

PAID

PAID

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APR 1 2016
Partial

APR 19 2016
Full

MAR 18 2016



COPY

NORTHFIELD TOWNSHIP TREASURER NORTHFIELD TOWNSHIP TREASURER

Northfield Township

NORTHFIELD TOWNSHIP

Page 1 of 2

Conditional Use Application Form

Applicant	Owner
Name <u>NEW PAR A DELAWARE PARTNERSHIP DBA</u>	Name <u>NORTHFIELD TOWNSHIP</u>
Address <u>2727 NORTHWESTERN HWY</u> <u>SOUTHFIELD, MI 48075</u>	Address <u>8350 N. MAIN ST.</u> <u>WHITLAND LAKE, MI 48189</u>
Phone <u>248-613-4399</u>	Phone <u>734-449-2880</u>

If applicant is NOT the property owner, then a statement from the owner MUST be attached, authorizing the application.

Statement has been attached, applicant is not owner (TWP MANAGER TO PROVIDE)
 Applicant is owner

Parcel ID number B-02-27-100-003
Address 2727 EAST NORTH TERRITORIAL ROAD

Zoning District AR
Development Name NW 144 NORTH TERRITORIAL & SPENCER
Proposed Use UNMANNED WIRELESS COMMUNICATION FACILITY
General Location 2727 E. NORTH TERRITORIAL

Applicants Interest in Property LESSOR

Conditional Use is sought under Section 60.23
of the Northfield Township Zoning Ordinance.

An application for a conditional use permit shall contain the following information:

- Proof of ownership
- Legal Description
- Scaled and accurate survey drawing, with existing building, drives and other improvements
- A detailed description of the proposed use
- A site plan, meeting the requirements of a preliminary site plan, as set forth in Section 64.03, herein.
- Fee of ~~\$600.00 for CUP / \$500.00 for PSP~~ ~~\$1,100.00~~ as established by Northfield Township Board, must accompany application. Fee = \$1550.00

I have read the attached provisions of the Northfield Zoning Ordinance in regards to Article 63.0, Conditional Use and understand a public hearing will be established within sixty-five (65) days of the filing date.

Date 3/16/16 Applicant Bb [Signature] OSO WIRELESS

The Northfield Township Planning Commission has reviewed the particular circumstances of the above proposed use relative to Section 63.0 Conditional Uses; and

Approved / Disapproved same on _____, 20___. Supporting evidence is attached.

Conditions imposed on the conditional use of the above described property are as follows:

Breach of such conditions shall automatically invalidate this permit.

Chair, Planning Commission

Date

Secretary, Planning Commission

Date

I / We _____ applicant (s)
for this Conditional Use application and permit hereby agree to comply with the above imposed conditions as specified by the Northfield Township Zoning Ordinance and the Planning Commission of Northfield Township.

Date _____

RECEIVED

V2W 144

MAR 18 2016

Application # _____

NORTHFIELD TOWNSHIP
ASSESSOR'S OFFICE

NORTHFIELD TOWNSHIP

SITE PLAN REVIEW APPLICATION

PROJECT NAME: V2W 144 NORTH TERRITORIAL & SPENCER

PROJECT ADDRESS: 2727 E. NORTH TERRITORIAL

Applicant Information:

Name: NEW PAR A DELAWARE PARTNERSHIP DBA
VERNON WIRELESS

Address: 24242 NORTHWESTERN HWY, SOUTHFIELD, MI 48075

Phone: 248-613-4399

Email:

Owner Information:

Name: NORTHFIELD TOWNSHIP

Address: 8350 N. MAW ST., WHITMORE LAKE 48189

Phone:

Email:

If the applicant is not the property owner, then a statement from the owner **MUST** be attached authorizing the application.

Proof of ownership **OR** Statement if applicant is not owner is attached. TWP MANAGER TO REVIEW

If applicant is not the owner, describe applicant's interest in the property
LESSOR

PROPERTY DESCRIPTION

Legal Description: Attached On Site Plan

Parcel ID(s): B-02-27-100-003

Description of Proposed Use: UNMANNED WIRELESS COMMUNICATION FACILITY

Total Acreage of Site: 18 ACRES

Total Floor Area: LEASE AREA: 2,000 SQ FT

Existing:

Proposed: 2,000 SQ FT

Height of Structure(s) (in stories & feet):

120' MONOPOLS

Sanitary Facilities: Sewer Septic **N/A**

Water: Municipal Private Well

Zoning Classification(s):

RC AR LR SR1 SR2 MR VC LC GC ES HC GI LI Other _____

SITE PLAN REVIEW OPTIONS

Administrative Site Plan Review:

- Expansion or reduction of an existing, conforming structure less than 2,000 sq. ft. / 5% of floor area
- Additional parking, loading / unloading spaces and landscape improvements

Site Plan Review:

- New Construction
- Building Addition

Development Plan Review:

- Planned Unit Development
- Planned Residential Development
- Site Condominium Plan

Amendment to Approved Site Plan or Development Plan:

- Site Plan
- Development Plan

Site or Development Plan Review in conjunction with: Rezoning Request Special Land Use Request

AUTHORIZED SIGNATURE

I hereby state that all of the above statements and all of the accompanying information are true and correct.

Applicant's Signature: Bob J. Oso Verizon Wireless Date: 3/16/16

FOR OFFICE USE ONLY

Application Received Date: _____

Planning Commission Received Date: _____

Planning Commission Action: Approved Date: _____ Denied Date: _____

Expiration Date: _____

Fee Received: Cash Check # _____

RJP CONSULTING

March 16, 2016

Planning Commission
Northfield Township
8350 North Main Street
Whitmore Lake, MI 48189

RE: Verizon Wireless Application for Conditional Use Permit and Site Plan Review at 2727 East North Territorial Road

Dear Planning Commission:

Enclosed with this correspondence are the following:

1. Completed and Signed Application for Conditional Use Permit and Site Plan Review
2. Signed and Sealed Site Plan
3. Radio Frequency Propagation Maps demonstrating gap/need for coverage
4. Map of Existing Township Towers
5. Fall Zone/Civil Engineer Letter
6. Letter from Applicant in compliance with Section 60.23
7. Letter Stating Total Radiation Output

In addition to the foregoing attachments, set forth below is a description of the criteria of Section 60.23 of the Northfield Township Ordinance ("Ordinance") and a response as to how Verizon Wireless has met each of these respective requirements under the Ordinance. We respectfully ask that Verizon's Application be considered by the Planning Commission at the first available date.

INTRODUCTION

As reflected in Verizon's responses below, it is necessary for Verizon to erect a 120' monopole (with 7' maximum lighting rod on top) and accompanying equipment ("Proposed Facility") at the property located at 2727 East North Territorial Road owned by the township and behind the fire station ("Site"), so it can remediate an existing gap in network coverage in the area surrounding the Site and improve its network reliability.

Verizon Wireless desires to provide Northfield Township with dependable wireless service. It is essential that Verizon Wireless be allowed to develop their network in such a way that enables them to provide adequate coverage to their existing and future customers in and through this area. Verizon Wireless has a Radio Frequency License from the FCC for the State of Michigan. The FCC requires its licensees to provide adequate and reliable service in the licensed area as specified in Title 47, Part 24.103 of the Code of Federal Regulations.

In order to fulfill this requirement for their FCC license, Verizon Wireless needs to provide continuous, uninterrupted wireless communication service in the area that is the subject of this Application. Without the proposed site, Verizon Wireless will suffer several hardships: 1.) disruption of the network design; 2.) compromising needed coverage; and 3.) Verizon Wireless' inability to provide adequate and reliable coverage to the public, among others. The Proposed Facility will allow Verizon Wireless to provide the quality of service required by the FCC and demanded by the public.

The Proposed Facility will be designed and constructed to meet applicable governmental, health and industry safety standards. Specifically, Verizon Wireless will comply with all FCC and FAA rules governing construction requirements, technical standards, lighting, interference protection, power and height limitations and radio frequency standards.

Verizon Wireless, if asked and in cooperation with local emergency services, will strongly consider and if reasonably possible, provide space on the tower for an emergency service antenna.

ORDINANCE ANALYSIS

In addition to the materials attached hereto, Section 60.23 of the Ordinance requests the Applicant to respond, in pertinent part, to the following:

- C.2. a: Applicant information provided on the CUP application as well as a separate letter.
- b: Provided and attached.
- c: Please see attached site plan.
- d: Please see attached site plan.
- e: Please see attached Map of Existing Township Towers
- f: Please see attached site plan.
- g: Please see attached site plan.
- h: Please see attached letter.
- i: AT&T provides fiber backhaul.
- j: The Proposed Facility is necessary to provide continuous, uninterrupted wireless communication service for Verizon customers in the area that is the subject of this Application. A Radio Frequency Engineer from Verizon has provided the accompanying RF Propagation Maps, attached hereto, which demonstrate that the Proposed Facility must be at least 120 feet in order to provide seamless coverage within the network plan. There are no existing towers in the area that can provide suitable coverage to meet our objectives.
- k: Verizon is unable to provide a map as it is proprietary information. Verizon can say that in the next few years it is forecasting a need for new sites in the northwest area, north central area, and southeast area of the township.
- l: Verizon has completed a Phase One environmental assessment and a NEPA review per FCC guidelines and there is no impact on wetlands, flood plains, wilderness areas, wildlife preserves, endangered species, and historical sites.
- m: Please see attached Fall Zone/Civil Engineer Letter.
- n: A Radio Frequency Engineer from Verizon has provided the accompanying RF Propagation Maps, attached hereto, which demonstrate that the Proposed Facility must be at least 120 feet in order to provide seamless coverage within the network plan.
- o: Please see attached Letter Stating Total Radiation Output.

p: Please see attached letter.

- D1. a: The existing towers in the township are just too far away from the area that Verizon is trying to improve the network in. If Verizon were to use any of the existing towers, it would leave a gap in coverage along North Territorial that would require Verizon to build a new tower anyway. By building this Proposed Facility, Verizon is eliminating a gap in coverage and providing continuous uninterrupted service in this particular area of the township as well as providing collocation opportunities for future use by carriers thus eliminating the need for multiple towers in a particular area.
- b: The Proposed Facility complies with this requirement.
- c: The Proposed Facility complies with this requirement.
- d: The Proposed Facility complies with this requirement.
- e: Not applicable.

CONDITIONAL USE STANDARDS

Will be harmonious, and in accordance, with objectives and regulations within the Zoning Ordinance:

The Proposed Facility is in an agricultural field and permitted within the AR District as a conditional use. It will have no adverse impact with regard to the surrounding area. Indeed, towers such as the Proposed Facility are consistent with such Districts. It is not uncommon to find much larger structures, such as High Voltage Transmission Lines or Wind Turbines in many agricultural areas.

Will be compatible with the natural environment and existing and future land uses in the vicinity:

The Proposed Facility meets this requirement in that it is located a significant distance from North Territorial Road, at the rear of the subject Property and over 500' from any residential structures. In addition, the Proposed Facility will use a low impact "monopole" design. Such designs are less visually obtrusive than traditional "lattice" type towers. The monopole will be constructed of galvanized metal, which is standard in the industry and designed to blend in with the sky.

That the proposed use will be served adequately by essential public facilities and disposal, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide adequately any such service:

The Proposed Facility will only require commercial power and fiber optic service. Both utilities are available along North Territorial Road and will be brought to the facility by Verizon. It will not require the use of water or sewer.

That the proposed use will not be detrimental, hazardous, or disturbing to the existing or future neighboring uses, persons, property, or the public welfare:

The Proposed Facility is consistent with the AR District where it is located. The Proposed Facility will use a low impact "monopole" design. Such designs are less visually obtrusive than traditional "lattice" type towers. The monopole will be constructed of galvanized metal, which is standard in the industry and designed to blend in with the sky. Enabling Verizon to remediate gaps in wireless coverage and providing reliable and adequate coverage to the area will foster the public health, safety and welfare.

That the proposal will not create additional requirements at public cost for public facilities and services that will be detrimental to the economic welfare of the community:

The Proposed Facility will only require commercial power and fiber optic service. Both utilities are available along North Territorial Road and will be brought to the facility by Verizon. It will not require the use of water or sewer. There will be no public funds required for this project.

Will be compatible with the Township's adopted general development plan:

The Proposed Facility is consistent with the AR District where it is located and permitted within the AR District as a conditional use. The Proposed Facility will use a low impact "monopole" design. Providing reliable and seamless coverage in the area subject to this Application will serve the public interest and convenience through providing wireless and internet services as well as enhancing and serving the emergency communications network.

OTHER LEGAL CONSIDERATIONS

A. Applicable Federal Law

The Telecommunications Act of 1996, 42 USC §§151-614 (2001) (effective Feb. 8, 1996) ("TCA") provides certain limitations on the powers of local zoning authorities with respect to the regulation, placement and construction of wireless service facilities. Specifically, the TCA provides that any regulation by the Township with respect to decisions involving wireless telecommunication towers "shall not prohibit or have the effect of prohibiting the provision of personal wireless services. 47 USC 332(c)(7)(B)(i)(I), emphasis added. The TCA further provides that "any decision by a State or local government or instrumentality thereof to deny a request to place, construct, or modify personal wireless service facilities shall be in writing and supported by substantial evidence." 47 USC 332(c)(7)(B)(iii), emphasis added.

It is Verizon's position that its Application for a Conditional Use Permit to construct the Proposed Facility, as demonstrated herein, meets and/or exceeds all of the review standards set forth in the Ordinance. Therefore, Verizon respectfully requests that its requested Conditional Use Permit be approved by the Planning Commission.

CONCLUSION

In conclusion, Verizon respectfully requests that the foregoing materials be considered by the Planning Commission and that the Proposed Facility be approved and granted a Conditional Use Permit in accordance with Section 60.23 of the Ordinance. Without the Proposed Facility, Verizon will be unable to remediate the gap in network coverage which is demonstrated through the RF Maps attached hereto and as otherwise set forth in this Application and through testimony Verizon will provide at public hearings.

On behalf of Verizon Wireless, we thank you in advance for your timely attention to this Application and look forward to working with the Township throughout the zoning approval process.

Sincerely,



Bob Przybylo
RJP Consulting, Inc. o/b/o Verizon Wireless

Network



Verizon Wireless
24242 Northwestern Hwy.
Southfield, MI 48075

February 22, 2016

Planning Commission
Northfield Township
8350 N. Main Street
Whitmore Lake, MI 48189

RE: Verizon Wireless Conditional Use/Site Plan Review Application

To Whom It May Concern:

Please accept this letter as notification that the proposed tower will be designed to accommodate two additional carriers with an equal loading of that proposed by Verizon Wireless.

The contact person for this site is Doug Weber, 248-915-3560, douglas.weber@verizonwireless.com, 24242 Northwestern Hwy, Southfield, MI 48075.

Verizon Wireless has prepared the following maintenance plan for the proposed wireless communication facility.

- Weed control – apply anti-emergent weed control in May, treat weeds as required through growing season
- Snow removal - local service provider to be on call when needed
- Debris removal – local service provider to be on call when needed

Please call me at (248) 915-3560 if you have any questions.

Sincerely,

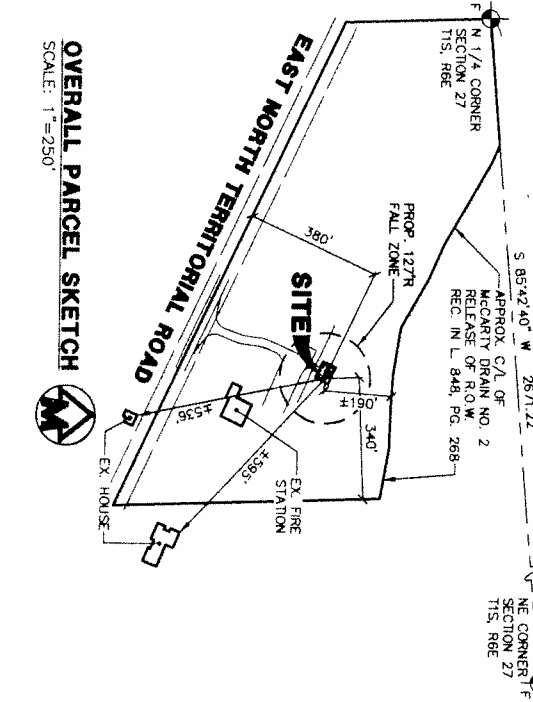
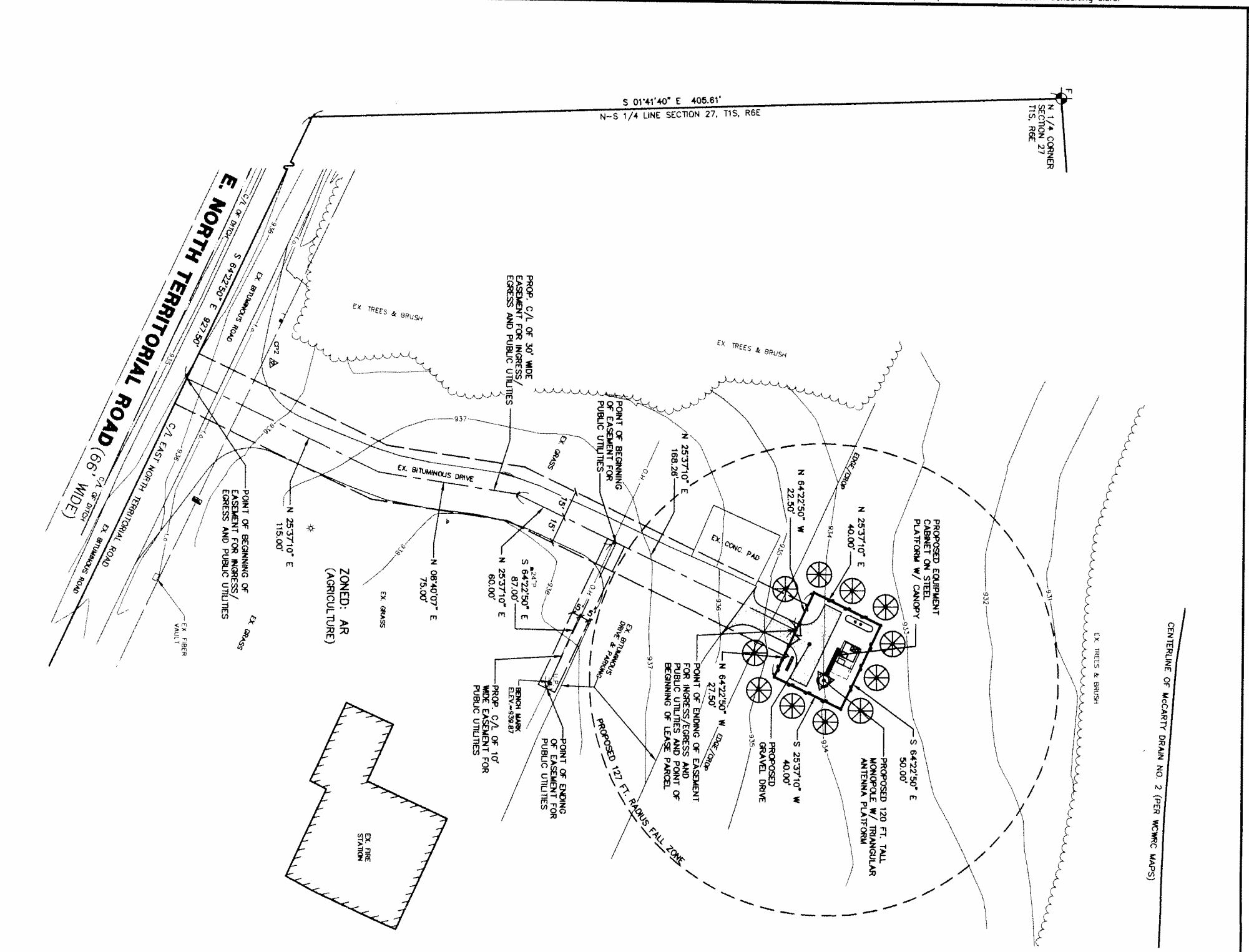
A handwritten signature in black ink, appearing to read "Doug Weber".

Doug Weber
Real Estate Manager

STATE OF MICHIGAN)
) SS
COUNTY OF OAKLAND)

On this 23rd day of February, 2015 before me personally appeared Doug Weber, Real Estate Manager for Verizon Wireless to me known to be the person described above and who executed the foregoing instrument, and acknowledged that it was executed as said person's free act and deed.

Notary Public: Barbara Madigan Gwathmey
Print Name: Barbara Madigan Gwathmey
Oakland County, MI
My Commission Expires: 5/10/20



LEGAL DESCRIPTION OF OVERALL PARCEL
 (Taken from The Commitment)
 Real property in the Township of Northfield, County of Washtenaw, State of Michigan, described as follows:
 Beginning at the North 1/4 corner of Section 27, Town 1 South, Range 6 East, Northfield Township, Washtenaw County, Michigan, thence North 85°42'40" East, 356.75 feet along the North line of said Section, thence along the center line of C/Conroy Drain, South 64°22'50" East, 52.36 feet, South 59°51'30" East 285.75 feet, South 68°38'30" East 103.83 feet, South 60°30' East 157.64 feet, South 80°13' East 75.41 feet, South 85°27' East 84.46 feet, South 87°41' East 124.11 feet and South 75°41'30" East 80.80 feet, thence South 1°43'30" East 747.00 feet along the East line of the 1/4 section 1/4 of the Northeast 1/4 of said Section, thence North 64°22'50" West 1502.41 feet along the centerline of N. Territorial Road, thence North 1°41'40" West 405.61 feet along the centerline of N. Territorial Road, being part of the West 1/2 of the Northeast 1/4 of said Section 27.

PROPERTY INFORMATION
 TAX PARCEL: 95-02-27-100-003
 OWNER: TOWNSHIP OF NORTHFIELD
 8350 MAIN STREET
 WHITEHORE LAKE, MICHIGAN 48189

CELL SITE ADDRESS:
 EAST NORTH TERRITORIAL ROAD
 WHITEHORE LAKE, MICHIGAN 48189

BENCH MARK
 Spike in the west side of utility pole, located 170 feet southeast of the bituminous access drive to site and 17 feet southwest of the bituminous parking lot.
 Elevation: 599.87' (NAVD 88 Datum)

NOTE
 Rotate all bearings 00°01'44" clockwise to obtain bearings based on True North as determined from global positioning system (GPS).

LEGAL DESCRIPTION OF LEASE PARCEL
 Commencing at the North 1/4 corner of Section 27, T1S, R6E, Northfield Township, Washtenaw County, Michigan, said corner being located S 85°42'40" W 2671.22 feet from the Northeast corner of said Section 27, thence S 01°41'40" E 405.61 feet along the North-South 1/4 line of said Section 27, thence S 64°22'50" E 927.50 feet (also being the centerline of East North Territorial Road, 66 ft. wide), thence N 25°37'10" E 115.00 feet, thence N 08°40'07" E 75.00 feet, thence N 25°37'10" E 60.00 feet to the POINT OF BEGINNING.

thence N 64°22'50" W 22.50 feet;
 thence N 25°37'10" E 40.00 feet;
 thence S 64°22'50" E 50.00 feet;
 thence S 25°37'10" W 40.00 feet;
 thence N 64°22'50" W 27.50 feet to the POINT OF BEGINNING, being a part of the Northeast 1/4 of Section 27, T1S, R6E, Northfield Township, Washtenaw County, Michigan, and containing 2.000 sq. ft. or 0.046 acres, more or less, subject to assessments and restrictions of record, if any.

Together with a 30 foot wide easement for ingress, egress and public utilities, the centerline of said easement is described as follows:
 Commencing at the North 1/4 corner of Section 27, T1S, R6E, Northfield Township, Washtenaw County, Michigan, said corner being located S 85°42'40" W 2671.22 feet from the Northeast corner of said Section 27, thence S 01°41'40" E 405.61 feet along the North-South 1/4 line of said Section 27, thence S 64°22'50" E 927.50 feet (being the centerline of East North Territorial Road, 66 ft. wide) to the POINT OF BEGINNING.

thence N 25°37'10" E 115.00 feet;
 thence N 08°40'07" E 75.00 feet;
 thence N 25°37'10" E 60.00 feet;
 being a part of the Northeast 1/4 of Section 27, T1S, R6E, Northfield Township, Washtenaw County, Michigan, except any part taken, deeded or used for public road purposes, and subject to assessments and restrictions of record, if any.

Together with a 10 foot wide easement for public utilities, the centerline of said easement is described as follows:
 Commencing at the North 1/4 corner of Section 27, T1S, R6E, Northfield Township, Washtenaw County, Michigan, said corner being located S 85°42'40" W 2671.22 feet from the Northeast corner of said Section 27, thence S 01°41'40" E 405.61 feet along the North-South 1/4 line of said Section 27, thence S 64°22'50" E 927.50 feet (also being the centerline of East North Territorial Road, 66 ft. wide), thence N 25°37'10" E 115.00 feet, thence N 08°40'07" E 75.00 feet, thence N 25°37'10" E 60.00 feet to the POINT OF BEGINNING.

thence S 64°22'50" W 87.00 feet to the POINT OF ENDING, being a part of the Northeast 1/4 of Section 27, T1S, R6E, Northfield Township, Washtenaw County, Michigan, subject to assessments and restrictions of record, if any.

verizon wireless

SITE #144 - "N TERRITORIAL SPENCER"

NORTHFIELD TOWNSHIP, WASHTENAW COUNTY, MICHIGAN

SITE SURVEY, GENERAL INFORMATION

APPLICANT/LESSEE:

NEW PAR, A DELAWARE PARTNERSHIP
 dba VERIZON WIRELESS
 24242 NORTHWESTERN HIGHWAY
 SOUTHWFIELD, MICHIGAN 48075
 PHONE: (248) 915-3000

LOCATION

LONGITUDE 83° 42' 31.5"
 LATITUDE 42° 22' 21.2"
 GROUND ELEV. @ TOWER BASE = 936.10

VICINITY SKETCH

DATE: 8/13/15
SHEET: 1 OF 2
CADD: A1H, YES, PDR
ENG: JAF
CHK: JAF
TECH: KWW
94044_144-SP1

1

MIDWESTERN CONSULTING

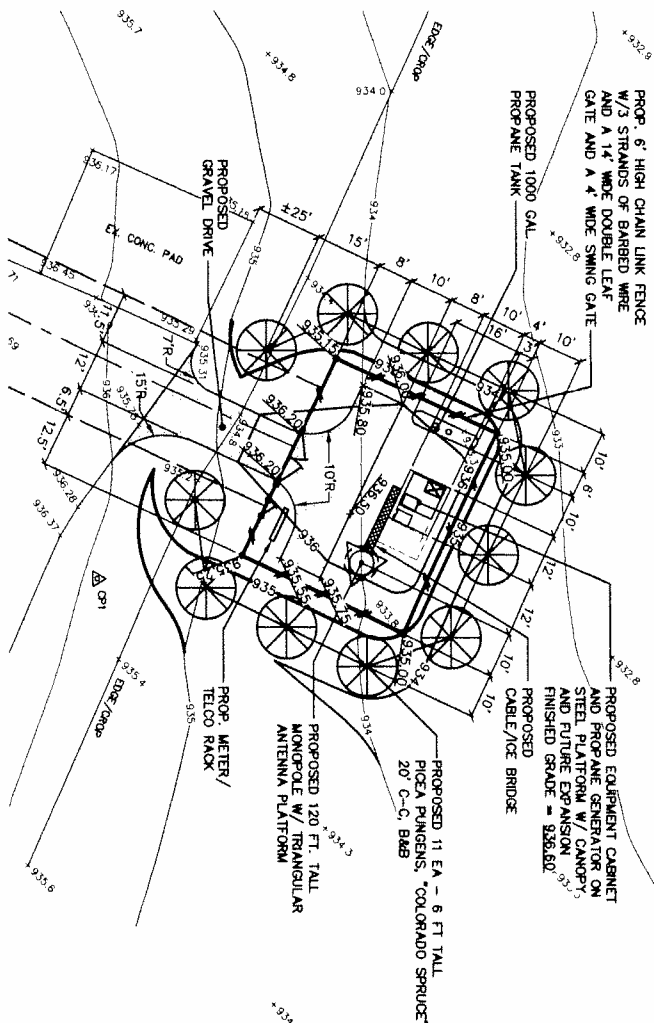
3815 Plaza Drive Ann Arbor, Michigan 48108
 (734) 995-0200 • www.midwesternconsulting.com
 Land Development • Land Survey • Institutional • Municipal
 Wireless Communications • Transportation • Landfill Services

GENERAL NOTES:

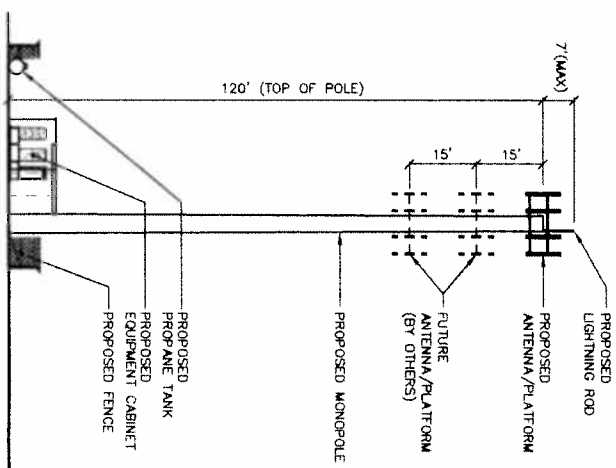
- All site work construction shall be in accordance with the current standards and specifications of the Northfield Township, where applicable.
- The proposed equipment cabinet is to be a computerized, unattended, telephone exchange structure. No water service, sanitary facilities or gas service is needed. Telephones and electrical services will be from an existing utility pole or line adjacent to the site.
- The proposed equipment cabinet is to have a security system monitored 24 hours per day. The cabinet will also be constructed with bullet resistant materials.
- There are two, low wattage (LOW), LED lights proposed as part of this project. The lights are mounted to the canopy support posts, under the canopy with one next to the cabinet and one next to the generator. Lights shall be connected to a technician operated on/off switch with a timer with a two-hour maximum at duration.
- There are no signs proposed for this project except for:
 - Emergency contact information purposes and FCC "cell" sign placed on equipment cabinet door.
 - FCC registration number located on fence gate.
- The cellular antenna and equipment cabinet will be approved by the Federal Communications Commission (FCC) and will not impact any frequency sensitive devices whatsoever. Buyer warrants no adverse radio interference with adjacent land uses.
- There are no toxic materials used by Lessee on the site. Lessee has no need for outdoor storage or garbage disposal and pick-up.
- Maintenance personnel using van type service vehicles enter and exit the site approximately 2 to 4 times per month. No loading or unloading area is needed by them.
- All areas disturbed by the construction of the tower and cabinet and driveway shall be restored in kind. Contractor is to provide soil erosion control measures as needed or as directed by owner or government agency having jurisdiction.
- All areas inside of and to 1'-0" outside of the fenced area shall be covered with 3" of crushed limestone placed over 1" year landscape fabric.
- Ingress and egress by Lessee's personnel to the site shall be via an existing paved road and proposed gravel drive from East North Territorial Road.
- The proposed drive shall consist of 3" of MDOT Class 23A crushed limestone aggregate over 10" of 3/4" crushed concrete or slag over 4" compacted subgrade. The subgrade shall be strip of 4" compacted and compacted material prior to placing aggregate. When the subgrade and aggregate are placed backfill it is a minimum of 2 ft. wider and longer than the drive which is to be constructed over the poor soils.
- This site plan is based on the survey of the existing conditions conducted by Midwestern Consulting, LLC on 05-15-2015.

Maintenance Plan for Proposed Verizon Wireless Tower Site

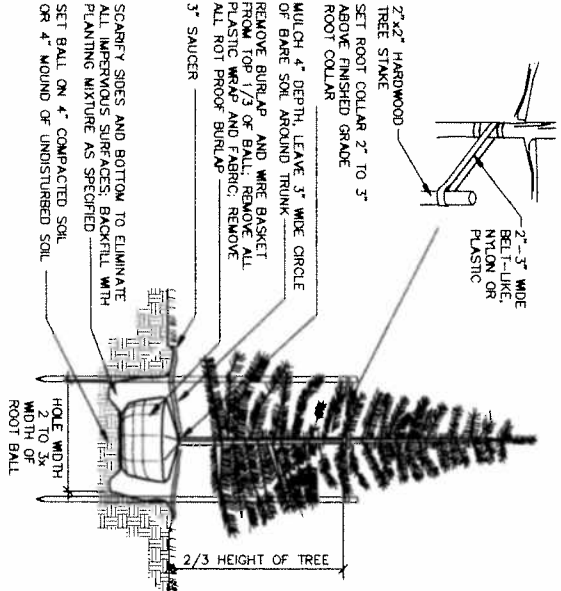
Verizon Wireless maintains all of their sites through its Operation Department. The Operations technician visits the Verizon Wireless sites at least once a month. The Verizon Wireless Operation technician will review the site at each visit and make arrangements to report and repair any and all issues with the site. The technician has a standard procedure that is followed when visiting a site. The technician will look for issues with all matters such as the fence, road, cabinet, etc. Anything that needs to be maintained is the responsibility of the Operations Department and they will make sure that the site is maintained to Verizon Wireless and Township Specifications.



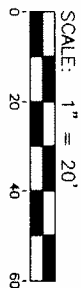
NOTE: REMOVE STAKING/STYING MATERIAL AFTER ONE YEAR.



POLE & CABINET ELEVATION
SCALE 1" = 20'



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



LEGEND

- EXIST. CONTOUR
- PROP. CONTOUR
- EXIST. SPOT ELEVATION
- PROP. SPOT ELEVATION
- EXIST. UTILITY POLE
- GUY WIRE
- EXIST. OVERHEAD UTILITY LINE
- EXIST. LIGHT POLE
- EXIST. FIBER OPTIC LINE
- TELEPHONE RISER
- C/L OF DITCH
- POST
- FENCE
- SECTION CORNER
- FOUND MONUMENT
- CONTROL PT.

JOB No.	94044-144	DATE:	8/13/15
REVISION	REV. DATE	SHEET	2 OF 2
1. SHELTER TO CABINET	11/17/15	CADD:	AH, TES, POR
2. LEASE PARCEL SIZE	1/11/16	ENG:	JAF
		PM:	JW
		TECH:	KW
			94044_144-SP1
			TB 447

2

verizonwireless

SITE #144 - "N TERRITORIAL SPENCER"
 NORTHFIELD TOWNSHIP, WASHTENAW COUNTY, MICHIGAN
 SITE PLAN DETAIL

APPLICANT/LESSEE:

NEW PAR, A DELAWARE PARTNERSHIP
 dba VERIZON WIRELESS
 24242 NORTHWESTERN HIGHWAY
 SOUTHFIELD, MICHIGAN 48075
 PHONE: (248) 915-3000



MIDWESTERN CONSULTING
 3815 Plaza Drive Ann Arbor, Michigan 48108
 (734) 995-9200 • www.midwesternconsulting.com
 Land Development • Land Survey • Institutional • Municipal
 Wireless Communications • Transportation • Landfill Services

RJP CONSULTING

March 15, 2016

Planning Commission
Northfield Township
8350 North Main Street
Whitmore Lake, MI 48189

RE: Verizon Wireless Total Radiation Output from Radio and Antenna System

700MHz LTE (60W radio output)

- $133\text{W/MHz} \times 10\text{MHz} = 1330\text{W ERP}$

2100MHz LTE (60W radio output)

- $188\text{W/MHz} \times 20\text{MHz} = 3760\text{W ERP}$

1900MHz LTE (60W radio output)

- $751\text{W/MHz} \times 5\text{MHz} = 3755\text{W ERP}$

Please call me at (248) 613-4399 if you have any questions.

Sincerely,



Bob Przybylo
RJP Consulting, Inc. o/b/o Verizon Wireless

RJP CONSULTING

March 15, 2016

Planning Commission
Northfield Township
8350 North Main Street
Whitmore Lake, MI 48189

RE: Verizon Wireless Network Propagation Maps

To Whom It May Concern:

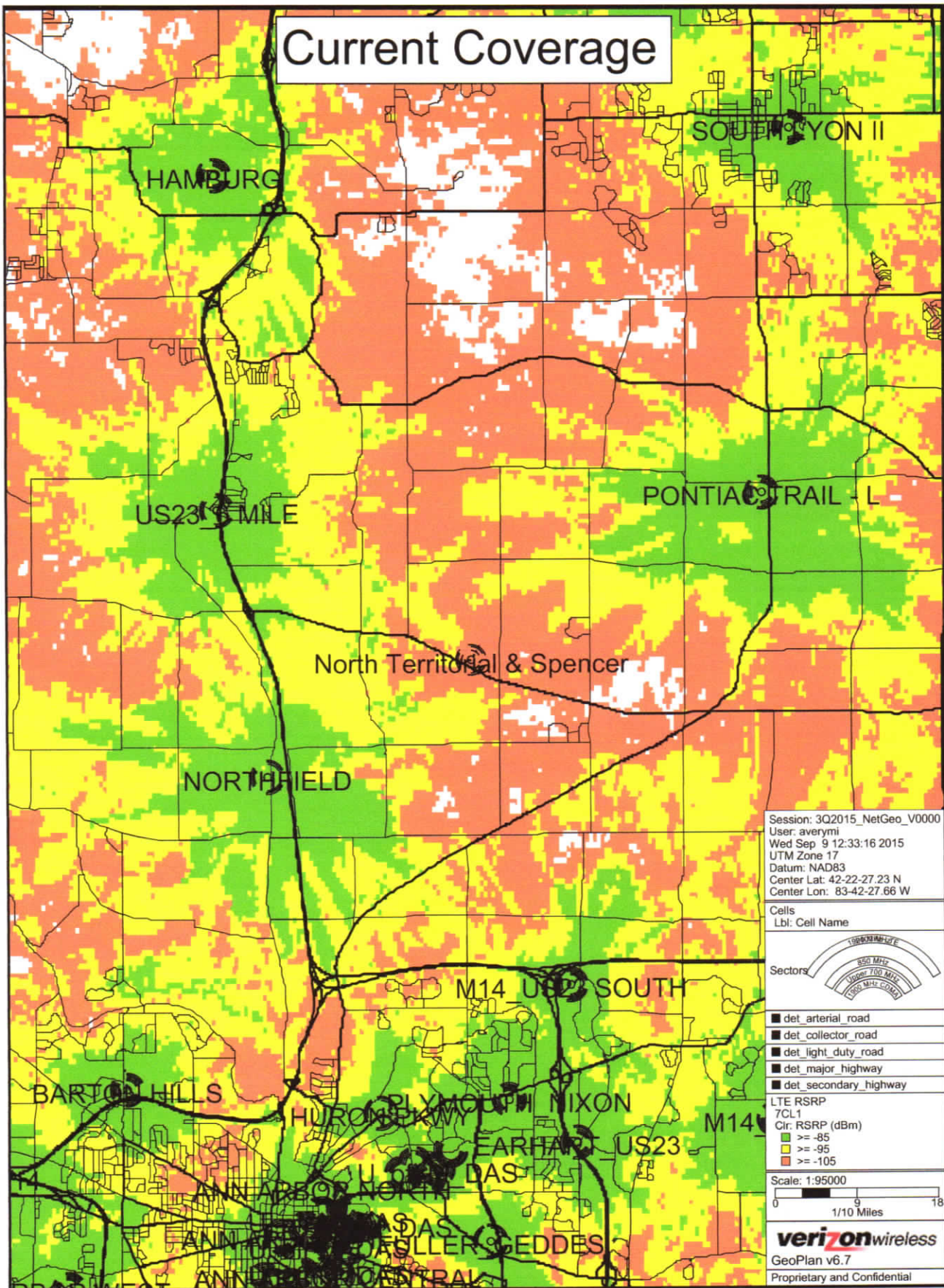
Please see the attached maps. The first map shows the existing network coverage. The second map shows the network coverage with the proposed site. As you can see, the proposed site dramatically improves coverage in the area. Please note the maps show the network coverage as required by Verizon Wireless standards including in-car, in-building, and outside for both voice calls and data usage. Please call me at (248) 613-4399 if you have any questions.

Sincerely,

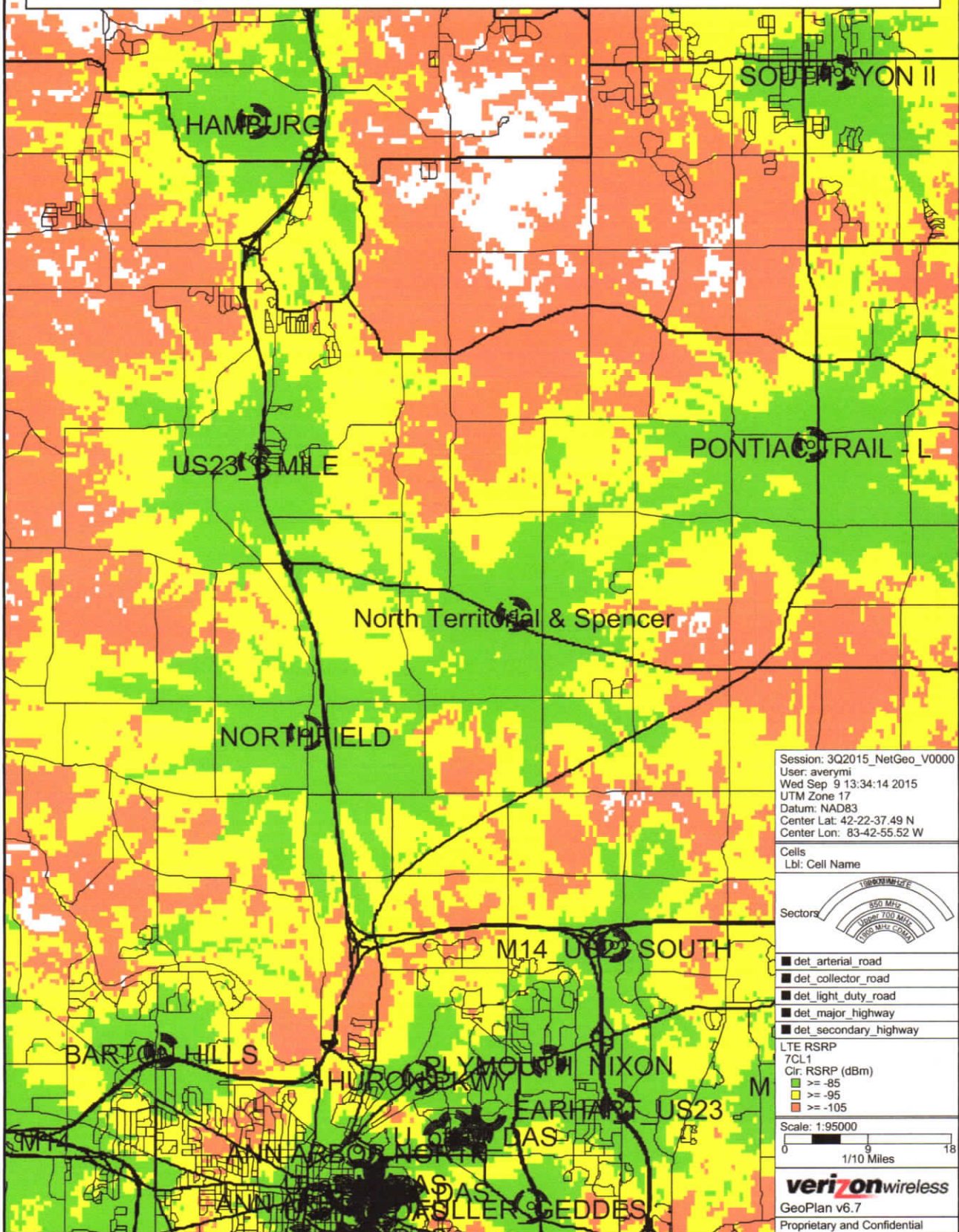


Bob Przybylo
RJP Consulting, Inc. o/b/o Verizon Wireless

Current Coverage

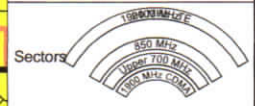


Coverage with North Territorial & Spencer



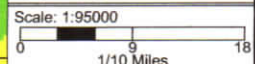
Session: 3Q2015_NetGeo_V0000
 User: averymi
 Wed Sep 9 13:34:14 2015
 UTM Zone 17
 Datum: NAD83
 Center Lat: 42-22-37.49 N
 Center Lon: 83-42-55.52 W

Cells
 Lbl: Cell Name



- det_arterial_road
- det_collector_road
- det_light_duty_road
- det_major_highway
- det_secondary_highway

LTE RSRP
 7CL1
 Cr: RSRP (dBm)



verizonwireless
 GeoPlan v6.7
 Proprietary and Confidential

RJP CONSULTING

March 15, 2016

Planning Commission
Northfield Township
8350 North Main Street
Whitmore Lake, MI 48189

RE: Verizon Wireless Existing Towers

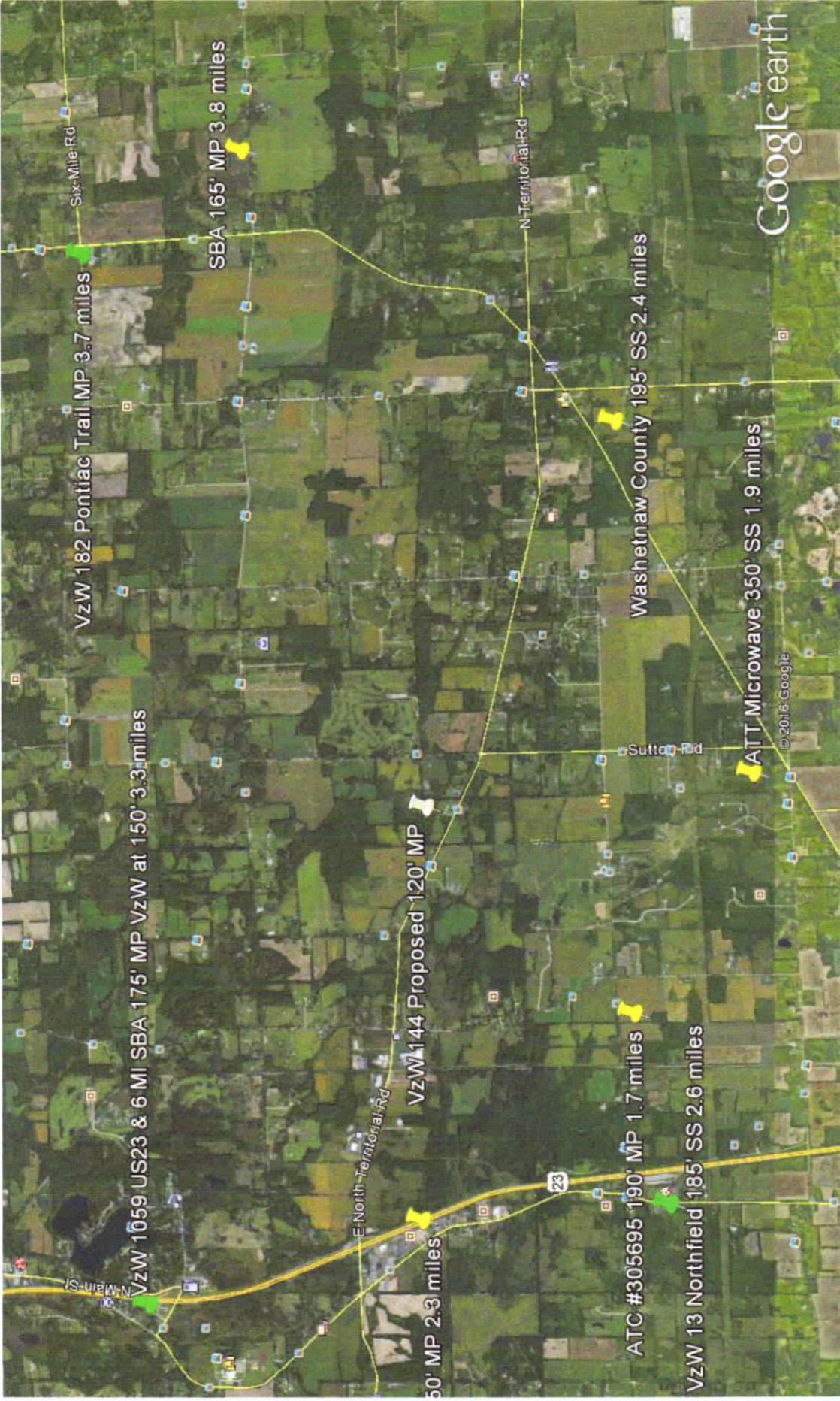
To Whom It May Concern:

Please see the attached map. It shows all of the existing towers within and near the township as well as type and height. These are depicted by the yellow push pins. The green push pins are existing Verizon Wireless sites in the area and the white push pin is the proposed site. Please call me at (248) 613-4399 if you have any questions.

Sincerely,



Bob Przybylo
RJP Consulting, Inc. o/b/o Verizon Wireless



February 22, 2016

Mr. Andrew Konyha
Verizon Wireless

RE: Proposed 120' Sabre Monopole for N Territorial Spencer, MI

Dear Mr. Konyha,

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" radial 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 the upper portion of the monopole shaft. Assuming that the wind pressure profile is similar to that used to design the monopole, the monopole will buckle at the location of the highest combined stress ratio within the upper portion of the monopole shaft. This is likely to result in the portion of the monopole above "folding over" onto the portion below, essentially collapsing on itself. **Please note that this letter only applies to the above referenced monopole designed and manufactured by Sabre Towers & Poles.** In the unlikely event of total separation, this will result in collapse within a radius of 60 feet.

Sincerely,

Robert E. Beacom, P.E., S.E.
Senior Design Engineer

