



## REPORT TO CITY PLAN COMMISSION

**Plan Commission Public Hearing Date:** June 22, 2015

**Common Council Meeting Date:** July 1, 2015

**Item:** Special Use Permit #5-15 for a Wireless Telecommunication Tower

**Case Manager:** Jeff Towne

### GENERAL INFORMATION

**Owner/Applicant:** MTW of Appleton, Inc., Owner - Mike Thiel, President  
Peter Schau (representing Central States Tower III, LLC), Applicant

**Address/Parcel #:** 1610 West Wisconsin Avenue (31-5-9538-02)

**Petitioner's Request:** The applicant is requesting a Special Use Permit for the construction and operation of a new 100-foot tall (105-feet with lightning rod) monopole tower to host new Verizon Wireless panel antennas and equipment at the 85 foot centerline, ground equipment cabling through the center of the monopole connecting to a new 11'6" x 25' 5 1/2" prefabricated equipment shelter near the base of the monopole within a 50' x 60' fenced compound all per plan.

### STAFF ANALYSIS

**Existing Site Conditions:** The subject property is zoned C-2, General Commercial District. Per the City of Appleton Zoning Ordinance, wireless telecommunication towers require a Special Use Permit in the C-2 General Commercial District. The subject property is currently occupied by an auto sales lot, auto body and paint shop and towing business. An open area of the lot exists in the northern portion of the subject site.

**Special Use Permit:** The proposed wireless telecommunication facility is to be located in the northeastern portion of the site in an area approximately 3,000 square feet in size (See Attached Development Plan). The applicant is proposing to construct a 100-foot monopole wireless telecommunication tower and associated ground equipment. The proposed location of the tower and ground equipment meet the minimum setback standards in the C-2 District. The proposed tower and ground equipment will be enclosed within a chain-link fence enclosure.

Zoning Code Article XIII Sec. 23-424 (i)(1)(2) requires a 4-foot wide landscape buffer of plant materials around the wireless telecommunication facility. The applicant has included this buffer in their proposal. Residential properties are located approximately 70 feet north of the tower location separated from the proposed site by West Kamps Avenue.

The applicant is proposing a new telecommunication tower as opposed to co-locating on an existing tower or structure. The Zoning Code requires the applicant to demonstrate why co-location of their wireless telecommunication equipment was not chosen as an alternative to constructing a new tower. The applicant submitted a letter from Mustafa Siamof, RF Engineer for Verizon Wireless describing the reasons for constructing a new tower over co-locating on an existing tower or structure (See Attached Letter).

**State Statute Revision (2013):** In 2013, the State of Wisconsin revised statutes regarding local requirements for mobile towers. Local governments can no longer regulate a number of aspects of tower construction, including but not limited to:

- Enact an ordinance prohibiting the placement of a mobile service support structure in particular locations within the political subdivision.
- Disapprove an application based solely on the height of the mobile service support structure or on whether the structure requires lighting.
- Prohibit the placement of emergency power systems.
- Limit the duration of any permit that is granted.
- Limit the height of a mobile service support structure to under 200 feet.

**Surrounding Zoning and Land Uses:**

North:	Zoning:	R-1B Single-Family Residential
	Land Use(s):	Single-family house
South:	Zoning:	C-2 General Commercial
	Land Use(s):	Contractor's office
West:	Zoning:	C-2 General Commercial
	Land Use(s):	Retail
East:	Zoning:	C-2 General Commercial
	Land Use(s):	Auto sales; Apartment building

**2010-2030 Comprehensive Plan:** The Community Development staff has reviewed the City's 2010-2030 Comprehensive Plan which indicates this area is appropriate for a wireless telecommunication tower and associated ground equipment. The proposed Special Use Permit for the subject parcel is consistent with the following goal of the 2010-2030 Comprehensive Plan:

**Overall Community Goals**

■ **Goal 1 – Community Growth** (Chapter 10 – Land Use)

Appleton will continue to provide opportunities for residential, commercial, and industrial growth, including appropriate redevelopment sites within the downtown and existing neighborhoods and greenfield development sites at the City's edge.

**Finding of Fact:** This request was reviewed in accordance with the standards for granting a Special Use Permit under 23-66 (e) (1-6) and Article XIII of the Zoning Code, which were found in the affirmative.

**Technical Review Group Report (TRG):** This item was discussed at the June 2, 2015 Technical Review Group meeting. No negative comments were received.

**RECOMMENDATION**

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Staff recommends, based on the above, that Special Use Permit #5-15 for a wireless telecommunication tower and associated ground equipment, **BE APPROVED**, subject to the following conditions:

1. A Site Plan Review application must be submitted and approved by the Community and Economic Development Department prior to building permits being issued for the construction of the proposed wireless telecommunication facility.
2. The approved security fencing with privacy slats and landscaping as described above must be maintained so as to fully screen the wireless telecommunication equipment and the base of the tower. The land owner is responsible for ensuring that screening is maintained.

## PLAN OF OPERATION AND LOCATIONAL INFORMATION

### Business Information:

Name of business: N/A-Unmanned Mobile Service Support Structure & Mobile Service Facility

Years in operation: N/A

Type of proposed establishment (detailed explanation of business):

Unmanned Mobile Service Support Structure & Mobile Service Facility

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**Proposed Hours of Operation:** Equipment will operate 24/7/365

Day	From	To
Week Day		
Friday		
Saturday		
Sunday		

### Building Capacity and Area:

Maximum number of persons permitted to occupy the building or tenant space as determined by the International Building Code (IBC) or the International Fire Code (IFC), whichever is more restrictive: N/A persons

Gross floor area of the existing building(s):

N/A

Gross floor area of the proposed building(s):

294 sf-Unmanned Equipment Shelter

Identify location, number, capacity and flammable liquid materials stored in storage tanks or containers:

None.

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Describe any potential smoke, odors emanating from the proposed use and plans to control them:

Unmanned Mobile Service Support Structure & Mobile Service Facility will not produce any smoke or odors

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**Describe Any Potential Noise Emanating From the Proposed Use:**

Describe the noise levels anticipated from all mechanical equipment:

HVAC Equipment serving prefabricated equipment shelter-low level noise when operational.

Backup NG/LP Power Generator-Avg 72 dba at 23' (full load). Runs intermittely when tested or in the case

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How will the noise be controlled?

HVAC Equipment-No Noise Controls necessary.

Backup NG/LP Power Generator-Generator is equipped with Level 2 sound attenuating enclosure and critical a grade muffler.

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**Outdoor Lighting:**

Type: Exterior wall mounted LED light fixture.

Location: Adjacent to man door on prefabricated shelter.

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**Off-Street Parking:**

Number of spaces existing: No Change

Number of spaces proposed: No Change

Is street access to the subject property adequate or are any street improvements, such as a new turning lane, necessary to minimize impacts on traffic flow?

Existing street access from public way is adequate.

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**Outdoor Uses:**

Type, location, size of outdoor storage area(s) of business property, goods, or merchandise not intended for customer viewing or immediate sale:

N/A

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Type and height of screening of plantings/fencing/gating for outdoor storage area(s):

6' tall perimeter chain link fence surrounded by landscape buffer of +/-6' tall arborvitae planted 10' on center per enclosed landscaping plan.

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Type, location, size of outdoor display area(s) of merchandise for sale:

N/A

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**Number of Employees:**

Number of existing employees:     N/A    

Number of proposed employees:     N/A    

Number of employees scheduled to work on the largest shift:     N/A



**Via: USPS Priority Mail**

Mr. Michael Theil  
President  
MTW of Appleton, Inc.  
5 Mulberry Court  
Appleton, WI 54913

March 3, 2015

**Re: Central States Tower III, LLC-Proposed Wireless Communications Facility/MTW of Appleton, Inc. Property-1610 W. Wisconsin Avenue, Appleton, WI 54913.**

**Parcel ID: 315953802**

Dear Mike,

Please acknowledge this letter below as evidence of your consent for Ton 80 Realty Services, Inc. to file any and all necessary zoning, building, erosion control, and any other governmental use or permit applications required with the applicable jurisdictions and agencies for the installation and operation of a wireless communications tower facility and equipment upon the above referenced property by Central States Tower III, LLC ("CST") as your tenant, and Verizon Wireless as CST's prospective subtenant, on your behalf as the fee owner of the property.

Thank you for all of your time and assistance in the matter.

Best regards,

A handwritten signature in black ink, appearing to read "Peter Schau".

Peter Schau  
On behalf of Central States Tower III, LLC  
and Verizon Wireless

Acknowledged this <sup>TH</sup>30 day of  
MARCH, 2015

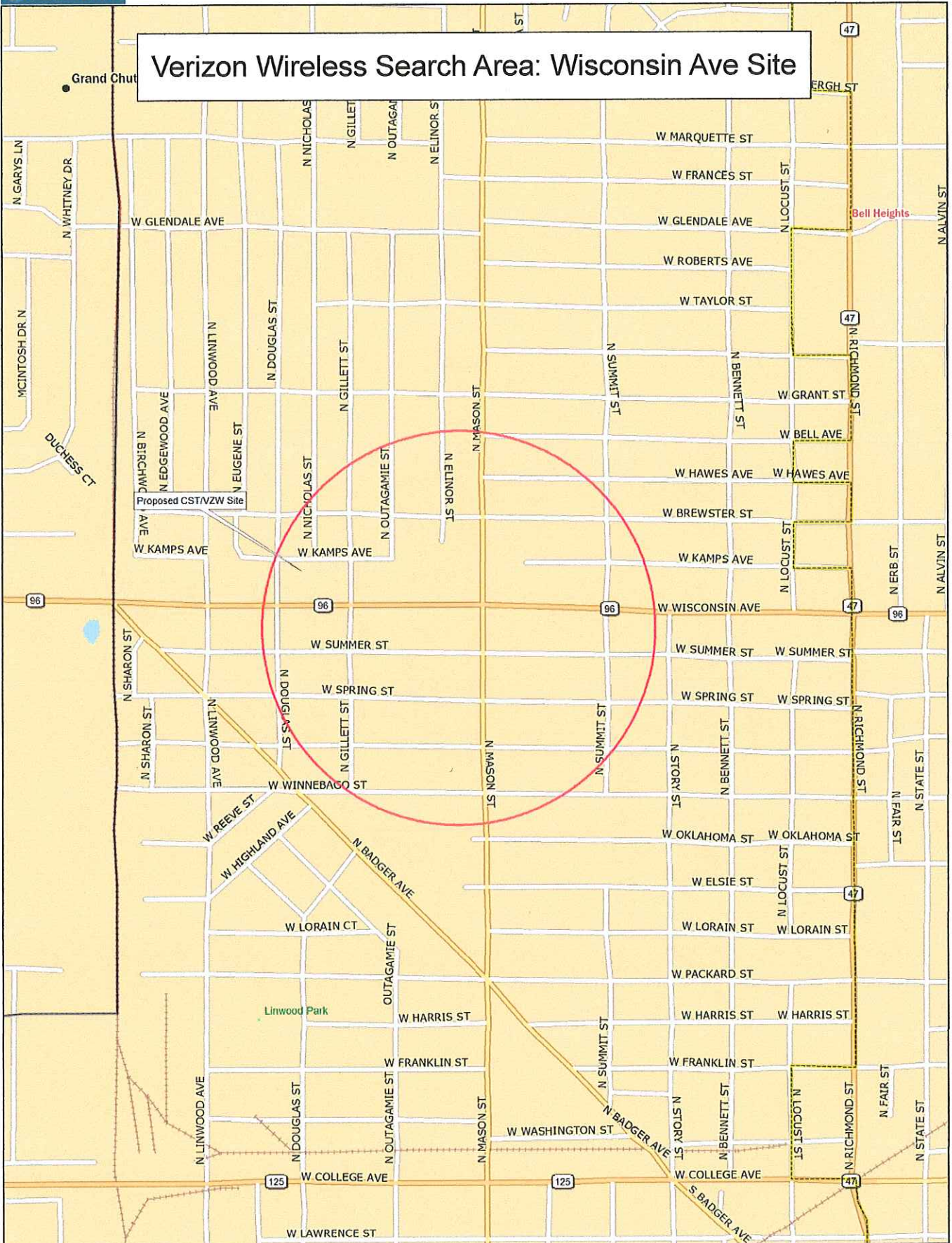
A handwritten signature in black ink, appearing to read "Michael Theil".

Michael Theil  
President  
MTW of Appleton, Inc.  
f/k/a Sarge's A-1 Rentals, Inc.





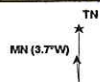
# Verizon Wireless Search Area: Wisconsin Ave Site



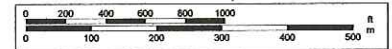
Data use subject to license.

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www.delorme.com



Scale 1 : 11,200



1" = 933.3 ft

Data Zoom 14-2

April 27, 2015

Mr. Yuri Dobrowolsky  
Director of Construction  
Central States Tower  
323 South Hale Street, Suite 100  
Wheaton, IL 60187

RE: Proposed 100 ft Sabre Monopole for Wisconsin Ave, WI

Dear Mr. Dobrowlosky,

Upon receipt of order, we propose to design and supply the above referenced Sabre monopole for a Basic Wind Speed of 90 mph with no ice and 40 mph with 1/2" ice, Structure Class II, Exposure Category C, and Topographic Category 1, in accordance with the Telecommunications Industry Association Standard ANSI/TIA-222-G, "Structural Standard for Antenna Supporting Structures and Antennas".

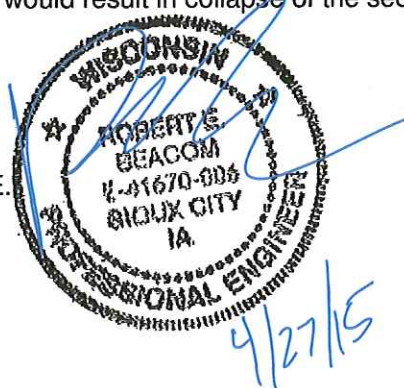
When designed according to this standard, the wind pressures and steel strength capacities include several safety factors, resulting in an overall minimum safety factor of 25%. Therefore, it is highly unlikely that the monopole will fail structurally in a wind event where the design wind speed is exceeded within the range of the built-in safety factors.

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

Therefore, the overall effect of an extreme wind event would be localized buckling of the monopole shaft. Assuming that the wind pressure profile is similar to that used to design the monopole, the shaft will buckle at the location of the highest combined stress ratio in the upper portion of the monopole. This would result in the portion of the monopole above "folding over" onto the portion below, essentially collapsing upon itself. **Please note that this letter only applies to a monopole designed and manufactured by Sabre Towers & Poles.** In the unlikely event of total separation, this would result in collapse of the section above, within a radius equal to 34 feet.

Sincerely,

Robert E. Beacom, P.E.  
Design Engineer II



## TOWAIR Determination Results

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### DETERMINATION Results

**PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 6577.88 MTRS (6.57789 KM) AWAY**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	44-16-7.00N	088-30-46.00W	OUTAGAMIE COUNTY RGNL	OUTAGAMIE APPLETON, WI	261.6	2439.0

**PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 6551.67 MTRS (6.55170 KM) AWAY**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	44-15-11.00N	088-30-27.00W	OUTAGAMIE COUNTY RGNL	OUTAGAMIE APPLETON, WI	261.6	2439.0

#### Your Specifications

##### NAD83 Coordinates

Latitude	44-16-25.7 north
Longitude	088-25-50.5 west

##### Measurements (Meters)

Overall Structure Height (AGL)	32
Support Structure Height (AGL)	30.5
Site Elevation (AMSL)	249.8

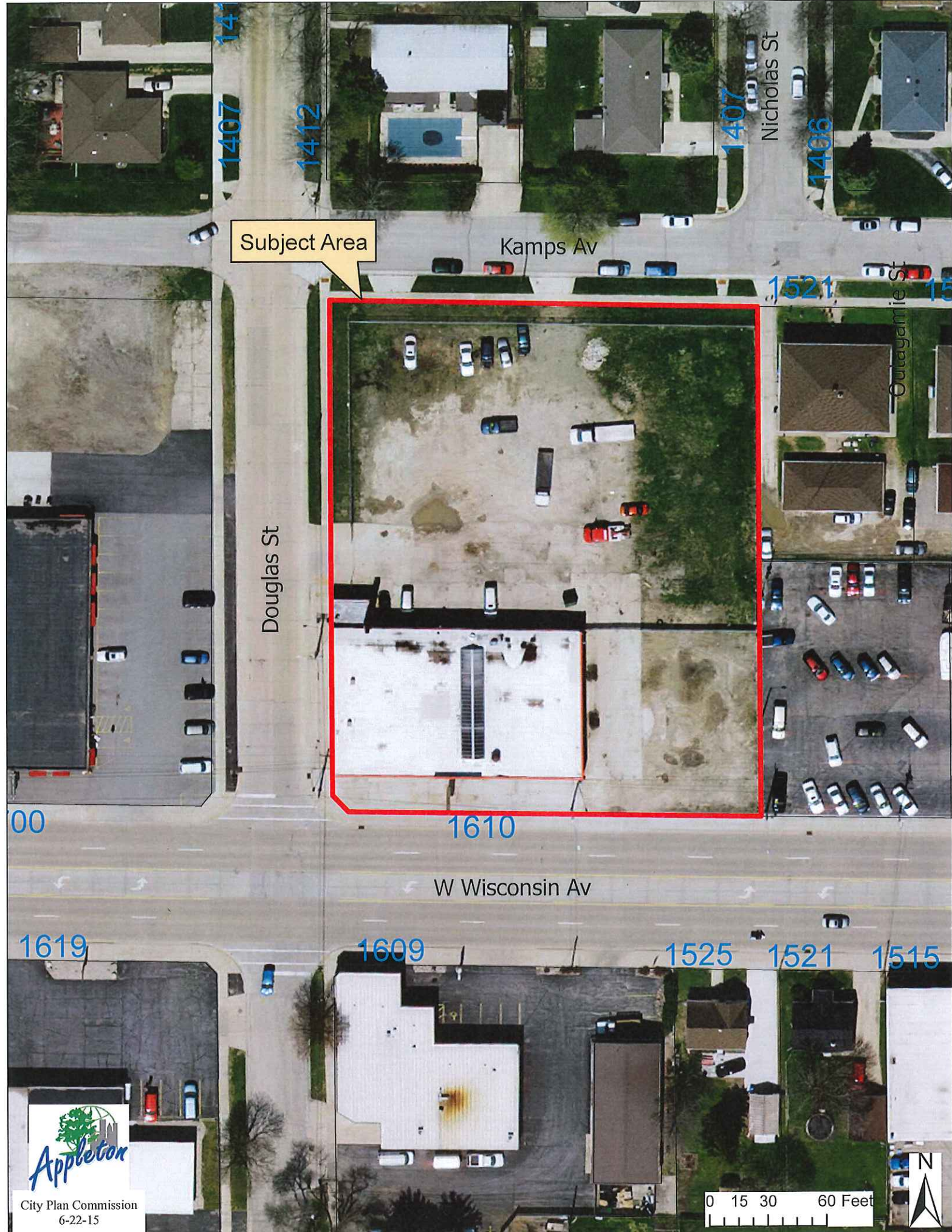
##### Structure Type

MTOWER - Monopole

#### Tower Construction Notifications

Notify Tribes and Historic Preservation Officers of your plans to build a tower.





Subject Area

Douglas St

Kamps Av

W Wisconsin Av

Outagamie St

Nicholas St

1407

1412

1407

1406

1521

1521

00

1610

1619

1609

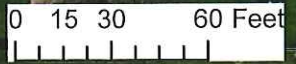
1525

1521

1515



City Plan Commission  
6-22-15





CENTRAL STATES TOWER III, LLC



500 Blaine Highway  
P.O. Box 6400  
P.O. Box 6400  
Ph: 847/698-6400  
Fax: 847/698-6401

NO.	DATE	DESCRIPTION
01	01/16/15	ISSUED FOR REVIEW
02	02/02/15	UPDATE WITH SITE COMMENTS
03	04/07/15	UPDATE FOR A LESSEE ENTRY

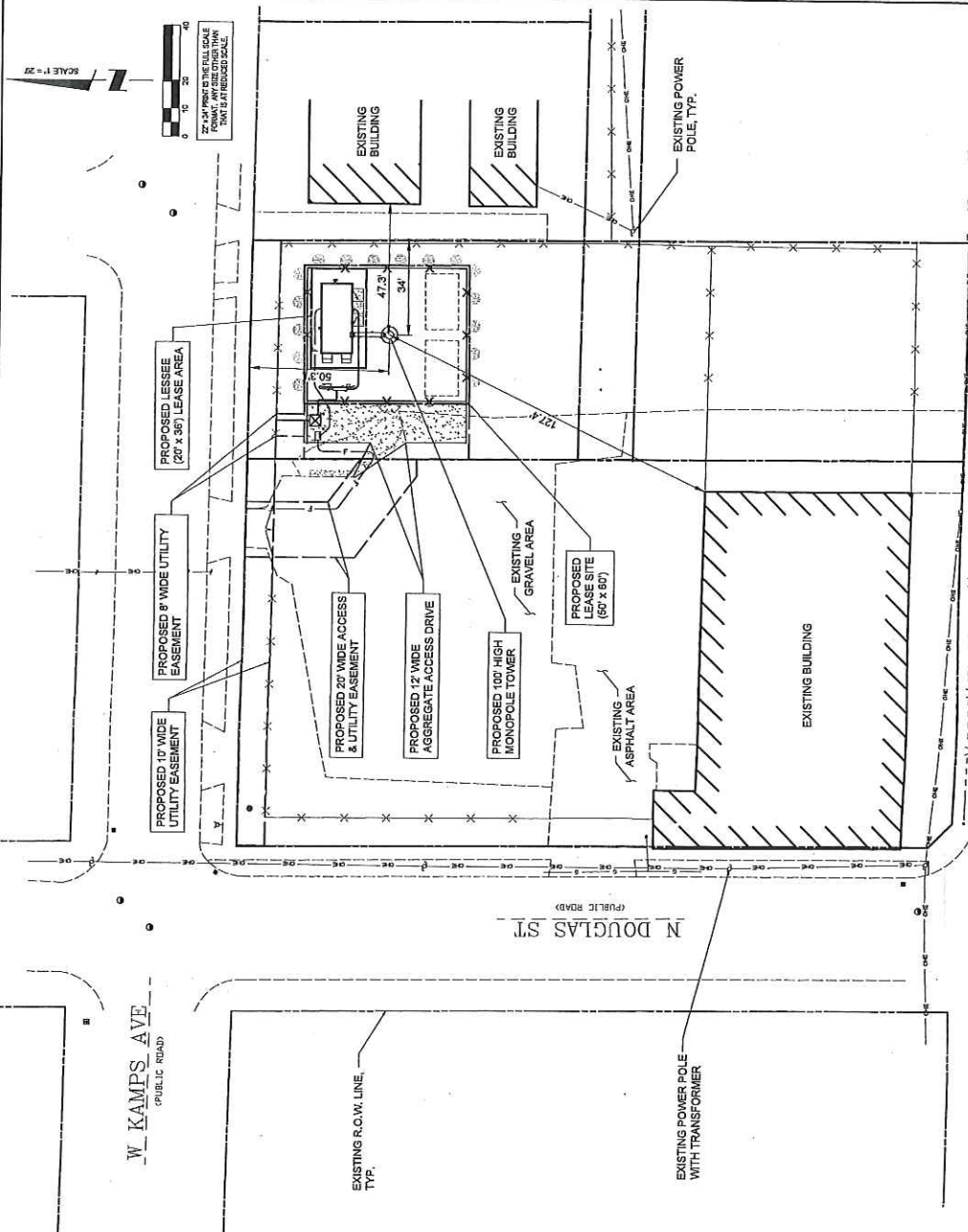
WI-00-5059  
WISCONSIN AVENUE

1610 W WISCONSIN AVE  
APPLETON, WI 54914

DRAWN BY:	BTE
CHECKED BY:	TJZ
DATE:	01/16/15
PROJECT #:	04-151

SHEET TITLE  
LOCATION PLAN

SHEET NUMBER  
LP



**LEGEND**

- 1" x 18" IRON PIPE SET
- REBAR FOUND
- 6" IRON SET
- COUNTY MONUMENT FOUND
- EXISTING POWER POLE
- GAS METER
- GAS VALVE
- LIGHT POLE
- WATER VALVE
- FIRE HYDRANT
- MANHOLE
- STORM INLET (ROUND)
- STORM INLET (SQUARE)
- METAL POST
- FLAG/MARKER
- OVERHEAD ELECTRIC
- BURIED GAS
- WATER MAIN
- PROPERTY LINE



OTHER DETAILS NOT SHOWN ARE TO BE OBTAINED FROM LOCAL AGENCIES.  
PROPERTY AND DISTANCES SHALL ALSO BE VERIFIED.

SURVEY PERFORMED BY:  
**MERIDIAN SURVEYING, LLC**  
8874 Firelane 1  
Menasha, WI 54952  
Office: 920-593-0881  
Fax: 920-273-6037

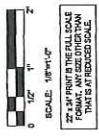
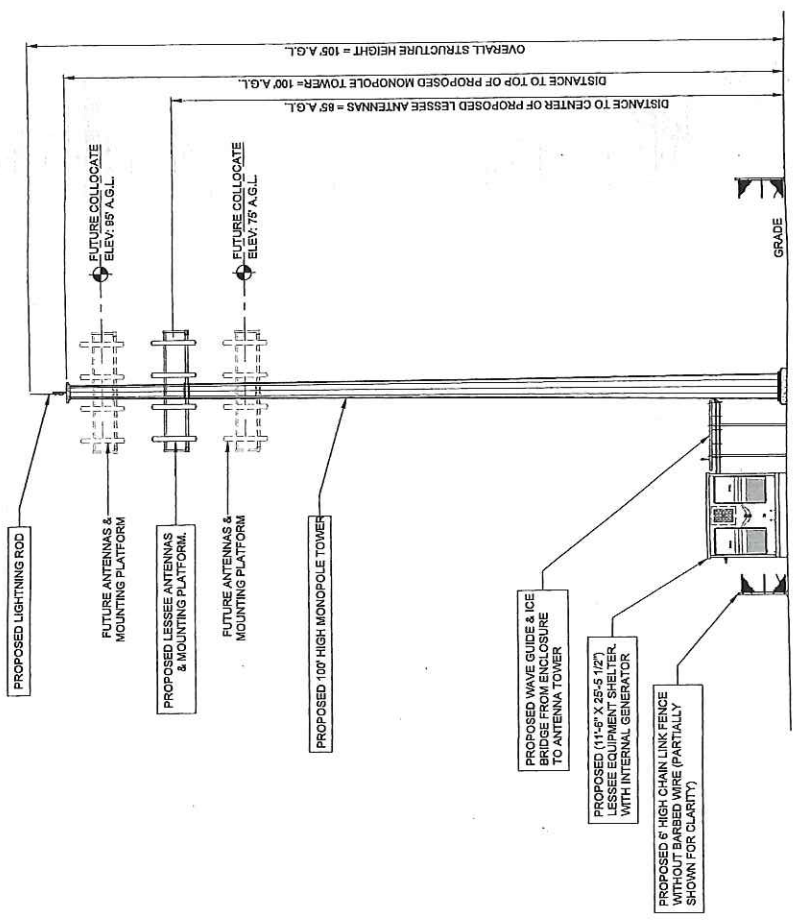


City Plan Commission  
06-22-15

1610 West Wisconsin Avenue - Central State Tower III, LLC  
Special Use Permit  
Tower for Wireless Telecommunication Services

1610 West Wisconsin Avenue - Central State Tower III, LLC  
Special Use Permit  
Tower for Wireless Telecommunication Services

1 SITE ELEVATION  
SCALE: 1/8" = 1'-0"



REVISIONS

NO.	DATE	BY	DESCRIPTION
10	01/19/15	BTE	ISSUED FOR REVIEW
9	02/03/15	BTE	UPDATE WITH SITE AC COMMENTS
8	04/07/15	TJS	UPDATE ECHA & LESSEE ENTRY

WI-00-5059  
WISCONSIN  
AVENUE

1610 W WISCONSIN AVE  
APPLETON, WI 54914

DRAWN BY:	BTE
CHECKED BY:	TJZ
DATE:	01/16/15
PROJECT #:	36-151

SHEET TITLE  
SITE ELEVATION

SHEET NUMBER  
**ANT-1**

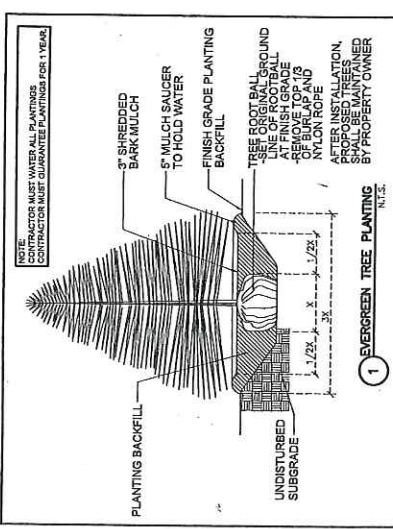


CENTRAL STATES TOWER III, LLC

**TERRA**  
CONSULTING GROUP, LTD.  
600 Busse Highway  
Park Ridge, IL 60068  
Ph: 847/698-6400  
Fax: 847/698-6401

**GENERAL LANDSCAPE NOTES**

- PRUNE NEWLY INSTALLED SHRUBS. WORK SHALL BE DONE BY EXPERIENCED PERSONNEL TO THE ACCEPTED HORTICULTURAL AND ARBORICULTURAL STANDARDS. PRUNING SHALL BE DONE TO MAINTAIN THE GENERAL SHAPE OF THE SHRUB TYPE. DO NOT USE REDGE SHEARS.
- ALL PLANTING STOCK SHALL BE NURSERY-GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. PLANTS SHALL BE FREE OF DISEASE, INSECTS AND WEEDS. PLANTS SHALL BE FREE OF DAMAGE TO THE BARK, BRANCHES, LEAVES OR OTHER PARTS SUCH AS SNOWS, SALT, ICE, INJURIES, OR OTHERS. PLANTS SHALL BE UNUSUAL SPECIES OR VARIETIES WITH VIGOROUS AND UNIFORM GROWTH TYPICAL OF THE SPECIES AND VARIETY, WELL-FORMED, FREE FROM IRREGULARITIES, WITH THE MINIMUM QUALITY AND SIZE CONFORMING TO AMERICAN STANDARD FOR NURSERY STOCK.
- GUARANTEE: WARRANT ALL PLANT MATERIAL TO BE TRUE TO BOTANICAL NAME AND SPECIFIED SIZE. AFTER COMPLETION OF PLANTING, ALL PLANT MATERIALS SHALL BE WARRANTED AGAINST DEFECTS, INCLUDING DEATH AND UNSATISFACTORY GROWTH FOR A WARRANTY PERIOD OF ONE YEAR. THE WARRANTY SHALL BE VOID IF THE PLANT MATERIALS ARE DAMAGED BY THE ABUSE, DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA RESULTING FROM NEGLECT OR CONTRACTOR'S CONTROL WHICH RESULT FROM NATURAL CAUSES SUCH AS FLOODS, STORMS, FIRES OR VANDALISM.
- MULCHING SHALL BE DONE WITHIN 48 HOURS AFTER PLANTING. MULCH SHRUB BEDS TO A UNIFORM DEPTH OF THREE INCHES. MULCH SHALL BE CLEAN COMPOSTED PINE BARK MULCH FREE OF FOREIGN MATERIAL AND LARGE PIECES OVER THREE INCHES LONG. DO NOT MULCH TREE AND SHRUB PLANTING PITS.
- TOPSOIL SHALL CONSIST OF FERTILE NATURAL LOAM, CONTAINING A LIBERAL AMOUNT OF HUMUS AND SHALL BE SUBJECT TO A SOIL ANALYSIS AND APPROVAL. IT SHALL BE FREE OF ADMIXTURES OF SUBSOIL AND FREE OF GRASS, GRASS, ROOTS, STICKS AND OTHER EXTRANEAL MATTER, AND SHALL NOT BE USED FOR PLANTING OPERATIONS WHILE IN A FROZEN OR MUDDY CONDITIONS.
- REPAIR ALL TURF AREAS BY SEEDING. SEEDING INSTALLATION SHALL BE EXECUTED ONLY AFTER ALL FINISH GRADING HAS BEEN COMPLETED. NO SEEDING WORK SHALL BE DONE PAST SEPTEMBER 15, UNLESS APPROVED BY THE OWNER'S REPRESENTATIVE. SEEDING SHALL BE DONE WITH A MIX OF IMPROVED BLEND OF BLUEGRASS AND CERTIFIED PERennial Ryegrass. THE MIX SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. SEEDING SHALL BE APPLIED AT A MINIMUM RATE OF 120 POUNDS PER ACRE. FUTERRA BLANKET OR EQUAL SHALL BE USED FOR EROSION CONTROL MULCH WHERE NECESSARY IN LIEU OF HYDRO MULCH.



CENTRAL STATES TOWER III, LLC

500 Busse Highway  
Park Ridge, IL 60068  
Ph: 847/698-6400  
Fax: 847/698-6401

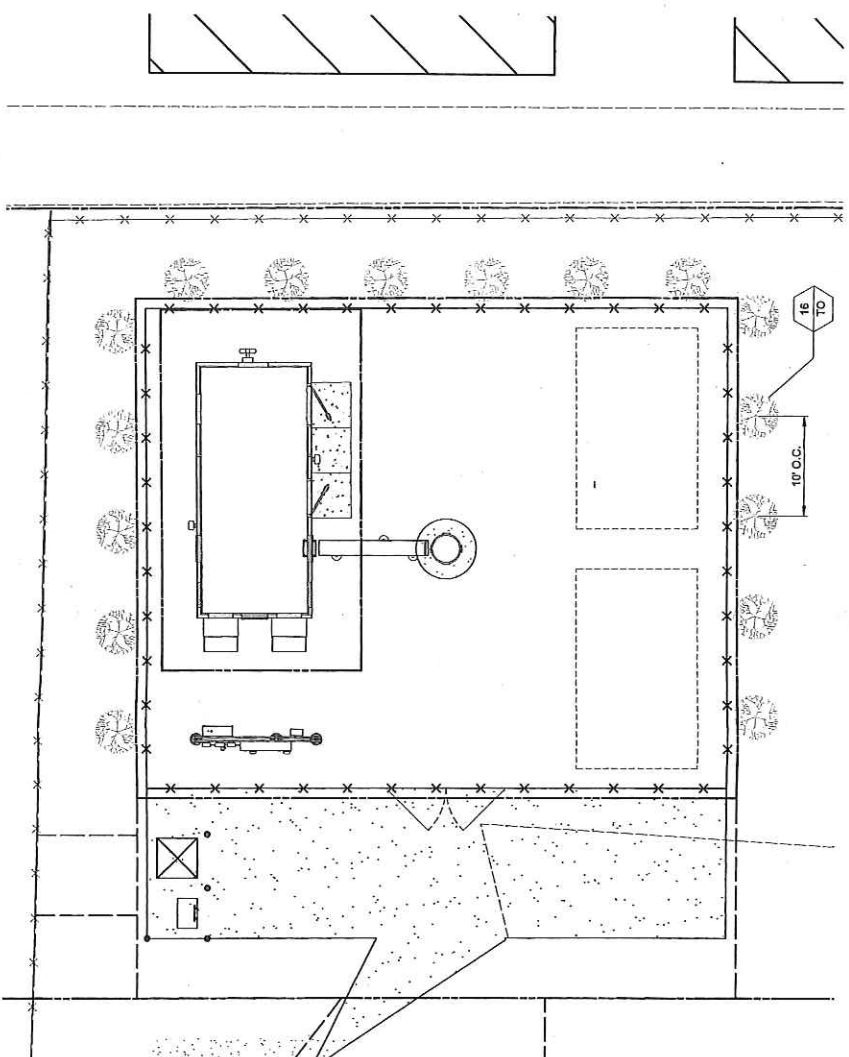
NO.	DATE	DESCRIPTION
1	01/15/15	ISSUED FOR REVIEW
2	02/02/15	UPDATE WITH SITE AG COMMENTS
3	04/07/15	UPDATE PER A & LESSEE ENTRY

**WI-00-5059**  
**WISCONSIN AVENUE**  
1610 W WISCONSIN AVE  
APPLETON, WI 54611

DRAWN BY:	B
CHECKED BY:	T
DATE:	8/16/16
PROJECT #:	50-1

SHEET TITLE  
**LANDSCAPE PLAN**

SHEET NUMBER  
**L-1**



**PLANT LIST**

SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	COMMENTS
TO	THUJA OCCIDENTALIS	AMERICAN ARBORVITAE	16	6 FT. HT. MIN.	B & B (BALLED & BURLAPPED)

(IF NOT ARBORVITAE (MOST COMMON) REFER TO "DIRK'S HARDY" LANDSCAPE BOOK AND/OR INTERNET SEARCH ENGINE FOR SYMBOL, BOTANICAL COMMON NAME. REMOVE THIS NOTE WHEN DONE)

PG 3 PLANT QUANTITY  
PG 6 PLANT SYMBOL

**1610 West Wisconsin Avenue - Central State Tower III, LLC**  
**Special Use Permit**  
**Tower for Wireless Telecommunication Services**