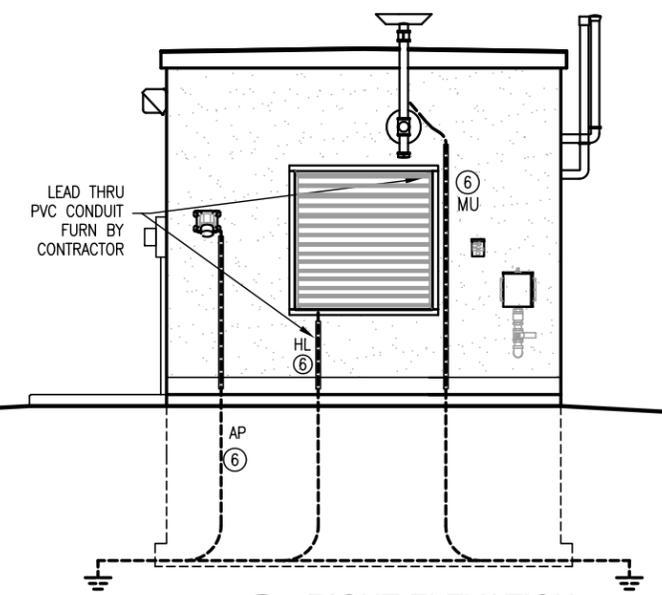
- GROUNDING PLAN
- LEAD IDENTIFICATION
- SHELTER CORNER DETAIL
- FOUNDATION LEADS

DRAWN BY:	KM & LGB
DATE:	11.20.13
CHECKED BY:	CDB
REV. A	11.21.13
REV. B	12.03.13

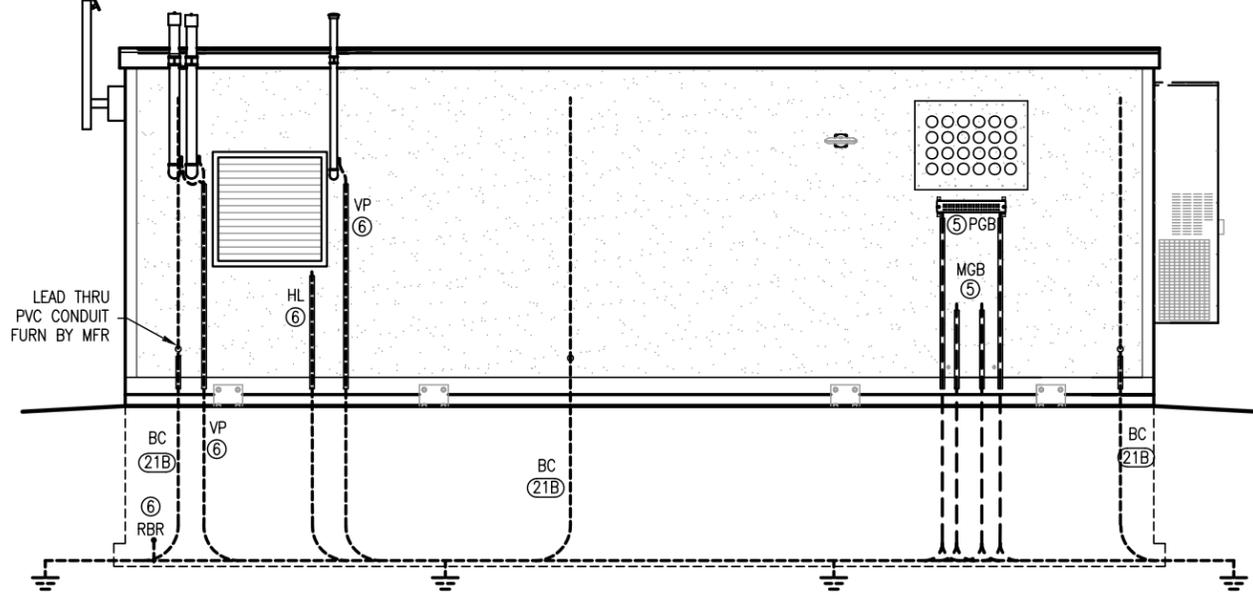


1 LEFT ELEVATION  
SCALE: 3/16" = 1'-0"

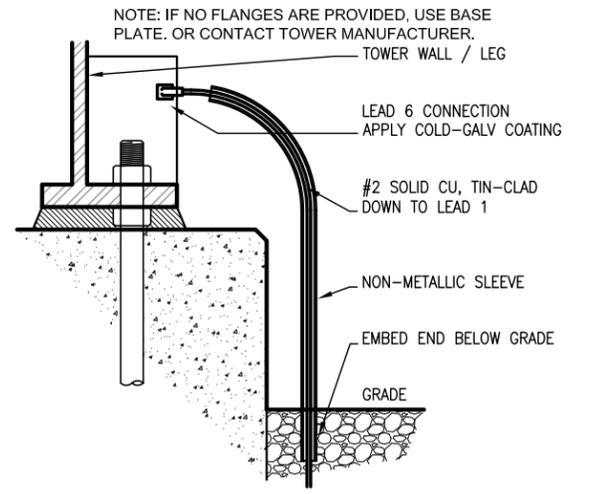
2 FRONT ELEVATION  
SCALE: 3/16" = 1'-0"



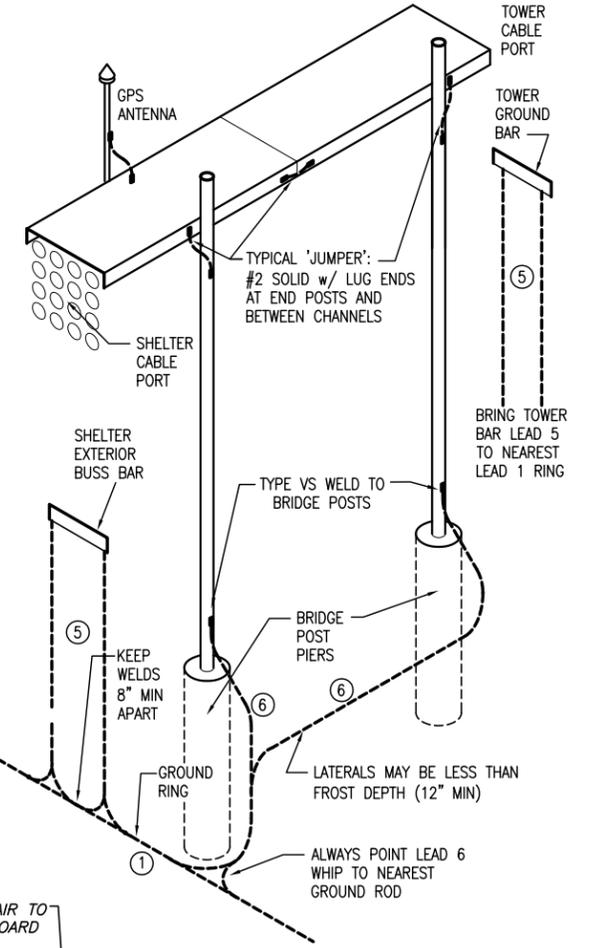
3 RIGHT ELEVATION  
SCALE: 3/16" = 1'-0"



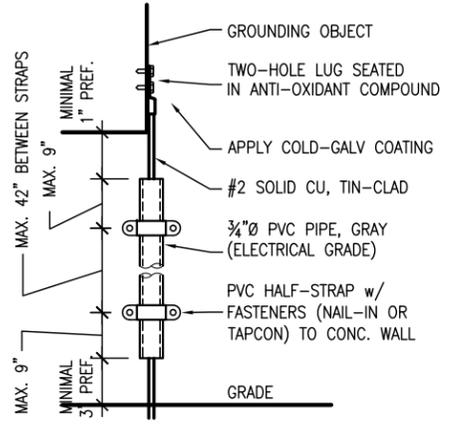
4 REAR ELEVATION  
SCALE: 3/16" = 1'-0"



9 TYPICAL TOWER GROUNDING  
SCALE: NONE

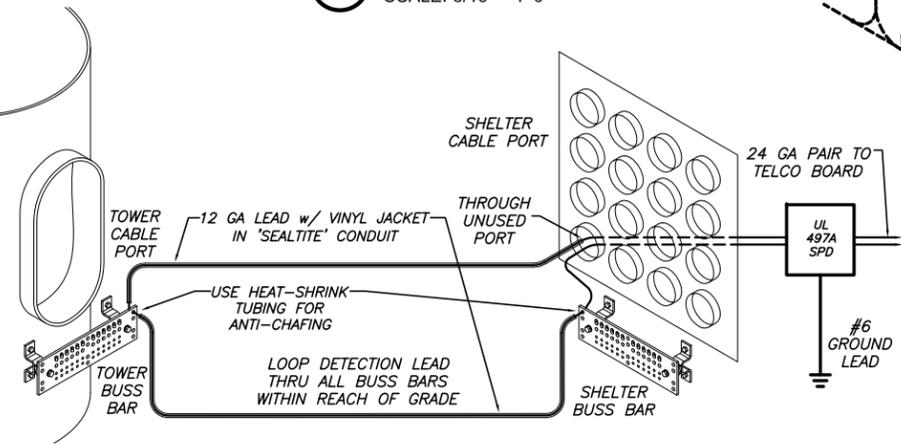


8 TYPICAL CABLE BRIDGE  
SCALE: NONE



5 CONDUIT DETAIL  
SCALE: NONE

6 NOT USED  
SCALE: NONE



7 ANTI-THEFT MEASURE  
SCALE: NONE

NOT FOR CONSTRUCTION

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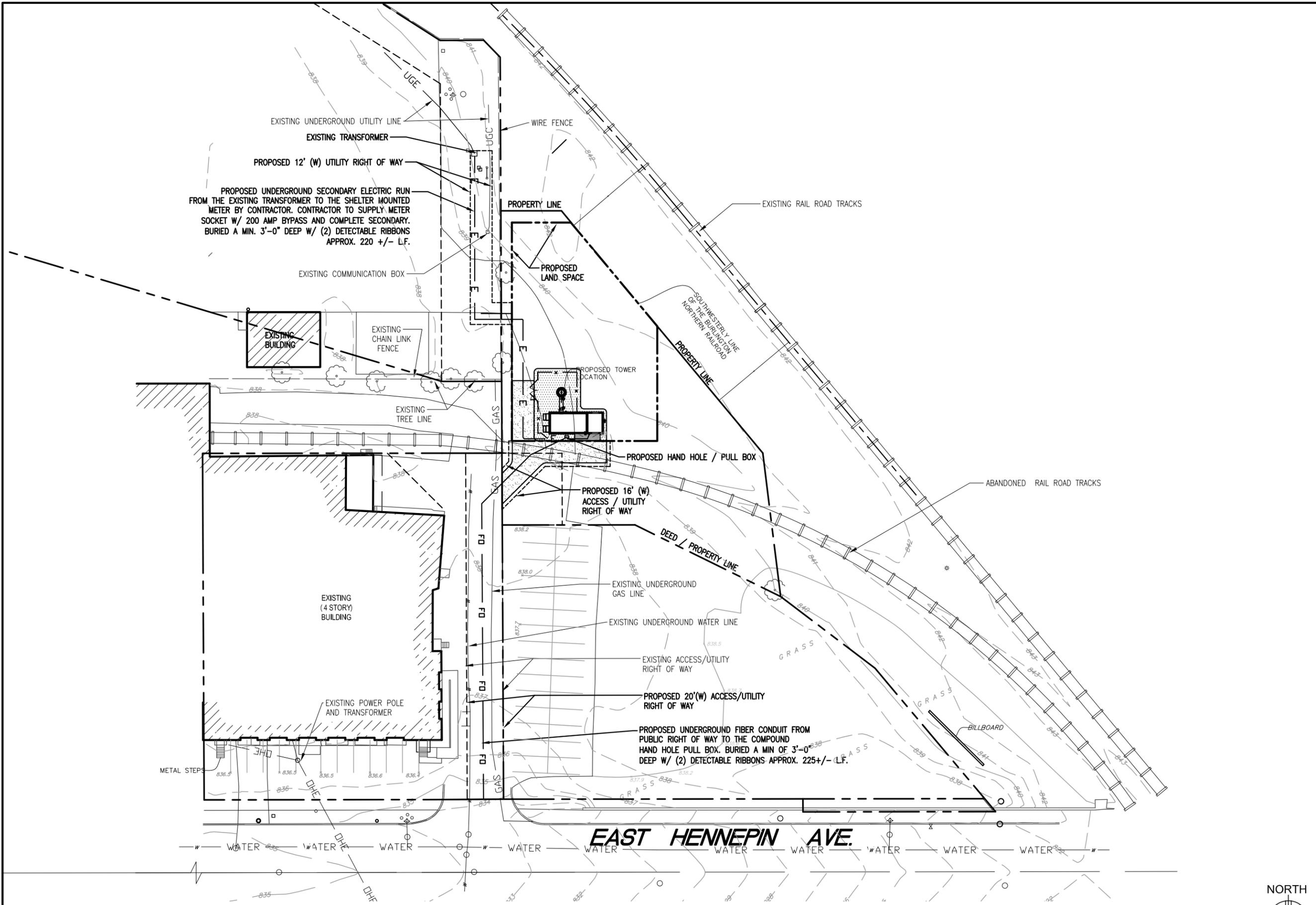
**VERIZON WIRELESS**  
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PROJECT  
20120828190  
**MINC KEDS**

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MINNEAPOLIS, MN 55458

SHEET CONTENTS:  
EXTERIOR ELEVATIONS  
CONDUIT, STOOP, ANTI-THEFT, BRIDGE, TOWER BASE DETAILS

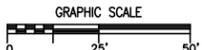
DRAWN BY:	KM & LGB
DATE:	11.20.13
CHECKED BY:	CDB
REV. A	11.21.13
REV. B	12.03.13



PROPOSED UNDERGROUND SECONDARY ELECTRIC RUN FROM THE EXISTING TRANSFORMER TO THE SHELTER MOUNTED METER BY CONTRACTOR. CONTRACTOR TO SUPPLY METER SOCKET W/ 200 AMP BYPASS AND COMPLETE SECONDARY. BURIED A MIN. 3'-0" DEEP W/ (2) DETECTABLE RIBBONS APPROX. 220 +/- L.F.

PROPOSED UNDERGROUND FIBER CONDUIT FROM PUBLIC RIGHT OF WAY TO THE COMPOUND HAND HOLE PULL BOX. BURIED A MIN OF 3'-0" DEEP W/ (2) DETECTABLE RIBBONS APPROX. 225 +/- L.F.

**1** SITE UTILITY PLAN  
SCALE: 1" = 50'-0"



**DESIGN 1**

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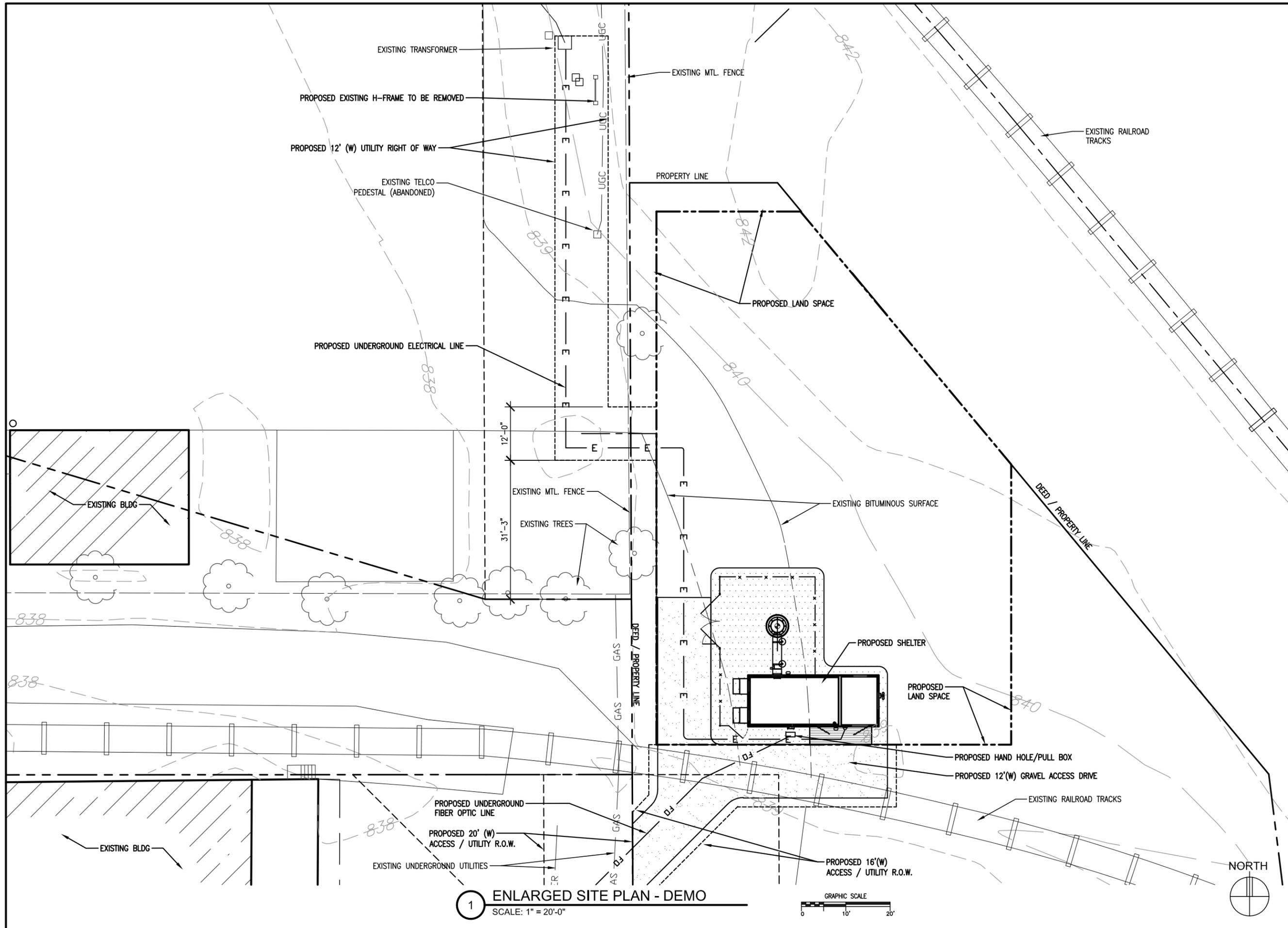
MINC  
KEDS

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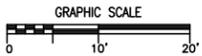
SHEET CONTENTS:  
SITE UTILITY PLAN

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A / W PRELIM SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

**U-1**



1 ENLARGED SITE PLAN - DEMO  
SCALE: 1" = 20'-0"



NOT FOR CONSTRUCTION

**DESIGN 1**

ROBERT J DAVIS, AIA  
ARCHITECT  
9973 VALLEY VIEW RD.  
EDEN PRAIRIE, MN 55344  
(952) 903-9299

**VERIZON WIRELESS**

10801 BUSH LAKE ROAD  
BLOOMINGTON, MN 55438  
(612) 720-0030

PROJECT  
20120828190

MINC  
KEDS

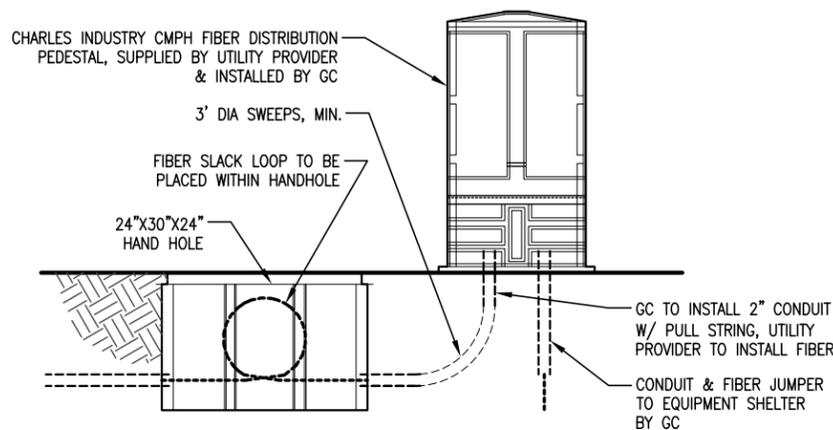
TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

SHEET CONTENTS:  
ENLARGED UTILITY SITE PLAN

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A / W PRELIM SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

U-1.1

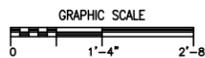
CMPH PEDESTAL MAY BE REQUIRED BY UTILITY PROVIDER



ELECTRICAL CONTRACTOR TO REMOVE EXISTING H-FRAME AND EQUIPMENT



**5 CMPH PEDESTAL**  
SCALE: 3/8" = 1'-0"



**GENERAL ELECTRICAL NOTES:**

- SUBMITTAL OF BID INDICATES CONTRACTOR IS AWARE OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINE WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
- THESE PLANS ARE DIAGRAMMATIC ONLY. FOLLOW AS CLOSELY AS POSSIBLE.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANEL BOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.).
- CONTRACTOR SHALL PROVIDE LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU.

- CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
- CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS.
- COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- PROVIDE CONSTRUCTION ENGINEER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- USE T-TAP CONNECTIONS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR.
- ALL CONDUCTORS SHALL BE COPPER.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND DRAWINGS.
- RECEPTACLES SHALL BE 20 AMPERE, 125 VOLT A.C., WHITE AS REQUIRED BY THE ARCHITECT OR APPROVED EQUAL.

**4 EXISTING CONDITON**  
SCALE: N.T.S.

- WALL SWITCHES SHALL BE SINGLE-POLE, HUBBELL #1201 OR EQUIVALENT, WHITE AS REQUIRED BY THE ARCHITECT.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS, SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE RACO #800, 1/2" RAISED WORK COVERS.
- WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM, NO BX OR ROMEX CABLE IS PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
- GROUND RODS SHALL BE AS SPECIFIED ON THE GROUNDING DRAWINGS.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS. MANUFACTURED BY SQUARE D COMPANY OR APPROVED EQUAL. IF HOST FACILITY REQUIRES THE NEW SERVICE TO BE SUB-METERED FROM THE EXISTING SERVICE, SUB-METER SHALL BE OF THE 10x OR 16x TYPE.
- ALL MATERIALS SHALL BE U.L. LISTED.
- CONDUIT:
  - SERVICE CONDUITS SHALL BE GRAY SCH.40 PVC BURIED MIN. 36", EXCEPT THAT SCH.80 SHALL BE USED UNDER ROADWAYS AND IN LOCATIONS SUBJECT TO CASUAL IMPACTS. BENDS SHALL BE MADE USING "WIDE SWEEP" (12" MIN. RADIUS) ELBOW FITTINGS. ANY CODE-REQUIRED RIGID STEEL CONDUIT SHALL BE U.L. LABEL, GALVANIZED INSIDE & OUTSIDE. CONDUIT SHALL EXTEND MIN. 36" BELOW GRADE, WITH "SWEEP" ELBOWS (12" R. MIN.) ENDING IN PVC TRANSITION FITTINGS. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAP-WRAPPED WITH HUNTS PROCESS NO. 3 EXTENDING MIN. 12" ABOVE GRADE.

- INTERIOR CONDUITS SHALL BE ELECTRICAL METALLIC TUBING HAVING U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE.
- FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. NO SUCH CONDUIT SHALL EXCEED SIX FEET IN LENGTH.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH SECTION 712, PENETRATIONS- INTERNATIONAL BUILDING CODE (IBC)
- DRILLING OR CORING HOLES IN CONCRETE WALLS OR DECKS, WHETHER FOR FASTENING OR ANCHORING PURPOSES, REQUIRES THAT TENDONS OR REINFORCING STEEL MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT (X-RAY OR OTHER DEVICE) THAT CAN ACCURATELY LOCATE THEM. TENDONS OR REINFORCING MUST NOT BE DRILLED, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO CONSTRUCTION ENGINEER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF BOTH TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS AS NECESSARY TO COMPLETE THE INSTALLATION OF ANY TOWER LIGHTING SYSTEM DESCRIBED IN THE RFQ.

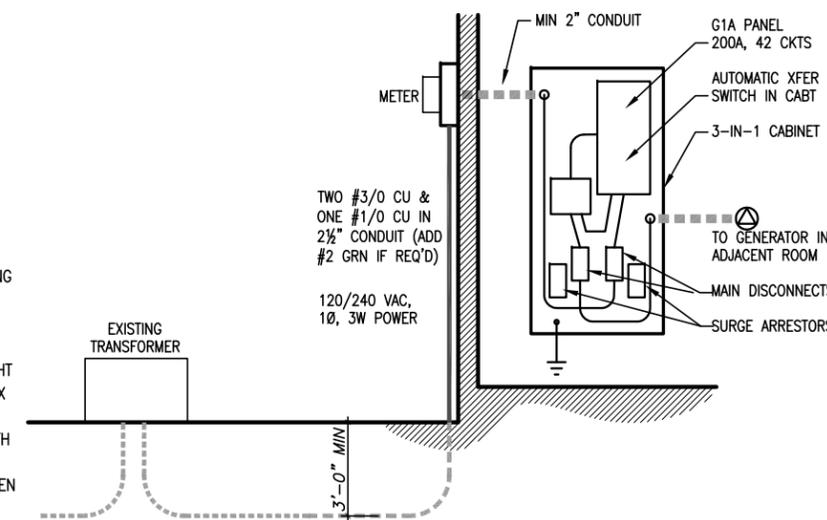
PANEL G1A : 120/240V, SINGLE PHASE, 200A MAIN BREAKER, 42 CIRCUIT, SURFACE MOUNT

CIRCUIT DESCRIPTION	AMPS	CKT	A	B	A	B	CKT	AMPS	CIRCUIT DESCRIPTION
HVAC UNIT 1	60	1		5696		5696	2	60	HVAC UNIT 2
	60	3	5696		5696		4	60	
SD_VENT_TIMER-FAN	15	5		132			6		SPACE
BATT_CHG-BLK_HTR	20	7	180		892		8	20	LIGHTS
RECEPTACLES	20	9		1260		150	10	15	VENTS
	30	11	1200				12		
	30	13		1200			14		
RECTIFIER	30	15	1200				16		
	30	17		1200			18		
RECTIFIER	30	19	1200				20		
	30	21		1200			22		
RECTIFIER	30	23	1200				24		
	30	25		1200			26		
RECTIFIER	30	27	1200				28		
	30	29		1200			30		
RECTIFIER	30	31	1200				32		
	30	33		1200			34		
SPACE		35					36		
		37					38		
SURGE ARRESTOR	60	39					40		
	60	41					42		
SUBTOTAL CONTINUOUS			7380	8360	892	150	WATTS		
SUBTOTAL NON-CONTINUOUS			5696	5696	5696	5696	WATTS		

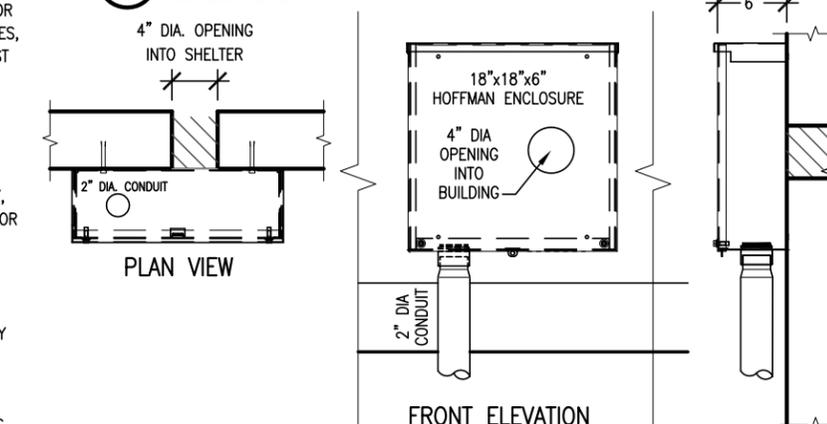
CONNECTED LOAD ANALYSIS (REQUIRED BY POWER COMPANY)      DERATED SERVICE CALCULATION (PLUS 25% OF CONTINUOUS LOADS - 3 HOURS OR MORE - NEC SERVICE CALCULATION)

TOTAL PHASE A LOAD 19,664      TOTAL DEMAND LOAD 43,762  
 TOTAL PHASE B LOAD 19,902      TOTAL DEMAND AMPS 182.3  
 TOTAL CONNECTED LOAD 39,566  
 TOTAL CONNECTED AMPS 164.9

**3 PANEL SCHEDULE**  
SCALE: NONE



**2 ONE-LINE RISER DIAGRAM**  
SCALE: NONE



**1 TELCO ENTRY**  
SCALE: 3/4" = 1'-0"

**DESIGN 1**

ROBERT J DAVIS, AIA  
ARCHITECT  
9973 VALLEY VIEW RD.  
EDEN PRAIRIE, MN 55344  
(952) 903-9299

**VERIZON WIRELESS**

10801 BUSH LAKE ROAD  
BLOOMINGTON, MN 55438  
(612) 720-0030

PROJECT  
20120828190

**MINC KEDS**

TAYLOR STREET N.E.  
MINNEAPOLIS, MN 55458

SHEET CONTENTS:  
TELCO ENTRY BOX DETAIL  
ONE-LINE RISER DIAGRAM  
PANEL SCHEDULE  
GENERAL ELECTRICAL NOTES

DRAWN BY:	KJM
DATE:	08.14.13
CHECKED BY:	C.Davis & CB
REV. A / W PRELIMI SURVEY	11.04.13
REV. A	11.21.13
REV. B	12.03.13

**U-2**



EXHIBIT J



# Universal Licensing System

[FCC](#) > [WTB](#) > [ULS](#) > [Online Systems](#) > License Search

[FCC Site Map](#)

ULS License

## Cellular License - KNKA219 - Verizon Wireless (VAW) LLC

[? HELP](#)

[New Search](#) [Printable Page](#) [Reference Copy](#) [Map License](#)

- MAIN**
- ADMIN
- LOCATIONS

Call Sign	KNKA219	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

### Market

Market	CMA015 - Minneapolis-St. Paul, MN-WI	Channel Block	B ( <a href="#">View Frequencies</a> )
Submarket	0	Phase	2

### Dates

Grant	11/15/2004	Expiration	10/01/2014
Effective	03/21/2014	Cancellation	

### Five Year Buildout Date

05/09/1989

### Control Points

**2**      500 West Dove Road, TARRANT, Southlake, TX  
P: (800)264-6620

### Licensee

FRN	0003800307	Type	Limited Liability Company
	<a href="#">(View Ownership Filing)</a>		

### Licensee

Verizon Wireless (VAW) LLC 1120 Sanctuary Pkwy, #150 GASA5REG Alpharetta, GA 30009-7630 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@verizonwireless.com
--	---

### Contact

Verizon Wireless Licensing Manager 1120 Sanctuary Pkwy, #150 GASA5REG Alpharetta, GA 30009-7630 ATTN Regulatory	P:(770)797-1070 F:(770)797-1036 E:LicensingCompliance@verizonwireless.com
---	---

### Ownership and Qualifications

Radio Service Type	Mobile
Regulatory Status	Common Carrier      Interconnected      Yes

**EXHIBIT K**

**Alien Ownership**

Is the applicant a foreign government or the representative of any foreign government? No

Is the applicant an alien or the representative of an alien? No

Is the applicant a corporation organized under the laws of any foreign government? No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? Yes

If the answer to the above question is 'Yes', has the applicant received a ruling(s) under Section 310(b)(4) of the Communications Act with respect to the same radio service involved in this application? Yes

**Basic Qualifications**

The Applicant answered "No" to each of the [Basic Qualification](#) questions.

**Demographics**

Race

Ethnicity

Gender

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By Call Sign ▼ =

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Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

Phone: 1-877-480-3201  
TTY: 1-717-338-2824  
[Submit Help Request](#)



Minnesota  
Historical Society

STATE HISTORIC PRESERVATION OFFICE

Using the Power of History to Transform Lives  
PRESERVING SHARING CONNECTING

February 14, 2014

Molly Kuisle  
TetraTech Inc.  
2001 Killebrew Drive, Suite 141  
Bloomington MN 55425

RE: Verizon Wireless MIN Keds Revised; Proposed New 109-Foot Monopole Tower  
Minneapolis, Hennepin County  
SHPO Number: 2014-0849

Dear Ms. Kuisle:

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.

Based on available information, we conclude that **no properties** listed in or eligible for listing in the National Register of Historic Places (from the categories defined in Section VI.D. of the September 2004 Nationwide Programmatic Agreement) will be affected by this project.

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

2014-0849



January 16, 2014

Kelly Gragg-Johnson, Review and Compliance Specialist  
Minnesota Historical Society  
345 Kellogg Blvd. W  
St. Paul, MN 55102-1903



Subject: Verizon Wireless MIN Keds Revised  
Proposed New 109-foot Monopole Tower  
Taylor Street NE, Minneapolis, MN 55458

Dear Ms. Gragg-Johnson:

Tetra Tech Inc. has been contracted by Celco Partnership and its controlled affiliates doing business as Verizon Wireless (Verizon Wireless) to conduct a National Environmental Policy Act (NEPA) review for the proposed telecommunications site located in Minneapolis, Minnesota. As part of this process, we are required to perform a Section 106 consultation to determine how Verizon Wireless' activities will affect historic and cultural resources. Basic site information is provided below and a complete FCC submission packet is included for your review.

- Site Address: Taylor Street NE, Minneapolis, Minnesota 55458
- Legal Description: Southwest Quarter of Section 13, Township 29 North, Range 24 West in the Saint Paul West, Minnesota Quadrangle
- Project Description: Verizon Wireless proposes to construct a new 109-foot monopole telecommunications tower and place a 12-foot by 30-foot equipment building on the adjacent ground space within an irregular, approximately 80-foot by 120-foot (8,234-square foot) lease area. The proposed action also includes the construction of an approximately 65-foot gravel access drive from an existing driveway to the proposed lease area.

We would appreciate a response within 30 days of receipt of this letter indicating whether the project will affect resources under your jurisdiction. If you feel the submission packet is inadequate or if other historic properties are identified within the area of potential effect, please contact us immediately with a description of the deficiency.

Your time and effort regarding this request are greatly appreciated. If you have questions or need additional information, please feel free to contact me at 612-643-2231.

Sincerely,  
*Molly A. Kuisle*  
Molly Kuisle  
Environmental Scientist  
molly.kuisle@tetrattech.com

Closest residential structure  
is over 250' away.

Proposed Verizon Wireless 100' Monopole

Ruler

Line Path Pro

Measure the distance between two points on the ground

Map Length:	254.22	Feet
Ground Length:	254.23	
Heading:	44.30	degrees

EXHIBIT M

## STATEMENT REGARDING TOWERS WITHIN ONE MILE RADIUS

Application: Conditional Use Permit

Verizon Site Name: MINC Keds

Project Description: Verizon Wireless proposes to construct a 100' monopole with 9' lightning rod. Verizon's antennas will be attached at a centerline of 96'. Verizon will also place an 11'6" x 29'5.5" equipment/generator building at the tower base. Please see enclosed drawings for details.

PID: 1302924330066

Address: 1133 Taylor Street NE, Minneapolis, MN

Property Owner: Sam Miller Bag Company

Zoning: I1 - Light Industrial District

Because the demand generated from a much smaller area in an urban setting is similar to the demand created by a much larger geographic area in a rural setting more shorter towers are needed to serve an urban area. In this area of Minneapolis the primary service area of each site is often a mile or less in diameter. The selected location must be fairly precise to fill the existing gap between sites.

With respect to the proposed location there are three towers within a one mile radius of the proposed location. The following attachments are presented to explain why those locations are not feasible:

- A one-mile FCC Antenna Structure Registration search identifying three existing towers within one mile of the project coordinates.
- An aerial map with one-mile radius shown in red and proposed location as well as three existing tower locations shown with yellow pushpins.
- An RF map showing coverage provided from the proposed location.
- An RF map showing coverage if co-located on the AT&T (New Cingular) tower to the south of the proposed location.
- An RF map showing coverage if co-located on the SBA tower to the east of the proposed location.
- An RF map showing coverage if co-located on the T-Mobile tower to the northeast of the proposed location.

The RF maps are from Verizon Wireless RF Engineer Craig Ciecmierowski. Coverage is as follows:

**GREEN** – Mostly reliable indoor and excellent outdoor coverage.

**YELLOW** – Marginal indoor and good outdoor coverage.

**RED** – Outdoor coverage only

The RF map for the proposed location shows the target service area with a red circle which is also repeated on the other RF maps.

The AT&T (New Cingular) tower will not work because it is within a block of Verizon's existing Pillsbury site and provides similar service leaving most of the target service area unaddressed.

The SBA tower will not work because it is too far east and also misses the target service area.

The T-Mobile tower will not work because it is too far northeast and leaves most of the target service area unaddressed. Verizon is already planning to co-locate in this area.

EXHIBIT N



# Antenna Structure Registration

[FCC](#) > [WTB](#) > [ASR](#) > [Online Systems](#) > ASR Search

[FCC Site Map](#)

ASR Registration Search

## Registration Search Results

**ADVANCED SEARCH**

**HELP**

[New Search](#) [Refine Search](#) [Printable Page](#) [Query Download](#) [Map Result\(s\)](#)

### Displayed Results

Matches 1-3 (of 3)

**PA** = Pending Application(s)

1

### Specified Search

Latitude='44-59-31.9 N', Longitude='93-14-36.2 W', Radius=1.6 Kilometers

Display:

Registration Number	Status	File Number	Owner Name	Latitude/Longitude	Structure City/State	Overall Height Above Ground (AGL)
1 <a href="#">1000417</a>	Terminated	A0464776	NEW CINGULAR WIRELESS SERVICES, INC.	44-58-54.0N 093-14-52.0W	MINNEAPOLIS, MN	54.9
2 <a href="#">1216201</a>	Constructed	A0823908	T-Mobile USA Tower LLC	44-59-58.5N 093-13-56.3W	Minneapolis, MN	30.5
3 <a href="#">1275261</a>	Constructed	A0762294	SBA Monarch Towers II, LLC	44-59-26.1N 093-13-28.9W	Lauderdale, MN	30.5

Matches 1-3 (of 3)

1

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### Registration Search

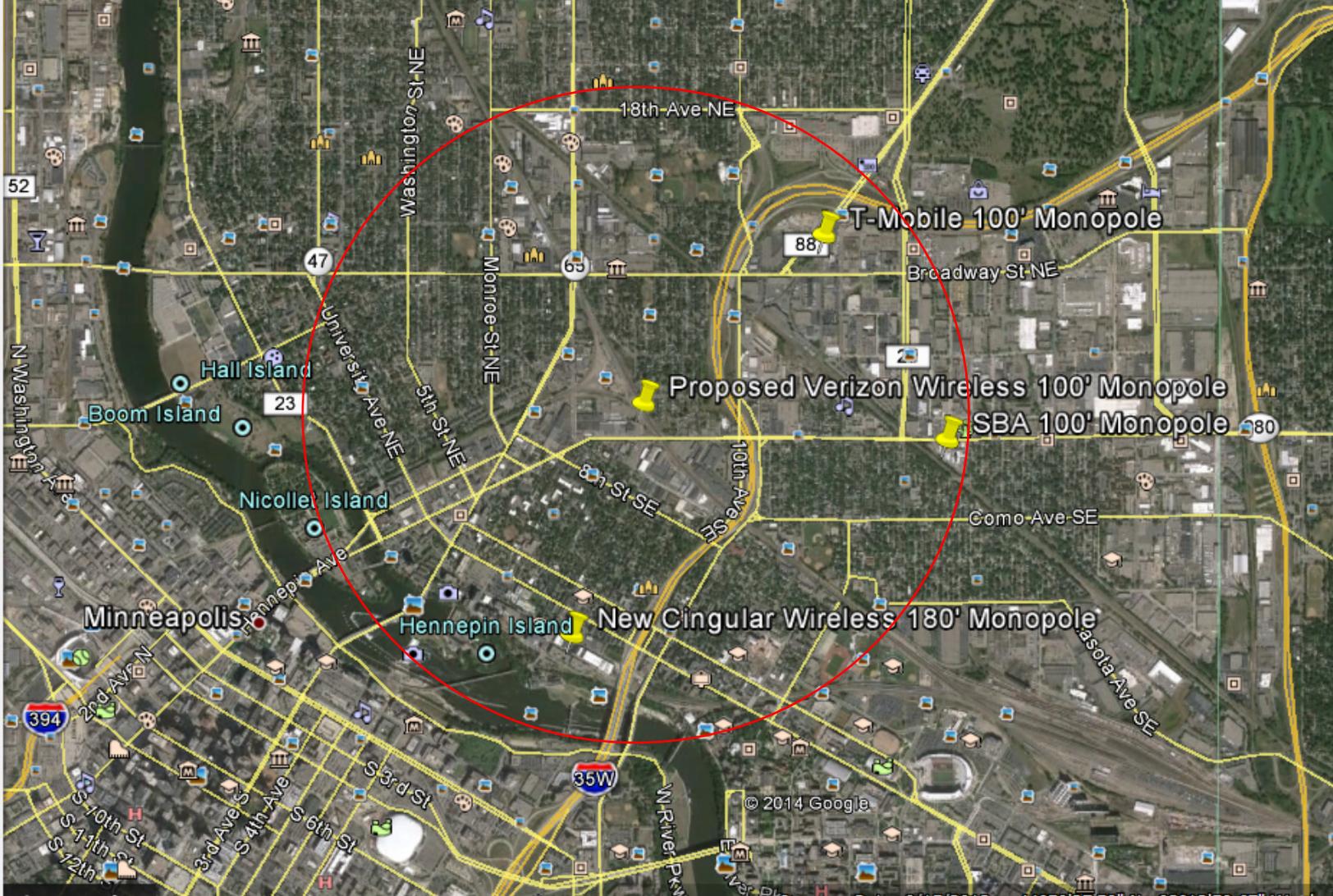
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Federal Communications Commission  
445 12th Street SW  
Washington, DC 20554

Phone: 1-877-480-3201  
TTY: 1-717-338-2824  
[Submit Help Request](#)



T-Mobile 100' Monopole

Proposed Verizon Wireless 100' Monopole

SBA 100' Monopole

New Cingular Wireless 180' Monopole

© 2014 Google

52

47

69

88

180

394

35W

Washington St NE

University Ave NE

5th St NE

Monroe St NE

8th St SE

10th Ave SE

Como Ave SE

Basota Ave SE

Hall Island

Boom Island

Nicollet Island

Hennepin Island

Minneapolis

N Washington Ave

2nd Ave N

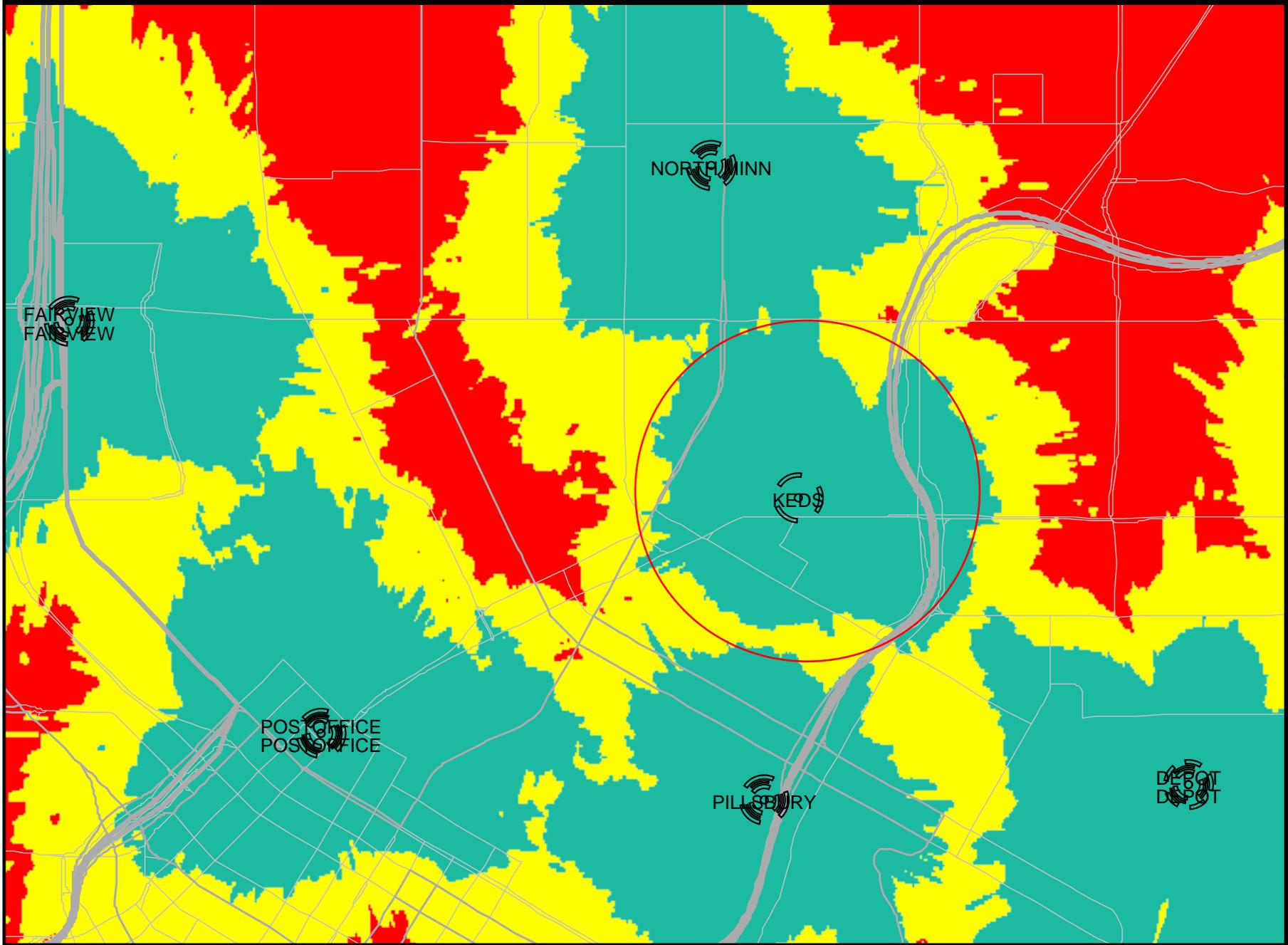
S 10th St  
S 11th St  
S 12th St

3rd Ave S  
S 4th Ave  
S 6th St

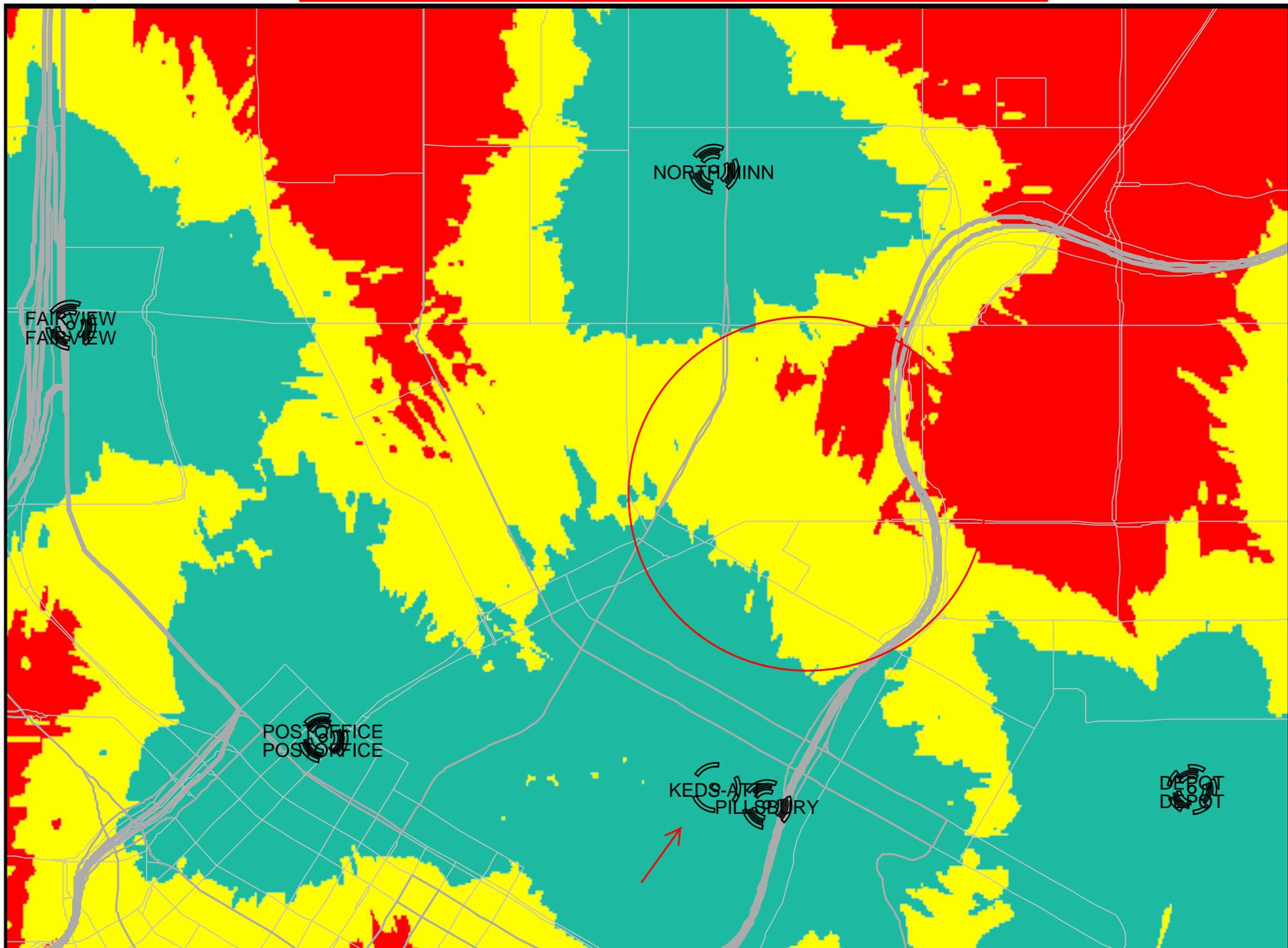
S 3rd St

N River Park

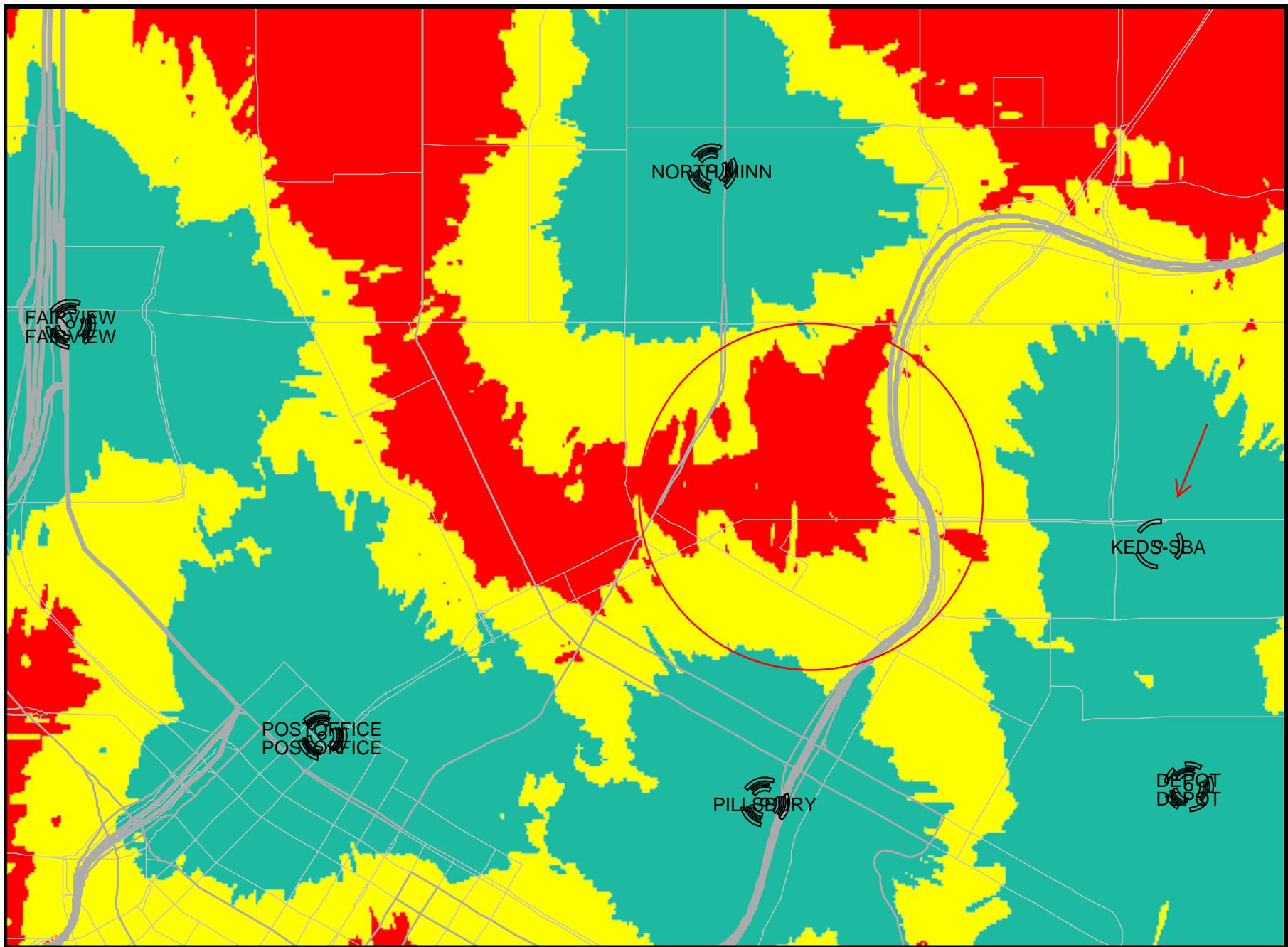
COVERAGE AT PROPOSED LOCATION



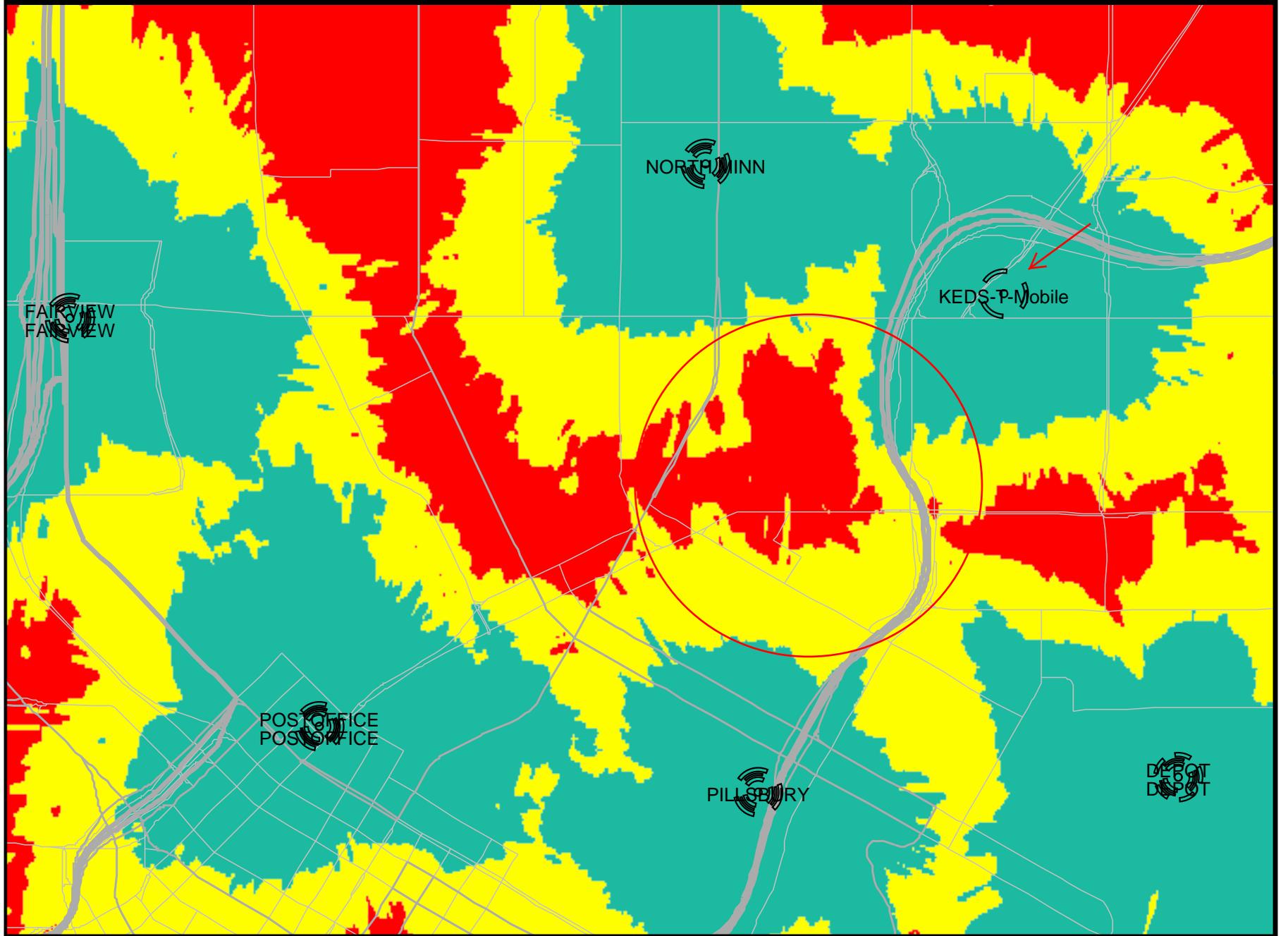
PROPOSED COVERAGE FROM AT&T (NEW CINGULAR) LOCATION



COVERAGE FROM SBA LOCATION



COVERAGE FROM T-MOBILE LOCATION





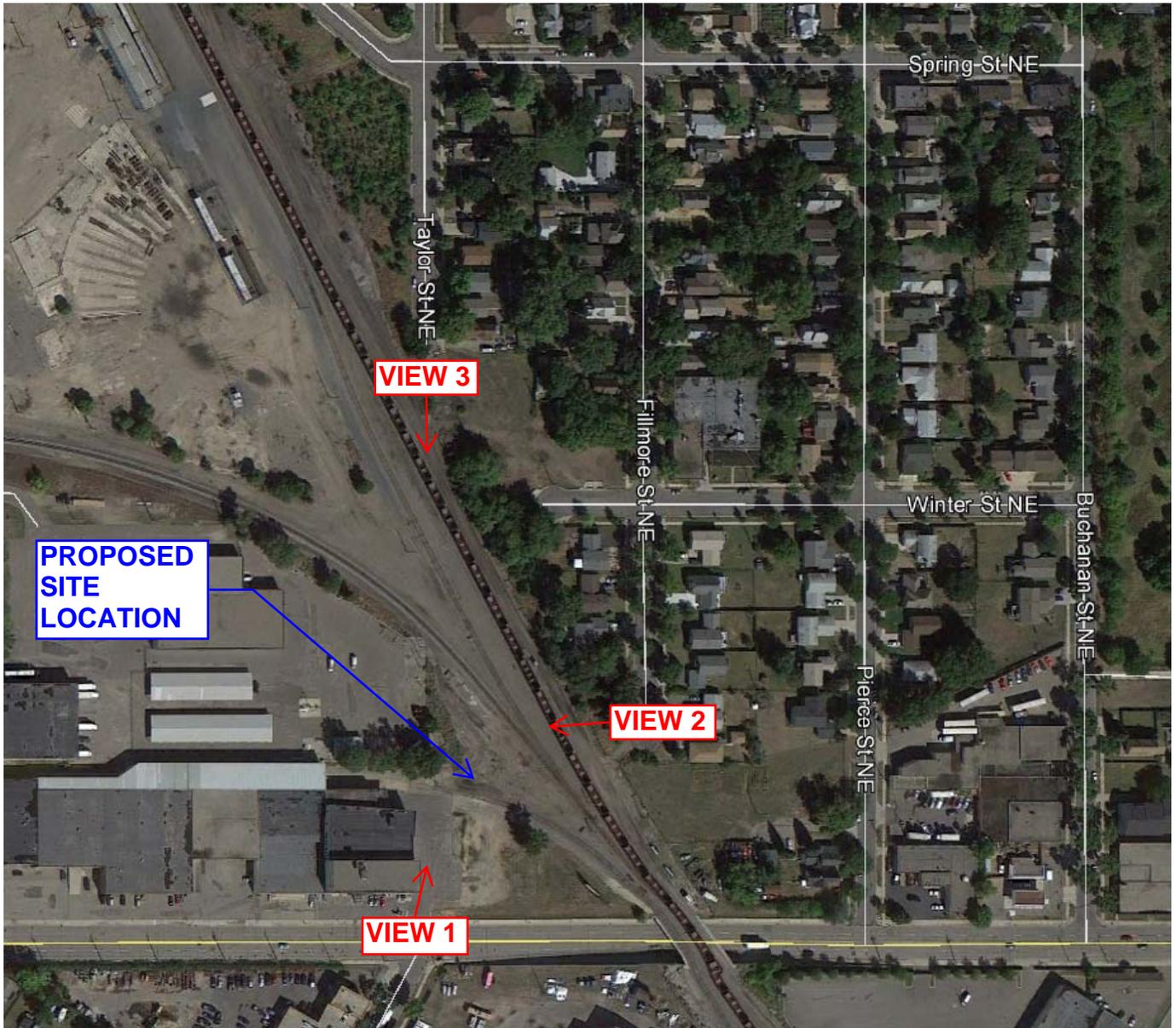
Bismark • Cedar Rapids • Denver • Detroit Lakes • Fargo • St. Paul • Sioux Falls  
 4285 Lexington Ave. N.  
 St. Paul, Minnesota 55126  
 Phone: 651.415.3800 Fax: 651.415.2001  
 Web: www.ulteig.com

# PHOTO SIMULATION

## SITE: MINC KEDS

### CARRIER: VERIZON WIRELESS

SITE ADDRESS: 1133 TAYLOR STREET N.E., MINNEAPOLIS, MN 55458



### SITE LOCATION MAP

NOT TO SCALE



Ulteig Job Number: 14.00055

EXHIBIT E



**View Type:** Original Photograph - View 1  
**Site Address:** 1133 Taylor Street N.E.  
**City:** Minneapolis **State:** MN  
**Site Name:** MINC KEDS  
**View Description:** Looking north at proposed site.



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

**View Type:** Simulated Photograph - View 1  
**Site Address:** 1133 Taylor Street N.E.  
**City:** Minneapolis **State:** MN  
**Site Name:** MINC KEDS  
**View Description:** Looking north at proposed site.



**View Type:** Original Photograph - View 2  
**Site Address:** 1133 Taylor Street N.E.  
**City:** Minneapolis **State:** MN  
**Site Name:** MINC KEDS  
**View Description:** Looking west at proposed site.



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

**View Type:** Simulated Photograph - View 2  
**Site Address:** 1133 Taylor Street N.E.  
**City:** Minneapolis **State:** MN  
**Site Name:** MINC KEDS  
**View Description:** Looking west at proposed site.



**View Type:** Original Photograph - View 3  
**Site Address:** 1133 Taylor Street N.E.  
**City:** Minneapolis **State:** MN  
**Site Name:** MINC KEDS  
**View Description:** Looking south at proposed site.



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

**View Type:** Simulated Photograph - View 3  
**Site Address:** 1133 Taylor Street N.E.  
**City:** Minneapolis **State:** MN  
**Site Name:** MINC KEDS  
**View Description:** Looking south at proposed site.