

ZONING COMMITTEE STAFF REPORT

1. **FILE NAME:** SAC Wireless (330 Exchange) **FILE #** 14-313-585
 2. **APPLICANT:** SAC Wireless for AT&T **HEARING DATE:** August 14, 2014
 3. **TYPE OF APPLICATION:** Conditional Use Permit
 4. **LOCATION:** 86 Wilkin St, SW intersection of Exchange and Elm
 5. **PIN & LEGAL DESCRIPTION:** 062822320071, The Sisters Of The Good Shephe Vac Sts Accruing & In Rice And Irvines Add Lots 5 6 7 & 8 Blk 30 & All That Pt Of Lot 6 Blk 37 Nwly Of A Line 100 Ft Nwly From & Par To The Original Cl Of C M St P & P Rr R/w & In Sd Sisters Of The Good Shepherds Sub Lots 1
 6. **PLANNING DISTRICT:** 9 **PRESENT ZONING:** RM2
 7. **ZONING CODE REFERENCE:** §65.310; §61.501
 8. **STAFF REPORT DATE:** August 7, 2014 **BY:** Michelle Beaulieu
 9. **DATE RECEIVED:** July 28, 2014 **60-DAY DEADLINE FOR ACTION:** September 26, 2014
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- A. **PURPOSE:** Conditional use permit for installation of nine cellular antennas on a residential structure less than sixty (60) feet high.
- B. **PARCEL SIZE:** 164,000 square feet
- C. **EXISTING LAND USE:** Multi-family residential
- D. **SURROUNDING LAND USE:**
 - North: Multi-family residential
 - East: Single-family residential
 - South: Active railroad uses
 - West: Single- and multi-family residential
- E. **ZONING CODE CITATION:** §65.310 provides standards and conditions for the installation of antenna and cellular telephone uses; §61.501 lists general conditions that must be met by all conditional uses.
- F. **HISTORY/DISCUSSION:** No zoning history.
- G. **DISTRICT COUNCIL RECOMMENDATION:** The District 9 Council has not made any recommendation at this time.
- H. **FINDINGS:**
 1. The applicant, SAC Wireless for AT&T, seeks to install nine (9) cell antennas, separated into three arrays of three, on the roof of the 5-story, 47'-8" multifamily residential structure at 330 Exchange Street S. As proposed the antennas would be mounted to the sides of an existing penthouse structure. The existing penthouse has a total height of 74'-0". The proposal also includes a new equipment shelter, with a footprint of 11'-5" x 16'. The equipment shelter is to be located on the main roof of the structure, not on the penthouse, and is 10' in height.
 2. §65.310 defines "cellular telephone antenna," requires a conditional use permit for cellular telephone antennas on residential structures less than 60 feet high, and lists standards and conditions with which they must comply. Conditions (a), (b), (c), (d), (h) and (i) apply:
 - a) *In residential districts, a conditional use permit is required for cellular telephone antennas on a residential structure less than sixty (60) feet high. In residential, traditional neighborhood and business districts, a conditional use permit is required for cellular telephone antennas on a freestanding pole, except for existing utility poles. In residential and traditional neighborhood districts, existing utility poles to which cellular telephone antennas are attached shall be at least sixty (60) feet high. This condition is met. An application for a conditional use permit has been made for nine cellular antennas on a residential structure less than 60 feet high.*
 - b) *In residential, traditional neighborhood, and OS-B3 and B5 business districts, the antennas shall not extend more than fifteen (15) feet above the structural height of the structure to which they are attached. In B4 Business and industrial districts, the antennas shall not extend*

more than forty (40) feet above the structural height of the structure to which they are attached. This condition is met. The antennas will be mounted to an existing penthouse structure, and will not extend above the structural height of the existing penthouse. The equipment shelter will extend 10 feet above the structural height of the main structure, and will be significantly shorter than the existing penthouse structure.

- c) *For antennas proposed to be located on a residential structure less than sixty (60) feet high in residential districts, or on a new freestanding pole in residential, traditional neighborhood, and business districts, the applicant shall demonstrate that the proposed antennas cannot be accommodated on an existing freestanding pole, an existing residential structure at least sixty (60) feet high, an existing institutional use structure, or a business building within one-half (1/2) mile radius of the proposed antennas due to one (1) or more of the following reasons:*

(1) *The planned equipment would exceed the structural capacity of the existing pole or structure.*

(2) *The planned equipment would cause interference with other existing or planned equipment on the pole or structure.*

(3) *The planned equipment cannot be accommodated at a height necessary to function reasonably.*

(4) *The owner of the existing pole, structure or building is unwilling to co-locate an antenna.*

This condition is met. The applicant has provided a list of other structures within a half mile radius of 330 Exchange Street South that meet the City's zoning requirements for an antenna installation, and has explained why the proposed antennas cannot be accommodated on existing structures in the area. This information is detailed in the attached document.

- d) *In residential, traditional neighborhood and business district, cellular telephone antennas to be located on a new freestanding pole are subject to the following standards and conditions...*

The proposed antennas are not a freestanding design.

- h) *Transmitting, receiving and switching equipment shall be housed within an existing structure whenever possible. If a new equipment building is necessary, it shall be permitted and regulated as an accessory building, section 63.500, and screened from view by landscaping where appropriate.* This condition is met. Transmitting, receiving and switching equipment shall be housed in a new equipment shelter that will be located on the roof of the property. This structure will be smaller and lower than the existing penthouse structure.

- i) *Cellular telephone antennas that are no longer used for cellular telephone service shall be removed within one (1) year of nonuse.* This condition can be met. The applicant's lease agreement with Little Sisters of the Poor stipulates that the applicant will remove the antennas and equipment within one hundred twenty (120) days of cessation of operations.

3. §61.501 lists five standards that all conditional uses must satisfy:

a) *The extent, location and intensity of the use will be in substantial compliance with the Saint Paul Comprehensive Plan and any applicable subarea plans which were approved by the city council.* This condition is met. The Comprehensive Plan refers to the importance of ensuring investments in local and regional infrastructure supportive of economic development.

b) *The use will provide adequate ingress and egress to minimize traffic congestion in the public streets.* This condition is met, insofar as it is not applicable to this project.

c) *The use will not be detrimental to the existing character of the development in the immediate neighborhood or endanger the public health, safety and general welfare.* This condition is met. The proposed antennas and equipment enclosure will not extend beyond the height of the existing penthouse structure on the roof of 330 Exchange St S. The application states that the proposed use will be self-monitored, utilizing a direct connection to a central office where sophisticated computers alert personnel to equipment malfunctions or breaches of security, and will require infrequent site visits.

The proposed use will not be detrimental to the existing character of the development in the immediate neighborhood or endanger the public health, safety and general welfare.

- d) *The use will not impede the normal and orderly development and improvement of the surrounding property for uses permitted in the district.* This condition is met. The use will not impede the development or improvement of surrounding properties.
- e) *The use shall, in all other respects, conform to the applicable regulations of the district in which it is located.* This condition is met. The proposed equipment enclosure will not be counted towards the height restrictions for the district. §61.502 states: "The height limitations of this code shall not apply to mechanical service stacks, tanks, ventilation equipment, chimneys, church spires, flag poles, public monuments, and similar equipment; provided, however, that the planning commission may specify a height limit for any such structure when such structure requires authorization as a conditional use." The existing penthouse structure is significantly higher than the proposed equipment enclosure. The construction, operation and maintenance of the antennas will conform to all applicable district regulations.

- I. **STAFF RECOMMENDATION:** Based on the above findings, staff recommends approval of the conditional use permit for installation of nine cellular antennas on a residential structure less than 60 ft. high subject to the following additional condition(s):
 - 1. Final plans approved by the Zoning Administrator for this use shall be in substantial compliance with the plan submitted and approved as part of this application.
 - 2. The equipment enclosure shall be clad in materials that look similar to those on the residential structure below.
 - 3. Antennas that are no longer used for cellular phone or data services shall be removed within one (1) year of nonuse.
 - 4. The associated equipment shelter shall be removed from the rooftop at the same time as the last antenna.

check at # 28217
Front counter



CONDITIONAL USE PERMIT APPLICATION
Department of Planning and Economic Development
Zoning Section
1400 City Hall Annex
25 West Fourth Street
Saint Paul, MN 55102-1634
(651) 266-6589

PD=9

RECEIVED IN D.S.I.

JUL 20 2014

Zoning office use only
File # 14-313585
Fee: 800.00
Tentative Hearing Date:
8-14-14

062822320071

APPLICANT

Name SAC Wireless for AT&T (Christopher Rohr)
Address 4300 Market Point Drive, Suite 150
City Bloomington St. MN Zip 55435 Daytime Phone 612-226-6470
Name of Owner (if different) _____
Contact Person (if different) _____ Phone _____

PROPERTY LOCATION

Address / Location 330 Exchange Street S, St. Paul, MN 55102
Legal Description PIN 06.28.22.32.0071 Legal description Attached
Current Zoning RM2
(attach additional sheet if necessary)

TYPE OF PERMIT: Application is hereby made for a Conditional Use Permit under provisions of Chapter _____, Section 65.310, Paragraph _____ of the Zoning Code.

SUPPORTING INFORMATION: Explain how the use will meet all of the applicable standards and conditions. If you are requesting modification of any special conditions or standards for a conditional use, explain why the modification is needed and how it meets the requirements for modification of special conditions in Section 61.502 of the Zoning Code. Attach additional sheets if necessary.

Attached

RECEIVED
JUL 24 2014
Per _____

Required site plan is attached

Applicant's Signature Christopher Rohr Date ~~7/18/14~~ 7/21/14 City Agent pd 7/24/14

NARRATIVE OVERVIEW
330 Exchange Street South, St. Paul, MN 55102

AT&T Mobility. (“AT&T”) seeks a Conditional Use and any other necessary approvals to construct a Wireless Telecommunication Service Facility (“WTSF”) at 330 Exchange Street S, St. Paul, MN 55102 (the “property”). AT&T and its affiliates have acquired licenses from the Federal Communications Commission (“FCC”) to provide Personal Communications Services (“PCS”) throughout the United States. These licenses include St. Paul, MN and the greater Minneapolis/St. Paul metropolitan region. The regional system is operating under the name of “New Cingular Wireless PCS, LLC” and is part of an integrated nationwide network of coverage.

The WTSF, which AT&T proposes to construct on the property, is necessary in order to provide uninterrupted PCS services to your community, including services such as cellular telephone service, voice paging and wireless data transmission. AT&T’s PCS technology operates at various radio frequency (“RF”) bands between 1900 and 2000 megahertz and utilizes a digital wireless voice and data transmission system. This technology promises to provide consumers with enhanced service (including greater sound clarity and privacy), and new services such as Wireless Internet access.

Like traditional cellular phone systems, PCS operates on a “grid” system, whereby overlapping “cells” mesh to form a seamless wireless network. The technical criteria for establishing cell sites are very exacting as to both the height and location of the WTSF. Within the St. Paul vicinity, cell sites are generally located approximately one (1) to three (3) miles apart. Based on a computerized engineering study which takes into account among other things, local population density, traffic patterns and topography, AT&T’s engineers have identified the need for a PCS site in the St. Paul area.

The site at 330 Exchange Street S, St. Paul, MN 55102 is within the geographic area in which a facility must be located in order for it to function as an integral part of the PCS network. The property was selected based on its satisfying RF criteria (including antenna height) and AT&T's review of local land uses and site availability. Specifically, proximity to the St. Paul residential and business communities, were relevant sighting criteria. Moreover, St. Paul zoning permits the use of the property as a WTSP.

Additionally, AT&T investigated the possibility of using Existing Structures in this specific area. We are unaware of any available existing structure within the search area, upon which it could lawfully locate its antenna facilities at comparable heights.

The property is zoned Multiple Family – RM2. Pursuant to the St. Paul, MN Zoning Code, AT&T has made application for a Conditional Use in order to erect and maintain a wireless PCS facility, including installing a **nine (9) antennas**, separated into three arrays of three. AT&T's equipment will be contained within a 11'5" x 16' pre-cast aggregate shelter atop a 23'4" x 25' raised platform.

The proposed facility is not staffed, and, upon completion, will require only infrequent site visits (approximately one time a month). Access will be provided to the WTSP via stairway leading to the rooftop. Hence the facility will not have any material impact on either traffic or storm water control. The site is entirely self-monitored and connects directly to a central office where sophisticated computers alert personnel to equipment malfunction or breach of security. Moreover, no nuisances will be generated by the proposed PCS facility. In general, PCS technology does not interfere with any other forms of communications. To the contrary, PCS technology provides vital communication in emergency situations and will be commonly used by local residents and emergency personnel to protect the general public's health safety and welfare.

The proposed facilities will be designed and constructed to meet applicable governmental and industry safety standards. Specifically, AT&T will comply with all FCC and FAA rules regarding construction requirements, technical standards, interference protection, power and height limitations, and radio frequency standards. Any and all RF emissions are subject to the exclusive jurisdiction of the FCC.

AT&T looks forward to working with St. Paul to bring the benefits of AT&T's PCS to the entire area. The addition of this site will ensure uninterrupted superior digital PCS service to St. Paul, and greater competition in the marketplace.



Christopher Rohr
SAC Wireless on behalf of:
New Cingular Wireless and AT&T Mobility
4300 Market Pointe Dr. Suite 150
Bloomington, MN 55435

TO: Michelle Beaulieu
Planning and Economic Development Department
25 West 4th St. Suite 1300
Saint Paul, MN 55102

RE: Application for Conditional Use Permit, to establish a Cellular Antenna Site on the Rooftop of 330 Exchange Street South, Saint Paul, MN 55102

OBJECTIVE

Cellular Site Acquisition is equally an art as it is a science. For every mathematical calculation that contributes to finding the right antenna site location, there is an economic calculation. For every economic calculation, there are a series of engineering, aesthetic, and quality of life calculations that must be made. All of these checks and balances are made in order to ensure that each antenna site can survive a healthy lifespan of twenty to thirty years.

A few examples of antenna site barriers: A building in downtown Minneapolis may have the ideal height for an antenna site, but the rooftop is crowded with antennas from another carrier; Another building may be in a properly zoned parcel of land, but the land owner won't reply to our inquiries; A third building may have an accessible rooftop at a high elevation, but we won't be able to provide adequate cellular coverage from that location.

When wireless carriers expand their network of cellular coverage, they do so in as orderly a fashion as possible. When gaps in coverage open up, the best approach is to tackle those gaps aggressively. Therefore, at the outset of establishing any new cellular antenna site, AT&T's radio frequency engineers determine the best placement area of sites in order to keep the number of new sites to a minimum, while achieving the greatest coverage. Two antenna sites can't be placed too close to each other; otherwise they would provide an overabundance of coverage in areas, which doesn't actually translate to a customer benefit. Similarly, two antenna sites can't be placed too far away from each other; otherwise a small gap in coverage is created which cannot adequately be filled without creating a third antenna site, which is wasteful and contributes to antenna clutter. To ensure that neither of these issues arise, radio frequency engineers issue a Search Ring for each identified zone that needs a new antenna site. If a location is found at or

near the center of each search ring, cellular coverage can be expanded with the minimal number of antennas while providing the maximal amount of coverage.

On slide three of the document titled "Coverage Map," there is a map with several small icons surrounded by various colors. These icons represent existing cellular antenna sites in Saint Paul, in the areas surrounding our proposed antenna site. The translucent blue oval in the middle represents the gap in coverage AT&T is looking to fill.

The colors represent the signal quality of cellular service in that location. Areas in red get the best signal level, and areas in light and dark blue get the worst signal level. In order for a resident of Saint Paul to get cell phone coverage inside their home or workplace without dropping calls or randomly losing service, they need to be in an area with red coverage. Therefore, AT&T tries to get as much red coverage as possible in major metropolitan areas. If you look closely, the area we intend to place a cellular antenna site currently has several light blue areas of coverage. In other words, AT&T is looking to greatly enhance its cellular coverage in this area. Residents of the area, as well as patrons of the Science Museum, Xcel Energy Center, and local establishments will see a significant boost to their AT&T cellular coverage.

THE PROPOSED LOCATION: 330 EXCHANGE STREET SOUTH

AT&T is proposing to locate site at 330 Exchange Street South. The building on this property is owned by the *The Little Sisters of the Poor of Saint Paul*, which operates as a home for elderly individuals, as well as a place of worship. Its primary building is approximately seventy four (74) feet high at its highest point, and AT&T is proposing to mount its antennas at that height (the centerline of the antennas will be seventy one (71) feet), on the façade of the building.

In order to provide power and facilitate the transmission/reception of wireless data, AT&T is proposing to install a lightweight pre-fabricated equipment shelter at the base roof of the building, which is approximately fifty three (53) feet high. This pre-fabricated shelter is manufactured by a company called CellXion, which specializes in concrete, aluminum, and structural steel shelters for telecommunications purposes (a CellXion brochure is included in the materials). The proposed shelter for this site is made of structural steel, it is 11.5 feet long by 16 feet wide, and it will rest atop a raised platform in order to avoid disrupting the rooftop's ventilation system. This is a very common setup for rooftop antenna sites. The shelter can be finished with a variety of materials and patterns; the most common finishes are brick, composite cedar, and high gloss. However the finish can be of virtually any material or color, and can be tailored to match the materials and/or the color of the building upon which it rests. CellXion only uses noncombustible materials for its shelters.

The rooftop of 330 Exchange Street South is far and away the most ideal location for a cellular antenna site for several reasons. First and foremost, this site rests at the epicenter of the

Search Ring that was issued by AT&T's radio frequency engineers. This means the site will provide excellent cellular coverage while guaranteeing the most efficient placement of other sites in the future. Second, the 71 foot antenna height provides approximately 10% greater coverage over a sixty foot height. This difference in coverage is illustrated by slides four and five of the "Coverage Map" document. Third, the land owner of this property, Little Sisters of the poor, is willing and happy to partner with AT&T in order to expand its cellular network in Saint Paul. In return for its assistance, AT&T has entered into a lease agreement with the land owner, in order to compensate the land owner and to ensure that the land owner is completely satisfied with AT&T's use. And finally, the land owner is capable of providing stairway access to its rooftop. This means cellular maintenance technicians will be able to perform maintenance on the antenna site without creating a nuisance to the residents and businesses of Saint Paul.

Contained in the language of the lease agreement between AT&T and Little Sisters of the Poor is a clause regarding removal of the antennas and equipment. In this clause, AT&T agrees to remove its antennas and equipment within one hundred twenty (120) days of cessation of its operations, on the penalty that it forfeits its ownership rights to said antennas and equipment. Furthermore, AT&T fully intends to comply with all regulations, both municipal and federal, regarding the establishment, maintenance, and removal of cellular antenna sites, and AT&T is fully aware of Saint Paul Municipal Code §65.310(i), which states: *Cellular telephone antennae that are no longer used for cellular telephone service shall be removed within one (1) year of nonuse.* In the event AT&T's leasing obligations conflict with municipal or federal regulations, AT&T will resolve these conflicts in favor of the municipal or federal regulation.

Several other possible locations were considered during the course of this project, but none were feasible. I've detailed eight other locations within a half mile radius of 330 Exchange Street South that meet the zoning requirements of the City of Saint Paul for the use of an antenna site. Unfortunately, none of these eight locations are sufficient. Some don't satisfy the gap in cellular coverage adequately; some have land owners who were uninterested or unwilling to partner with AT&T; and some locations were of questionable structural integrity, due to their age, or were otherwise unsuited for cellular antennas due to their architectural beauty (these locations also posed questions related to historical preservation and tourism). I've itemized these locations below, and I've explained why each location is unsuitable for a cellular antenna site.

CONCLUSION

AT&T now submits this informational package to the City of Saint Paul, with the hopes that it will aid the City in making a favorable zoning determination that benefits the residents, patrons, and governing bodies of Saint Paul with expanded cellular network coverage from AT&T. Thank you for considering our application.

OTHER STRUCTURES WITHIN HALF MILE



1. Municipal Building Along Mississippi River

No Address

PIN: 06.28.22.31.0021

Height: ~100ft

Distance from Proposed Location: 0.26 miles

Reason: *§65.310(C)(1)*. *The planned equipment would exceed the structural capacity of the existing pole or structure.* This is a municipal building that was erected alongside the river nearly a century ago. In addition to concerns related to the building's ability to support the cellular equipment, AT&T also has no interest in disturbing the aesthetic appeal or structural integrity of buildings that are (or may soon be) considered historical. In addition, due to the age of the building, the presence of asbestos is likely, and therefore federal regulations may prevent construction.



2. Science Museum

120 Kellogg Blvd W

PIN: 06.28.22.24.0073

Height: ~80ft

Distance from Proposed Location: 0.35 miles

Reason: *§65.310(C)(3). The planned equipment cannot be accommodated at a height necessary to function reasonably.* This building has an architectural aesthetic and a principal use that attracts tourism for the city of Saint Paul. The presence of antennas would be difficult to mask, as this building is designed with a beautiful tiered style. Furthermore, this building falls outside our radio frequency Search Ring, which means it cannot accommodate the gap in cellular coverage that must be filled.



3. Medical Condos

310 Smith Ave N

PID: 01.28.23.14.0199

Height: ~60ft

Distance from Proposed Location: 0.21 miles

Reason: §65.310(C)(3). *The planned equipment cannot be accommodated at a height necessary to function reasonably.* This building provides less than adequate height in order to achieve AT&T's coverage needs for this site. As demonstrated in the Coverage Map document, AT&T achieves roughly 10% more coverage thanks to the additional height gained from the building at 330 Exchange Street South.



4. Medical Center

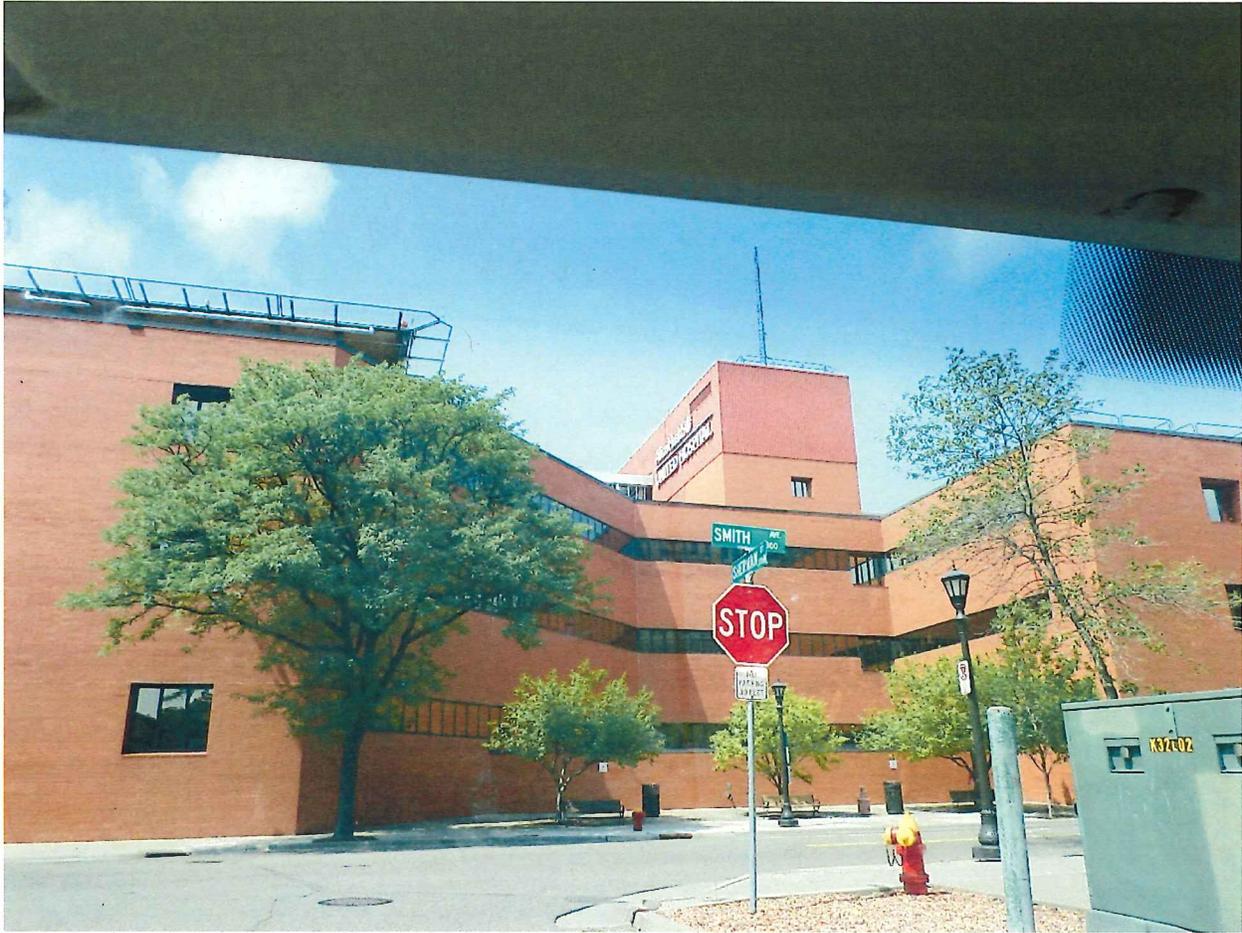
360 Sherman St.

PID: 01.28.23.14.0144

Height: 150 ft

Distance from Proposed Location: 0.19 miles

Reason: *§65.310(C)(4). The owner of the existing pole, structure or building is unwilling to co-locate an antenna.* The land owner of this building was queried several times by AT&T and its vendors. After several months of attempts to reach this land owner, AT&T was unable to garner any interest in establishing a partnership for a cellular antenna site.



5. Hospital Building

333 Smith Ave N

PID: 01.28.23.14.0237

Height: ~100ft

Distance from Proposed Location: 0.25 miles

Reason: *§65.310(C)(4). The owner of the existing pole, structure or building is unwilling to co-locate an antenna.* Similar to location #4 above, the land owner for this building was contacted many times over the course of several months. AT&T was unable to generate any interest in establishing a partnership for a cellular antenna site.



6. Langfamco Building

280 Smith Ave N

PID: 01.28.23.14.0026

Height: ~80ft

Distance from Proposed Location: 0.23 miles

Reason: *§65.310(C)(4). The owner of the existing pole, structure or building is unwilling to co-locate an antenna.* Similar to locations 4 and 5 above, the land owner of this site was not interested in partnering for a cellular antenna site. Several attempts were made to generate interest, but AT&T was unsuccessful.



7. Winslow Commons

160 Western Ave S

PID: 01.28.23.43.0214

Height: 70ft

Distance from Proposed Location: 0.5 miles

Reason: §65.310(C)(3). *The planned equipment cannot be accommodated at a height necessary to function reasonably.* This property rests at the very edge of AT&T's radio frequency Search Ring, and therefore would have had to be significantly taller in order to meet AT&T's cellular coverage need. However, since the building is only 70 feet high, establishing an antenna site at this location would create an uneven gap of coverage near the Xcel Energy Center, and patrons of that area would continue to experience dropped calls.



8. Irvine Hill Condos

311 Pleasant Ave

PID: 01.28.23.14.0083

Height ~60ft

Distance from Proposed Location: 0.37 miles

Reason: §65.310(C)(3). *The planned equipment cannot be accommodated at a height necessary to function reasonably.* This building's main rooftop is about 50 feet high, and its penthouse adds another 10 feet of height. In addition to this building's distance from the center of the Search Ring, AT&T's concerns regarding zoning are even greater for this property than they were for 330 Exchange Street South.

SITE PHOTO



PROJECT INFORMATION

SITE ADDRESS: 330 EXCHANGE STREET S
ST. PAUL, MN 55102

COUNTY: RAMSEY

SITE NAME: HIGH BRIDGE DOG PARK

SITE NUMBER: MPLSMNU3213

FA NUMBER: 12564726

USID NUMBER: 143559

LATITUDE (NAD83): N 44° 56' 21.86"

LONGITUDE (NAD83): W 93° 06' 18.74"

GROUND ELEVATION: 781.31' AMSL

ANTENNA CENTERLINE: 71°-0"

ZONING DISTRICT: -

TOWER/GROUND OWNER: LITTLE SISTERS OF THE POOR
330 EXCHANGE ST S
ST. PAUL, MN 55102

LANDLORD CONTACT: MOTHER TERESA ROBERTSON
(651) 227-0336

POWER COMPANY: XCEL ENERGY

TELEPHONE COMPANY: CENTURYLINK

SITE ACQUISITION MANAGER: CHUCK BEISNER
1501 WOODFIELD RD
SCHLAUBURG, IL 60173
chuck.beisner@acscw.com
(612) 701-4855

CONSTRUCTION MANAGER: JUSTIN O'CONNOR
1501 WOODFIELD RD
SCHLAUBURG, IL 60173
justin.oconnor@acscw.com

PROJECT MANAGER: DOUGLAS BROWN
AT&T
4300 MARKET PONTE DR
EAGLE LAKE, MN 55435
(952) 659-9224



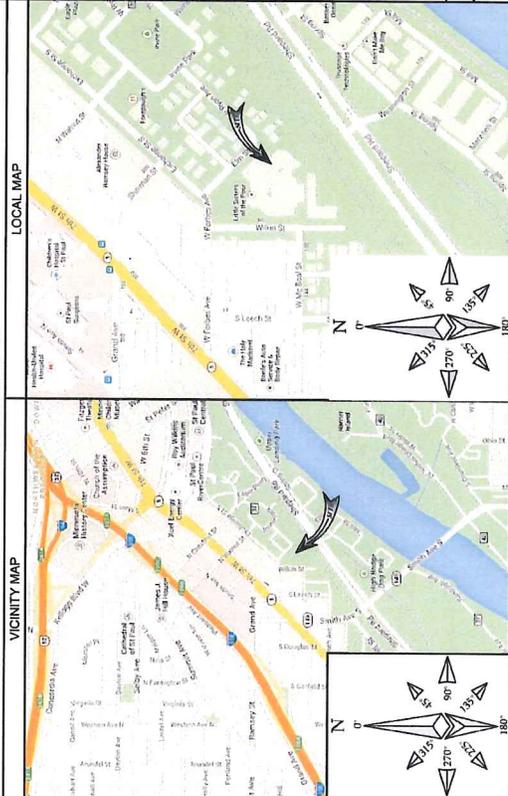
at&t

"NO JOB IS SO IMPORTANT, AND NO SERVICE IS SO URGENT, THAT WE CAN'T FIND A WAY TO MAKE IT WORK SAFELY."

PROJECT: NSB-ROOFTOP
AT&T SITE ID: MPLSMNU3213
AT&T FA#: 12564726
PTN#: 3511607089

HIGH BRIDGE DOG PARK
330 EXCHANGE STREET S
ST. PAUL, MN 55102

PROJECT INFORMATION



DRIVING DIRECTIONS

DIRECTIONS FROM AT&T OFFICE:
HEAD EAST ON MARKET PONTE DR TOWARD JOHNSON AVE S FOR APPROX. 389 FT AND TAKE THE 1ST LEFT ONTO JOHNSON AVE S FOR APPROX. 95 FT. TAKE THE 1ST RIGHT ONTO MINNESOTA DR FOR APPROX. 0.2 MI AND TAKE THE 1ST RIGHT ONTO JOHNSON AVE S FOR APPROX. 0.2 MI. SLIGHT RIGHT TO MERGE ONTO I-494 E APPROX. 5.7 MI AND TAKE EXIT 1A AND TAKE EXIT 1A TO MERGE ONTO MN-5 E TOWARD LINDBERGH TERMINAL FOR APPROX. 3.3 MI. TAKE THE EXIT TOWARD SHEPARD RD/RIVER RD FOR APPROX. 0.1 MI AND TURN RIGHT ONTO JOHNSON AVE S FOR APPROX. 130 FT. TURN LEFT ONTO SHEPARD RD FOR APPROX. 5.1 MI AND TURN LEFT ONTO EAGLE PKWY FOR APPROX. 0.2 MI. TURN LEFT ONTO EXCHANGE ST S FOR APPROX. 0.3 MI AND SITE WILL BE LOCATED ON THE SOUTH SIDE OF THE STREET.

ENGINEERING

2014 INTERNATIONAL BUILDING CODE
2011 NATIONAL ELECTRICAL CODE
TIA/EIA-222-G

DRAWING INDEX

SHEET NO.	TITLE PAGE
COVER	TITLE PAGE
C-1	ROOFTOP PLAN
C-2	SHELTER PLAN
C-3	SHELTER DETAILS
C-4	SITE DETAILS
C-5	SITE DETAILS
C-6	SITE DETAILS
C-7	SIGNAL DETAILS
C-8	SPECIAL INSPECTIONS
C-9	CIVIL SECTION NOTES
C-10	CIVIL SECTION NOTES
T-1	BUILDING ELEVATION
T-2	ANTENNA CONFIGURATION
T-3	ANTENNA MOUNTING & RRI-MOUNTING REQUIREMENTS
T-4	ANTENNA & CABLE REQUIREMENTS
T-5	COAX COLOR CODING
T-6	BUILDING EQUIPMENT DETAILS
T-7	SYSTEM DIAGRAM
T-8	SPECIAL INSPECTIONS
T-9	BUILDING SECTION NOTES
E-1	ELECTRICAL PLAN
E-2	ELECTRICAL SHELTER PLAN
E-3	DC CIRCUIT DIAGRAM
E-4	TELECOMMUNICATIONS
E-5	ELECTRICAL AC ONE-LINE DIAGRAM
E-6	LOAD CENTER SCHEDULE
E-7	COAX & JUMPER COLOR CHART
E-8	GROUNDING SHELTER PLAN
E-9	ANTENNA GROUNDING PLAN
E-10	GROUNDING DETAILS
E-11	GROUNDING DETAILS
E-12	GROUNDING DETAILS
E-13	ELECTRICAL SECTION NOTES
S-1	STRUCTURAL DETAILS
S-2	STRUCTURAL DETAILS
S-3	STRUCTURAL DETAILS
S-4	STRUCTURAL DETAILS
N-1	GENERAL NOTES
N-2	GENERAL CONCRETE WORK NOTES
RFDS	RF DATA SHEET (TO BE INSERTED AT SUBMITTAL. KEEP THIS PLACE HOLDER)

PLANS BASED ON
RFDS DATED 04/03/14

11'X17' PLOT WILL BE HALF SCALE UNLESS OTHERWISE NOTED

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN MINNESOTA, CALL GOPHER STATE ONE CALL



TOLL FREE 1-800-368-1684 OR
FAX 1-800-368-1687

SEE STATE WEBSITE FOR A LIST OF PARTICIPANTS OFFICE FOR CONTACT

-THESE PLANS ADHERE TO ALL OF THE REQUIREMENTS CALLED OUT IN THE SPECIFICATIONS FOR ANTENNAS AND SUPPORT STRUCTURES WHERE SITE IS LOCATED.

-SUBCONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING CONDITIONS ON SITE. THE CONTRACTOR SHALL VERIFY ALL OF THE REQUIREMENTS PRIOR TO PERFORMING ANY WORK OR BE RESPONSIBLE FOR THE SAME.

4300 MARKET PONTE DRIVE
EAGLE LAKE, MN 55435

WIRELESS
ENGINEERING GROUP
1501 E. WOODFIELD ROAD
SCHLAUBURG, IL 60173

WESTCHESTER
SERVICES LLC
604 FOX CLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-4070
FAX: 847-277-4070
AE@westchesterservices.com

JOHN M. BANKS
ARCHITECT
604 FOX CLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-4070
FAX: 847-277-0880

LANDLORD/PROPERTY OWNER SIGNATURE

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: JOHN M. BANKS
SIGNATURE: *John M. Banks*
DATE: 08/11/14 LICENSE # 26379
EXP: 06/30/14

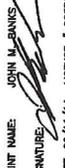
IF A USER WISHES TO USE ANY MATERIALS FROM THIS PLAN, THEY MUST OBTAIN THE WRITTEN PERMISSION OF A PROFESSIONAL ENGINEER OR ARCHITECT TO AVOID THIS DOCUMENT.

REV	DATE	DESCRIPTION
1	04/17/14	REVISED POWER/COMMUNICATION
2	05/29/14	REVISED POWER/COMMUNICATION
3	05/29/14	REVISED POWER/COMMUNICATION
4	04/17/14	POWER/COMMUNICATION

PROJECT LOCATION:
HIGH BRIDGE DOG PARK
MPLSMNU3213
330 EXCHANGE STREET S
ST. PAUL, MN 55102

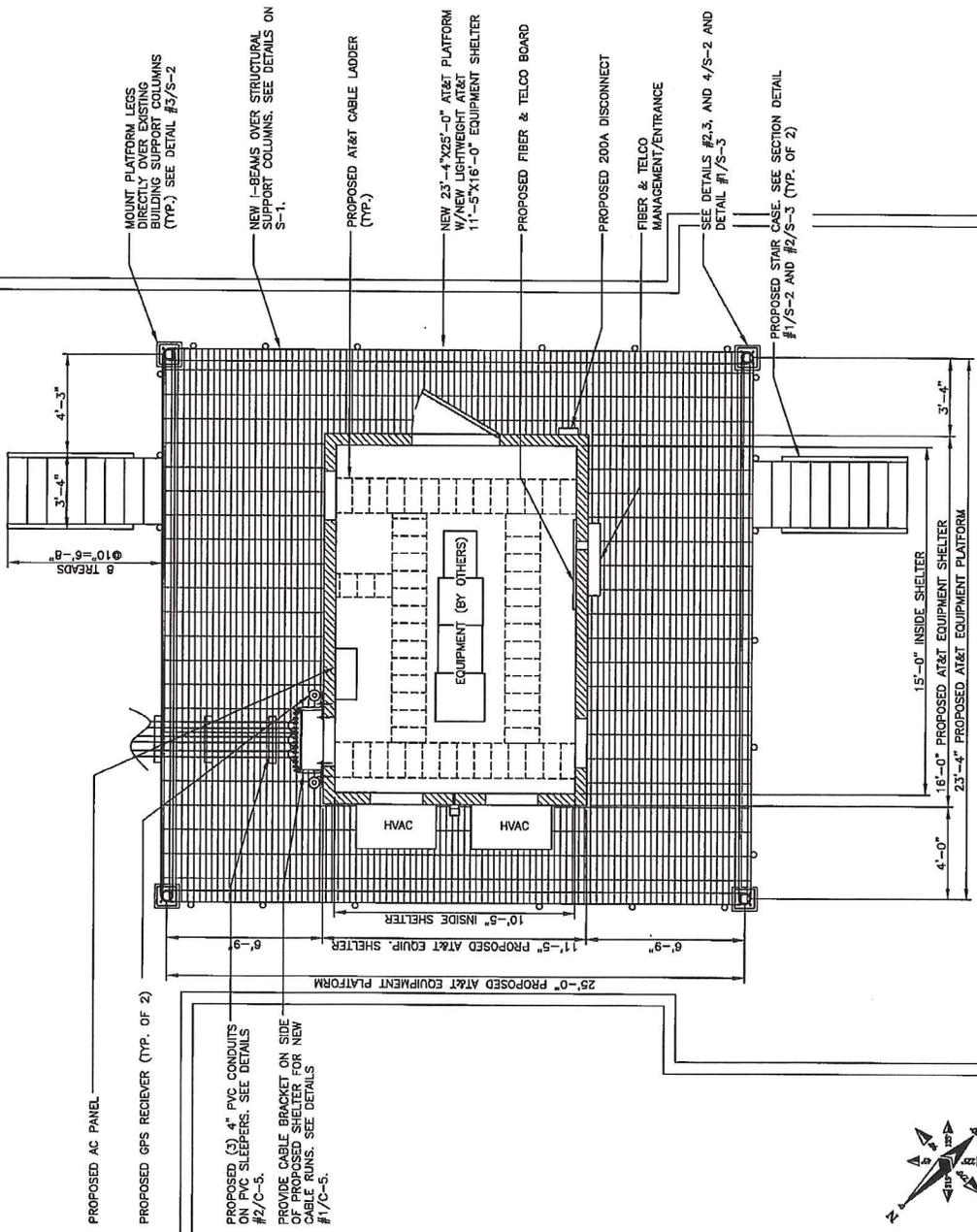
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COVER

DRAWING NUMBER:
TITLE PAGE

 <p>4500 MARKET POINTE DRIVE BLOOMINGTON, MN 55435</p>	 <p>WIRELESS ENGINEERING GROUP 1501 E. WOODFIELD ROAD SCHLAUBURG, IL 60173</p>	 <p>604 FOX GLEN BARRINGTON, IL 60010 TELEPHONE: 847-277-0000 FAX: 847-277-0000 AE@westchesterservices.com</p>	<p>JOHN M. BANKS ARCHITECT 604 FOX GLEN BARRINGTON, IL 60010 TELEPHONE: 847-277-0070 FAX: 847-277-0080</p> <p>LANDLORD/PROPERTY OWNER SIGNATURE</p>	<p>I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS AND NOTES WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM AN ARCHITECT UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p>PRINT NAME: JOHN M. BANKS SIGNATURE:  DATE: 08/11/14 LICENSE # 26378 EXP. 08/30/14</p>	<p>IF A MEMBER OF THE PROFESSION HAS MADE ANY CHANGES TO THE ORIGINAL DRAWING, THE ARCHITECT HAS THE OBLIGATION TO ALTER THIS DOCUMENT.</p> <table border="1"> <tr> <td>1</td> <td>07/17/14</td> <td>REVISED POWER/COMMUNICATION</td> </tr> <tr> <td>2</td> <td>07/29/14</td> <td>REVISED POWER/COMMUNICATION</td> </tr> <tr> <td>3</td> <td>07/29/14</td> <td>REVISED POWER/COMMUNICATION</td> </tr> <tr> <td>4</td> <td>07/29/14</td> <td>REVISED POWER/COMMUNICATION</td> </tr> <tr> <td>5</td> <td>08/07/14</td> <td>POWER/COMMUNICATION</td> </tr> <tr> <td>REV</td> <td>DATE</td> <td>DESCRIPTION</td> </tr> </table>	1	07/17/14	REVISED POWER/COMMUNICATION	2	07/29/14	REVISED POWER/COMMUNICATION	3	07/29/14	REVISED POWER/COMMUNICATION	4	07/29/14	REVISED POWER/COMMUNICATION	5	08/07/14	POWER/COMMUNICATION	REV	DATE	DESCRIPTION	<p>PROJECT LOCATION: HIGH BRIDGE DOG PARK MPLS MN13213 330 EXCHANGE STREET S ST. PAUL, MN 55102</p>	<p>FRAMING DESCRIPTION SHELTER PLAN</p>	<p>DRAWING NUMBER C-2</p>
1	07/17/14	REVISED POWER/COMMUNICATION																								
2	07/29/14	REVISED POWER/COMMUNICATION																								
3	07/29/14	REVISED POWER/COMMUNICATION																								
4	07/29/14	REVISED POWER/COMMUNICATION																								
5	08/07/14	POWER/COMMUNICATION																								
REV	DATE	DESCRIPTION																								

- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.
- CONTRACTOR SHALL MAINTAIN A 1/4" MINIMUM SEPARATION BETWEEN THE PROPOSED GPS ANTENNAS AND TRANSMITTING ANTENNAS.

NOTE
AT&T TO VERIFY EQUIPMENT



NOTES

1



SHELTER PLAN





480 MARKET PRINCE DRIVE
BLOOMINGTON, MN 55435



WIRELESS
ENGINEERING GROUP
1501 E. WOODFIELD ROAD
MINNETONKA, MN 55345
SCHUMBERG, L. 60173



WESTCHESTER
SERVICES LLC
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-0070
FAX: 847-277-0080
AESwestchesterservices.com

JOHN M. BANKS
ARCHITECT
604 FOX GLEN
BARRINGTON, IL 60010
TELEPHONE: 847-277-0080
FAX: 847-277-0080

LANDLORD/PROPERTY OWNER SIGNATURE

I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION, OR REPORT WAS
PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I
AM A FULLY LICENSED PROFESSIONAL
ENGINEER UNDER THE JURISDICTION
OF A LICENSED STATE.

PRINT NAME: JOHN M. BANKS

SIGNATURE:

DATE: 08/11/14 LICENSE # 20379

EXP. 08/30/14

ALL NOTES AND REVISIONS MUST BE
MADE IN ACCORDANCE WITH THE
REQUIREMENTS OF A LICENSED ARCHITECT
TO AVOID THIS DOCUMENT.

REV	DATE	DESCRIPTION
1	08/11/14	ISSUED PERMIT/CONSTRUCTION
2	08/27/14	ISSUED PERMIT/CONSTRUCTION
3	08/29/14	ISSUED PERMIT/CONSTRUCTION
4	09/10/14	ISSUED PERMIT/CONSTRUCTION

PROJECT LOCATION:

HIGH BRIDGE DOG PARK
MPLSMNJ3213
330 EXCHANGE STREET S
ST. PAUL, MN 55102

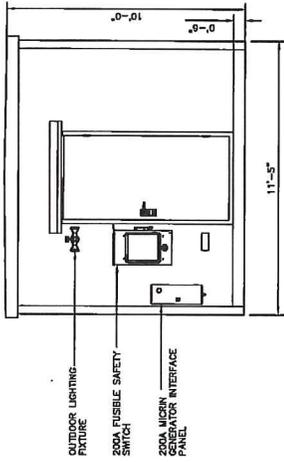
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SHELTER DETAILS

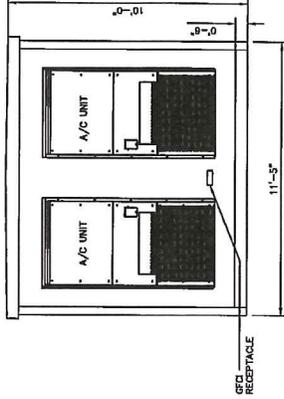
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C-3

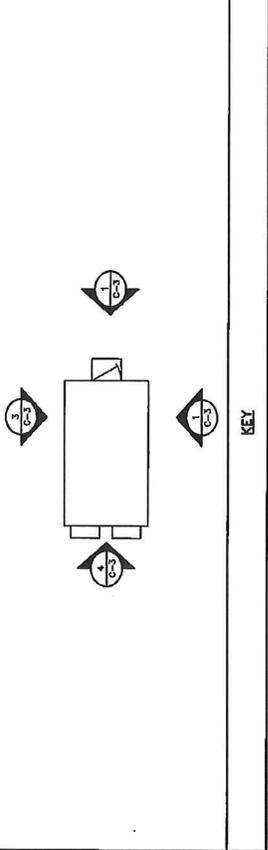
1. ALL METAL PARTS ARE SUPPLIED WITH BAKING COVER AND GROUNDING. SHELTER AND CANOPY ARE SHIPPED LOOSE WITH GROUND BAR AND CANOPY ARE SHIPPED LOOSE WITH SHELTER AND INSTALLED BY GENERAL CONTRACTOR.
2. SHELTER AND INSTALLED BY GENERAL CONTRACTOR.



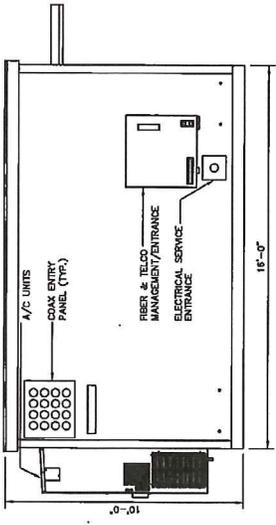
ELEVATION FRONT 1'-5'-0" 10'-0" 11'-5"



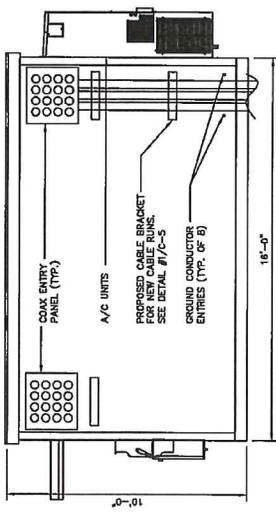
ELEVATION BACK 1'-5'-0" 10'-0" 11'-5"



KEY



ELEVATION RIGHT 1'-5'-0" 10'-0" 15'-0"



ELEVATION BACK 1'-5'-0" 10'-0" 15'-0"

NOTES

SAC/AT&T
MPLSMNU3213
HIGH BRIDGE DOG PARK
FA #12564726

Photo Simulations
03.27.14



**AT&T MPLSMNU3213
BEFORE – NORTH EAST**



**AT&T MPLSMNU3213
AFTER – NORTH EAST**

WESTCHESTER SERVICES L.L.C. ♦ 604 FOX GLEN ♦ BARRINGTON, ILLINOIS 60010
847/277-0070 Main ♦ 847/277-0080 Facsimile ♦ e-mail: ae@westchesterservices.com



AT&T MPLSMNU3213 BEFORE – NORTH WEST

WESTCHESTER SERVICES L.L.C. ♦ 604 FOX GLEN ♦ BARRINGTON, ILLINOIS 60010
847/277-0070 Main ♦ 847/277-0080 Facsimile ♦ e-mail: ae@westchesterservices.com



AT&T MPLSMNU3213 AFTER – NORTH WEST



**AT&T MPLSMNU3213
BEFORE – WEST**



**AT&T MPLSMNU3213
AFTER – WEST**



**AT&T MPLSMNU3213
BEFORE – ROOF**

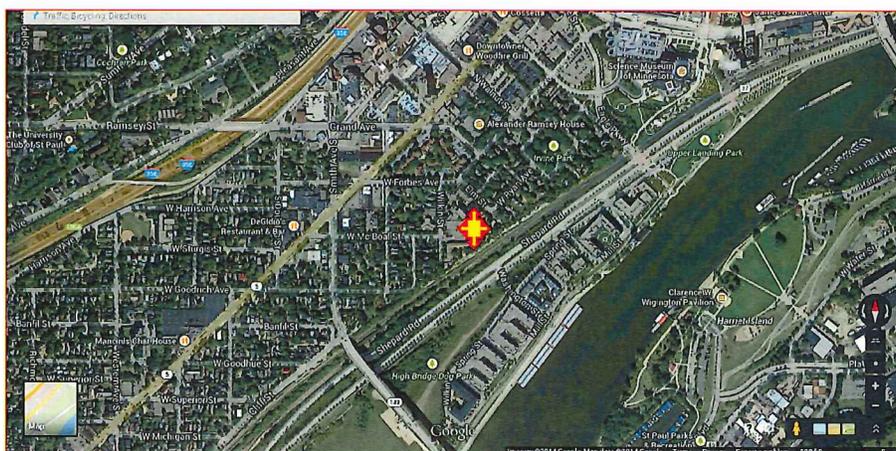


**AT&T MPLSMNU3213
AFTER – SHELTER ON ROOF**

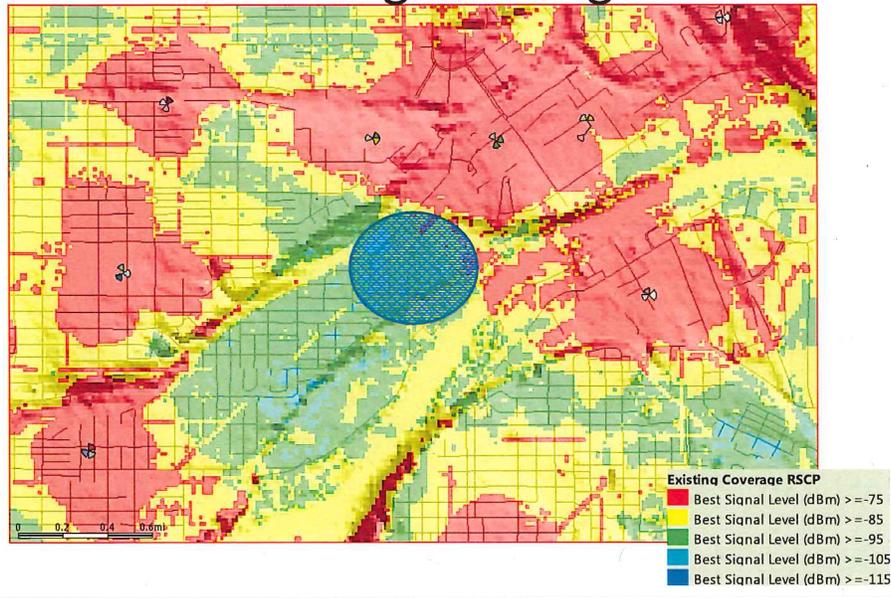
MPLSMNU3213 High Bridge

ATT 3G coverage for urban and suburban clutter types.

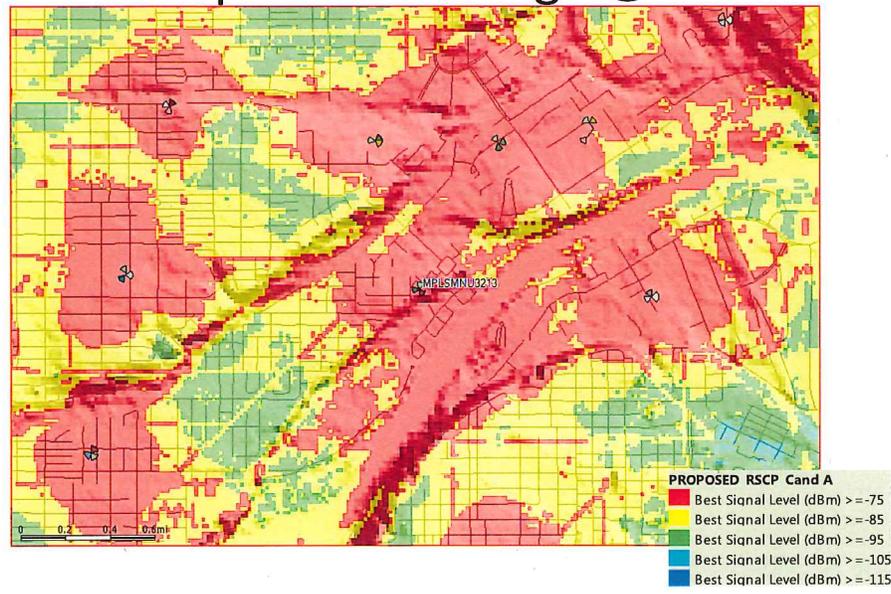
Clutter and Area of Interest



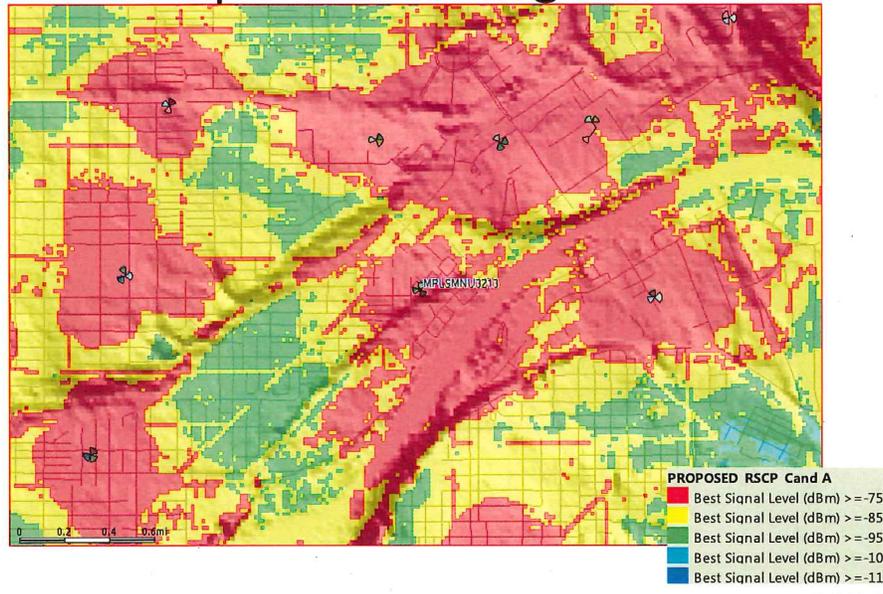
Existing Coverage



Proposed Coverage @ 71'



Proposed Coverage @ 60'



Rethink Possible 

AT&T Mobility
MNP Market
New Search ring – 2013 NPS NSB sites

Site ID: MPLSMNU3213
Site Name: High Bridge Dog Park
FA: 12564726
Issued By: Cory Thomas

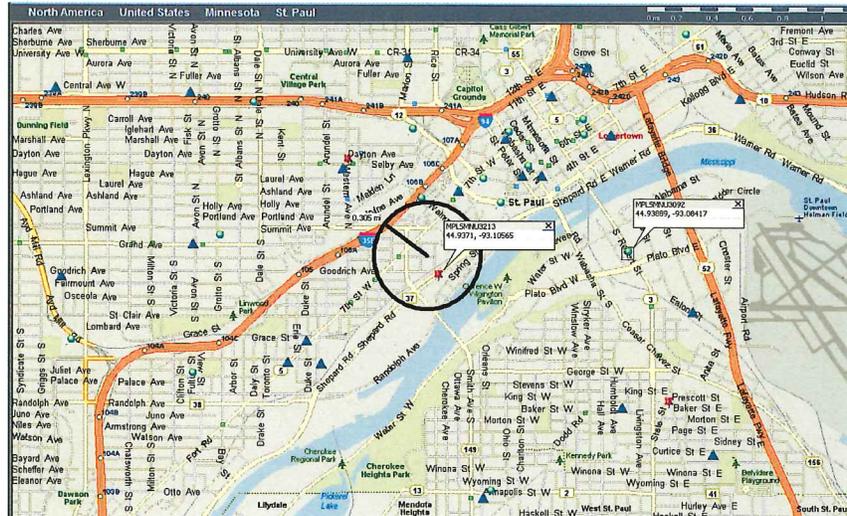
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2013 SEARCH RING INFORMATION NPS

• Region: <u>Central</u>	Market: <u>MNP market</u>	
• Site Name : MPLSMNU3213	Site Priority: <u>Medium</u>	
• Lat/ Long: 44.9371, -93.10565	Target Ant. Center line: 100'	
• Search Ring Radius: 0.3 miles		
• Category: 1) Interference	2) NPS	3) Coverage
• Funding: 1) Full Funding	2) Site Acquisition	
• Technically Approved: 1) YES	2) NO	3) On-Hold
• Objective: Mention the detractor site that will be benefited by this site. MPLSMNU3092		
• Comments: Please mention if there is a tower within the search ring where we can collocate.		

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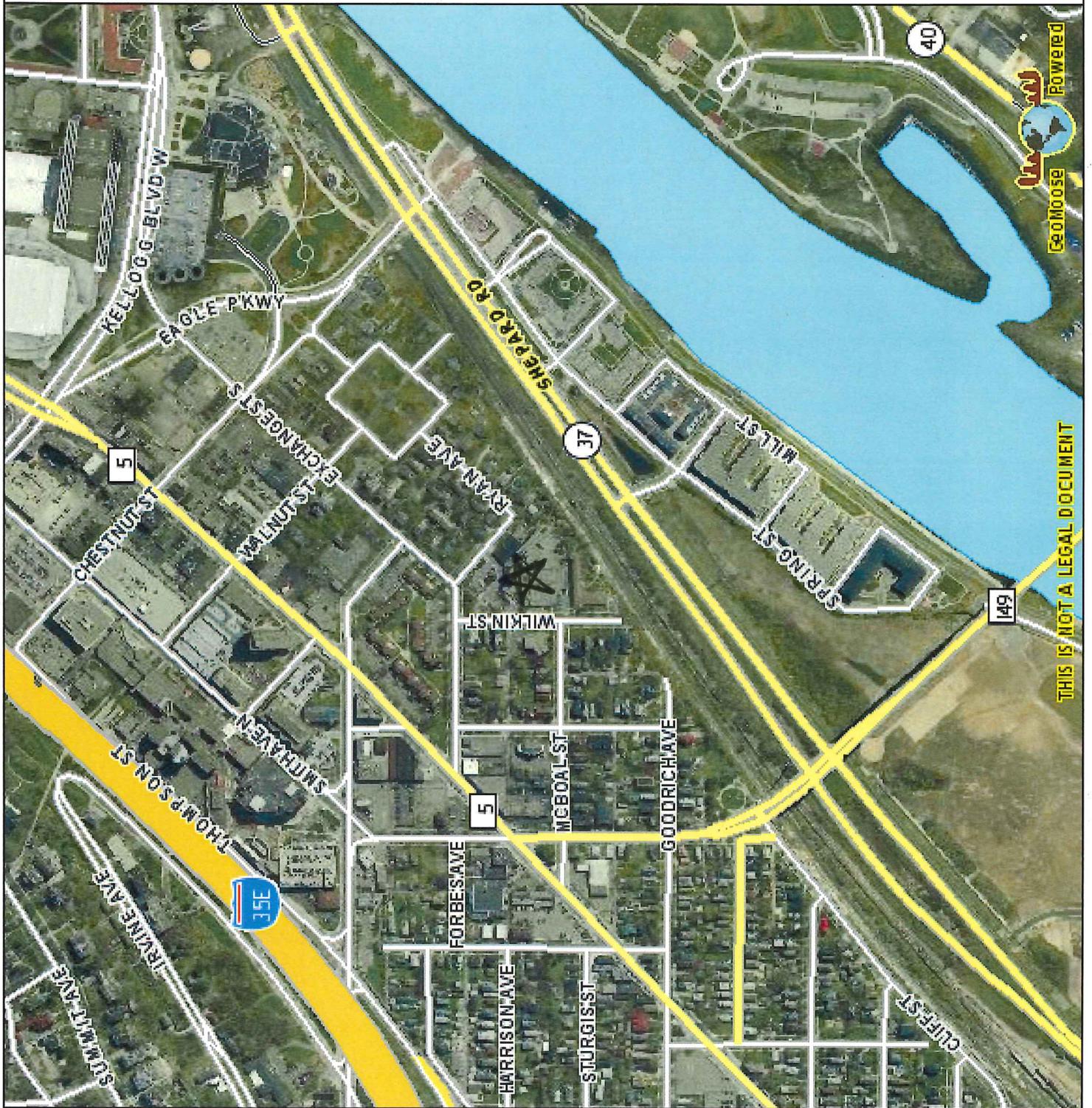
SEARCH RING.



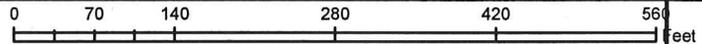
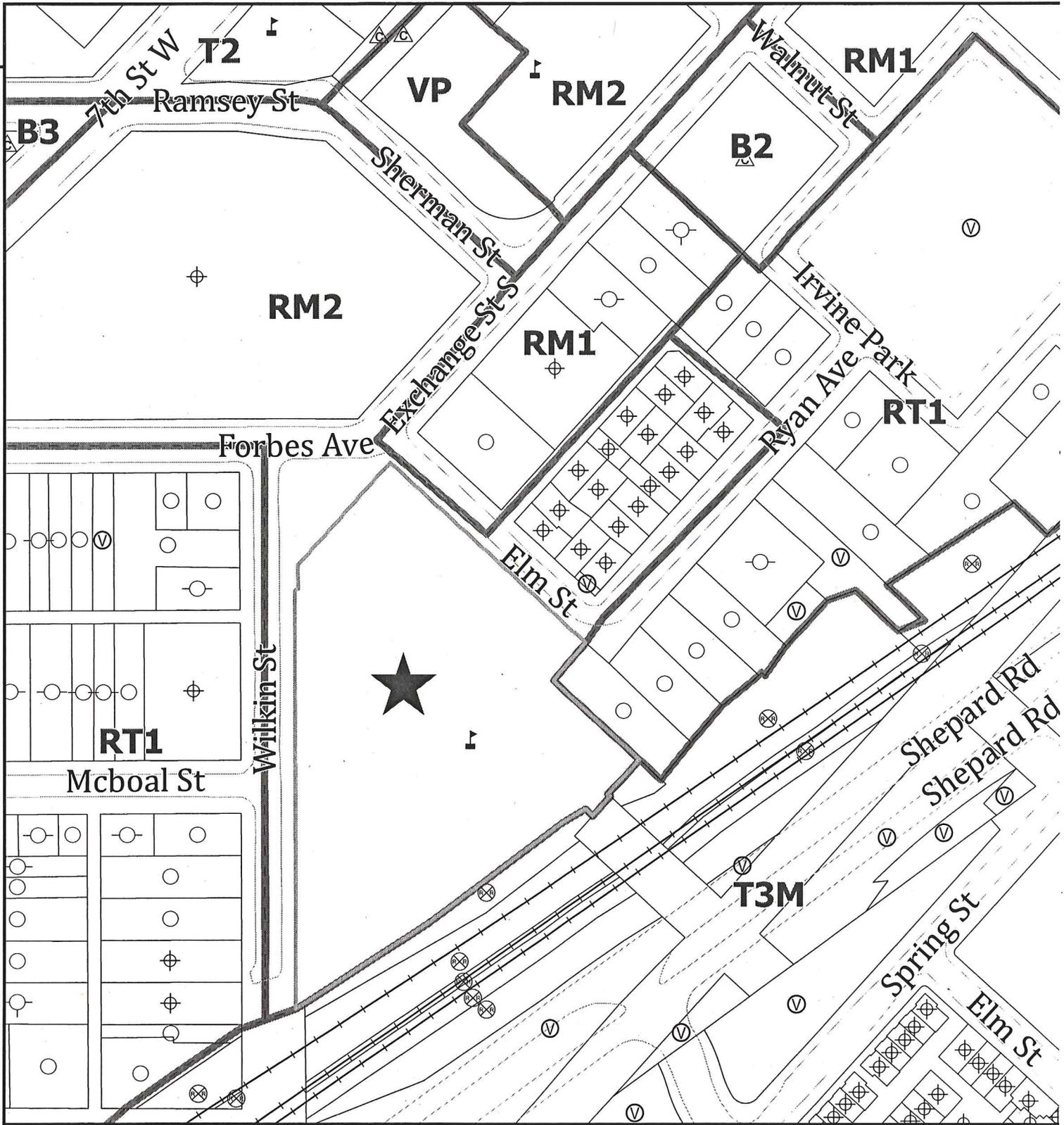
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Page 3

-  Interstate
-  Highway or County Road
-  Local Road
-  Ramp
-  Other Street
-  WATER



THIS IS NOT A LEGAL DOCUMENT



APPLICANT SAC Wireless

APPLICATION TYPE Conditional Use Permit

FILE # 14-313585 DATE 7/28/2014

PLANING DISTRICT 9

ZONING MAP # 16

- | | | | |
|---|----------------------|---|--------------------------|
| △ | Commercial & Office | ○ | Residential One Family |
| □ | Industrial & Utility | ○ | Residential Two Family |
| ⌄ | Institutional | ○ | Residential Three Family |
| ⊙ | Vacant/Undeveloped | ⊕ | Multifamily |

