



VILLAGE OF ORLAND PARK

14700 Ravinia Avenue
Orland Park, IL 60462
www.orlandpark.org

Meeting Agenda

Plan Commission

Louis Stephens, Chairman

*Commissioners: Judith Jacobs, Paul Aubin, Nick Parisi, John J. Paul,
Laura Murphy and Dave Shalabi*

Tuesday, September 12, 2017

7:00 PM

Village Hall

CALLED TO ORDER/ROLL CALL

APPROVAL OF MINUTES

2017-0045 Minutes of the August 8, 2017 Plan Commission Meeting

Attachments: [July 11, 2017 PC Minutes](#)

PUBLIC HEARINGS

2017-0454 Eco-Site Wireless Communication Facility, 15655 Ravinia Avenue-Special Use Permit

Attachments: [Eco-Site Wireless Comm Facility Plans](#)

2017-0660 143rd Street and Wolf Road Intersection Widening - Section 106 National Historic Preservation Act Review

Attachments: [18959A - Historic Resource Avoidance Request Memo](#)
[P118014-sht-plnprf-02](#)
[P118041-sht-IDS-Wolf-01](#)
[YunkerSchoolHouseEXH](#)

NON-PUBLIC HEARINGS

OTHER BUSINESS

2017-0046 Memo: New Petitions & Appearance Review

Attachments: [8-8-17 Plan Commission Memo](#)

ADJOURNMENT

DATE: September 12,
2017

REQUEST FOR ACTION REPORT

File Number: **2017-0045**
Orig. Department: **Development Services Department**
File Name: **Minutes of the August 8, 2017 Plan Commission Meeting**

BACKGROUND:

BUDGET IMPACT:

REQUESTED ACTION:

VILLAGE OF ORLAND PARK

14700 Ravinia Avenue
Orland Park, IL 60462
www.orlandpark.org



Meeting Minutes

Tuesday, July 11, 2017

7:00 PM

Village Hall

Plan Commission

Louis Stephens, Chairman

*Commissioners: Judith Jacobs, Paul Aubin, Nick Parisi, John J. Paul,
Laura Murphy and Dave Shalabi*

CALLED TO ORDER/ROLL CALL

The meeting was called to order by the Plan Commission Chairman, Mr. Louis Stephens, at 7:00 p.m.

Present: 5 - Chairman Stephens; Member Aubin; Member Parisi; Member Paul, Member Shalabi

Absent: 2 - Member Jacobs, Member Murphy

APPROVAL OF MINUTES**2017-0045 Minutes of the July 11, 2017 Plan Commission Meeting**

A motion was made by Commissioner Paul, seconded by Commissioner Shalabi to approve the minutes of the June 27, 2017 Plan Commission.

APPROVED

Aye: 5 - Chairman Stephens, Member Aubin, Member Parisi, Member Paul and Member Shalabi

Nay: 0

Absent: 2 - Member Jacobs and Member Murphy

PUBLIC HEARINGS**2017-0431 Carz N More - Special Use Permit**

MAZZA: Staff presentation made in accordance with written staff report dated July 11, 2017.

AUBIN: Swore in the petitioner Ricardo Rodriguez of Orland Park, Illinois

RODRIGUEZ: The presentation was good in covering all the details.

STEPHENS: Are you in agreement with all the conditions?

RODRIGUEZ: Yes.

PAUL: Has there ever been an issue with the previous facility?

MAZZA: Yes, the Police Department provided information on some violations related to unregistered vehicles on the premises which have all been resolved. This was why the Police Department was eager to speak with Mr. Rodriguez for the Special Use Permit. A meeting took place where information was provided to Mr. Rodriguez that if he is not holding up his end of the bargain, the Special Use permit could be rescinded meaning he would lose the opportunity to run that motor vehicle services in that location.

PAUL: So it sounds like it has been resolved.

MAZZA: Yes.

SHALAB: Based on previous commercial leasing experiencing in that 70th Court corridor, I have found that some of the mechanical work ends up getting done outside. Oak Forest homes are very close by and have expressed frustration in the past in automotive work being done outside. Secondly, parking has also become an issue. In your presentation you can see that there are vehicles on 70th Court being parked and double-stacked on both sides, 70th Court is a fairly narrow street. We should be very cautious that mechanical work is not being done outside. I am aware that if that is the case, it may rescind their permit. We also need to ensure parking isn't being hindered, and we are not causing a disruption to the residential neighbors that are within 250 feet. How many feet is it?

MAZZA: Its about 600 feet by my measurement.

AUBIN: Mr. Maaza, do the conditions that are attached to this motion cover any reservations the Commission might have?

MAZZA: We believe so. In addition, the Police Department has given extra scrutiny to this area especially in terms of these conditions today. The Police Department is aware of this project and is planning on gearing up their visits to this area to ensure compliance.

STEPHENS: I have nothing at this moment. At this point, we'll recommend a motion.

STEPHENS:

I move to accept as findings of fact of this Plan Commission the findings of fact set forth in this staff report, dated July 11, 2017,

And

I move to recommend to the Village Board approval of a Special Use Permit for Carz N More to locate a motor vehicle service facility at 15642 S. 70th Court, subject to the following conditions:

- 1) That no new or used automobile sales of any kind are allowed on premises;
- 2) That all work is conducted indoors;
- 3) That garage doors facing residential areas remain closed at all times except for the exchange of vehicles;
- 4) That vehicles parked outside for more than five (5) business days are considered outdoor storage and will require additional screening per Village requirements;
- 5) That no more than eight (8) vehicles are parked on premises at any time;

- 6) That no unlicensed an/or unregistered cars may be on the premises at any time;
- 7) That a triple basin is installed and inspected by the Village;
- 8) That the violation of any of these stated conditions or any Village of Orland Park statute may result in the revocation of the Special Use Permit associated with this project.

PARISI: Second.

RECOMMENDED FOR APPROVAL

Aye: 5 - Chairman Stephens, Member Aubin, Member Parisi, Member Paul and Member Shalabi

Nay: 0

Absent: 2 - Member Jacobs and Member Murphy

NON-PUBLIC HEARINGS

OTHER BUSINESS

2017-0046 Memo: New Petitions & Appearance Review

STEPHENS: I would like to make a comment regarding the hiring recommendation I made at the June 27th meeting regarding Nectarios Pittos. It was intended for the position for Planning Division Manager and not for Assistant Director of Development Services. I offer my apologies to our staff member Ed Lelo, who is currently serving as interim Assistant Director of Development Services and does an excellent job in that position.

ADJOURNMENT

STEPHENS: This meeting is adjourned at 7:12 p.m.

DATE: September 12,
2017

REQUEST FOR ACTION REPORT

File Number: **2017-0454**
Orig. Department: **Development Services Department**
File Name: **Eco-Site Wireless Communication Facility, 15655 Ravinia Avenue- Special Use Permit**

BACKGROUND:

QUICKFACTS

Project

Eco-Site Wireless Communication Facility, 15655 Ravinia Avenue- Special Use Permit

Petitioner

Raymond Beer

Purpose

To construct a 95- foot monopole (a total height of 100 feet with a five (5) foot lightening rod) tower with T-Mobile equipment within a 2,500 square foot (50 foot by 50 foot) fenced ground equipment enclosure on property located at the Village of Orland Park's Public Works Facility, 15655 Ravinia Avenue. The site is currently occupied by the Village of Orland Park's Public Works building.

Requested Actions: Site Plan and Special Use Permit

Project Attributes

Address: 15655 Ravinia Avenue

P.I.N.(s): 27-16-401-010-0000-999-29250

Size: 2,500 s.f.

Comprehensive Plan Planning District: Regional Core Planning District

Comprehensive Land Designation: Regional Mixed-Use

Existing Zoning: COR

Existing Land Use: Village of Orland Park Public Use

Proposed Land Use: Wireless communication facility

Surrounding Land Use:

North: Regional Core Planning District- Open space, then R-4 Single-Family Residential

South: Regional Core Planning District- retail

East: Regional Core Planning District- retail (Across LaGrange)

West: Regional Core Planning District- Open space, then RSB Single-Family Residential

Preliminary Engineering: Preliminary engineering has been granted in a letter dated September 5, 2017 from Christopher B. Burke Engineering, LTD. Please refer to the Detailed Planning Discussion section for more details.

Special Use Permit: A special use permit is required for this wireless communication facility. Section 6-311 of the Land Development Code notes that wireless communication facilities are an allowable use in the zoning district only via Special Use permit.

OVERVIEW AND BACKGROUND

In 2010, the Board of Trustees adopted the policies titled, "Co-Locating Wireless Communication Facilities on Village-Owned Property" (2009-0288). The policy includes six components:

- 1) A screening requirement that ground equipment cabinet enclosures shall be screened using 100 percent solid opaque fence.
- 2) When screening by native landscaping cannot be accommodated, the provider shall pay a fee of \$2,500 to the Village of Orland Park Tree Mitigation Bank in lieu of the required landscaping.
- 3) Special use permits for ground equipment shelters or buildings shall require a masonry building designed similar to existing Village-owned utility substations or pump housing facilities.
- 4) The provider must provide an assessment for multiple tenants or co-locations and determine if other carriers or providers can fit/ co-locate on the infrastructure per Section 6-311 of the Land Development Code. If more co-locations can fit, they must build the ground equipment enclosure or shelter to accommodate at least one future additional tenant.
- 5) The provider must pay a one-time site maintenance or impact fee of \$2,000 for impacts to utilities, roads, towers, screening, and other infrastructure and services on public property. Site access shall be controlled by the Department with jurisdiction. No new road access to such sites shall be allowed. In addition, any new paths or sidewalks for site access shall be subject to the Department with jurisdiction.
- 6) Compensation to the Village for use of the Village-owned infrastructure and facilities shall follow a pre-determined fee schedule. Compensation payments shall be made quarterly. The fee schedule began in 2010 and shall escalate annually three percent.

PROJECT DESCRIPTION & CONTEXT

In following the above 2010 policy for co-locating wireless communication facilities on Village-owned property (2009-0288):

- 1) The petitioner proposes screening the ground equipment with a 100 percent solid opaque fence constructed of PVC.
 - 2) The petitioner has paid the Village of Orland Park Tree Mitigation Bank \$2,500 fee in lieu of the required landscaping.
 - 3) The petitioner will pay the one-time site maintenance fee and has not proposed any new road access to the site.
-

4) A lease agreement has been developed between the petitioner and the Village with an initial lease term of five years with the tenant's right to renew the lease for additional five year terms, thus a possibility of 25 years. The 2017 quarterly rent is \$4,200; \$4,305 for 2018, \$4,413 for 2019, \$4,523 for 2020, and \$4,636 for 2021, the rents take into account the rent escalation.

EcoSite Wireless proposes to construct a 95 foot tall monopole, with a total height of 100 feet with a five (5) foot lightning rod tower on Village-owned land at 15655 Ravinia Avenue. The monopole will be constructed with T-Mobile equipment mounted at 80 feet. The tower will be capable of holding two additional co-locations at both 70 feet and 95 feet. The tower will be built within a 2,500 square foot (50 foot by 50 foot) fenced compound. Within the compound, an eight (8) by ten (10) foot concrete pad will be installed. An eight (8) foot high security fence constructed of PVC with a gate with a lock. The Village's Public Works Department has requested that the petitioner does not provide landscaping around the proposed facility in order to conserve space on the site, as it will be on the outskirts of their storage yard. The petitioner has paid the \$2,500 in lieu fee to the Village's Tree Mitigation Bank.

Section 6-311.F, "General Standards of Wireless Communication Facilities" of the Land Development Code describes the requirements for wireless communication facilities to blend with surrounding environment to avoid adverse aesthetic and visual impacts.

The Village recommends the petitioner paint the tower sky grey to blend with the surrounding environment for visual harmony to meet the Section 6-311.F Land Development Code requirements.

Section 6-311.G.3, "Location and Standards of Wireless Communication Facilities" of the Land Development Code describes the requirement of a special use permit for new freestanding monopoles in the COR Mixed Use district and the requirements to locate within the coning district.

The proposed wireless communication facility meets the Section 6-311.G.3 Land Development Code requirements.

The petitioner will pay the Village 12.5% of revenue it receives for each future wireless carrier that co-locates on the tower beyond the first carrier. The Village, at its cost but with no rent obligation, may place public works/public safety communication facilities on the tower consisting of three antennas and a corresponding Rocket M5 at the 60 foot level.

This petitioner requests the following modifications:

1) Waiving installation of landscaping screening in favor of paying the fee of \$2,500 in lieu of it.

The recommendation motion includes the following conditions:

1) Paint the tower sky grey to blend with the surrounding environment for visual harmony to meet the Section 6-311.F Land Development Code requirements.

Overall, the project conforms to the Village's Comprehensive Plan, Land Development Code, and policies for this area.

SITE PLAN

The proposed site plan details the proposed 95 foot monopole (a total height of 100 feet with a five (5) foot lightening rod) tower on Village-owned land at 15655 Ravinia Avenue. The tower will be built within a 2,500 square foot fenced compound. Within the compound, an 80 square foot concrete pad will be installed surrounded by an eight (8) foot high security fence constructed of PVC.

MOBILITY

The site is directly accessible from Ravinia Avenue, which is a major collector under local jurisdiction.

Vehicular/Traffic

Ravinia Avenue will provide direct access to the site.

Parking/Loading

The existing Public Works building parking lot.

A twenty (20) foot access easement is proposed west of the tower location and will provide access to the proposed new enclosure.

MONOPOLE TOWER ELEVATIONS

The proposed elevation drawings depict a 95 foot tower (with a five [5] foot lightening rod). The monopole will be constructed with T-Mobile equipment mounted at 80 feet and capability of holding two additional co-locations at both 70 feet and 95 feet. The tower will be built within a 50 by 50 foot compound that will be surrounded by an eight (8) foot tall security fence.

Fence Section detail- Sheet C-6

An 8-foot high security fence will be constructed of PVC with a gate and a lock.

Front and Rear Equipment Elevation- Sheet C-4.

The monopole tower will have a baseband unit (BBU) cabinet, support cabinet, and COVP and ESEB locations.

Antenna Plan- 80 Ft Level- Sheet C-12.

T-Mobile equipment will be located at 80 feet. The location, technology model number, HCS length, and jumper length specifications are detailed.

LANDSCAPING

Due to the small size of the site and direction from the Village's Public Works department, the petitioner will not be providing landscaping for the site. The petitioner has paid the fee of \$2,500 to the Village's Tree Mitigation Bank.

DETAILED PLANNING DISCUSSION

Preliminary Engineering

Preliminary engineering has been granted for this project in a letter dated September 5, 2017 from Christopher B. Burke Engineering, LTD.

Special Use Permit

A special use permit is required for Eco-Site Wireless Communication Facility. Section 6-311 of the Land Development Code notes that wireless communication facilities are an allowable use

in the zoning district only via Special Use permit.

The only modification to the special use permit is to not put in landscaping due to the small size of the site. The petitioner has paid a fee of \$2,500 to the Village's Tree Mitigation Bank in lieu of landscaping.

When considering an application for special use permit, the decision making body shall consider the eight special use standards listed in the Code. The petitioner has provided responses to the Special Use Standards.

Land Use/Compatibility

Lot Coverage

The petitioner will be leasing 2,500 square feet from the Village of the 8.5 acre site. The site is already impervious as it is part of the outdoor storage yard of the Village of Orland Park's Public Works Facility.

Setbacks

Front Yard:

Required - 40 feet

Proposed - 200 feet

Northeast Property Line Side Setback

Required - 15 feet

Proposed - 20 feet

Rear Yard:

Required - 35 feet

Proposed - 160 feet

Building Height

Maximum - 100 feet

Proposed - 95 foot tower with a five (5) foot lightning rod. The tower will be surrounded by an eight (8) foot high security fence.

This is now before Plan Commission for consideration.

BUDGET IMPACT:

REQUESTED ACTION:

I move to accept as findings of fact of this Plan Commission the findings of fact set forth in this staff report, dated September 12, 2017.

And

I move to recommend to the Village Board of Trustees to approve the preliminary site plans

titled "Overall Site Plan" sheet C-1; "Site Plan" sheet C-2; "Fence, Gate, and Compound Details" sheet C-6; " Grading and Erosion Control Plan" sheet C-7; "Site Signage Details" sheet C-9; and "Antenna Plan 80ft. Level" sheet C-12 prepared by W-T Communication Design Group, LLC dated May 31, 2017, subject to the following conditions:

1) Paint the tower sky grey to blend with the surrounding environment for visual harmony to meet the Section 6-311.F Land Development Code requirements.

And

I move to recommend to the Village Board of Trustees to approve the Elevations titled "Equipment Elevations" sheets C-4 and C-5 and "Antenna & Tower Elevations Details" sheet C-11 prepared by W-T Communication design Group, LLC dated May 31, 2017, subject to the same above conditions.

And

I move to recommend to the Village Board of Trustees to approve a special use permit for a wireless communication facility at the Village of Orland Park's Public Works building in the COR District. Modifications to the special use permit include:

1) Waiving installation of landscaping screening in favor of paying the fee of \$2,500 in lieu of it.



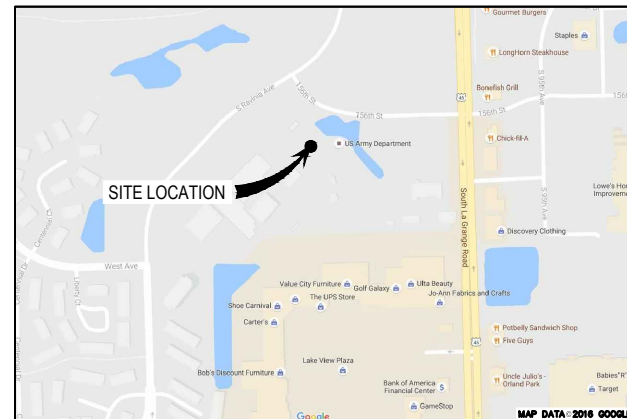
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

94TH AVE./IL-0130 ORLAND PARK PUBLIC WORKS BUILDING RL/CH75232H

SITE ADDRESS

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY

LATITUDE: 41° 36' 23.97" (41.606658) N
LONGITUDE: 87° 51' 22.36" (87.856211) W
GROUND ELEVATION: 694.26' AMSL
TAX/PIN #: 27-16-401-010-0000
ZONING: COR



VICINITY MAP

LEAVING O'HARE INTERNATIONAL AIRPORT

- HEAD EAST ON I-190 E
- TAKE EXIT 1D TOWARD I-294 S/INDIANA/S TOLLWAY
- MERGE ONTO I-294 S
- USE THE RIGHT 2 LANES TO MERGE ONTO I-55 N
- TAKE EXIT 279A TO MERGE ONTO US-12 E/US-20 E/US-45 S/S LAGRANGE RD
- MERGE ONTO US-12 E/US-20 E/US-45 S/S LAGRANGE RD
- USE THE RIGHT 2 LANES TO TURN SLIGHTLY RIGHT ONTO US-12 E/US-20 E/US-45 S/SOUTH LA GRANGE ROAD (SIGNS FOR LA GRANGE ROAD/IL-171 S/ARCHER AVENUE)
- TURN RIGHT ONTO W 153RD ST
- TURN LEFT ONTO S RAVINIA AVE
- ARRIVE AT 15655 SOUTH RAVINIA AVENUE, ORLAND PARK, IL 60462

DRIVING DIRECTIONS

MUNICIPALITY:
COOK COUNTY

STATE:
IL

TOWER TYPE:
MONOPOLE

TOWER HEIGHT:
95' (100' TO HIGHEST APPURTENANCE)

NUMBER OF CARRIERS:
0 EXISTING, 1 PROPOSED, 2 FUTURE

USE:
PROPOSED TELECOMMUNICATIONS TOWER AND UNMANNED EQUIPMENT

CONSULTANT
W-T COMMUNICATION DESIGN GROUP, LLC.
2675 PRATUM AVENUE
HOFFMAN ESTATES, IL 60192
PHONE: (224) 293-6333
ATTN.: KATIE SCHULTZ

PROJECT SUMMARY

DEVELOPER

ECO-SITE
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707
PHONE: (919) 636-6810
ATTN: TBD

POWER COMPANY

COMED
PHONE: (800) 426-6331
ATTN.: CUSTOMER SERVICE

TELEPHONE COMPANY

T.B.D.
PHONE: T.B.D.
ATTN.: CUSTOMER SERVICE

PROPERTY OR TOWER OWNER

VILLAGE OF ORLAND PARK
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
PHONE: (708) 403-6151
ATTN.: JOSEPH LA MARGO

CONTACTS

SHEET	DESCRIPTION	REV.
T-1	COVER SHEET	0
S-1	SURVEY	2
S-2	SURVEY	2
S-3	SURVEY	2
GN-1	GENERAL NOTES	0
GN-2	GENERAL NOTES	0
GN-3	CARRIER NOTES	0
C-1	OVERALL SITE PLAN	0
C-2	SITE PLAN	0
C-3	CARRIER EQUIPMENT PAD DETAILS	0
C-4	EQUIPMENT ELEVATIONS	0
C-5	EQUIPMENT ELEVATIONS	0
C-6	FENCE, GATE & COMPOUND DETAILS	0
C-7	GRADING & EROSION CONTROL PLAN	0
C-8	ACCESS ROAD DETAILS	0
C-9	SITE SIGNAGE DETAILS	0
C-10	WAVEGUIDE BRIDGE DETAILS	0
C-11	ANTENNA & TOWER ELEVATION DETAILS	0
C-12	ANTENNA PLAN 80 FT. LEVEL	0
C-13	EQUIPMENT SPECIFICATIONS	0
C-14	EQUIPMENT SPECIFICATIONS	0
C-15	RF DATA SHEET	0
C-16	ANTENNA CONFIGURATION SHEET	0
E-1	OVERALL SERVICE ROUTING PLAN	0
E-1.1	BASIC SERVICE ROUTING PLAN	0
E-2	GROUNDING PLAN	0
E-3	UTILITY RISER & SINGLE-LINE DIAGRAMS	0
E-4	ELECTRICAL DETAILS	0
E-5	H-FRAME DETAIL	0
E-6	H-FRAME DETAIL	0
E-7	GROUNDING DETAILS	0
E-8	GROUNDING DETAILS	0
E-9	GROUNDING DETAILS	0
-	TOWER FOUNDATION DRAWINGS (PENDING)	

SHEET INDEX

NTP WIRELESS
520 WEST ERIE, SUITE 400
CHICAGO, IL 60654
PHONE: (773) 275-5712
FAX: (773) 275-5713

SITE ACQUISITION

Eco-Site
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:

94TH AVE./IL-0130
ORLAND PARK PUBLIC WORKS BUILDING
RL/CH75232H

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
T1601581

CURRENT ISSUE DATE:

05/31/17

ISSUED FOR:

FINAL

REV.	DATE	ISSUED FOR:	BY:
A	12/02/16	FOR CLIENT REVIEW	SC
B	12/27/16	REVISION	KLO
C	03/31/17	CITY COMMENTS	KLO
D	05/23/17	RFDS REVISION	KLO
0	05/31/17	FINAL	KLO

CONSULTANT:



W-T COMMUNICATION DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

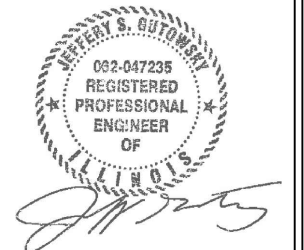
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com

IL License No.: 184.007570-0015 Exp: 04/30/19

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DRAWN BY:	CHK:	APV:
SC	JKR	JSG

LICENSER:



JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

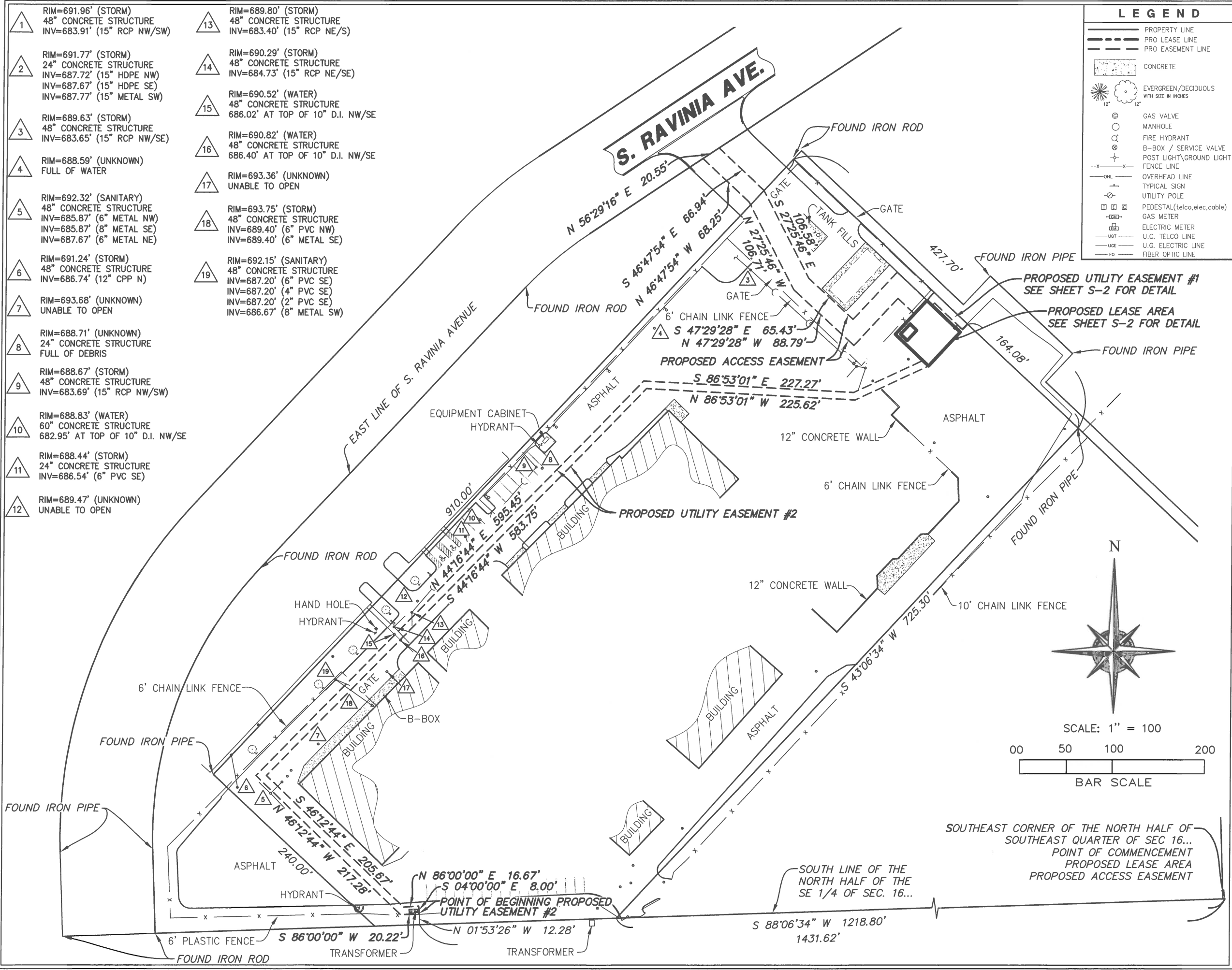
SHEET TITLE:

COVER SHEET

SHEET NUMBER: REVISION:

T-1

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LEGEND

- PROPERTY LINE
- PRO LEASE LINE
- PRO EASEMENT LINE
- CONCRETE
- EVERGREEN/DECIDUOUS WITH SIZE IN INCHES
- GAS VALVE
- MANHOLE
- FIRE HYDRANT
- B-BOX / SERVICE VALVE
- POST LIGHT/GROUND LIGHT
- FENCE LINE
- OVERHEAD LINE
- TYPICAL SIGN
- UTILITY POLE
- PEDESTAL (telco, elec, cable)
- GAS METER
- ELECTRIC METER
- U.G. TELCO LINE
- U.G. ELECTRIC LINE
- FIBER OPTIC LINE

- 1 RIM=691.96' (STORM)
48" CONCRETE STRUCTURE
INV=683.91' (15" RCP NW/SW)
- 2 RIM=691.77' (STORM)
24" CONCRETE STRUCTURE
INV=687.72' (15" HDPE NW)
INV=687.67' (15" HDPE SE)
INV=687.77' (15" METAL SW)
- 3 RIM=689.63' (STORM)
48" CONCRETE STRUCTURE
INV=683.65' (15" RCP NW/SE)
- 4 RIM=688.59' (UNKNOWN)
FULL OF WATER
- 5 RIM=692.32' (SANITARY)
48" CONCRETE STRUCTURE
INV=685.87' (6" METAL NW)
INV=685.87' (8" METAL SE)
INV=687.67' (6" METAL NE)
- 6 RIM=691.24' (STORM)
48" CONCRETE STRUCTURE
INV=686.74' (12" CPP N)
- 7 RIM=693.68' (UNKNOWN)
UNABLE TO OPEN
- 8 RIM=688.71' (UNKNOWN)
24" CONCRETE STRUCTURE
FULL OF DEBRIS
- 9 RIM=688.67' (STORM)
48" CONCRETE STRUCTURE
INV=683.69' (15" RCP NW/SW)
- 10 RIM=688.83' (WATER)
60" CONCRETE STRUCTURE
682.95' AT TOP OF 10" D.I. NW/SE
- 11 RIM=688.44' (STORM)
24" CONCRETE STRUCTURE
INV=686.54' (6" PVC SE)
- 12 RIM=689.47' (UNKNOWN)
UNABLE TO OPEN

- 13 RIM=689.80' (STORM)
48" CONCRETE STRUCTURE
INV=683.40' (15" RCP NE/S)
- 14 RIM=690.29' (STORM)
48" CONCRETE STRUCTURE
INV=684.73' (15" RCP NE/SE)
- 15 RIM=690.52' (WATER)
48" CONCRETE STRUCTURE
686.02' AT TOP OF 10" D.I. NW/SE
- 16 RIM=690.82' (WATER)
48" CONCRETE STRUCTURE
686.40' AT TOP OF 10" D.I. NW/SE
- 17 RIM=693.36' (UNKNOWN)
UNABLE TO OPEN
- 18 RIM=693.75' (STORM)
48" CONCRETE STRUCTURE
INV=689.40' (6" PVC NW)
INV=689.40' (6" METAL SE)
- 19 RIM=692.15' (SANITARY)
48" CONCRETE STRUCTURE
INV=687.20' (6" PVC SE)
INV=687.20' (4" PVC SE)
INV=687.20' (2" PVC SE)
INV=686.67' (8" METAL SW)

Eco-Site
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:
94TH AVENUE / IL0130
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
S16218

CURRENT ISSUE DATE:
3/20/17

ISSUED FOR:
FOR CLIENT REVIEW

REV.	DATE	ISSUED FOR	BY
1	11/29/16	PER COMMENTS	KCH
2	3/20/17	REVISED LEASE AREA REVISED EASEMENTS	RM

CONSULTANT:
W-T
W-T LAND SURVEYING
LAND AND CONSTRUCTION SURVEYORS
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtlandsurveying.com
IL License No.: 184.007570-0015 Exp: 04/30/19
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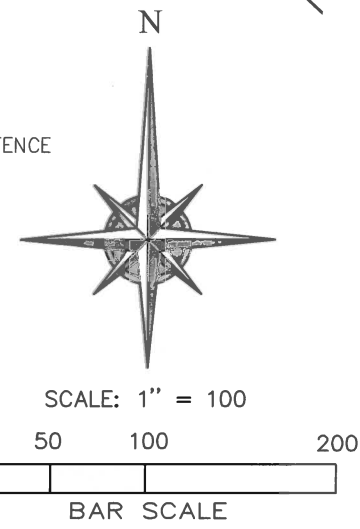
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LICENSER:
PROFESSIONAL LAND SURVEYOR
FRANJO I. MATIĆ
035-003558
HOFFMAN ESTATES ILLINOIS
STATE OF ILLINOIS
FRANJO I. MATIĆ
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
LICENSE # 035-003558
EXPIRES: 11/30/2017 SIGNED: 3/20/17

SHEET TITLE:
SURVEY

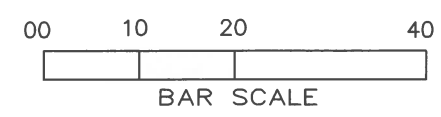
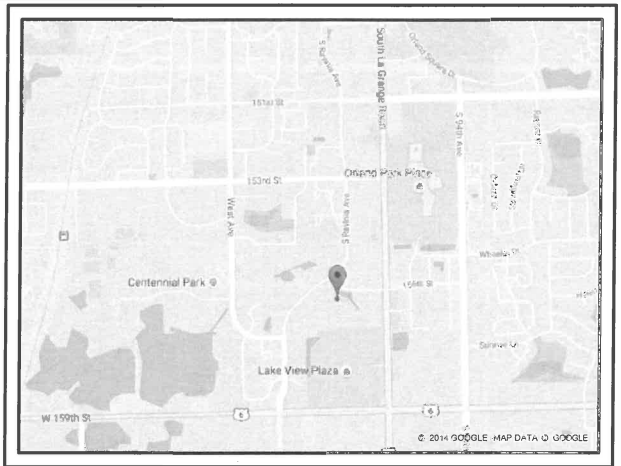
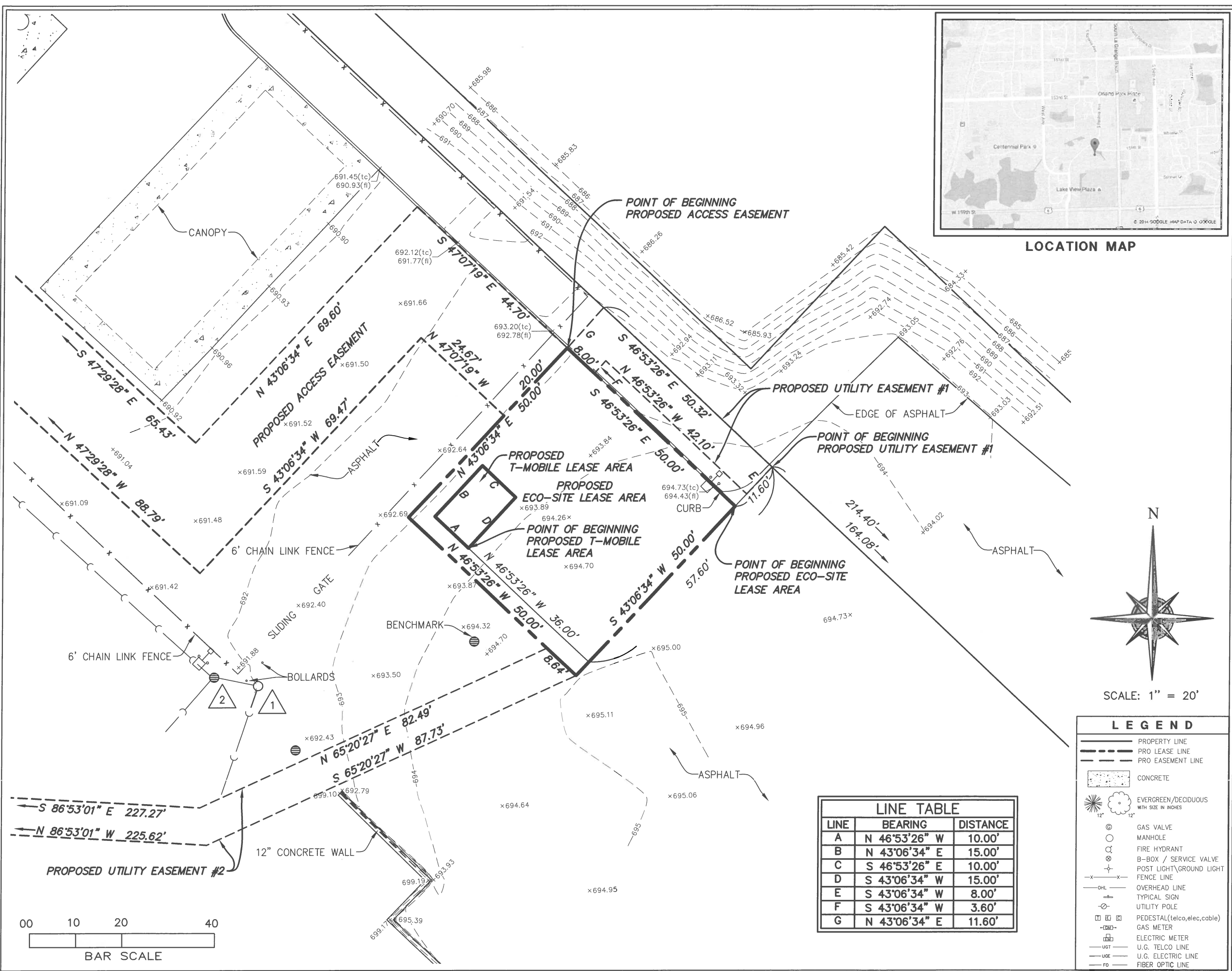
SHEET NUMBER: **S-1** REVISION: **1**

OF 3 SHEETS



SOUTHEAST CORNER OF THE NORTH HALF OF
SOUTHEAST QUARTER OF SEC 16...
POINT OF COMMENCEMENT
PROPOSED LEASE AREA
PROPOSED ACCESS EASEMENT

SOUTH LINE OF THE
NORTH HALF OF THE
SE 1/4 OF SEC. 16...
S 88°06'34" W 1218.80'
1431.62'



LINE TABLE

LINE	BEARING	DISTANCE
A	N 46°53'26" W	10.00'
B	N 43°06'34" E	15.00'
C	S 46°53'26" E	10.00'
D	S 43°06'34" W	15.00'
E	S 43°06'34" W	8.00'
F	S 43°06'34" W	3.60'
G	N 43°06'34" E	11.60'

Eco-Site

240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:

94TH AVENUE / IL0130

15655 S. RAVINA AVE.
ORLAND PARK, IL 60462
COOK COUNTY

CURRENT ISSUE DATE:

3/20/17

ISSUED FOR:

FOR CLIENT REVIEW

REV.	DATE	ISSUED FOR:	BY:
1	11/29/16	PER COMMENTS	KCH
2	3/20/17	REVISED LEASE AREA REVISED EASEMENTS	RM

CONSULTANT:

WT
W-T LAND SURVEYING, INC.
LAND AND CONSTRUCTION SURVEYORS
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com
IL License No.: 184.007570-0015 Exp: 04/30/19
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DRAWN BY: CHK: APV:

REM	FIM	FIM
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LICENSER: PROFESSIONAL LAND SURVEYOR

FRANK I. MATICIC
035-003556
HOFFMAN
ESTATES
ILLINOIS
STATE OF ILLINOIS
FRANK I. MATICIC
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
LICENSE # 035-003556
EXPIRES: 11/30/2017 SIGNED: 3/20/17

SHEET TITLE:

SURVEY

SHEET NUMBER: REVISION:

S-2 1
OF 3 SHEETS

PROPOSED ECO-SITE LEASE AREA DESCRIPTION

THAT PART OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 16; THENCE SOUTH 88 DEGREES 06 MINUTES 34 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTH HALF, 1218.80 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST ALONG THE SOUTHWESTERLY PROPERTY LINE OF THE PARENT PARCEL, 725.30 FEET TO THE NORTHEASTERLY CORNER OF SAID PARENT PARCEL; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST ALONG THE NORTHWESTERLY PROPERTY LINE OF THE PARENT PARCEL, 164.08 FEET; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 11.60 TO THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 50.00 FEET; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST, 50.00 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST, 50.00 FEET TO A POINT ON SAID NORTHEASTERLY LINE; THENCE SOUTH 46 DEGREES 53 MINUTES 26 SECONDS EAST ALONG SAID LINE, 50.00 FEET TO THE POINT OF BEGINNING, CONTAINING 2,500.00 SQUARE FEET, ALL IN COOK COUNTY, ILLINOIS.

PROPOSED T-MOBILE LEASE AREA DESCRIPTION

THAT PART OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 16; THENCE SOUTH 88 DEGREES 06 MINUTES 34 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTH HALF, 1218.80 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST ALONG THE SOUTHWESTERLY PROPERTY LINE OF THE PARENT PARCEL, 725.30 FEET TO THE NORTHEASTERLY CORNER OF SAID PARENT PARCEL; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST ALONG THE NORTHEASTERLY PROPERTY LINE OF THE PARENT PARCEL, 164.08 FEET; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 57.60 FEET; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST, 36.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST, 10.00 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST, 15.00 FEET; THENCE SOUTH 46 DEGREES 53 MINUTES 26 SECONDS EAST, 10.00 FEET; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 15.00 FEET TO THE POINT OF BEGINNING, CONTAINING 150.00 SQUARE FEET, ALL IN COOK COUNTY, ILLINOIS.

PROPOSED ACCESS EASEMENT DESCRIPTION

THAT PART OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 16; THENCE SOUTH 88 DEGREES 06 MINUTES 34 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTH HALF, 1218.80 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST ALONG THE SOUTHWESTERLY PROPERTY LINE OF THE PARENT PARCEL, 725.30 FEET TO THE NORTHEASTERLY CORNER OF SAID PARENT PARCEL; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST ALONG THE NORTHEASTERLY PROPERTY LINE OF THE PARENT PARCEL, 214.40 FEET; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 11.60 FEET TO THE NORTH CORNER OF THE AFORESAID LEASE AREA, SAID POINT ALSO BEING THE POINT OF BEGINNING; THENCE CONTINUING SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST ALONG SAID NORTHWEST LINE, 20.00 FEET; THENCE NORTH 47 DEGREES 07 MINUTES 19 SECONDS WEST, 24.67 FEET; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 69.47 FEET; THENCE NORTH 47 DEGREES 29 MINUTES 28 SECONDS WEST, 88.79 FEET; THENCE NORTH 27 DEGREES 25 MINUTES 46 SECONDS WEST, 106.71 FEET; THENCE NORTH 46 DEGREES 47 MINUTES 54 SECONDS WEST, 68.25 FEET TO THE EAST LINE OF SOUTH RAVINIA AVENUE; THENCE NORTH 56 DEGREES 29 MINUTES 16 SECONDS EAST ALONG SAID EAST LINE, 20.55 FEET; THENCE SOUTH 46 DEGREES 47 MINUTES 54 SECONDS EAST, 66.94 FEET; THENCE SOUTH 27 DEGREES 25 MINUTES 46 SECONDS EAST, 106.58 FEET; THENCE SOUTH 47 DEGREES 29 MINUTES 28 SECONDS EAST, 65.43 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST, 69.60 FEET; THENCE SOUTH 47 DEGREES 07 MINUTES 19 SECONDS EAST, 44.70 FEET TO THE POINT OF BEGINNING, CONTAINING 7,113.22 SQUARE FEET, ALL IN COOK COUNTY, ILLINOIS.

PROPOSED UTILITY EASEMENT #1 DESCRIPTION

THAT PART OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 16; THENCE SOUTH 88 DEGREES 06 MINUTES 34 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTH HALF, 1218.80 FEET; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST ALONG THE SOUTHWESTERLY PROPERTY LINE OF THE PARENT PARCEL, 725.30 FEET TO THE NORTHEASTERLY CORNER OF SAID PARENT PARCEL; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST ALONG THE NORTHEASTERLY PROPERTY LINE OF THE PARENT PARCEL, 164.08 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 8.00 FEET; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST, 42.10 FEET; THENCE SOUTH 43 DEGREES 06 MINUTES 34 SECONDS WEST, 3.60 FEET TO A POINT ON THE NORTHEAST LINE OF THE AFORESAID LEASE AREA; THENCE NORTH 46 DEGREES 53 MINUTES 26 SECONDS WEST ALONG THE NORTHEAST LINE OF SAID LEASE AREA, 8.00 FEET TO THE NORTH CORNER THEREOF; THENCE NORTH 43 DEGREES 06 MINUTES 34 SECONDS EAST, 11.60 FEET TO A POINT ON THE NORTHEASTERLY PROPERTY LINE, THENCE SOUTH 46 DEGREES 53 MINUTES 26 SECONDS EAST ALONG SAID NORTHEASTERLY LINE, 50.32 FEET TO THE POINT OF BEGINNING, CONTAINING 430.44 SQUARE FEET, ALL IN COOK COUNTY, ILLINOIS.

PROPOSED UTILITY EASEMENT #2 DESCRIPTION

THAT PART OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 16; THENCE SOUTH 88 DEGREES 06 MINUTES 34 SECONDS WEST ALONG THE SOUTH LINE OF SAID NORTH HALF, 1431.62 FEET; THENCE NORTH 01 DEGREES 53 MINUTES 26 SECONDS WEST, 12.28 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 86 DEGREES 00 MINUTES 00 SECONDS WEST, 20.22 FEET; THENCE NORTH 46 DEGREES 12 MINUTES 44 SECONDS WEST, 217.28 FEET; THENCE NORTH 44 DEGREES 16 MINUTES 44 SECONDS EAST, 595.44 FEET; THENCE SOUTH 86 DEGREES 53 MINUTES 01 SECONDS EAST, 227.27 FEET; THENCE NORTH 65 DEGREES 20 MINUTES 27 SECONDS EAST, 82.49 FEET TO A POINT ON THE SOUTHWEST LINE OF THE AFORESAID LEASE AREA; THENCE SOUTH 46 DEGREES 53 MINUTES 26 SECONDS EAST ALONG THE SOUTHWEST LINE OF SAID LEASE AREA, 8.64 FEET TO THE SOUTH CORNER THEREOF; THENCE SOUTH 65 DEGREES 20 MINUTES 27 SECONDS WEST, 87.73 FEET; THENCE NORTH 86 DEGREES 53 MINUTES 01 SECONDS WEST, 225.62 FEET; THENCE SOUTH 44 DEGREES 16 MINUTES 44 SECONDS WEST, 583.75 FEET; THENCE SOUTH 46 DEGREES 12 MINUTES 44 SECONDS EAST, 205.67 FEET; THENCE NORTH 86 DEGREES 00 MINUTES 00 SECONDS EAST, 16.67 FEET; THENCE SOUTH 04 DEGREES 00 MINUTES 00 SECONDS EAST, 8.00 FEET TO THE POINT OF BEGINNING, CONTAINING 9,048.64 SQUARE FEET, ALL IN COOK COUNTY, ILLINOIS.

PARENT PARCEL DESCRIPTION

THAT PART OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE THIRD PRINCIPAL MERIDIAN IN COOK COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT ON THE SOUTH LINE OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16 AFORESAID, SAID POINT BEING 1480.00 FEET WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16; THENCE NORTHWESTERLY ALONG A LINE FORMING AN ANGLE OF 135 DEGREES 00 MINUTES 00 SECONDS WITH THE LAST DESCRIBED LINE, AS MEASURED FROM EAST TO NORTHWEST, A DISTANCE OF 240.00 FEET; THENCE NORTHEASTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED LINE, A DISTANCE OF 910.00 FEET TO A POINT; THENCE SOUTHEASTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED LINE, A DISTANCE OF 424.70 FEET, TO A POINT; THENCE SOUTHWESTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED LINE TO A POINT ON THE SOUTH LINE OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16; THENCE WEST ALONG SAID LINE TO THE POINT OF BEGINNING, CONTAINING 8.31 ACRES, MORE OR LESS.

ALSO:

A NON-EXCLUSIVE EASEMENT AND RIGHT TO USE JOINTLY WITH THE UNITED STATES OF AMERICA AND ITS ASSIGNS, THE EXISTING ACCESS ROAD, SHOWN ON THE ATTACHED PLAN MARKED EXHIBIT 'O', ON, OVER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY: BEGINNING AT A POINT ON THE SOUTH LINE OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16 AFORESAID WHICH IS 322.50 FEET WESTERLY OF THE SOUTHEAST CORNER OF THE SAID NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 16; THENCE WEST ON SAID SOUTH LINE TO A POINT 1218.8 FEET, MORE OR LESS WEST OF THE SOUTHEAST CORNER OF SAID NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 16, WHICH POINT IS ALSO THE SOUTHEASTERLY CORNER OF THE PROPERTY HEREINABOVE DESCRIBED; THENCE NORTHEASTERLY ON A LINE FORMING AN ACUTE ANGLE OF 45 DEGREES WITH THE LAST DESCRIBED LINE ALONG THE PROPERTY HEREINABOVE DESCRIBED TO THE NORTHEASTERLY OR EASTERLY CORNER OF THE LAND HEREINABOVE DESCRIBED; THENCE SOUTHEASTERLY AT RIGHT ANGLES TO THE LAST DESCRIBED LINE TO A POINT ON A LINE DRAWN PARALLEL WITH AND 572.50 FEET WEST OF THE EAST LINE OF THE AFORESAID NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 16; THENCE SOUTH, ALONG LAST MENTIONED PARALLEL LINE, A DISTANCE OF 200.0 FEET, TO A POINT ON A LINE DRAWN PARALLEL WITH AND 180.0 FEET NORTH OF THE SOUTH LINE OF SAID NORTHEAST QUARTER OF SOUTHEAST QUARTER OF SECTION 16; THENCE EAST, ALONG LAST MENTIONED PARALLEL LINE, A DISTANCE OF 250.0 FEET TO A POINT; THENCE SOUTH ALONG A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 16, A DISTANCE OF 180.0 FEET, TO THE POINT OF BEGINNING, IN COOK COUNTY, ILLINOIS. AND ALSO: A NON-EXCLUSIVE EASEMENT AND RIGHT TO USE JOINTLY WITH THE UNITED STATES OF AMERICA AND ITS ASSIGNS THE EXISTING ACCESS ROAD, ON, OVER AND ACROSS THE FOLLOWING DESCRIBED PROPERTY: THE SOUTH 50 FEET OF THE EAST 322.50 FEET OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 12 EAST OF THE 3RD PRINCIPAL MERIDIAN, EXCEPT THAT PART USED FOR THE RIGHT OF WAY OF 96TH AVENUE, OTHERWISE KNOWN AS U. S. HIGHWAY 45, ALL IN COOK COUNTY, ILLINOIS. AND BEING THE SAME PROPERTY CONVEYED TO THE VILLAGE OF ORLAND PARK, A MUNICIPAL CORPORATION FROM UNITED STATES OF AMERICA, ACTING BY AND THROUGH THE ADMINISTRATOR OF GENERAL SERVICES BY QUITCLAIM DEED DATED APRIL 26, 1971 AND RECORDED MAY 26, 1971 IN INSTRUMENT NO. 21 492 293. TAX PARCEL NO. 27-16-401-010

NOTES:

- BENCHMARK - CROSS SET ON MH AS SHOWN. ELEVATION=694.49' (NAVD88)
- PERMANENT INDEX NUMBER: 27-16-401-010
- THE LOCATION OF UNDERGROUND UTILITIES WAS DETERMINED BY FIELD OBSERVATION AND VISIBLE MARKINGS ONLY.
- FIELD WORK COMPLETED ON NOVEMBER 15TH, 2016
- SURVEY WAS PREPARED WITH THE AID OF A COMMITMENT FOR TITLE INSURANCE PREPARED BY FIDELITY NATIONAL TITLE INSURANCE COMPANY, COMMITMENT NUMBER 24049478, HAVING AN EFFECTIVE DATE OF SEPTEMBER 28TH, 2016
SCHEDULE B ITEMS:
ITEM 9 EASEMENT PER DOC. 21 492 293 - DOES NOT EFFECT LEASE AND EASEMENTS
ITEM 10 EASEMENT PER DOC. 24 673 067 - DOES NOT EFFECT LEASE AND EASEMENTS
ITEM 11 EASEMENT PER DOC. 26503971 - DOES NOT EFFECT LEASE AND EASEMENTS
- SURVEY PREPARED FOR: W-T COMMUNICATION DESIGN GROUP, LLC.
- LATITUDE: N 041'36"24.09" LONGITUDE: W 087'51"22.31"
- BASIS OF BEARINGS IS TRUE NORTH BASED ON ILLINOIS STATE PLANE COORDINATE SYSTEM, ILLINOIS EAST 1201 ZONE.
- ANY DISCREPANCIES FOUND WITHIN THIS DOCUMENT NEED TO BE REPORTED TO THE SURVEYOR AS SOON AS POSSIBLE.

STATE OF ILLINOIS)
) SS
COUNTY OF COOK)

TO: ECO-SITE
 FIDELITY NATIONAL TITLE INSURANCE COMPANY

WE W-T LAND SURVEYING DO HEREBY DECLARE THAT WE HAVE SURVEYED THE ABOVE DESCRIBED PROPOSED LEASE AREA AND THAT THIS PLAT IS A CORRECT REPRESENTATION OF SAID SURVEY.

GIVEN UNDER OUR HAND AND SEAL THIS 20TH DAY OF MARCH, A.D., 2017.
AT HOFFMAN ESTATES, ILLINOIS.

W-T LAND SURVEYING ILLINOIS

Frank J. Matcic
FRANJO I. MATCIC - PLS #035-003556 EXPIRES 11/30/2017
ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184.007670



PROJECT INFORMATION:
94TH AVENUE / IL0130

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
S16218

CURRENT ISSUE DATE:
3/20/17

ISSUED FOR:
FOR CLIENT REVIEW

REV.	DATE	ISSUED FOR	BY
1	11/28/16	PER COMMENTS	KCH
2	3/20/17	REVISED LEASE AREA REVISED EASEMENTS	FM

CONSULTANT:

W-T LAND SURVEYING
LAND AND CONSTRUCTION SURVEYORS
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com
IL License No.: 184.007570-0015 Exp: 04/30/19
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DRAWN BY: REM CHK: FIM APV: FIM

LICENSURE

FRANJO I. MATCIC
035-003556
HOFFMAN ESTATES ILLINOIS
FRANK I. MATCIC
PROFESSIONAL LAND SURVEYOR
STATE OF ILLINOIS
LICENSE # 035-003556
EXPIRES: 11/30/2017 SIGNED: 3/20/17

SHEET TITLE:
SURVEY

SHEET NUMBER: **S-3** REVISION: **1**
OF 3 SHEETS

SITE WORK GENERAL NOTES: DETAIL  1
GN-1














1. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR IS TO POT HOLE UTILITY LOCATES POST MARKING TO VERIFY UTILITY LOCATES ARE CORRECT.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR/SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, OWNER AND/OR LOCAL UTILITIES.
6. THE OWNER SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE (TO BE INSTALLED BY CONTRACTOR).
7. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
9. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
10. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE PROJECT SPECIFICATIONS.
11. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
12. CONTRACTOR SHALL NOT INSTALL EQUIPMENT THAT WILL IMPEDE DOOR OR ACCESS PANELS.


ABBREVIATIONS AND SYMBOLS:

ABBREVIATIONS:


AGL	ABOVE GRADE LEVEL
BTS	BASE TRANSCIVER STATION
(E)	EXISTING
MIN.	MINIMUM
N.T.S.	NOT TO SCALE
REF	REFERENCE
RF	RADIO FREQUENCY
T.B.D.	TO BE DETERMINED
T.B.R.	TO BE RESOLVED
TYP	TYPICAL
REQ	REQUIRED
EGR	EQUIPMENT GROUND RING
AWG	AMERICAN WIRE GAUGE
MGB	MASTER GROUND BUSS
EG	EQUIPMENT GROUND
BCW	BARE COPPER WIRE
SIAD	SMART INTEGRATED ACCESS DEVICE
GEN	GENERATOR
IGR	INTERIOR GROUND RING (HALO)
RBS	RADIO BASE STATION
U.N.O.	UNLESS NOTED OTHERWISE

SYMBOLS:

	SOLID GROUND BUSS BAR
	SOLID NEUTRAL BUSS BAR
	SUPPLEMENTAL GROUND CONDUCTOR
	2-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
	SINGLE-POLE THERMAL-MAGNETIC CIRCUIT BREAKER
	CHEMICAL GROUND ROD
	DISCONNECT SWITCH
	METER
	EXOTHERMIC WELD (CADWELD) (UNLESS OTHERWISE NOTED)
	MECHANICAL WELD
	5/8" x 10'-0" COPPER CLAD STEEL GROUND ROD
	5/8" x 10'-0" COPPER CLAD STEEL GROUND ROD WITH INSPECTION SLEEVE
	GROUNDING WIRE

STRUCTURAL STEEL NOTES: DETAIL  2
GN-1


1. ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND IN ACCORDANCE WITH ASTM A36 UNLESS OTHERWISE NOTED.
2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION". PAINTED SURFACES SHALL BE TOUCHED UP.
3. BOLTED CONNECTIONS SHALL BE ASTM A325 BEARING TYPE (3/4") CONNECTIONS AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
5. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURER'S RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS.

CONCRETE AND REINFORCING STEEL NOTES: DETAIL  3
GN-1

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. SLAB FOUNDATION DESIGN ASSUMING ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF.
3. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, U.N.O.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 CONCRETE CAST AGAINST EARTH.....3 IN.
 CONCRETE EXPOSED TO EARTH OR WEATHER:
 #6 AND LARGER.....2 IN.
 #5 AND SMALLER & WWF.....1 1/2 IN.
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
 SLAB AND WALLS.....3/4 IN.
 BEAMS AND COLUMNS.....1 1/2 IN.
5. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO. IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

MASONRY NOTES: DETAIL  3A
GN-1

1. HOLLOW CONCRETE MASONRY UNITS SHALL MEET A.S.T.M. SPECIFICATION C90, GRADE N. TYPE 1. THE SPECIFIED DESIGN COMPRESSIVE STRENGTH OF CONCRETE MASONRY (F'm) SHALL BE 1500 PSI.
2. MORTAR SHALL MEET THE PROPERTY SPECIFICATION OF A.S.T.M. C270 TYP. "S" MORTAR AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI.
3. GROUT SHALL MEET A.S.T.M. SPECIFICATION C475 AND HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2000 PSI.
4. CONCRETE MASONRY SHALL BE LAID IN RUNNING (COMMON) BOND.
5. WALL SHALL RECEIVE TEMPORARY BRACING. TEMPORARY BRACING SHALL NOT BE REMOVED UNTIL GROUT IS FULLY CURED.

GENERAL NOTES: DETAIL  4
GN-1

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR- GENERAL CONTRACTOR
 SUBCONTRACTOR- SUBCONTRACTOR HIRED BY GENERAL CONTRACTOR.
 OWNER- ECO-SITES
 OEM- ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF OWNER.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED WERE DESIGNED AND SCALED TO 11x17 FORMAT.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
7. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE OWNER.
8. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS.
9. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
10. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
11. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
12. CONSTRUCTION SHALL COMPLY WITH ECO-SITE MASTER SPECIFICATIONS AND THESE DRAWINGS WHERE A CONFLICT EXISTS IT IS CONTRACTORS RESPONSIBILITY TO NOTIFY OWNER.
13. NOTHING CONTAINED IN THESE DRAWINGS SHALL CREATE ANY CONTRACTUAL RELATIONSHIP BETWEEN ANY SUBCONTRACTOR(S) AND ECO-SITE.
14. CONTRACTOR SHALL HOLD HARMLESS ECO-SITE AND ITS REPRESENTATIVES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY KIND BROUGHT ABOUT AS A RESULT OF ANY INJURIES OR DAMAGES SUSTAINED BY PERSON(S) OR PROPERTY DURING THE CONSTRUCTION OF THIS PROJECT.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS FOR ANY AND ALL PERSONS, INCLUDING SUBCONTRACTORS, ON SITE AS REQUIRED BY CURRENT OSHA STANDARDS; INCLUDING BUT NOT LIMITED TO
 A) PERSONAL PROTECTIVE & LIFE SAVING EQUIPMENT
 B) SIGNS, SIGNALS, & BARRICADES
 C) TOOLS - HAND & POWER
 D) ELECTRICAL
 E) FALL PROTECTION
 F) EXCAVATIONS
 G) CONCRETE & MASONRY CONSTRUCTION
 H) STEEL ERECTION
 I) POWER TRANSMISSION & DISTRIBUTION
 J) CRANES & DERRICKS IN CONSTRUCTION.



240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:

94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
T1601581

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CONSULTANT:



W-T COMMUNICATION
DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

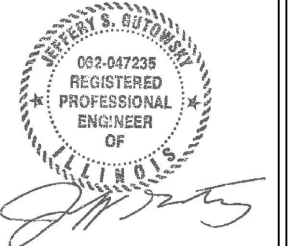
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com

IL License No.: 184.007570-0015 Exp: 04/30/19

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DRAWN BY:	CHK:	APV:
SC	JKR	JSG

LICENSER:



JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

GENERAL
NOTES

SHEET NUMBER: REVISION:

GN-1 0

ELECTRICAL INSTALLATION NOTES:

DETAIL 1
GN-2

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
5. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
6. EACH END OF EVERY POWER, POWER PHASE CONDUCTOR (I.E., HOTS), GROUNDING AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH PLASTIC TAPE PER COLOR SCHEDULE. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (I.E. PANEL BOARD AND CIRCUIT ID'S).
8. PANEL BOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. POWER, CONTROL AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET & DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90° C (WET AND DRY) OPERATION WITH OUTER JACKET LISTED OR LABELED FOR THE LOCATION USED UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT) OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
18. RIGID NONMETALLIC CONDUIT (I.E. RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
19. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
20. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
21. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
22. WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER).

ELECTRICAL INSTALLATION NOTES (CONT.):

23. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND RATED NEMA 1 (OR BETTER) INDOORS OR NEMA 3R (OR BETTER) OUTDOORS.
24. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
25. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
26. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
27. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
28. INSTALL PLASTIC LABEL ON THE METER CENTER IDENTIFYING SPECIFIC CARRIER.

DETAIL 2
GN-2

KEYED NOTES: (SEE GROUNDING PLAN DIAGRAM - SHEET E-2)

- ① **TOWER GROUNDING:** EXTEND #2 SOLID TINNED CU WIRE FROM BURIED GROUND RING TO EXISTING TOWER AND MAKE EXOTHERMIC CONNECTION.
- ② **HATCH PLATE GROUND BAR:** EXTEND #2 SOLID TINNED CU WIRE FROM BURIED GROUND RING UP THROUGH 1/2" PVC SLEEVE INTO EQUIPMENT SHELTER FOR CONNECTION TO INTERIOR HALO GROUND RING. TYPICAL AT 4 BUILDING CORNERS.
- ③ **GROUNDING OF INTERNAL GROUND RING:** EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING THROUGH 1/2" DIA. PVC SLEEVE INTO EQUIPMENT SHELTER FOR CONNECTION TO INTERIOR HALO GROUND RING. TYPICAL AT (4) BUILDING CORNERS.
- ④ **GROUND ROD:** COPPER CLAD STEEL, 5/8" TEN (10) FEET LONG.
- ⑤ **ICE BRIDGE SUPPORT POST GROUNDING:** EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO ALL ICE BRIDGE SUPPORT POSTS AND EXOTHERMICALLY WELD.
- ⑥ **FENCE GROUNDING:** IF FENCE IS WITHIN 6' OF GROUNDING RING, EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO FENCE CORNER POSTS AND EXOTHERMICALLY WELD. BOND INTERMEDIATE POST IF REQUIRED TO MAINTAIN 25' MAX. SPACING.
- ⑦ **HVAC GROUNDING:** EXTEND #2 TINNED CU WIRE FORM BURIED GROUND RING TO THE HVAC UNIT AND MAKE A MECHANICAL CONNECTION.
- ⑧ **TOWER GROUNDING BAR:** EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO THE TOWER GROUND BAR AND MAKE A MECHANICAL CONNECTION. SECURE GROUND BAR DIRECTLY TO TOWER WITH ISOLATOR KIT USING STAINLESS STEEL MOUNTING MATERIAL.
- ⑨ **CELL REFERENCE GROUND BAR:** EXTEND (2) #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO THE CELL REFERENCE GROUND BAR (INSIDE SHELTER) AND MAKE AN EXOTHERMIC WELD CONNECTION.
- ⑩ **TELCO GROUNDING BAR:** EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING UP TO TELCO GROUND BAR (INSIDE SHELTER) AND MAKE AN EXOTHERMIC WELD CONNECTION.
- ⑪ **ANTENNA GROUND BAR:** MOUNT GROUND BAR DIRECTLY TO TOWER AT TOP OF COAX RUNS. SECURE TO TOWER WITH ISOLATOR KIT USING STAINLESS STEEL MOUNTING MATERIAL.
- ⑫ **GATE GROUNDING:** EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO GATE POSTS AND EXOTHERMICALLY WELD.
- ⑬ **EXTERIOR GFCI RECEPTACLE GROUNDING:** EXTEND #2 TINNED CU WIRE FROM BURIED GROUND RING TO THE EXTERIOR GFCI RECEPTACLE AND MAKE A MECHANICAL CONNECTION.

GREENFIELD GROUNDING NOTES:

DETAIL 3
GN-2

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 AWG SOLID TINNED COPPER FOR OUTDOOR BTS.
7. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
8. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
9. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
10. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
11. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
12. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
13. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
14. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
15. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
16. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
17. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
18. GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.

Eco-Site
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:

**94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H**
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
T1601581

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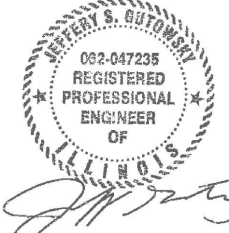
CONSULTANT:

WT
**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com
IL License No.: 184.007570-0015 Exp: 04/30/19
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DRAWN BY: CHK: APV:

SC JKR JSG

LICENSER:


JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

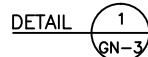
SHEET TITLE:

**GENERAL
NOTES**

SHEET NUMBER: REVISION:

GN-2 0

GENERAL REQUIREMENTS:



1.1 INTENT

- THESE SPECIFICATIONS AND CONSTRUCTION DRAWINGS ACCOMPANYING THEM DESCRIBE THE WORK TO BE DONE AND THE MATERIALS TO BE FURNISHED FOR CONSTRUCTION.
- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH.
- THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
- THE PURPOSE OF THE SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
- MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED AS PART OF THE WORK. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE MADE OR PERMITTED BY THE OWNER WITHOUT ISSUING A CHANGE ORDER.

1.2 CONFLICTS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY SUCH DISCREPANCY IN DIMENSION WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE OWNER FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS.
- THE BIDDER, IF AWARDED THE CONTRACT, WILL NOT BE ALLOWED ANY EXTRA COMPENSATION BY REASON OF ANY MATTER OR THING CONCERNING WHICH SUCH BIDDER MIGHT HAVE FULLY INFORMED THEMSELVES PRIOR TO THE BIDDING.
- NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST, OR OF DIFFICULTIES OR CONDITIONS THAT MAY BE ENCOUNTERED OR OF ANY OTHER RELEVANT MATTER CONCERNING THE WORK TO BE PERFORMED IN THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONTRACT DOCUMENTS GOVERNING THE WORK.

1.3 CONTRACTS AND WARRANTIES

- CONTRACTOR IS RESPONSIBLE FOR APPLICATION AND PAYMENT OF CONTRACTOR LICENSES AND BONDS.

1.4 STORAGE

- ALL MATERIALS MUST BE STORED IN A LEVEL AND DRY FASHION AND IN A MANNER THAT DOES NOT NECESSARILY OBSTRUCT THE FLOW OF OTHER WORK. ANY STORAGE METHOD MUST MEET ALL RECOMMENDATIONS OF THE ASSOCIATED MANUFACTURER.
- THE BTS MUST BE STORED INSIDE UNTIL THERE IS POWER ON SITE.

1.5 CLEAN UP

- THE CONTRACTORS SHALL AT ALL TIMES KEEP THE SITE FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR EMPLOYEES AT WORK AND AT THE COMPLETION OF THE WORK, THEY SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE BUILDING AREA, INCLUDING ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS AND SHALL LEAVE THEIR WORK CLEAN AND READY FOR USE.
- EXTERIOR: VISUALLY INSPECT EXTERIOR SURFACES AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER.
 - REMOVE ALL TRACES OF SPLASHED MATERIALS FROM ADJACENT SURFACES.
 - IF NECESSARY TO ACHIEVE A UNIFORM DEGREE OF CLEANLINESS, HOSE DOWN THE EXTERIOR OF THE STRUCTURE.
- INTERIOR: VISUALLY INSPECT INTERIOR SURFACE AND REMOVE ALL TRACES OF SOIL, WASTE MATERIALS, SMUDGES AND OTHER FOREIGN MATTER FROM WALLS/FLOOR/CEILING.
 - REMOVE ALL TRACES OF SPLASHED MATERIAL FROM ADJACENT SURFACES.
 - REMOVE PAINT DROPPINGS, SPOTS, STAINS AND DIRT FROM FINISHED SURFACES.

GENERAL REQUIREMENTS (CONT.):

1.6 CHANGE ORDER PROCEDURE

- CHANGE ORDERS MAY BE INITIATED BY THE OWNER AND/OR THE CONTRACTOR INVOLVED. THE CONTRACTOR, UPON VERBAL REQUEST FROM THE OWNER SHALL PREPARE A WRITTEN PROPOSAL DESCRIBING THE CHANGE IN WORK OR MATERIALS AND ANY CHANGES IN THE CONTRACT AMOUNT AND PRESENT TO THE OWNER WITHIN 72 HRS FOR APPROVAL. SUBMIT REQUESTS FOR SUBSTITUTIONS IN THE FORM AND IN ACCORDANCE WITH PROCEDURES REQUIRED FOR CHANGE ORDER PROPOSALS. ANY CHANGES IN SCOPE OF WORK OR MATERIALS WHICH ARE PERFORMED BY THE CONTRACTOR WITHOUT A WRITTEN CHANGE ORDER AS DESCRIBED AND APPROVED BY THE OWNER SHALL PLACE FULL RESPONSIBILITY OF THESE ACTIONS ON THE CONTRACTOR.

1.7 RELATED DOCUMENTS AND COORDINATION

- GENERAL CARPENTRY, ELECTRICAL AND ANTENNA DRAWINGS ARE INTERRELATED. IN PERFORMANCE OF THE WORK, THE CONTRACTOR MUST REFER TO ALL DRAWINGS. ALL COORDINATION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.8 SHOP DRAWINGS

- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AS REQUIRED AND LISTED IN THESE SPECIFICATIONS TO THE OWNER FOR APPROVAL.
- ALL SHOP DRAWINGS SHALL BE REVIEWED, CHECKED AND CORRECTED BY CONTRACTOR PRIOR TO SUBMITTAL TO THE OWNER.

1.9 PRODUCTS AND SUBSTITUTIONS

- SUBMIT 3 COPIES OF EACH REQUEST FOR SUBSTITUTION. IN EACH REQUEST IDENTIFY THE PRODUCT OR FABRICATION OR INSTALLATION METHOD TO BE REPLACED BY THE SUBSTITUTION. INCLUDE RELATED SPECIFICATION SECTION AND DRAWING NUMBERS AND COMPLETE DOCUMENTATION SHOWING COMPLIANCE WITH THE REQUIREMENTS FOR SUBSTITUTIONS.
- SUBMIT ALL NECESSARY PRODUCT DATA AND CUT SHEETS WHICH PROPERLY INDICATE AND DESCRIBE THE ITEMS, PRODUCTS AND MATERIALS BEING INSTALLED. THE CONTRACTOR SHALL, IF DEEMED NECESSARY BY THE OWNER SUBMIT ACTUAL SAMPLES TO THE OWNER FOR APPROVAL IN LIEU OF CUT SHEETS.

1.10 QUALITY ASSURANCE

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THESE SHALL INCLUDE BUT NOT BE LIMITED TO THE LATEST VERSION OF THE COOK COUNTY BUILDING CODE.

1.11 ADMINISTRATION

- BEFORE THE COMMENCEMENT OF ANY WORK, THE CONTRACTOR WILL ASSIGN A PROJECT MANAGER WHO WILL ACT AS A SINGLE POINT OF CONTACT FOR ALL PERSONNEL INVOLVED IN THIS PROJECT. THIS PROJECT MANAGER WILL DEVELOP A MASTER SCHEDULE FOR THE PROJECT WHICH WILL BE SUBMITTED TO THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- SUBMIT A BAR TYPE PROGRESS CHART NOT MORE THAN 3 DAYS AFTER THE DATE ESTABLISHED FOR COMMENCEMENT OF THE WORK ON THE SCHEDULE, INDICATING A TIME BAR FOR EACH MAJOR CATEGORY OR UNIT OF WORK TO BE PERFORMED AT SITE, PROPERLY SEQUENCED AND COORDINATED WITH OTHER ELEMENTS OF WORK AND SHOWING COMPLETION OF THE WORK SUFFICIENTLY IN ADVANCE OF THE DATE ESTABLISHED FOR SUBSTANTIAL COMPLETION OF THE WORK.
- PRIOR TO COMMENCING CONSTRUCTION, THE OWNER SHALL SCHEDULE AN ON-SITE MEETING WITH ALL MAJOR PARTIES. THIS WOULD INCLUDE (THOUGH NOT LIMITED TO) THE OWNER, PROJECT MANAGER, CONTRACTOR, LAND OWNER REPRESENTATIVE, LOCAL TELEPHONE COMPANY, TOWER ERECTION FOREMAN (IF SUBCONTRACTED).
- CONTRACTOR SHALL BE EQUIPPED WITH SOME MEANS OF CONSTANT COMMUNICATIONS, SUCH AS A MOBILE PHONE OR A BEEPER. THIS EQUIPMENT WILL NOT BE SUPPLIED BY THE OWNER, NOR WILL WIRELESS SERVICE BE ARRANGED.
- DURING CONSTRUCTION, CONTRACTOR MUST ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES. CONTRACTOR WILL COMPLY WITH ALL SAFETY REQUIREMENTS IN THEIR AGREEMENT.
- PROVIDE WRITTEN DAILY UPDATES ON SITE PROGRESS TO THE OWNER.
- COMPLETE INVENTORY OF CONSTRUCTION MATERIALS AND EQUIPMENT IS REQUIRED PRIOR TO START OF CONSTRUCTION.
- NOTIFY THE OWNER / PROJECT MANAGER IN WRITING NO LESS THAN 48 HOURS IN ADVANCE OF CONCRETE POURS, TOWER ERECTIONS, AND EQUIPMENT CABINET PLACEMENTS.

1.12 INSURANCE AND BONDS

- CONTRACTOR SHALL AT THEIR OWN EXPENSE CARRY AND MAINTAIN FOR THE DURATION OF THE PROJECT ALL INSURANCE AS REQUIRED AND LISTED AND SHALL NOT COMMENCE WITH THEIR WORK UNTIL THEY HAVE PRESENTED AN ORIGINAL CERTIFICATE OF INSURANCE STATING ALL COVERAGES TO THE OWNER. REFER TO THE MASTER AGREEMENT FOR REQUIRED INSURANCE LIMITS.
- THE OWNER SHALL BE NAMED AS AN ADDITIONAL INSURED ON ALL POLICIES.
- CONTRACTOR MUST PROVIDE PROOF OF INSURANCE.

TOWER & ANTENNA INSTALLATION:



1.1 WORK INCLUDED

- IF REQUIRED, ERECT FURNISHED TOWER.
- GROUND TOWER TEMPORARILY DURING ERECTION. GROUNDING SHALL INCLUDE BASE(S) AND ANCHORS.
- IF REQUIRED, INSTALL THREE (3) SIDE ARMS, CONSISTING OF THREE (3) 6'-0" AS INDICATED ON DRAWINGS - CONFIRM WITH OWNER REPRESENTATIVE.
- INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND OWNER SPECIFICATIONS.
- INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
- INSTALL FURNISHED GALVANIZED STEEL WAVEGUIDE LADDER.
- INSTALL WAVEGUIDE BRIDGE AS INDICATED ON DRAWING.
- SUPPLY AND INSTALL ONE INSULATED GROUND BAR AT EQUIPMENT CABINET.
- SUPPLY AND INSTALL GROUNDING STRAP KITS WITH LONG BARREL COMPRESSION LUGS (SIM. TO ANDREW-223700TBD OR APPROVED EQUAL) ATOP TOWER BASE BEFORE ENTERING THE EQUIPMENT. GROUNDING STRAPS TO BE CONNECTED TO INSULATED GROUND BAR.
- ASSIST OWNER TECHNICIANS IN PERFORMING SWEEP TEST OF INSTALLED COAX.
- CONCRETE PIERS FOR FOUNDATIONS SHALL BE DRILLED AND POURED ON THE SAME DAY.

1.2 REQUIREMENTS OF REGULATOR AGENCIES

- FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS AVAILABLE, INSTALL IN CONFORMANCE WITH U.L. STANDARDS WHERE APPLICABLE.
- INSTALL ANTENNA, ANTENNA CABLES, GROUNDING SYSTEM IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION IN EFFECT AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:
 - TIA - TELECOMMUNICATIONS INDUSTRY ASSOCIATION TIA-222-G. STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
 - FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7460-IH, OBSTRUCTION MARKING AND LIGHTING.
 - FCC - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES AND FORM 715A, HIGH INTENSITY OBSTRUCTION LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.
 - AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.
 - NEC - NATIONAL ELECTRICAL CODE - ON TOWER LIGHTING KITS.
 - UL - UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.
 - IN ALL CASES, PART 77 OR THE FAA RULES AND PARTS 17 AND 22 OF THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.
 - 2012 LIFE SAFETY CODE NFPA -101.



Know what's below.
Call before you dig.



240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:

94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
T1601581

CURRENT ISSUE DATE:

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CONSULTANT:



W-T COMMUNICATION
DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE

2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com

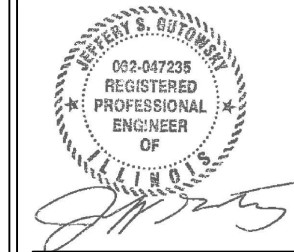
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SC JKR JSG

LICENSER:



JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

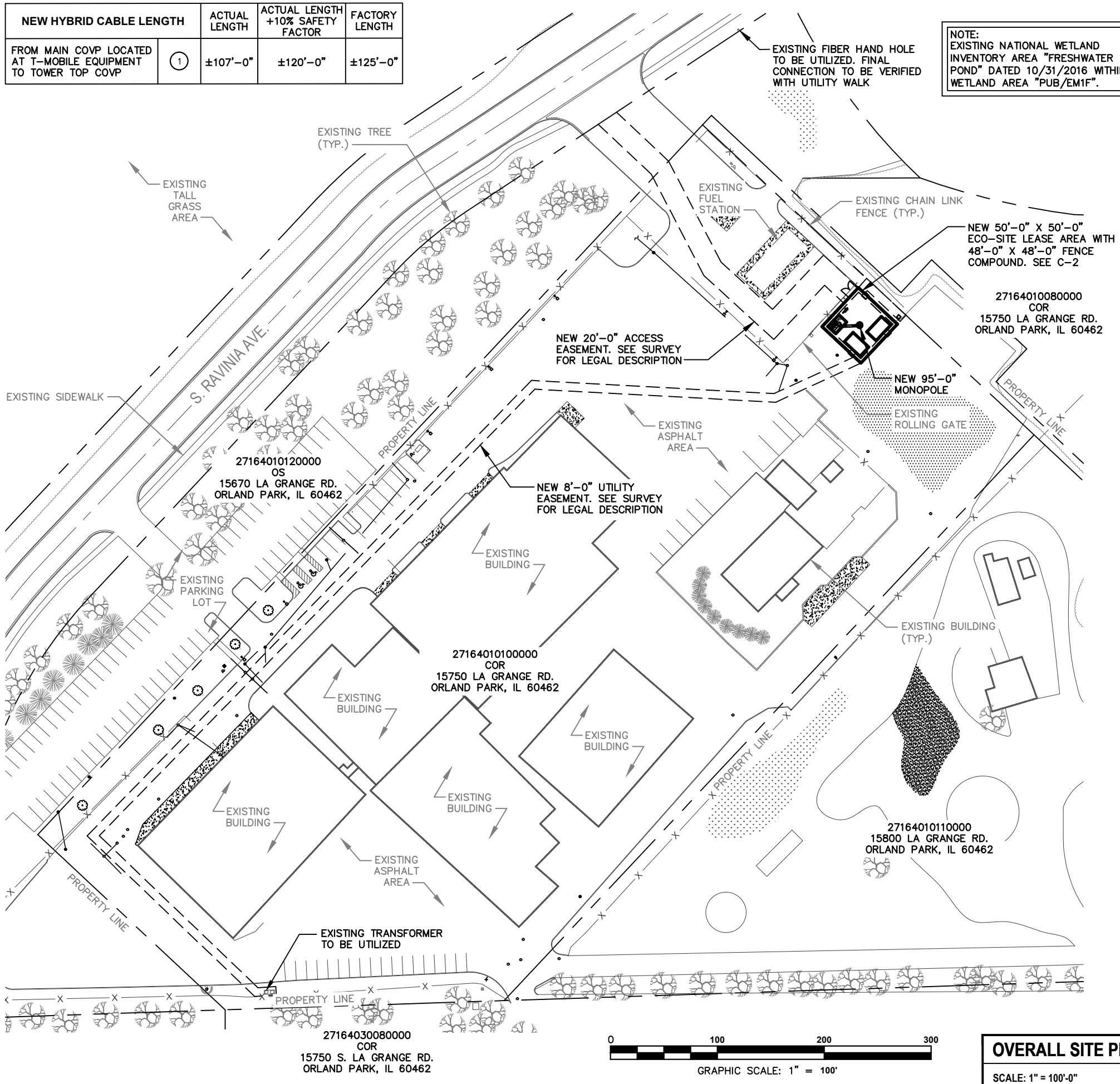
SHEET TITLE:

CARRIER
NOTES

SHEET NUMBER: REVISION:

GN-3 0

NEW HYBRID CABLE LENGTH	ACTUAL LENGTH	ACTUAL LENGTH +10% SAFETY FACTOR	FACTORY LENGTH
FROM MAIN COVP LOCATED AT T-MOBILE EQUIPMENT TO TOWER TOP COVP	① ±107'-0"	±120'-0"	±125'-0"



NOTE:
EXISTING NATIONAL WETLAND INVENTORY AREA "FRESHWATER POND" DATED 10/31/2016 WITHIN WETLAND AREA "PUB/EM1F".

IMPORTANT SITE NOTES:

1. CONTRACTOR WILL NOT START CONSTRUCTION UNTIL AFTER THEY HAVE RECEIVED THE PRE-CON PACKAGE AND HAVE A PRE-CON WALK WITH THE PROJECT MANAGER.
2. CONTRACTOR TO HIRE PUBLIC (811) AND PRIVATE LOCATING SERVICE IN ORDER TO LOCATE AND PROTECT ALL SURFACE UTILITIES. DO NOT SCALE OFF THESE PLANS FOR ANY BELOW GRADE UTILITIES
3. CONTRACTOR SHALL VERIFY ALL EXISTING BURIED AND OVERHEAD UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL REPAIR ALL DAMAGED UTILITIES AT HIS OWN COST AND COORDINATE ANY REPAIRS WITH RESPECTIVE UTILITY COMPANY.
4. CONTRACTOR TO VERIFY ALL HEIGHTS AND AZIMUTHS IN FIELD PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY T-MOBILE AND ENGINEERING FIRM OF ANY DISCREPANCIES BEFORE PROCEEDING.
5. CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION.

SURVEY NOTE:

1. ECO-SITE STAFF SHALL COORDINATE WITH THE PROPERTY OWNER TO OBTAIN THE PROPER EASEMENT AGREEMENTS TO CONSTRUCT AND MAINTAIN EQUIPMENT IN AND AROUND THE TOWER COMPOUND.
2. PROPOSED COMPOUND LAYOUT BASED ON SURVEY PROVIDED BY W-T LAND SURVEYING, INC. DATED 03/30/17 AND SITE VISIT ON 10/31/16.

TOWER SETBACKS TO PROPERTY LINES (FROM TOWER CENTER)	
NORTHWEST	235'-7"
NORTHEAST	36'-7"
SOUTHWEST	873'-5"
SOUTHEAST	189'-1"



240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

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WORKS BUILDING
RL/CH75232H**
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
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CONSULTANT:

W-T
**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
www.wtengineering.com
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DRAWN BY:	CHK:	APV:
SC	JKR	JSG

LICENSER:

JEFFERY S. GUTOWSKY
062-047235
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS
JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

**OVERALL SITE
PLAN**

SHEET NUMBER:

C-1

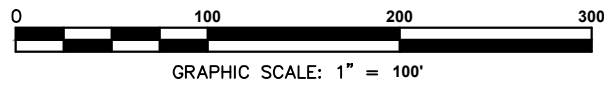
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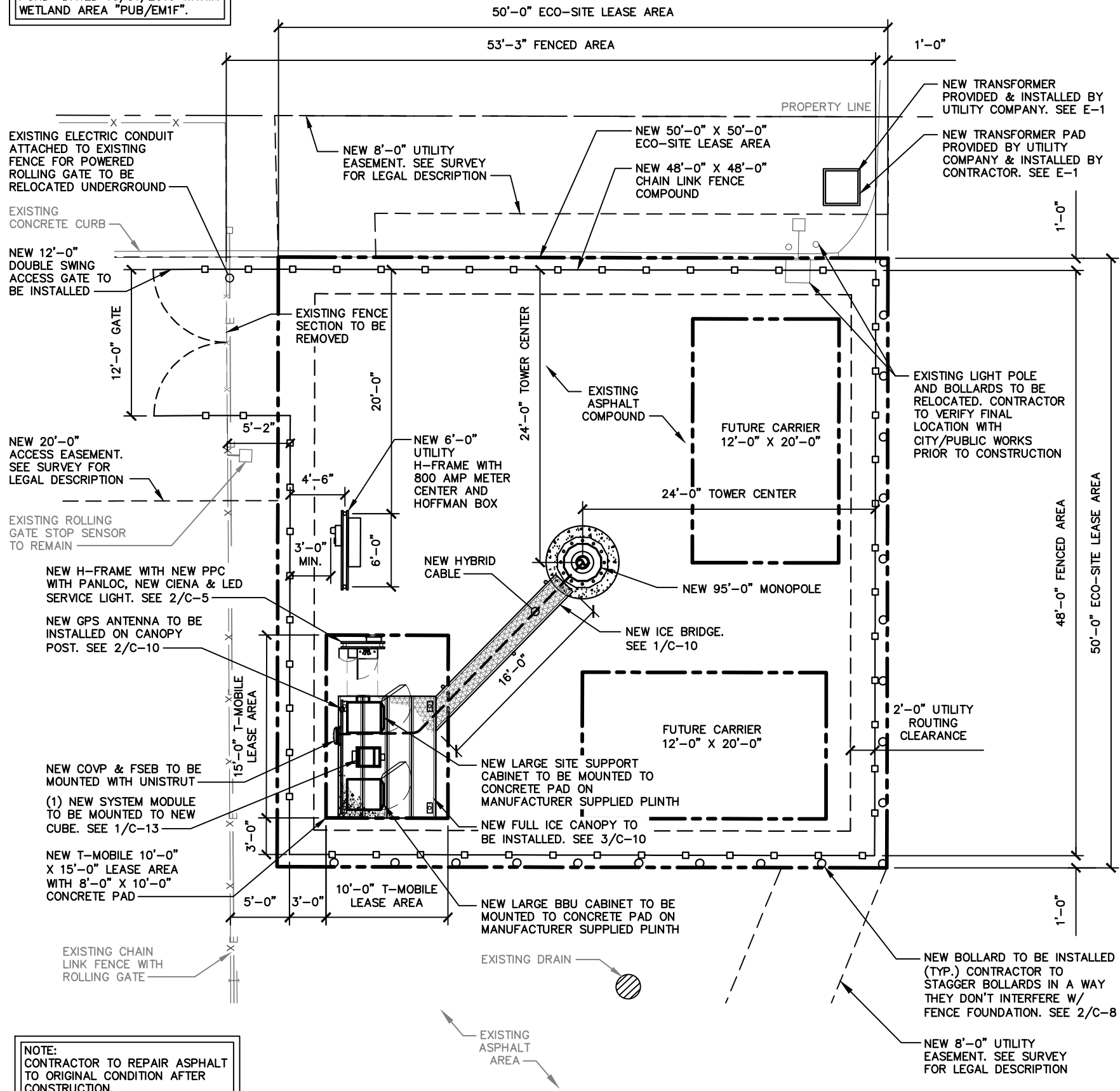
OVERALL SITE PLAN

SCALE: 1" = 100'-0"

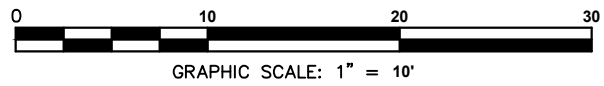
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NOTE:
EXISTING NATIONAL WETLAND
INVENTORY AREA "FRESHWATER
POND" DATED 10/31/2016 WITHIN
WETLAND AREA "PUB/EM1F".



NOTE:
CONTRACTOR TO REPAIR ASPHALT
TO ORIGINAL CONDITION AFTER
CONSTRUCTION.



GENERAL NOTES:

- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE DRAWINGS AND SPECIFICATIONS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STATE, LOCAL AND NATIONAL CODES, ORDINANCES AND OR REGULATIONS APPLICABLE TO THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ECO-SITE CONSTRUCTION MANAGER AND/OR ENGINEER AND BE RESOLVED BEFORE PROCEEDING WITH WORK. WHERE THERE IS A CONFLICT BETWEEN DRAWING AND ECO-SITE SPECIFICATIONS, THE ECO-SITE CONSTRUCTION MANAGER SHOULD BE CONTACTED FOR CLARIFICATION.
- ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ECO-SITE CONSTRUCTION MANAGER AND/OR ENGINEER SO THAT PROPER REVISIONS MAY BE MADE. MODIFICATION OF DETAILS OF CONSTRUCTION SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE CONSTRUCTION MANAGER AND/OR ENGINEER.
- CONTRACTOR SHALL REVIEW AND BE FAMILIAR WITH SITE CONDITIONS AS SHOWN ON THE ATTACHED SITE PLAN AND/OR SURVEY DRAWINGS.
- WAVEGUIDE BRIDGE AND PRE-FAB SHELTER ARE SHOWN FOR REFERENCE ONLY. REFER TO SEPARATE PRE-ENGINEERED DRAWINGS FOR SPECIFIC INFORMATION INCLUDING FOOTINGS AND WAVEGUIDE BRIDGE LOCATION.
- ALL FINISHED GRADES SHALL SLOPE MINIMUM 1/4 IN./FT. AWAY FROM EQUIPMENT IN ALL DIRECTIONS. CONTRACTOR SHALL SLOPE SWALES AS REQUIRED ALONG EXISTING TERRAIN TO DRAIN AWAY FROM COMPOUND AND ACCESS DRIVE.
- THE PROPOSED TOWER AND TOWER FOUNDATIONS WERE DESIGNED BY OTHERS. TOWER INFORMATION PROVIDED ON THESE PLANS ARE PROVIDED FOR REFERENCE PURPOSES ONLY. TOWER DIMENSIONS SHOWN ON THIS PLAN ARE FOR TOWER CENTER LOCATION, CAISSONS AND TOWER SHOWN ON THIS PLAN ARE ILLUSTRATIVE; SEE DESIGN DRAWINGS BY OTHERS. DO NOT SCALE. NOTIFY ENGINEER OR ECO-SITE CONSTRUCTION MANAGER OF ANY CONFLICTS OR DISCREPANCIES. CONTRACTOR TO OBTAIN COPY OF TOWER DESIGN DRAWINGS FROM ECO-SITE CONSTRUCTION MANAGER TO CONFIRM COAX ROUTING AND ANTENNA MOUNT INFORMATION.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE EXCAVATION SLOPING, SHORING, BRACING, AND GUYS IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO THE EXISTING ACCESS ROAD AND COMPOUND GRAVEL AREAS. ANY NEW FILL MATERIALS SHALL BE COMPACTED.
- THE CONTRACTOR IS HEREBY NOTIFIED THAT PRIOR TO COMMENCING CONSTRUCTION, HE IS RESPONSIBLE FOR CONTACTING THE UTILITY COMPANIES INVOLVED AND SHALL REQUEST A VERIFICATION AT THE CONSTRUCTION SITE OF THE LOCATIONS OF THEIR UNDERGROUND UTILITIES AND WHERE THEY MAY POSSIBLY CONFLICT WITH THE PLACEMENT OF IMPROVEMENTS AS SHOWN ON THESE PLANS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT WILL BE REQUIRED TO NOTIFY "STATE 811" 48 HOURS IN ADVANCE OF PERFORMING ANY WORK BY CALLING THE TOLL FREE NUMBER (800)-892-0123. ANY UTILITIES DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER.
- CONTRACTOR TO PROVIDE DUMPSTER AND PORTABLE TOILET FACILITY DURING CONSTRUCTION.
- CONTRACTOR TO PROVIDE STYMIE LOCK OR EQUIVALENT AS APPROVED BY ECO-SITE CONSTRUCTION MANAGER.

SURVEY NOTE:

- ECO-SITE STAFF SHALL COORDINATE WITH THE PROPERTY OWNER TO OBTAIN THE PROPER EASEMENT AGREEMENTS TO CONSTRUCT AND MAINTAIN EQUIPMENT IN AND AROUND THE TOWER COMPOUND.
- PROPOSED COMPOUND LAYOUT BASED ON SURVEY PROVIDED BY W-T LAND SURVEY, INC. DATED 03/30/17 AND SITE VISIT ON 10/31/16.

COAX NOTE:

- ROUTE COAX UP TOWER PER TOWER DESIGN DRAWING BY TOWER OWNER.

Eco-Site
240 LEIGH FARM ROAD, SUITE 415
DURHAM, NC 27707

PROJECT INFORMATION:
94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
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CONSULTANT:
WT
W-T COMMUNICATION
DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
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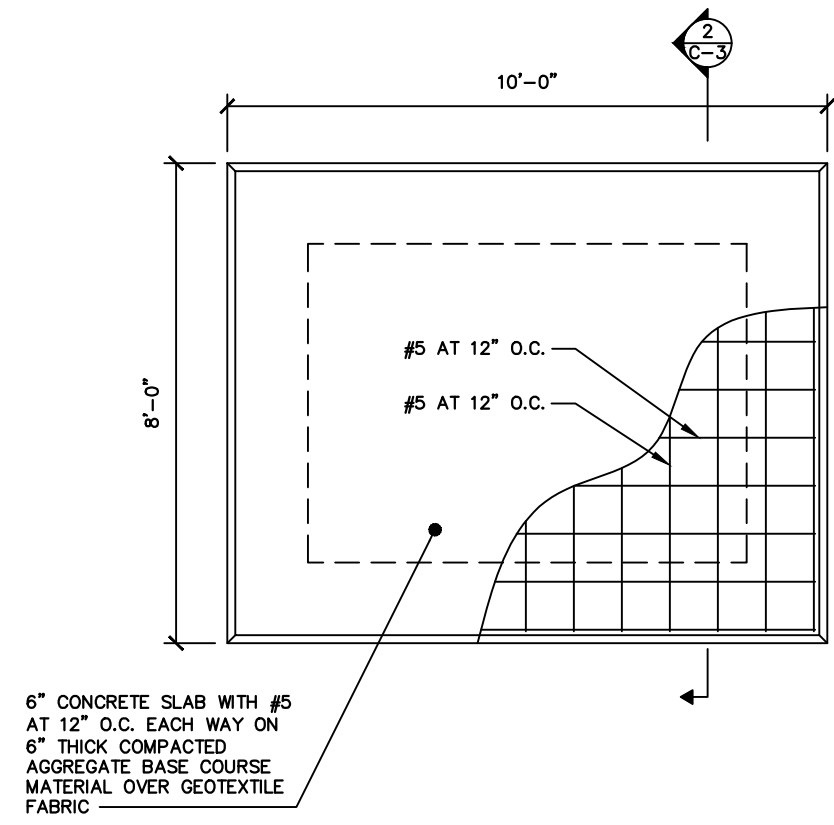
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JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
SITE PLAN

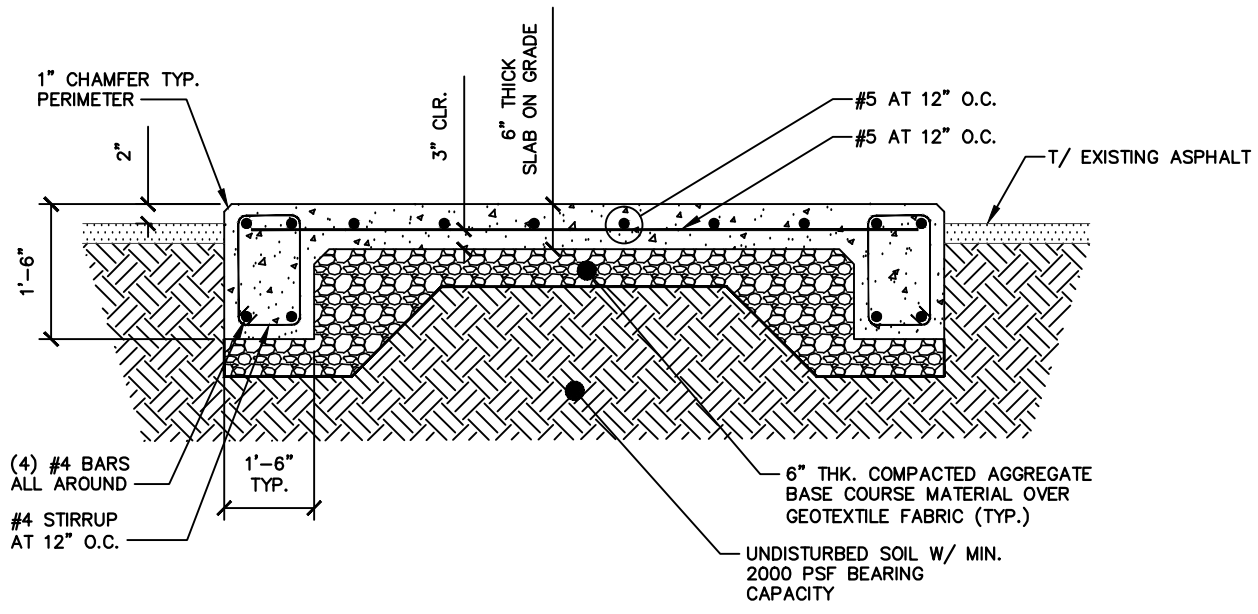
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SITE PLAN
SCALE: 1" = 10'-0"
1



EQUIPMENT PAD FOUNDATION PLAN
SCALE: NONE

1



EQUIPMENT PAD FOUNDATION
SCALE: NONE

2

STRUCTURAL GENERAL NOTES

- 1.0 GENERAL CONDITIONS
- 1.1 DESIGN AND CONSTRUCTION OF ALL WORK SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, ACI 318-05, AND STEEL CONSTRUCTION MANUAL 13TH EDITION. IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS, REGULATIONS, SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURER'S REQUIREMENTS, USE THE MOST STRINGENT PROVISION.
- 1.2 IT IS THE EXPRESSED INTENT OF PARTIES INVOLVED IN THIS PROJECT THAT THE CONTRACTOR OR SUBCONTRACTOR OR INDEPENDENT CONTRACTOR OR THE RESPECTIVE EMPLOYEES SHALL EXCULPATE THE ARCHITECT/ENGINEER, CONSTRUCTION MANAGER, THE OWNER, AND THEIR AGENTS FROM ANY LIABILITY WHATSOEVER AND HOLD THEM HARMLESS AGAINST LOSS, DAMAGES, LIABILITY OR ANY EXPENSE ARISING IN ANY MATTER FROM THE WRONGFUL OR NEGLIGENT ACT, OR FAILURE TO CARRY METHODS, TECHNIQUES OR PROCEDURES OR FAILURE TO CONFORM TO THE STATE SCAFFOLDING ACT IN CONNECTION WITH THE WORK.
- 1.3 DO NOT SCALE DRAWINGS.
- 1.4 VERIFY ALL EQUIPMENT MOUNTING DIMENSIONS PER MANUFACTURER DRAWINGS. SEE MANUFACTURER ENCLOSURE CONNECTION DETAILS TO FOUNDATIONS.
- 1.5 SUBMIT ONE SEPIA AND TWO PRINTS OF ALL STRUCTURAL SHOP DRAWINGS. MARKED UP SEPIA SHALL BE RETURNED.
- 1.6 DESIGN LOADS ARE:
DEAD LOAD OF EQUIPMENT CABINETS:.....MAX. 10,000 LBS
- 2.0 A GEOTECHNICAL REPORT WAS NOT PROVIDED. FOUNDATIONS ARE DESIGNED FOR AN ASSUMED MINIMUM SOIL BEARING CAPACITY OF 2000 PSF. A GEOTECHNICAL INVESTIGATION SHOULD BE PERFORMED PRIOR TO CONSTRUCTION. IF SOIL BEARING CAPACITY IS LESS THAN WHAT IS SPECIFIED HERE, CONTACT ARCHITECT/ENGINEER FOR A REDESIGN.
- 3.0 CONCRETE
- 3.1 MEET OR EXCEED THE FOLLOWING CODES AND STANDARDS:
 -DESIGN.....ACI 318-05
 -CONSTRUCTION.....ACI 301
 -DETAILING.....CRSI MANUAL OF STANDARD PRACTICE
 -REINF. STEEL.....ASTM A 615 GRADE 60, DEFORMED
 -MIXING.....ASTM C 94. READY MIX CONCRETE
 -AIR ENTRAINMENT.....ACI 318 AND ASTM C-260
 -AGGREGATE.....ASTM C 33 AND C 330 (FOR LIGHT WEIGHT)
- 3.2 CONCRETE STRENGTH AT 28 DAYS SHALL BE 4000 PSI MINIMUM.
- 3.3 DO NOT FIELD BEND OR WELD TO GRADE 60 REINFORCED STEEL.
- 3.4 PROVIDE AIR ENTRAINED CONCRETE WITH AIR CONTENT OF 5 TO 7% FOR ALL CONCRETE EXPOSED TO EARTH OR WEATHER.
- 3.5 MAXIMUM AGGREGATE SIZE: 3/4" FOR FOOTINGS, WALLS, BEAMS, SLABS AND COLUMNS: 3/8" FOR CONCRETE TOPPING. DO NOT USE ANY ADMIXTURE WHICH HAS CALCIUM CHLORIDE OR WATER.
- 3.6 MINIMUM COVER FOR REINFORCING STEEL UNLESS INCREASED COVER IS NECESSARY TO MEET FIRE RATINGS INDICATED:
 -CAST AGAINST AND EXPOSED EARTH.....3"
 -EXPOSED TO EARTH AND WEATHER, #11 TO #6 BARS.....2"
 -EXPOSED TO EARTH AND WEATHER, #5 OR SMALLER.....1-1/2"
 -INTERIOR EXPOSURE, BEAMS AND COLUMNS.....1-1/2"
 -INTERIOR EXPOSURE, SLABS, WALLS AND JOISTS.....3/4"
- 4.0 COMPACTION: THE STRUCTURAL FILL MATERIAL SHALL BE WELL GRADED GRANULAR SOIL AND SHALL BE PLACED IN LAYERS OF 8 INCHES. EACH LAYER SHALL BE COMPACTED TO A MINIMUM OF 98% COMPACTION BASED ON ASTM D-1557 PRIOR TO SUCCEEDING LAYERS.

FOUNDATION NOTES
SCALE: NONE

3

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W-T
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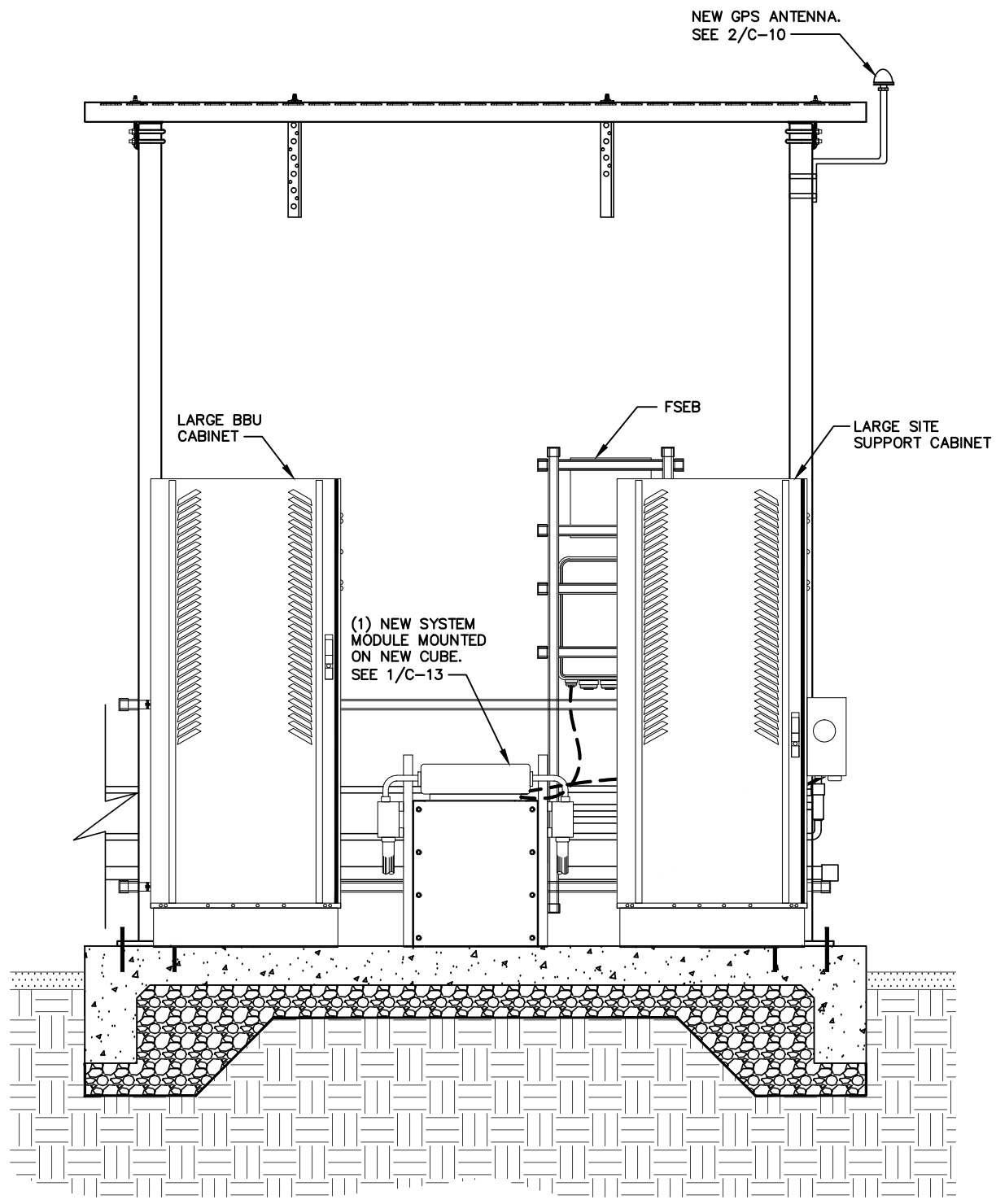
JEFFERY S. GUTOWSKY
062-047235
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS

JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
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SHEET TITLE:
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EQUIPMENT
PAD DETAILS

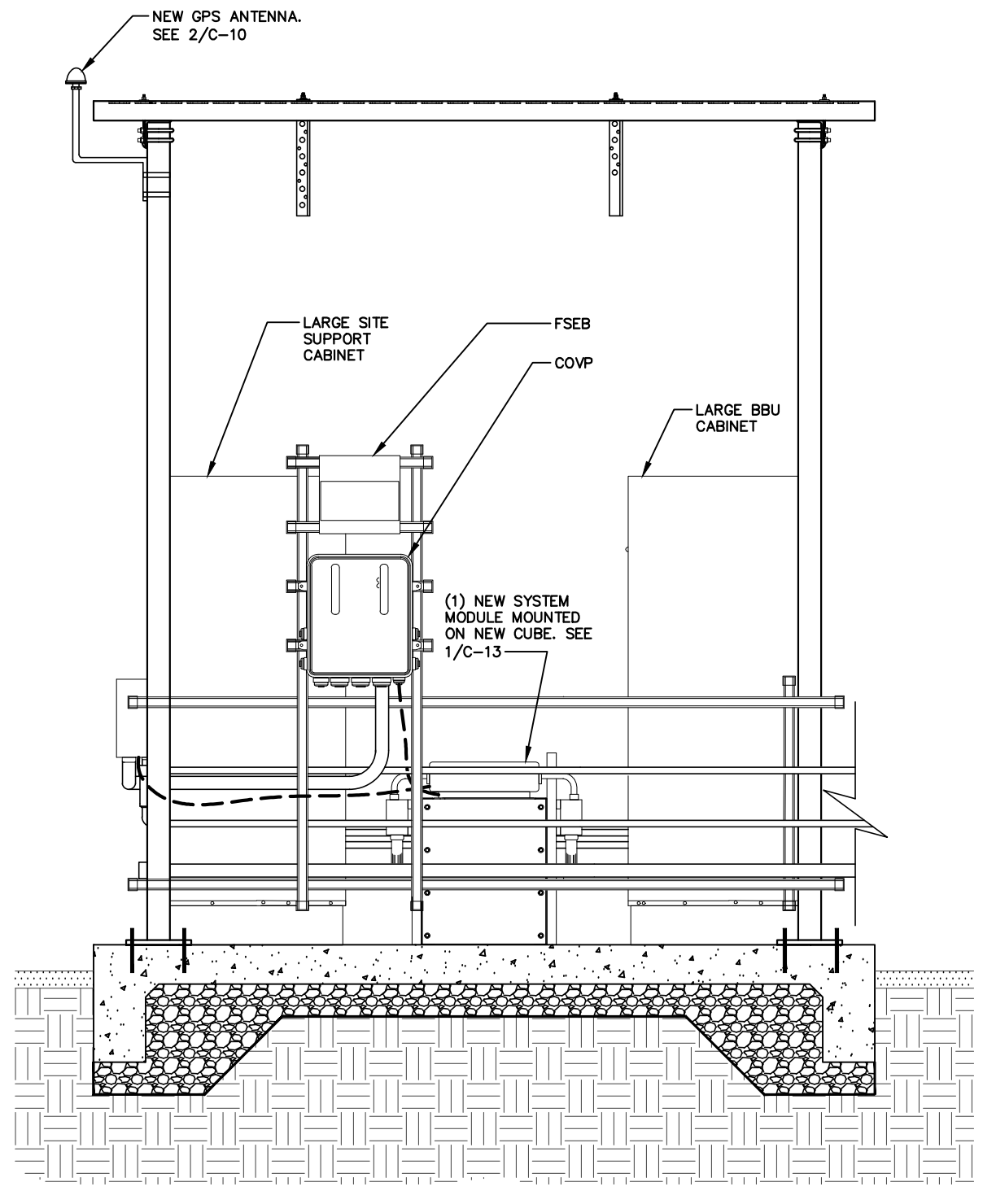
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C-3	0

NOTE:
ALL UNISTRUT, FASTENERS, HARDWARE, ETC,
ARE TO BE EITHER HOT-DIPPED GALVANIZED OR
STAINLESS STEEL. GENERAL CONTRACTOR IS NOT
TO USE ZINC-PLATED OR PRE-GALVANIZED.



FRONT EQUIPMENT ELEVATION
SCALE: 1/2" = 1'-0" **1**

NEW 8'-0" X 10'-0" ICE CANOPY
W/ BASE SHOE LEGS COMMScope
PART # IC-0810-S. MOUNT TO
PAD PER MANUFACTURER
REQUIREMENTS.



REAR EQUIPMENT ELEVATION
SCALE: 1/2" = 1'-0" **2**

PROJECT INFORMATION:
94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
T1601581

CURRENT ISSUE DATE:
05/31/17

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REV.	DATE	ISSUED FOR:	BY:
A	12/02/16	FOR CLIENT REVIEW	SC
B	12/27/16	REVISION	KLO
C	03/31/17	CITY COMMENTS	KLO
D	05/23/17	RFDS REVISION	KLO
O	05/31/17	FINAL	KLO

CONSULTANT:
W-T
W-T COMMUNICATION
DESIGN GROUP, LLC.
WIRELESS INFRASTRUCTURE
2675 Pratum Avenue
Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
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SC	JKR	JSG

LICENSER:

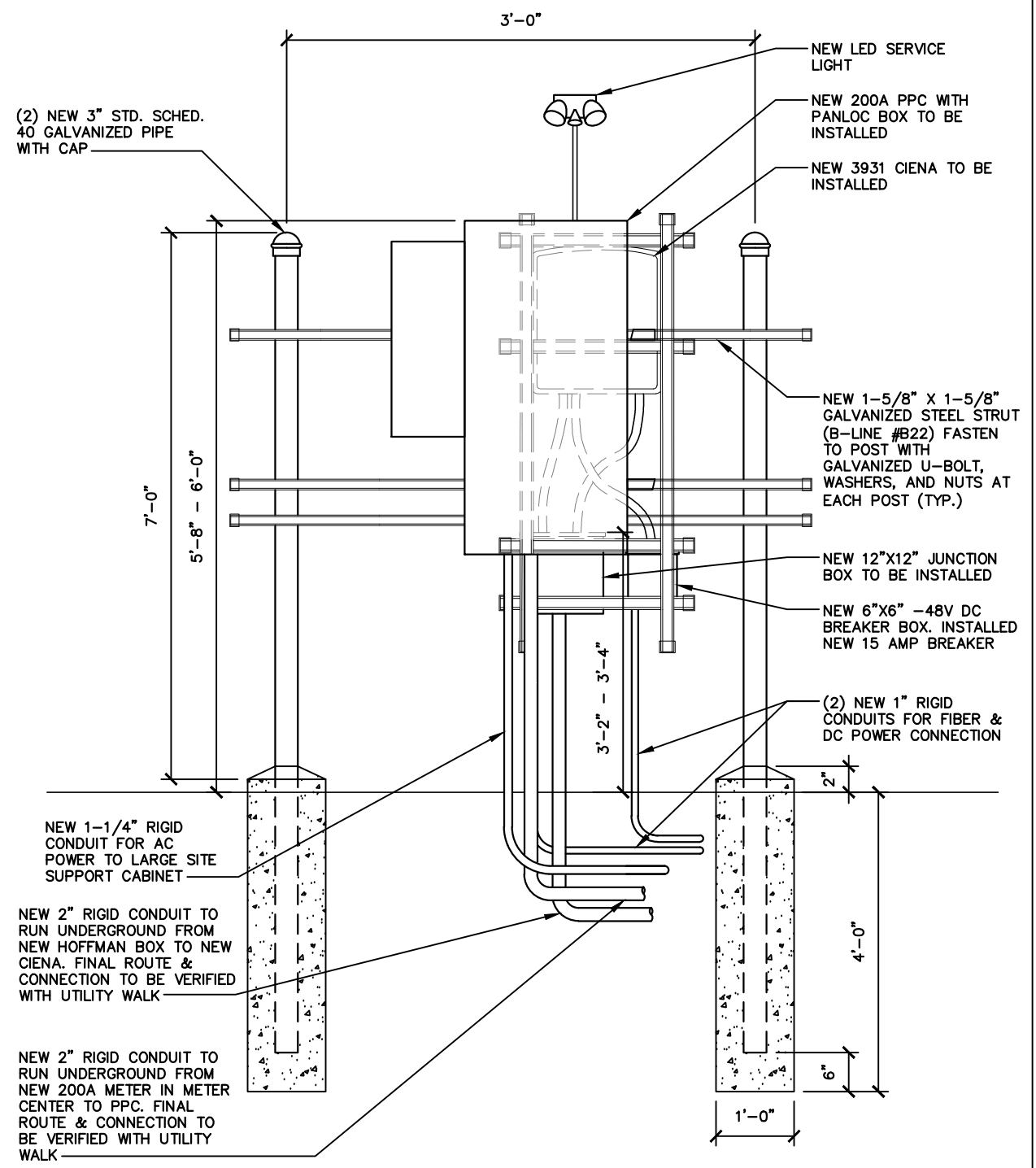
JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
EQUIPMENT ELEVATIONS

SHEET NUMBER:	REVISION:
C-4	0

NOTE:
ALL UNISTRUT, FASTENERS, HARDWARE, ETC,
ARE TO BE EITHER HOT-DIPPED GALVANIZED OR
STAINLESS STEEL. GENERAL CONTRACTOR IS NOT
TO USE ZINC-PLATED OR PRE-GALVANIZED.

NOTE:
SOIL PROPERTY SHALL BE
CLAY/SANDY SOILS, WITH
MINIMUM SOIL BEARING
CAPACITY OF 2000 PSI



DETAIL NOT USED
SCALE: NONE
1

CARRIER H-FRAME DETAIL
SCALE: NONE
2

PROJECT INFORMATION:
**94TH AVE./IL-0130
ORLAND PARK PUBLIC
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CONSULTANT:
W-T
**W-T COMMUNICATION
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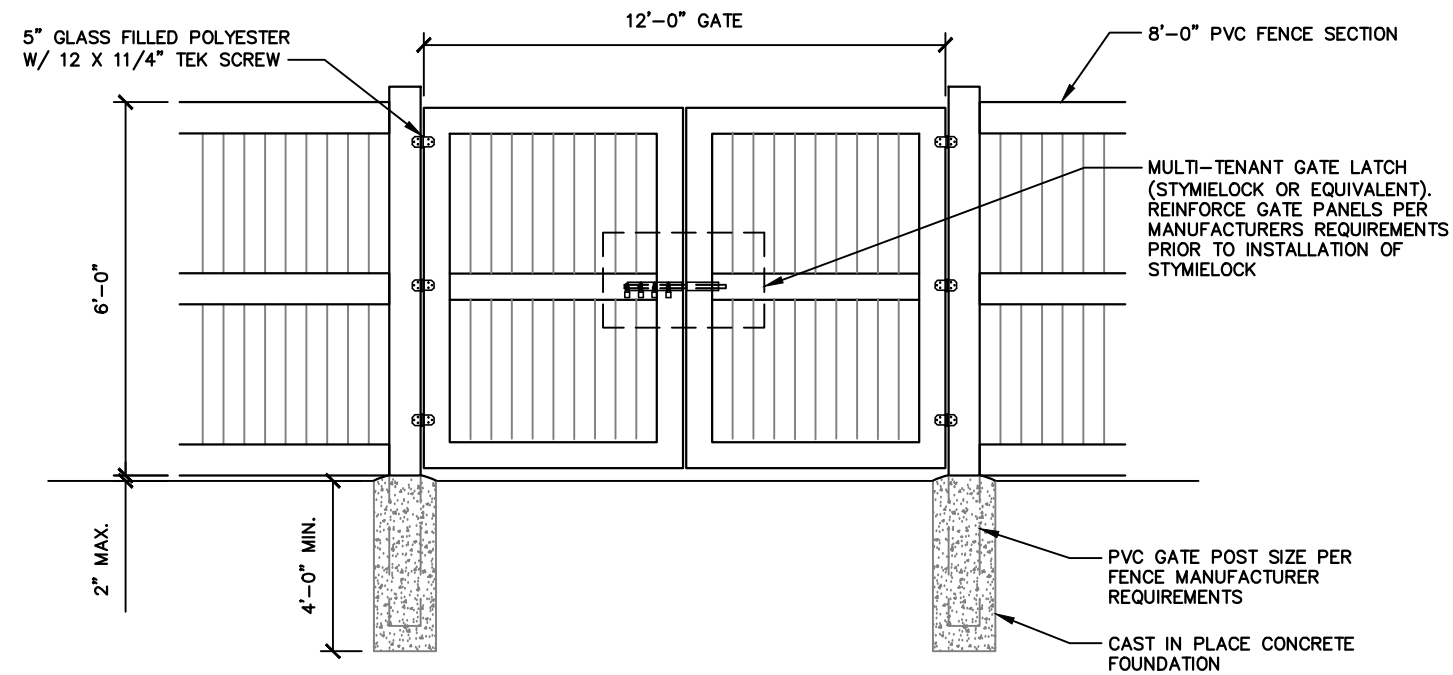
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SC	JKR	JSG

LICENSER:

JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
**EQUIPMENT
ELEVATIONS**

SHEET NUMBER: **C-5** REVISION: **0**

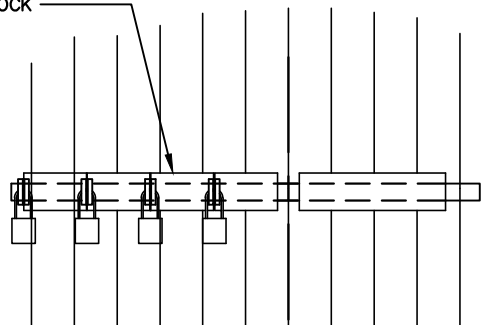


FENCE AND GATE ELEVATION

SCALE: NONE

1

MULTI-TENANT GATE LATCH (STYMILOCK OR EQUIVALENT). REINFORCE GATE PANELS PER MANUFACTURERS REQUIREMENTS PRIOR TO INSTALLATION OF STYMILOCK



DETAIL NOT USED

SCALE: NONE

2

MULTI-TENANT LOCK

SCALE: NONE

3

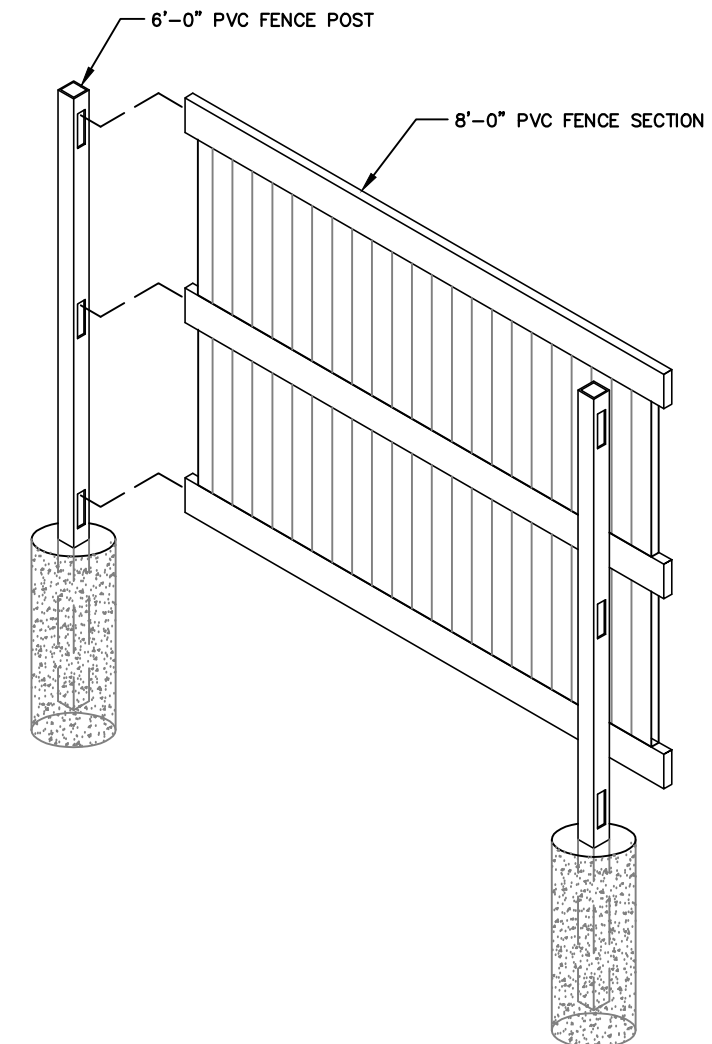
FENCE SECTION DETAIL

SCALE: NONE

4

NOTES:

1. GENERAL CONTRACTOR TO ENSURE NEW PVC FENCE IS NEUTRAL IN COLOR
2. FOR ALL PVC FENCE HARDWARE & INSTALLATION SPECIFICATIONS CONSULT WWW.FENCEWHOLESAL.COM, PHONE: 1-866-525-9288 OR 717-554-5713.



PROJECT INFORMATION:

94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
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CONSULTANT:



**W-T COMMUNICATION
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WIRELESS INFRASTRUCTURE

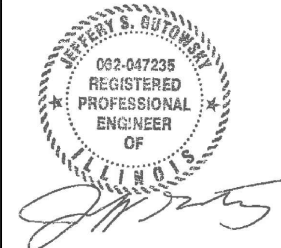
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PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

**FENCE, GATE &
COMPOUND
DETAILS**

SHEET NUMBER: REVISION:

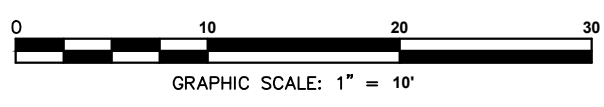
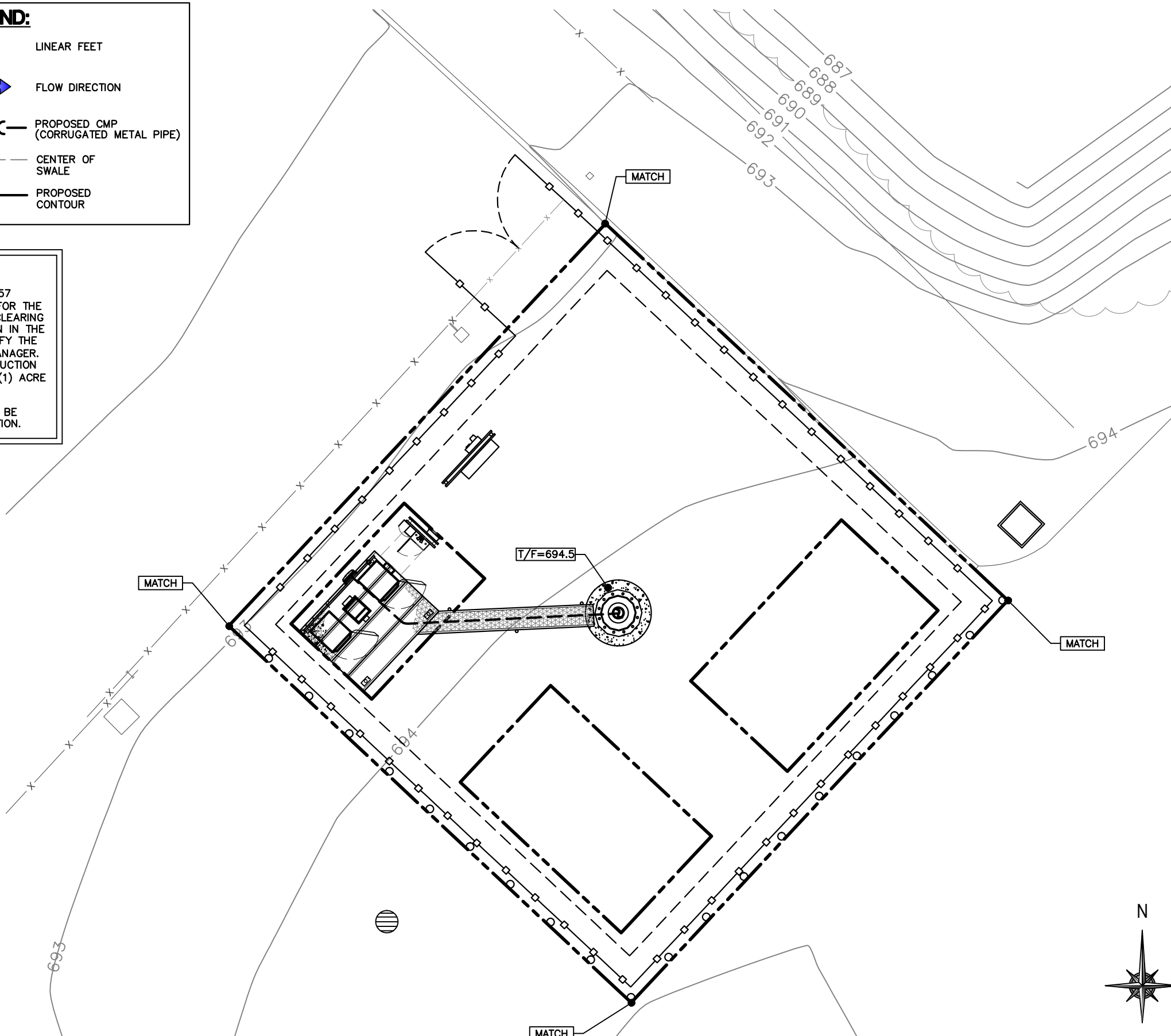
C-6

0

LEGEND:

XXX	PROPOSED CONTOUR	LF	LINEAR FEET
XXX.XX	PROPOSED ELEVATION		FLOW DIRECTION
T/F=XXX.XX	TOP OF FOUNDATION		PROPOSED CMP (CORRUGATED METAL PIPE)
XXX.XX	INVERT/INLET	- - - -	CENTER OF SWALE
XXX.XX	PROPOSED SPOT GRADE	—	PROPOSED CONTOUR

NOTE:
 CURRENT DESIGN ANTICIPATES APPROXIMATELY 2,500± SQ. FT. (0.057 ACRES) OF CLEARING AND GRADING FOR THE PROPOSED PROJECT. IF ADDITIONAL CLEARING IS REQUIRED BEYOND WHAT IS SHOWN IN THE PLANS THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND/OR CONSTRUCTION MANAGER. IF DURING THE BID WALK OR CONSTRUCTION IT IS DETERMINED THAT MORE THAN (1) ACRE OF LAND IS TO BE DISTURBED FOR CONSTRUCTION AN EROSION AND SEDIMENTATION CONTROL PLAN MUST BE FILED 30 DAYS PRIOR TO CONSTRUCTION.



GRADING & EROSION CONTROL PLAN
 SCALE: 1" = 10'-0" 1

PROJECT INFORMATION:
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ORLAND PARK PUBLIC
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RL/CH75232H
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CONSULTANT:
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W-T COMMUNICATION
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 Hoffman Estates, Illinois 60192
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SC	JKR	JSG

LICENSER:

 JEFFERY S. GUTOWSKY
 PROFESSIONAL ENGINEER
 STATE OF ILLINOIS
 LICENSE # 062-047235
 EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
GRADING & EROSION CONTROL PLAN

SHEET NUMBER:	REVISION:
C-7	0

PROJECT INFORMATION:

**94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING**
RL/CH75232H

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
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CONSULTANT:



**W-T COMMUNICATION
DESIGN GROUP, LLC.**
WIRELESS INFRASTRUCTURE

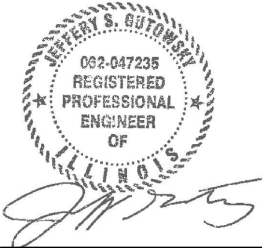
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PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

**ACCESS ROAD
DETAILS**

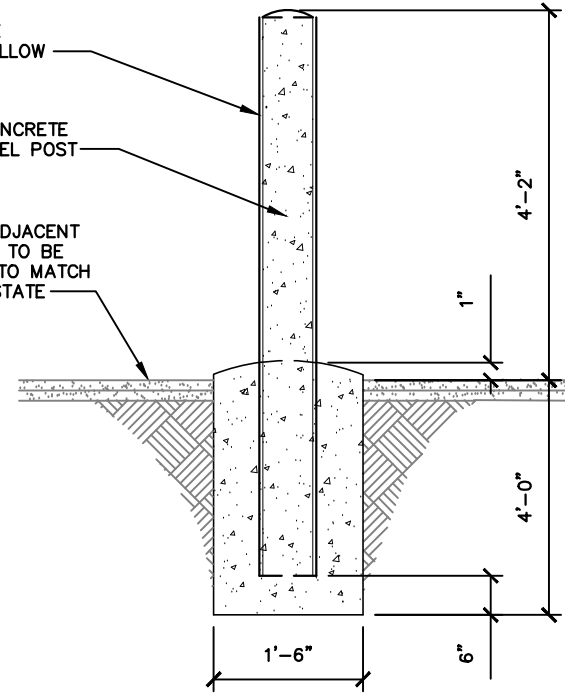
SHEET NUMBER: REVISION:

C-8 0

PAINT PIPE
SAFETY YELLOW

8" DIA. CONCRETE
FILLED STEEL POST

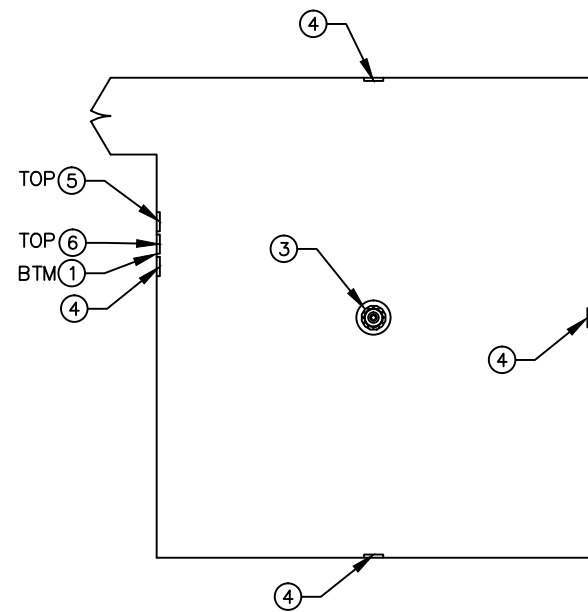
EXISTING ADJACENT
MATERIALS TO BE
REPAIRED TO MATCH
ORIGINAL STATE



DETAIL NOT USED	1
SCALE: NONE	

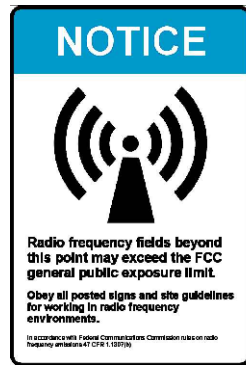
BOLLARD DETAIL	2
SCALE: NONE	

DETAIL NOT USED	3
SCALE: NONE	

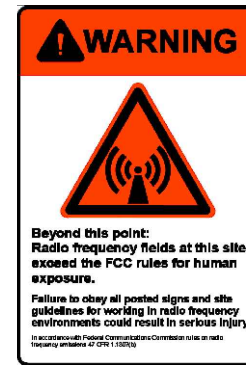


NOTE:
SEE TYPICAL SIGNS AND SPECIFICATIONS DETAIL ON THIS SHEET FOR SIGN DESIGNATIONS.

OVERALL SIGN PLACEMENT PLAN VIEW
SCALE: NONE **1**



① NOTICE - RF SIGN (BLUE)
18" x 12" DIGITAL PRINT MOUNTED TO 0.040 THICK ALUMINUM (OPERATIONS PROVIDED)



② WARNING - RF SIGN
18" x 12" DIGITAL PRINT MOUNTED TO 0.040 THICK ALUMINUM (OPERATIONS PROVIDED)



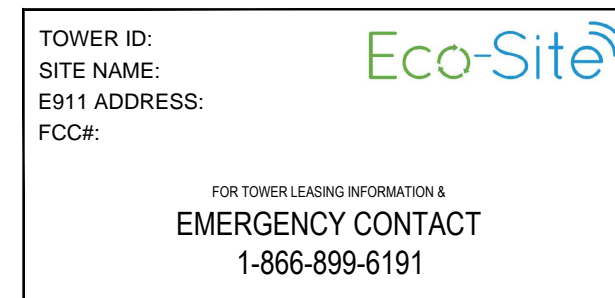
③ CAUTION - RF SIGN (YELLOW)
18" x 12" DIGITAL PRINT MOUNTED TO 0.040 THICK ALUMINUM (OPERATIONS PROVIDED)



④ NO-TRESSPASSING SIGN
12" x 18" DIGITAL PRINT MOUNTED TO 0.040 THICK ALUMINUM (OPERATIONS PROVIDED)

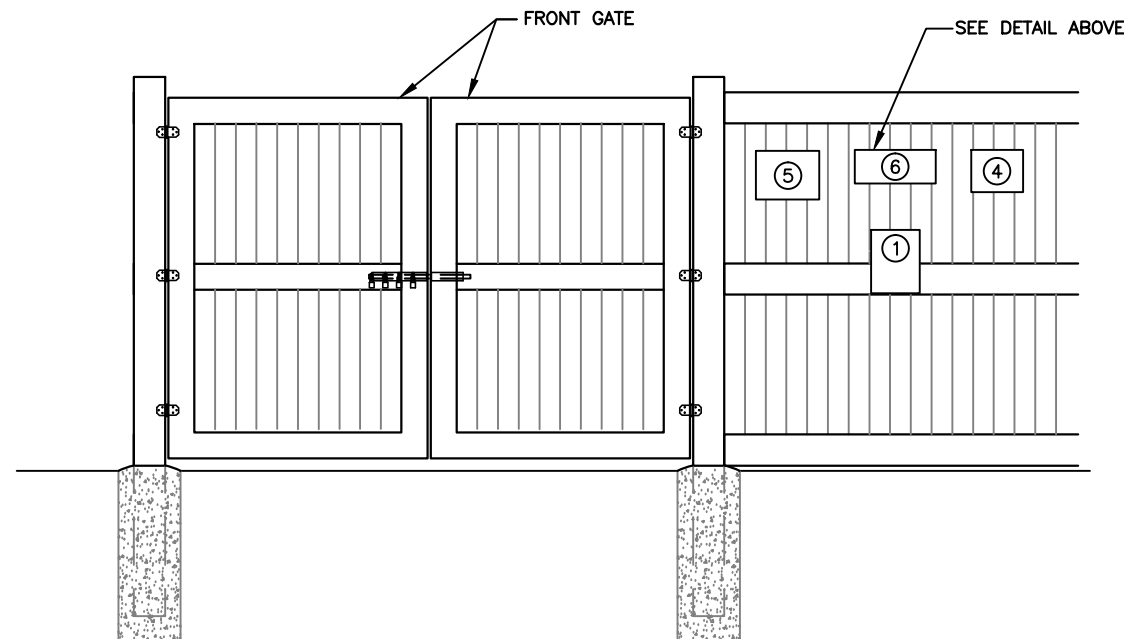


⑤ RF GUIDELINE SIGN
12" x 18" DIGITAL PRINT MOUNTED TO 0.040 THICK ALUMINUM (OPERATIONS PROVIDED)



⑥ ECO-SITE ID SIGN
18" HIGH X 24" WIDE (OPERATIONS PROVIDED)

TYPICAL SIGNS AND SPECIFICATIONS
SCALE: NONE **2**



SIGNAGE NOTES:

- SIGNS SHALL BE FABRICATED FROM CORROSION RESISTANT PRESSED METAL, AND PAINTED WITH LONG LASTING UV RESISTANT COATINGS.
- SIGNS (EXCEPT WHERE NOTED OTHERWISE) SHALL BE MOUNTED TO THE TOWER, GATE, AND FENCE USING A MINIMUM OF 9 GAUGE ALUMINUM WIRE, HOG RINGS (AS UTILIZED IN FENCE INSTALLATIONS) OR BRACKETS WHERE NECESSARY. BRACKETS SHALL BE OF SIMILAR METAL AS THE STRUCTURE TO AVOID GALVANIC CORROSION.

SITE SIGNAGE FRONT GATE VIEW
SCALE: NONE **3**

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D	05/23/17	RFDS REVISION	KLO
O	05/31/17	FINAL	KLO

DRAWN BY:	CHK:	APV:
SC	JKR	JSG

PROJECT INFORMATION:

**94TH AVE./IL-0130
ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H**

15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
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CONSULTANT:



**W-T COMMUNICATION
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WIRELESS INFRASTRUCTURE

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Hoffman Estates, Illinois 60192
PH: (224) 293-6333 FAX: (224) 293-6444
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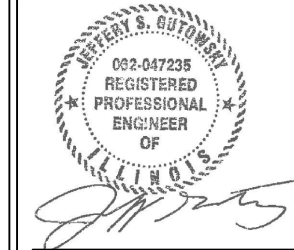
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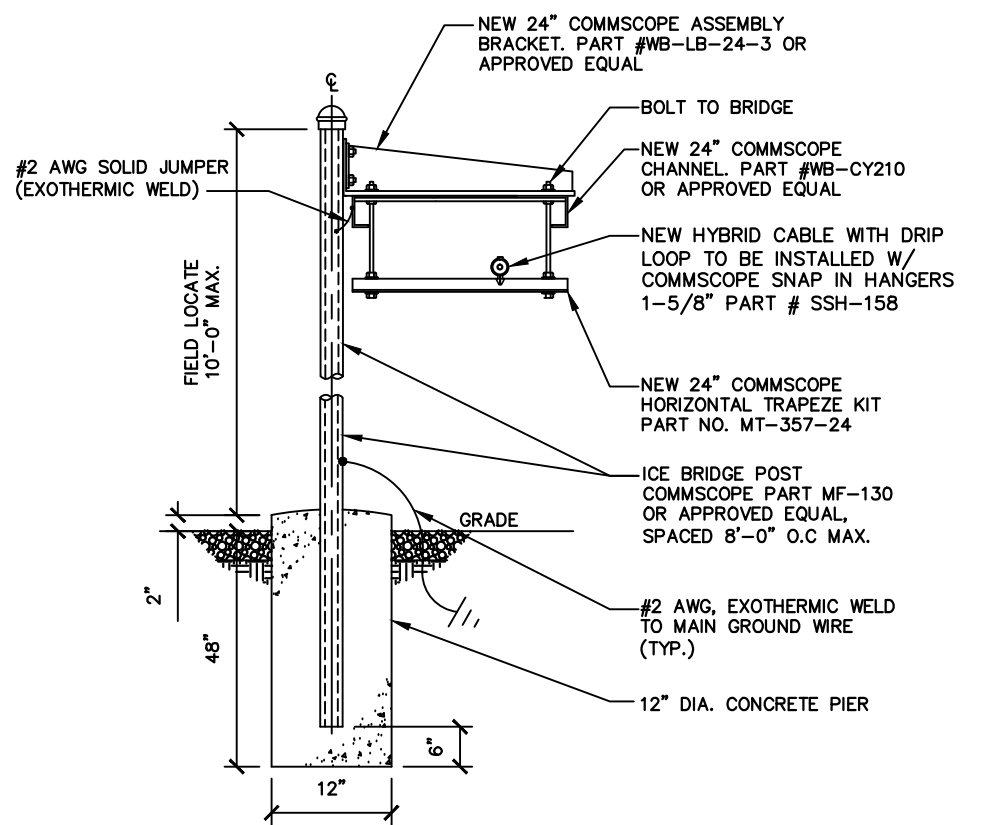
JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

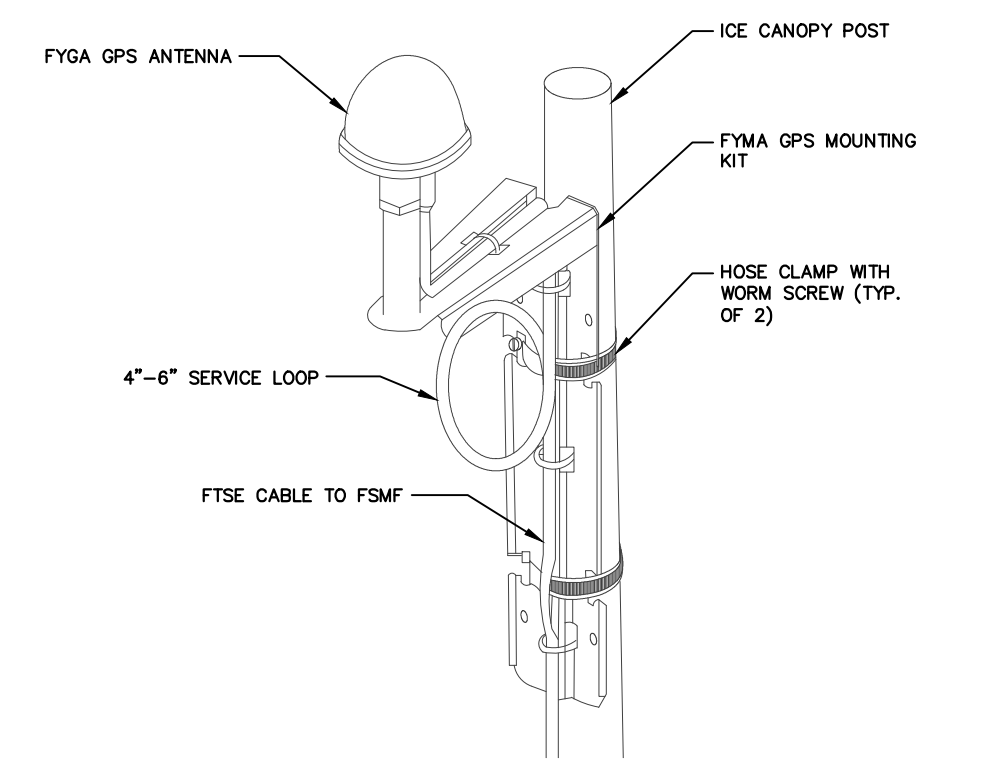
**WAVEGUIDE
BRIDGE DETAILS**

SHEET NUMBER: REVISION:

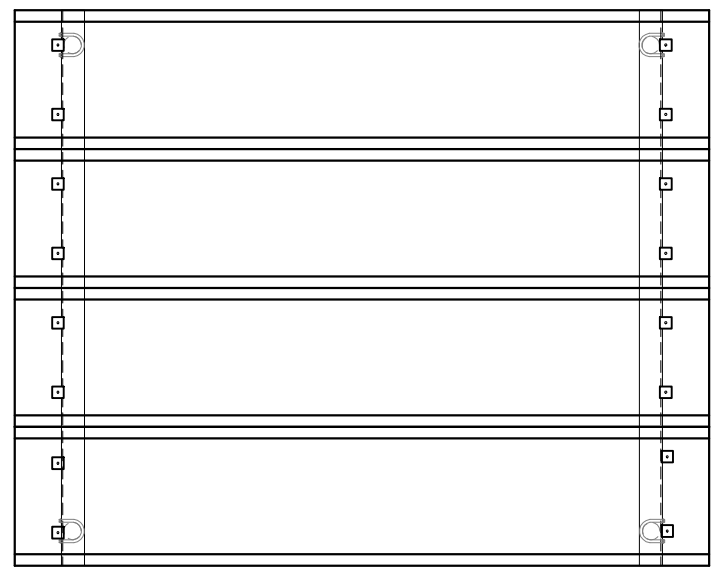
C-10 0



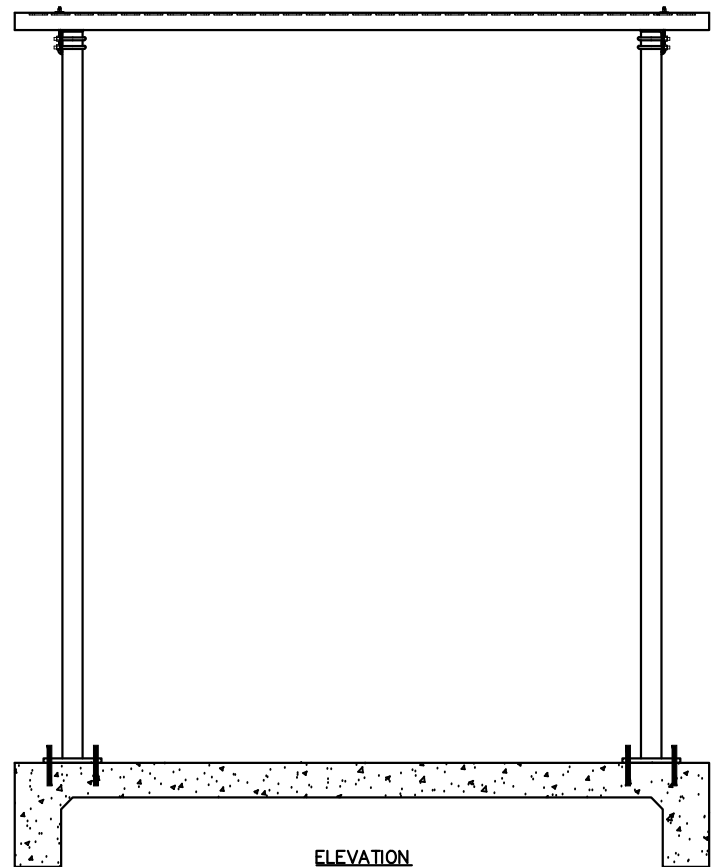
WAVEGUIDE BRIDGE DETAIL
SCALE: NONE **1**



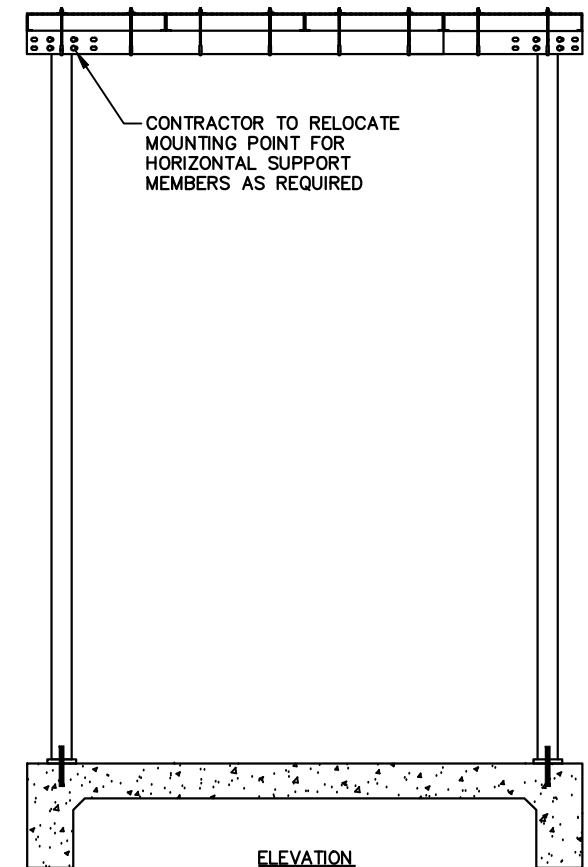
GPS ANTENNA DETAIL
SCALE: NONE **2**



TOP VIEW



ELEVATION



ELEVATION

NEW 8'-0" X 10'-0" ICE CANOPY W/
BASE SHOE LEGS COMMSCOPE PART #
IC-0810-S. MOUNT TO PAD PER
MANUFACTURER REQUIREMENTS.

ICE BRIDGE CANOPY DETAIL
SCALE: NONE **3**

NOTE:
W-T'S SCOPE OF WORK DOES NOT INCLUDE A STRUCTURAL EVALUATION OF THIS TOWER OR STRUCTURE. NEW ANTENNAS AND EQUIPMENT SHOWN ON THIS PLAN HAVE NOT BEEN EVALUATED TO VERIFY THE TOWER OR STRUCTURE HAS THE CAPACITY TO ADEQUATELY SUPPORT THESE ANTENNAS. PRIOR TO ANY ANTENNA OR EQUIPMENT INSTALLATION, A STRUCTURAL EVALUATION OF THE TOWER OR STRUCTURE, INCLUDING ALL ANTENNA MOUNTING SYSTEMS & HARDWARE SHALL BE PERFORMED.

NOTE:
ALL INFORMATION ON THIS PAGE IS PROVIDED BY ECO-SITE AND/OR OTHERS AND IS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. CONTRACTOR SHALL CONTACT THE ECO-SITE CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION FOR ALL DETAILED ANTENNA, MOUNT, AND CABLE INFORMATION.

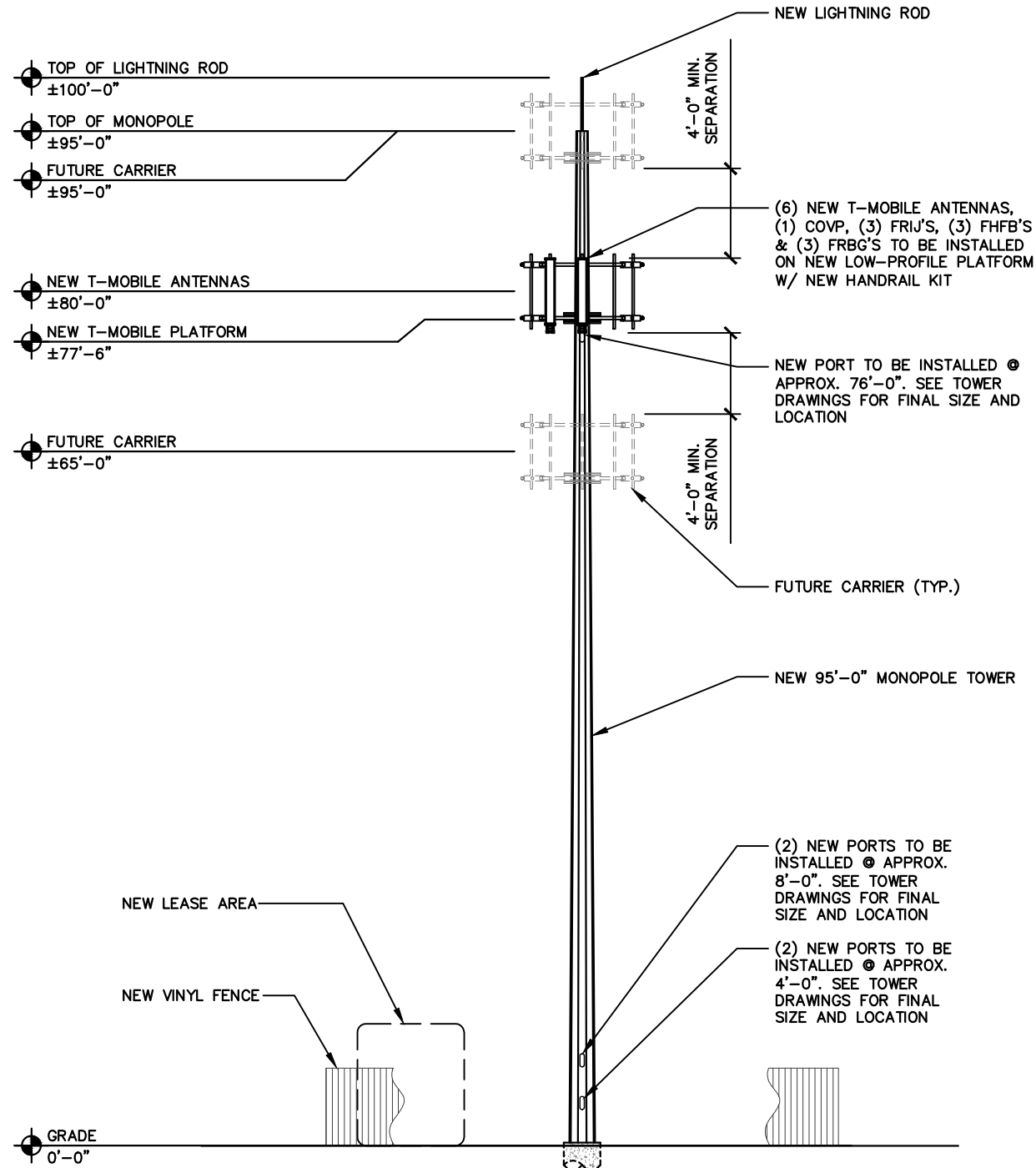
NOTE:
CONTRACTOR TO VERIFY ALL HEIGHTS AND AZIMUTHS IN FIELD PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY T-MOBILE AND ENGINEERING FIRM OF ANY DISCREPANCIES BEFORE PROCEEDING.

NOTE:
CONTRACTOR SHALL VERIFY ALL FINAL CONNECTION LOCATIONS WITH T-MOBILE ENGINEER, RF ENGINEER, AND NET-OPS PRIOR TO INSTALLATION.

NOTE:
CONTRACTOR TO ARRANGE NEW MODULES/EQUIPMENT TO AVOID INTERFERING WITH SAFETY CLIMB.

NOTE:
CONTRACTOR TO USE PROPER TORQUE WRENCH WHEN INSTALLING AND TIGHTENING CONNECTORS TO INSURE PROPER FIT.

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING FINAL RF CONFIGURATION AND NOTIFY T-MOBILE AND ENGINEERING FIRM WITH ANY DISCREPANCIES.



MONOPOLE TOWER ELEVATION - SOUTHWEST VIEW

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

1

PROJECT INFORMATION:
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ORLAND PARK PUBLIC
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JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
ANTENNA & TOWER ELEVATION DETAILS

SHEET NUMBER: **C-11**
REVISION: **0**

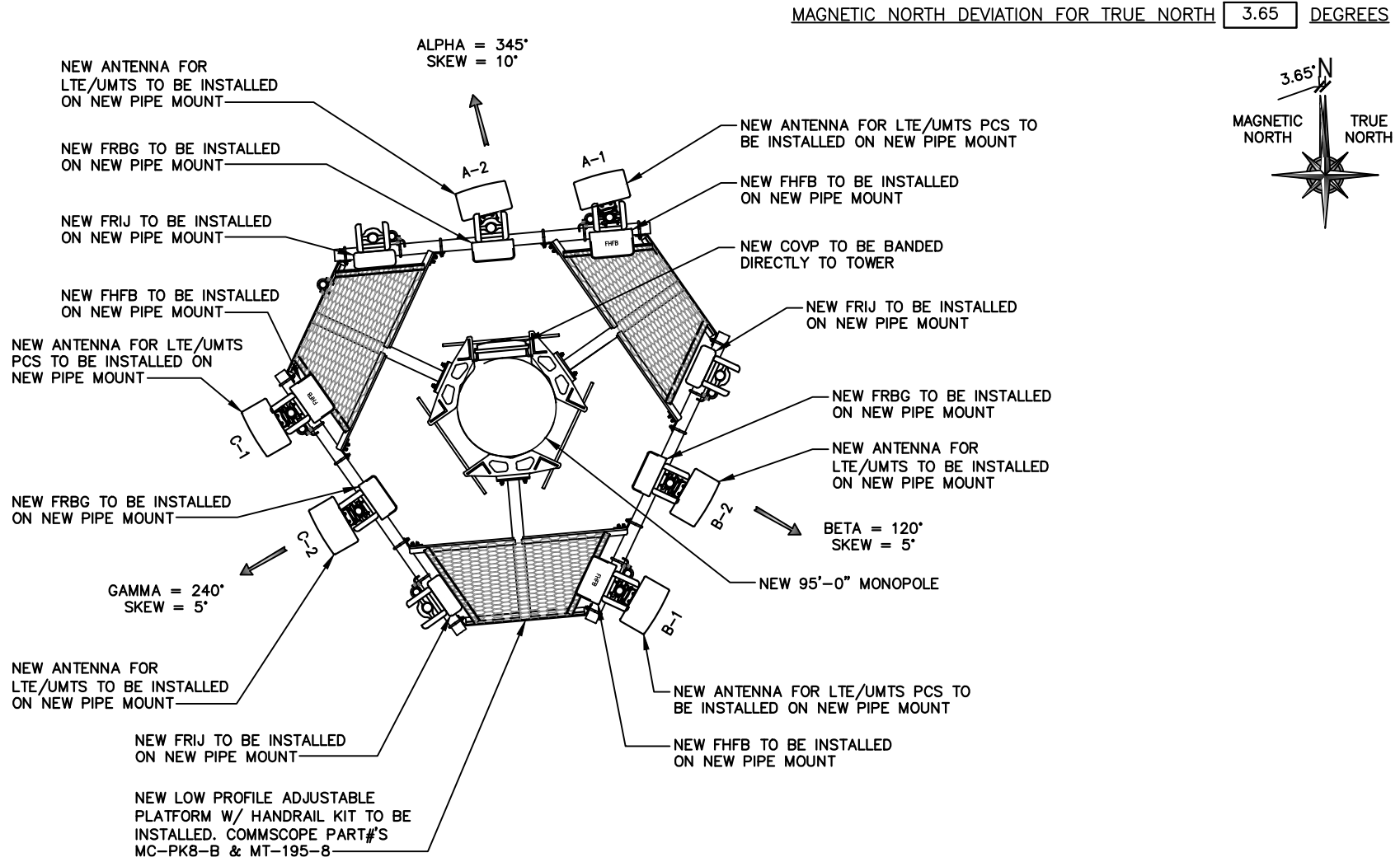
ANTENNA & CABLE SCHEDULE									
SECTOR	ALPHA			BETA			GAMMA		
LOCATION	VACANT	A-2	A-1	VACANT	B-2	B-1	VACANT	C-2	C-1
TECHNOLOGY	-	LTE 600-700(FUTURE) /LTE AWS	LTE 700/ LTE-UMTS PCS	-	LTE 600-700(FUTURE) /LTE AWS	LTE 700/ LTE-UMTS PCS	-	LTE 600-700(FUTURE) /LTE AWS	LTE 700/ LTE-UMTS PCS
AZIMUTH	345°			120°			240°		
RAD CENTER	80'-0"			80'-0"			80'-0"		
COLOR CODING	-	RED (7-10)	RED (1-6)	-	RED (7-10)	RED (1-6)	-	RED (7-10)	RED (1-6)
MODEL #	-	COMMSCOPE FHH-65C-R3	COMMSCOPE FHH-65C-R3	-	COMMSCOPE FHH-65C-R3	COMMSCOPE FHH-65C-R3	-	COMMSCOPE FHH-65C-R3	COMMSCOPE FHH-65C-R3
MECHANICAL DOWNTILT	-	2	2	-	0	0	-	0	0
ELECTRICAL DOWNTILT	-	-/2/2	2/2/2	-	-/2/2	2/2/2	-	-/2/2	2/2/2
RRU TYPE	-	(1) FRIJ	(1) FRBG / (1) FHFB	-	(1) FRIJ	(1) FRBG / (1) FHFB	-	(1) FRIJ	(1) FRBG / (1) FHFB
HCS DIA. & TYPE	-	1.584" HIGH CAPACITY	SHARED HCS	-	SHARED HCS	SHARED HCS	-	SHARED HCS	SHARED HCS
HCS ACTUAL LENGTH	-	±107'-0"	-	-	-	-	-	-	-
HCS FACTORY LENGTH	-	125'-0"	-	-	-	-	-	-	-
BUNDLE DIA. & TYPE	-	-	-	-	-	-	-	-	-
BUNDLE FACTORY LENGTH	-	-	-	-	-	-	-	-	-
JUMPER TYPE FROM COVP TO ANTENNA	-	HYBRID JUMPER	HYBRID JUMPER	-	HYBRID JUMPER	HYBRID JUMPER	-	HYBRID JUMPER	HYBRID JUMPER
JUMPER LENGTH	-	15'-0"	15'-0"	-	15'-0"	15'-0"	-	15'-0"	15'-0"
JUMPER TYPE FROM RRU TO ANTENNA	-	RF JUMPER	RF JUMPER	-	RF JUMPER	RF JUMPER	-	RF JUMPER	RF JUMPER
JUMPER LENGTH	-	6'-0"	6'-0"	-	6'-0"	6'-0"	-	6'-0"	6'-0"

NOTE:
W-T'S SCOPE OF WORK DOES NOT INCLUDE A STRUCTURAL EVALUATION OF THIS TOWER OR STRUCTURE. NEW ANTENNAS AND EQUIPMENT SHOWN ON THIS PLAN HAVE NOT BEEN EVALUATED TO VERIFY THE TOWER OR STRUCTURE HAS THE CAPACITY TO ADEQUATELY SUPPORT THESE ANTENNAS. PRIOR TO ANY ANTENNA OR EQUIPMENT INSTALLATION, A STRUCTURAL EVALUATION OF THE TOWER OR STRUCTURE, INCLUDING ALL ANTENNA MOUNTING SYSTEMS & HARDWARE SHALL BE PERFORMED.

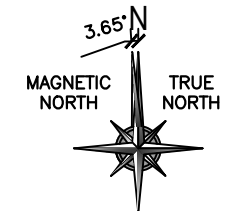
NOTE:
ANTENNA INFORMATION OBTAINED FROM T-MOBILE RF DATA CONFIGURATION SHEET DATED 05/24/17

- ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND VERIFIED BY A SMART LEVEL.
- ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO GRADE ELEVATION 0'-0".
- CONTRACTOR SHALL INSTALL COLOR CODE RINGS ON EACH OF HYBRID CABLES AND JUMPER CABLES WITH UV RESISTANT TAPE. ALL CABLES SHALL BE MARKED AT THE TOP AND BOTTOM WITH 2" COLOR TAPE OF STENCIL TAG. COLOR TAPE MAY BE OBTAINED FROM GRAYBAR ELECTRONICS.

- NOTE:**
- GO TO VERIFY FINAL RF CONFIGURATION WITH T-MOBILE RF ENGINEER PRIOR TO INSTALLATION.
 - GC TO VERIFY WITH T-MOBILE RF ENGINEER WHICH PORTS SHALL REMAIN UNUSED; GC TO INSTALL CAPS ON UNUSED PORTS.



MAGNETIC NORTH DEVIATION FOR TRUE NORTH 3.65 DEGREES



ANTENNA PLAN - 80 FT. LEVEL
SCALE: 1/4" = 1'-0" 1

PROJECT INFORMATION:
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ORLAND PARK PUBLIC
WORKS BUILDING
RL/CH75232H**
15655 S. RAVINIA AVE.
ORLAND PARK, IL 60462
COOK COUNTY
T1601581

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CONSULTANT:
W-T
**W-T COMMUNICATION
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WIRELESS INFRASTRUCTURE
2675 Pratum Avenue
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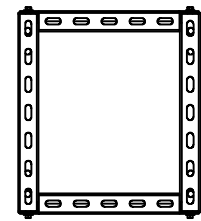
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LICENSER:

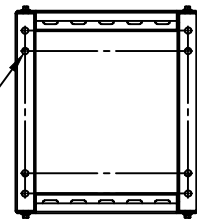
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PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
**ANTENNA PLAN
80 FT. LEVEL**

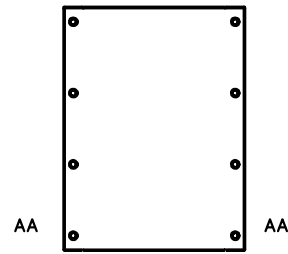
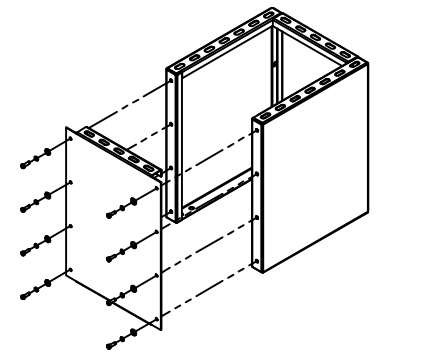
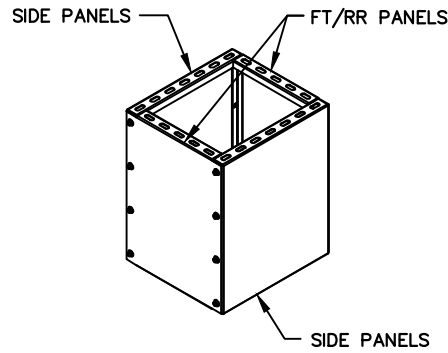
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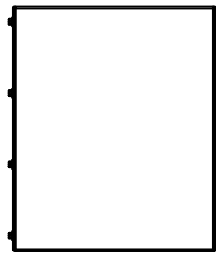
TOP VIEW



SECTION A-A
BOTTOM VIEW



FRONT VIEW



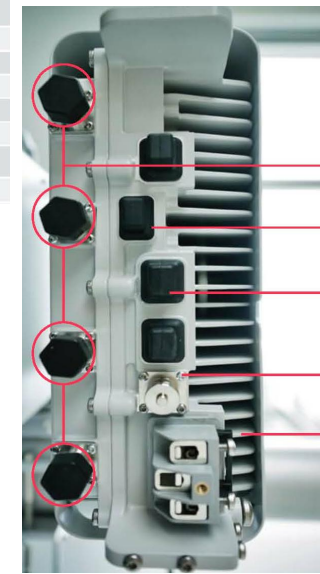
SIDE VIEW

CUBE DETAIL

SCALE: NONE

1

Power Output	4 x 40 Ww/o fans
IBW	Full Band up to 90MHz DL & 70MHz UL
OBW	40 MHz
RF Sharing	LTE & WCDMA
Mass/Volume	20 kg Weight Core Dimensions (mm) = 545x290x123= 19.4L Envelope (mm) = 587.2x320x123= 25.9L
Antenna Conf.	4Tx/4Rx
Temperature	-40 to 55 °C
IP class	IP65
Input Power	AC 90 - 264 V or DC 48 V
Cooling	Natural Convection
Mounting	Wall, Pole, RAS, horizontal book mount
BBU connection	3x 6Gbps SFP

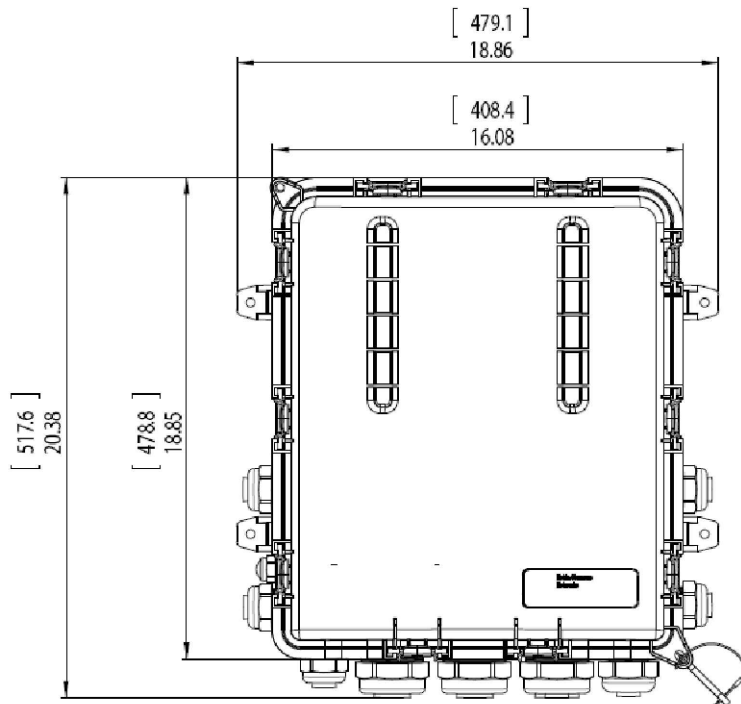


- RF Connectors
4x 4.3-10
 - External Alarm Connector
USB3 Type-A: Up to 4 Alarms
 - Fiber Optic Interface
3x Connectors 6Gbps OBSAI
 - Remote Electrical Tilt Connector
RS-485, 14.5 VDC, steady state load max 30 W
 - DC Power Connector
Nominal -57 to -40.5 V
Separate ground point on the unit
 - Optional Fan Connector (Side of Unit)
Required for Horizontal Mounting, Optional for vertical
- Confidential, non-binding

FRIJ DETAIL

SCALE: NONE

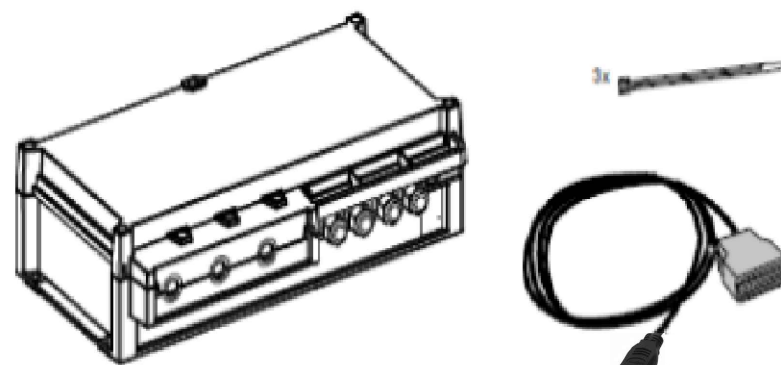
2



COVP DETAIL

SCALE: NONE

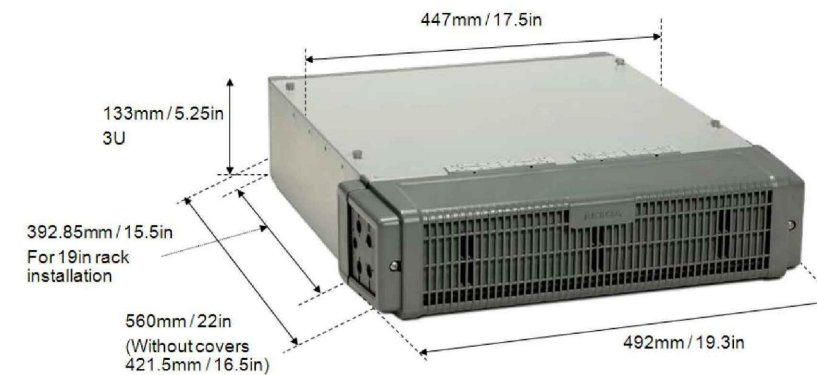
3



FSEB DETAIL

SCALE: NONE

4



FSMF DETAIL

SCALE: NONE

5



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CONSULTANT:



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WIRELESS INFRASTRUCTURE

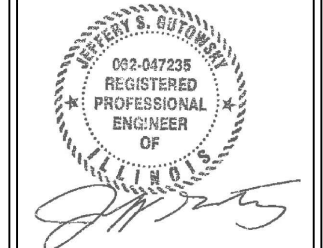
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LICENSER:



JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
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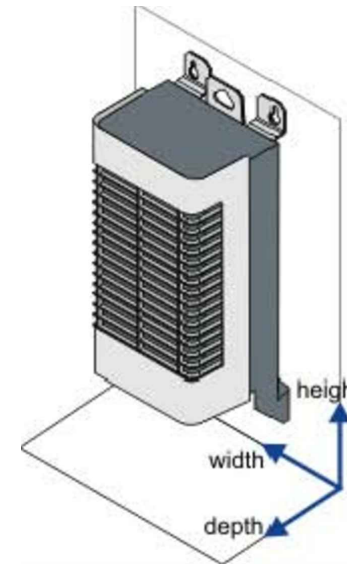
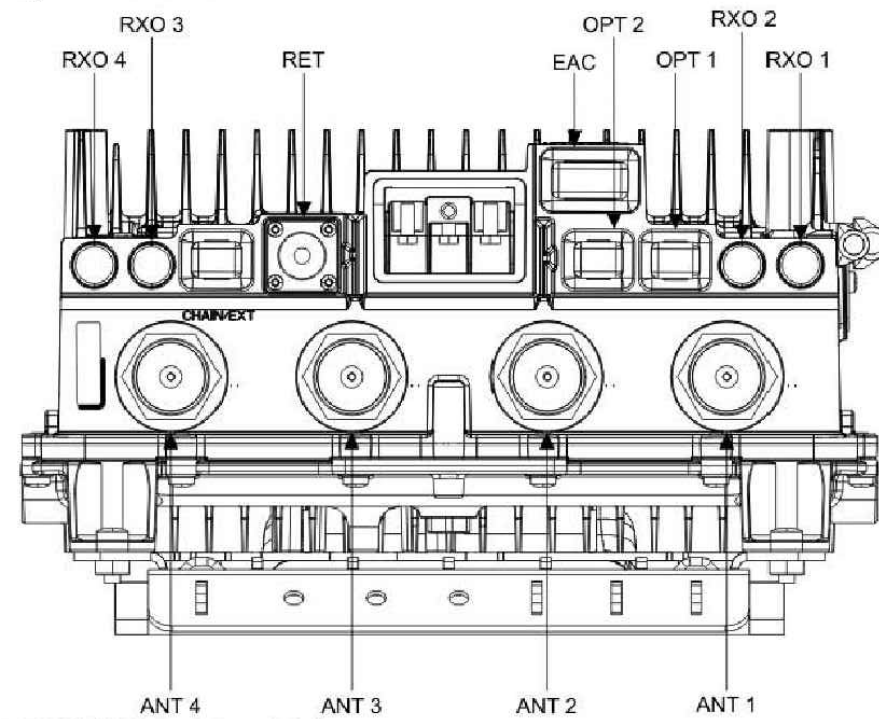
EQUIPMENT
SPECIFICATIONS

SHEET NUMBER: REVISION:

C-13 0

Interfaces

Figure: FHFB interfaces



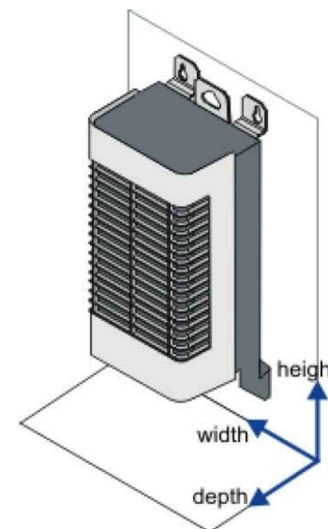
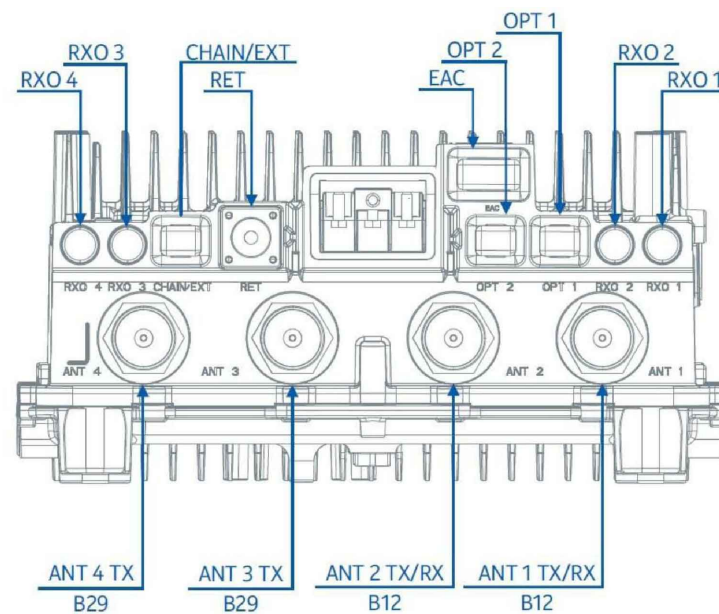
Interface	Label on the HW	Number of interfaces	Connector type
Power connector	DC IN	1	3-pole screw terminal
Antenna connector	ANT	4	7/16
RF external connector	Rx EXT	4	QMA
Remote Electrical Tilt	RET	1	8-pin circular
External Alarm Connection	EAC	1	D-sub MDR14
Optical interface	OPT	3	SFP
Local Management Port	LMP	1	2x15 pin header

Property	Value
Height	With lower bracket: 872 mm (34.3 in.)
	Without lower bracket: 637 mm (25.1 in.)
	Without brackets: 585 mm (23.0 in.)
Depth	200 mm (7.8 in.)
Width	Without solar shield: 320 mm (12.6 in.)
Weight	With lower bracket: 23 kg (51.0 lbs)
	Without solar shield and mounting shroud: 22 kg (48.5 lbs)

FHFB DETAIL

SCALE: NONE

1



Interface	Label on the HW	Number of interfaces	Connector type
Power connector	DC IN	1	3-pole screw terminal
Antenna connector	ANT	4	7/16"
RF external connector	Rx EXT	4	QMA
Remote Electrical Tilt	RET	1	8-pin circular
External Alarm Connection	EAC	1	D-sub MDR14
Optical interface	OPT1, OPT2, Chain/EXT	3	SFP (6 GB)
Local Management Port	LMP	1	2x15 pin header

Property	Value
Height	With lower bracket: 872 mm (34.3 in.)
	Without lower bracket: 637 mm (25.1 in.)
	Without brackets: 583 mm (22.9 in.)
Depth	160 mm (6.3 in.)
Width	Without solar shield: 320 mm (12.6 in.)
Weight	Unit weight: 24 kg (53.0 lbs.)
	Mounted weight: 26 kg (57 lbs)

FRBG DETAIL

SCALE: NONE

2

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DRAWN BY:	CHK:	APV:
SC	JKR	JSG

LICENSER:

JEFFERY S. GUTOWSKY
062-047235
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS

JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

EQUIPMENT
SPECIFICATIONS

SHEET NUMBER: REVISION:

C-14 0

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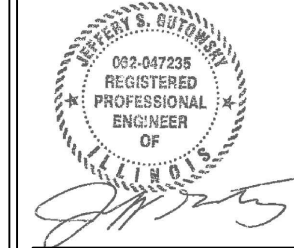
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JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

RF DATA SHEET

SHEET NUMBER: REVISION:

C-15 0

Section 1 - Site Information

Site ID: CH75232H	Site Name: Orland Park Public Works Dept RL	Latitude: 41.60665834
Status: Final	Site Class: Monopole	Longitude: -87.85621112
Version: 0.1	Site Type: Structure Non Building	Address: 15655 S Ravinia Ave
Project Type: L600	Solution Type:	City, State: Orland Park, IL
Approved: 5/24/2017 9:58:01 AM	Plan Year:	Region: CENTRAL
Approved By: GSM1900SNajeeb1	Market: CHICAGO	
Last Modified: 5/24/2017 9:58:01 AM	Vendor: Nokia	
Last Modified By: GSM1900SNajeeb1	Landlord: Eco-Site	

RAN Template: 791R_R4	AL Template: 791R_R4
Sector Count: 3	Antenna Count: 6
Coax Line Count: 0	TMA Count: 0
	RRU Count: 9

Section 6 - A&L Equipment

Existing Template: Custom
Proposed Template: 791R_R4

Sector 1 (Proposed) view from front (Note: the images show view from behind)

Coverage Type	A - Outdoor Macro					
Antenna	1			2		
Antenna Model	Commscope - FHH-65C-R3 (Hex)			Commscope - FHH-65C-R3 (Hex)		
Azimuth	345			345		
M. Tilt	2			2		
Height	80			80		
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	U1900 L1900	U1900 L1900	L700	L2100	L2100	
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt	4	4	4	4	4	
Cables						
TMA's						
Diplexers / Combiners						
Radio						
Sector Equipment						

Unconnected Equipment:

Scope of Work:

Capoff low band port of Antenna2(Port6).

Sector 2 (Proposed) view from front (Note: the images show view from behind)

Coverage Type	A - Outdoor Macro					
Antenna	1			2		
Antenna Model	Commscope - FHH-65C-R3 (Hex)			Commscope - FHH-65C-R3 (Hex)		
Azimuth	120			120		
M. Tilt	0			0		
Height	80			80		
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	U1900 L1900	U1900 L1900	L700	L2100	L2100	
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt	4	4	4	4	4	
Cables						
TMA's						
Diplexers / Combiners						
Radio						
Sector Equipment						

Unconnected Equipment:

Scope of Work:

Capoff low band port of Antenna2(Port6).

Sector 3 (Proposed) view from front (Note: the images show view from behind)

Coverage Type	A - Outdoor Macro					
Antenna	1			2		
Antenna Model	Commscope - FHH-65C-R3 (Hex)			Commscope - FHH-65C-R3 (Hex)		
Azimuth	240			240		
M. Tilt	0			0		
Height	80			80		
Ports	P1	P2	P3	P4	P5	P6
Active Tech.	U1900 L1900	U1900 L1900	L700	L2100	L2100	
Dark Tech.						
Restricted Tech.						
Decomm. Tech.						
E. Tilt	4	4	4	4	4	
Cables						
TMA's						
Diplexers / Combiners						
Radio						
Sector Equipment						

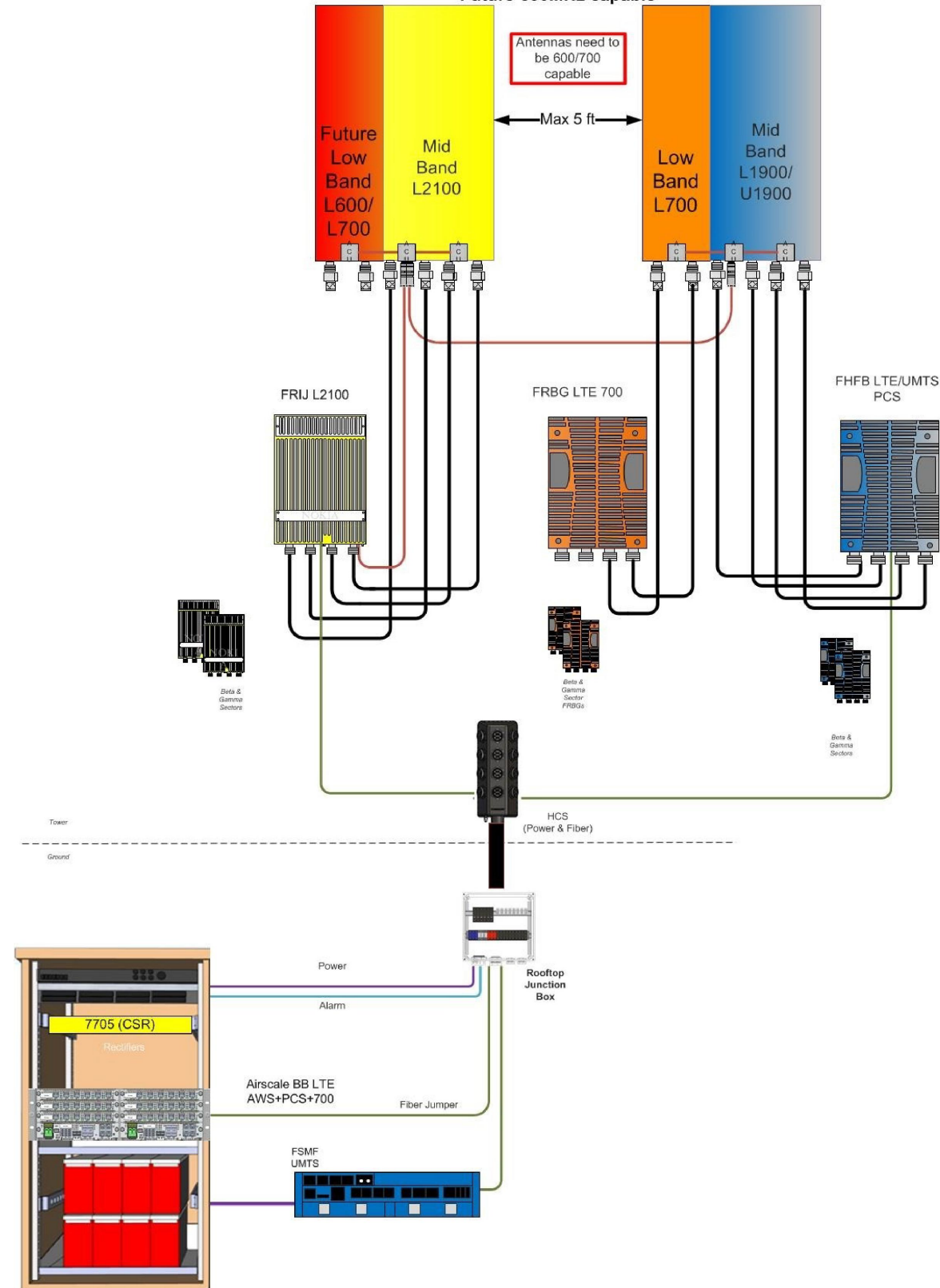
Unconnected Equipment:

Scope of Work:

Capoff low band port of Antenna2(Port6).

NSD Tower Top Configuration 791R_R4 (L2100/L1900/U1900/
L700)

Future 600MHz capable



PROJECT INFORMATION:
94TH AVE./IL-0130
ORLAND PARK PUBLIC
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APV: JSG

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PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
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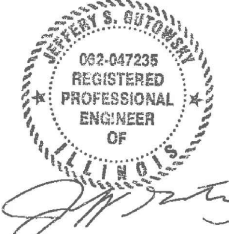
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ANTENNA
CONFIGURATION
SHEET

SHEET NUMBER: **C-16**
REVISION: **0**

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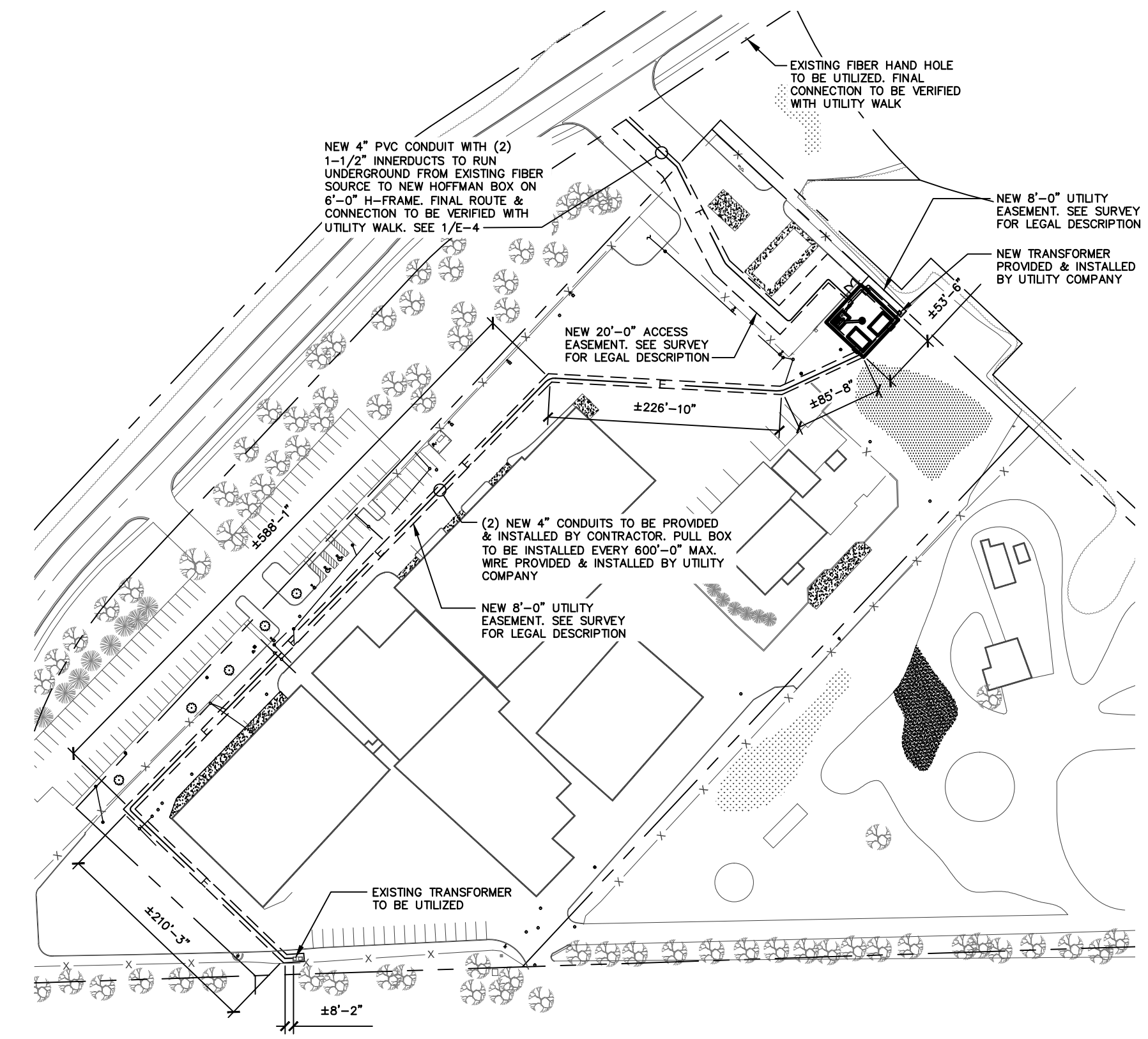
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STATE OF ILLINOIS
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SHEET TITLE:
**OVERALL
SERVICE
ROUTING PLAN**

SHEET NUMBER:	REVISION:
E-1	0

NOTES AND SPECIFICATIONS:

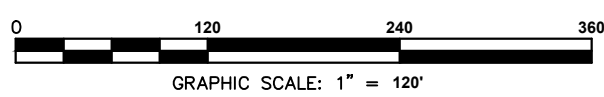
- ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE, AND LOCAL CODES.
- CONTRACTOR SHALL OBTAIN OWNER/TENANT SPECIFICATIONS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE WITH THE ELECTRIC UTILITY FOR THE EXACT TRANSFORMER LOCATION, METERING REQUIREMENTS, AND SERVICE ROUTING. CONTRACTOR SHALL COORDINATE WITH THE TELEPHONE UTILITY FOR THE EXACT TELEPHONE REQUIREMENTS AND SERVICE ROUTING.
- PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. PROVIDE MAX AFC SIGNAGE AS REQUIRED PER NEC 110.24. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT INTERRUPTING RATING BE LESS THAN 10,000 AMPS.
- CONTRACTOR TO PROVIDE 2-200 LB TEST POLYETHYLENE PULL CORDS SECURELY FASTENED AT EACH END OF POWER AND TELCO CONDUIT. PROVIDE CAPS ON ENDS OF UNUSED CONDUIT.
- CONTRACTOR TO PROVIDE A REBAR MARKER WITH AT LEAST 2 FEET EXPOSED ABOVE GRADE AND PAINTED BRIGHT ORANGE TO INDICATE LOCATION OF CONDUIT CAPPED BELOW GRADE.
- PRIOR TO TRENCHING, CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL REPAIR AT CONTRACTOR'S EXPENSE ANY DAMAGE TO EXISTING UTILITIES.
- CONTRACTOR TO VERIFY EXACT ROUTING OF POWER AND TELCO CONDUIT WITH LOCAL UTILITIES AND OWNER/TENANT. ENSURE ALL CONDUIT STUB-UPS ACCOMMODATE EQUIPMENT REQUIREMENTS.
- UNDERGROUND CONDUITS SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE. USE SCHEDULE 80 PVC UNDER ROADS. USE LONG-SWEEP RIGID GALVANIZED STEEL (RGS) FOR ELBOWS. USE RGS FOR RISERS TO EQUIPMENT. MANUFACTURED BENDS SHALL HAVE A MINIMUM RADIUS OF 36" FOR CONDUIT.
- CONDUIT RUNS SHALL HAVE A CONTINUOUS SLOPE DOWNWARD AND AWAY FROM THE EQUIPMENT TO ALLOW WATER TO FLOW AWAY FROM THE EQUIPMENT AND SHELTER. EXCAVATE TRENCHES ALONG STRAIGHT LINES PRIOR TO INSTALLING CONDUIT TO ACCOMMODATE ADJUSTING THE ELEVATION, AS NEEDED.
- CONDUIT ENTERING EQUIPMENT SHALL BE SEALED WITH A SEALANT THAT IS IDENTIFIED FOR USE WITH THE CABLE/CONDUCTOR INSULATION, SHIELDING, ETC.
- THE OWNER SHALL FURNISH AND THE CONTRACTOR SHALL INSTALL ADDITIONAL SIGNAGE TO BE LOCATED AT THE COMPOUND FENCE. CONTRACTOR SHALL COORDINATE WITH OWNER/TENANT ECO-SITE CONSTRUCTION MANAGER FOR PLACEMENT OF SIGNAGE.
- UPON COMPLETION OF CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO THE LANDSCAPING AREA.
- CONTRACTOR SHALL PROVIDE A LABEL TO READ: "OPENING THE SHELTER DISCONNECT WILL CAUSE THE SHELTER GENERATOR TO START. TO REMOVE POWER ENTIRELY FROM THE SHELTER, THE GENERATOR MUST BE TURNED OFF AND THE GENERATOR BREAKER MUST BE OPENED."
- CONTRACTOR SHALL ENSURE A MINIMUM 3' CLEARANCE IN FRONT OF ELECTRICAL PANELS PER NEC.
- ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABEL LISTED BY AN APPROVED THIRD PARTY TESTING AGENCY.



ROUTING NOTE:

- CONTRACTOR TO PROVIDE PULL BOXES AS NEEDED TO ENSURE NO GREATER THAN 360 DEGREES OF BENDS BETWEEN PULL POINTS IN CONDUIT RUNS.
- CONTRACTOR COORDINATE WITH LOCAL UTILITY COMPANY FOR SERVICE TO THIS POINT.
- ALL CONDUIT TO BE RUN WITHIN 2' UTILITY BUFFER AS SHOWN ON CIVIL PLANS. CONDUIT SHOWN OUTSIDE OF 2' UTILITY BUFFER FOR CLARITY PURPOSES ONLY.

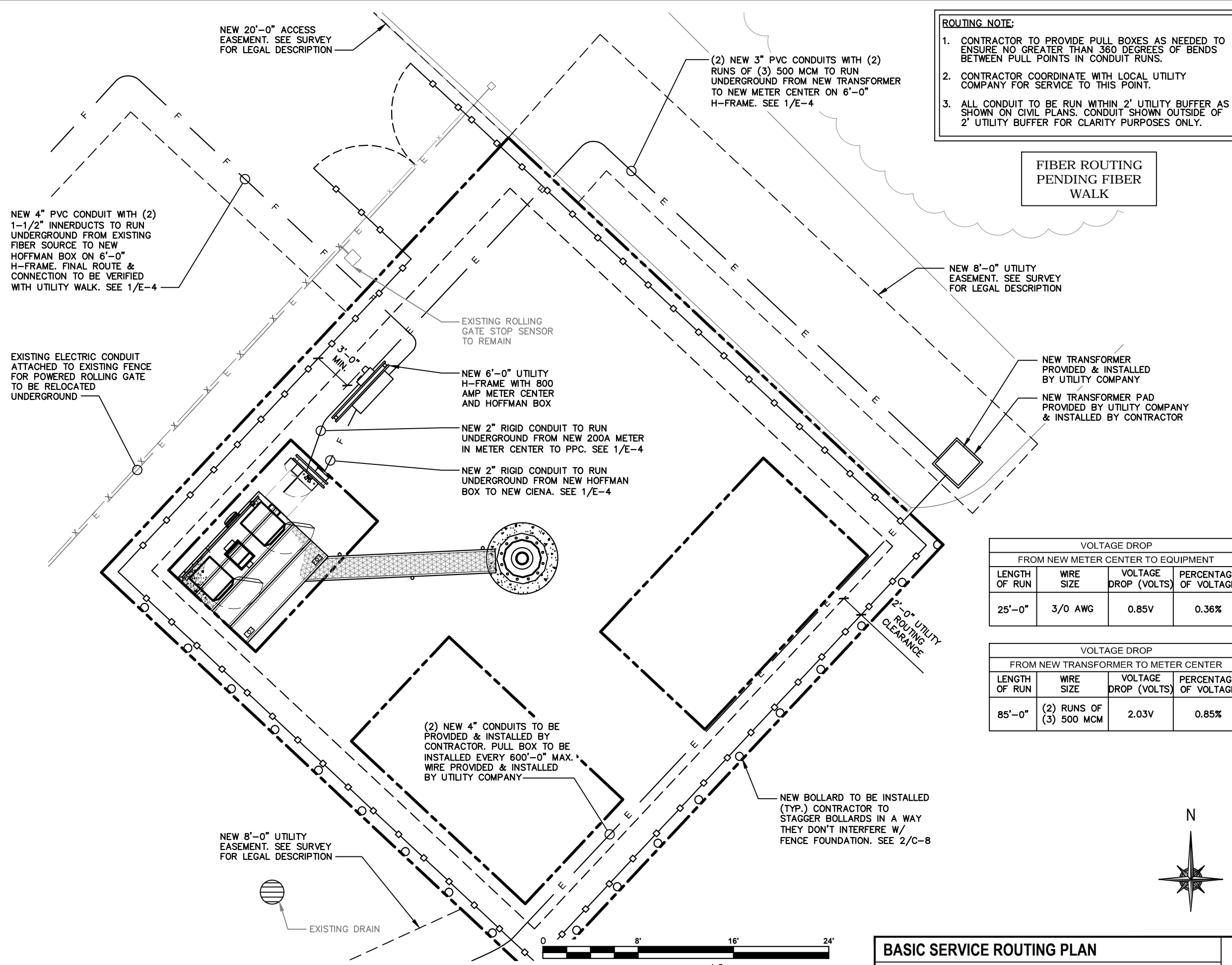
FIBER ROUTING
PENDING FIBER
WALK



REV:	DATE:	ISSUED FOR:	BY:
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D	05/23/17	RFDS REVISION	KLO
O	05/31/17	FINAL	KLO

- ROUTING NOTE:**
- CONTRACTOR TO PROVIDE PULL BOXES AS NEEDED TO ENSURE NO GREATER THAN 360 DEGREES OF BENDS BETWEEN PULL POINTS IN CONDUIT RUNS.
 - CONTRACTOR COORDINATE WITH LOCAL UTILITY COMPANY FOR SERVICE TO THIS POINT.
 - ALL CONDUIT TO BE RUN WITHIN 2' UTILITY BUFFER AS SHOWN ON CIVIL PLANS. CONDUIT SHOWN OUTSIDE OF 2' UTILITY BUFFER FOR CLARITY PURPOSES ONLY.

FIBER ROUTING
PENDING FIBER
WALK

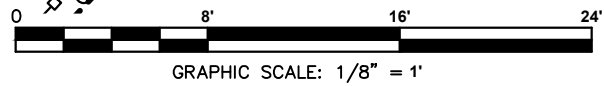


VOLTAGE DROP
FROM NEW METER CENTER TO EQUIPMENT

LENGTH OF RUN	WIRE SIZE	VOLTAGE DROP (VOLTS)	PERCENTAGE OF VOLTAGE
25'-0"	3/0 AWG	0.85V	0.36%

VOLTAGE DROP
FROM NEW TRANSFORMER TO METER CENTER

LENGTH OF RUN	WIRE SIZE	VOLTAGE DROP (VOLTS)	PERCENTAGE OF VOLTAGE
85'-0"	(2) RUNS OF (3) 500 MCM	2.03V	0.85%



PROJECT INFORMATION:

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RL/CH75232H

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COOK COUNTY
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0	05/31/17	FINAL	KLO

CONSULTANT:

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SC JKR JSG

LICENSER:



JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:

GROUNDING
PLAN

SHEET NUMBER: REVISION:

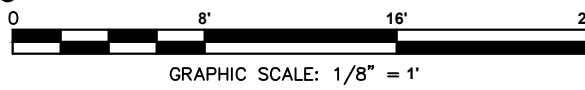
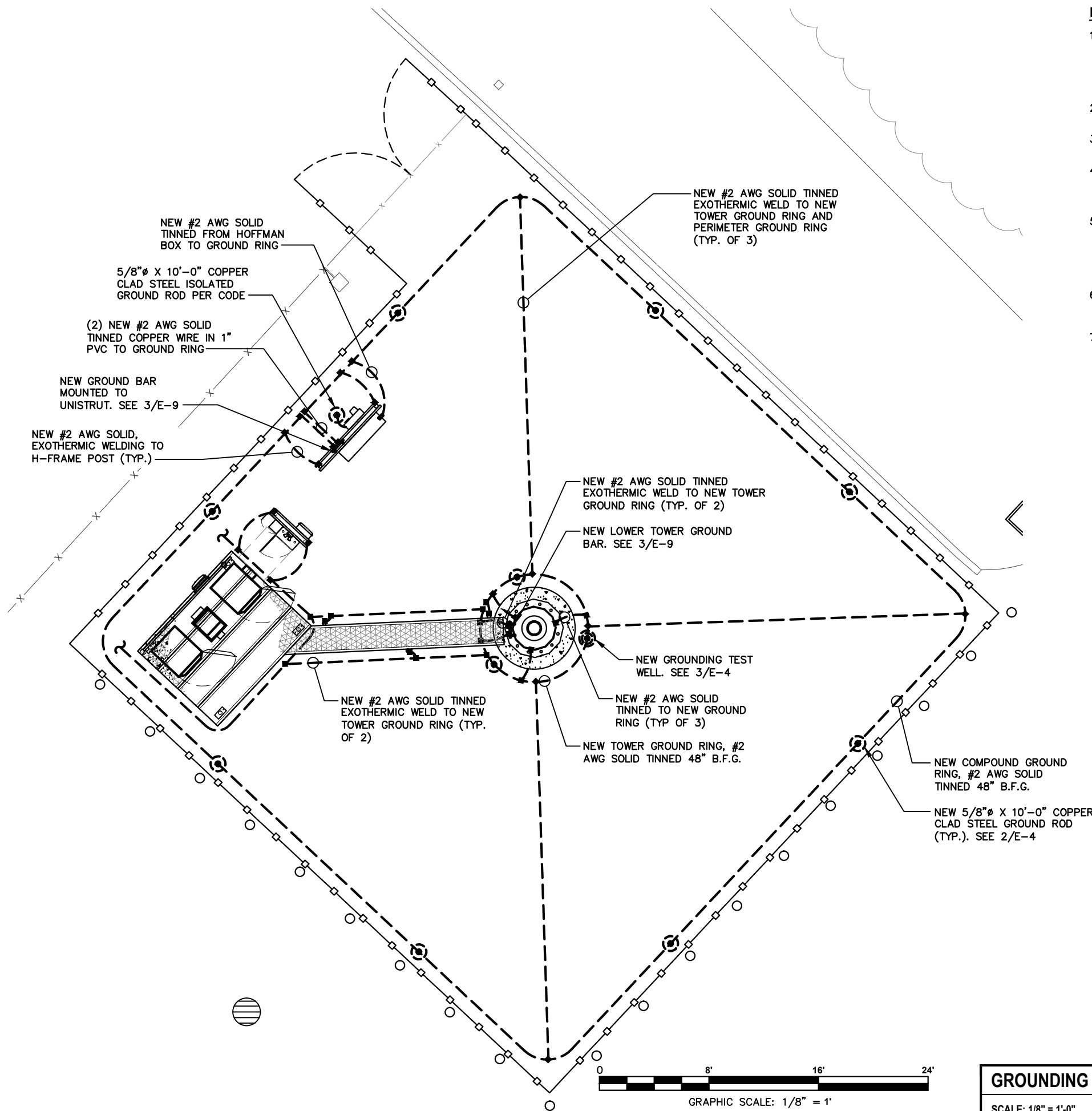
E-2 **0**

NOTES AND SPECIFICATIONS:

1. THE GROUND RING SHALL CONSIST OF 2 AWG TINNED SOLID BARE COPPER CONDUCTOR, UNLESS NOTED OTHERWISE, BURIED AT 48" BELOW FINISHED GRADE (OR BELOW FROSTLINE). ALL CONNECTIONS SHALL BE MADE USING AN EXOTHERMIC WELD, UNLESS NOTED OTHERWISE.
2. GROUND CONDUCTOR BEND RADIUS SHALL NOT BE LESS THAN 8".
3. MINIMUM SPACING BETWEEN GROUND RODS SHALL NOT BE LESS THAN 10', UNLESS NOTED OTHERWISE.
4. CONTRACTOR SHALL BOND THE TOWER GROUND BAR (TOGB) TO THE GROUND RING USING A 2 AWG TINNED SOLID BARE COPPER CONDUCTOR AND AN EXOTHERMIC WELD.
5. SHELTER INTERIOR GROUNDING PROVIDED BY SHELTER SUPPLIER, SHOWN FOR CLARITY. CONTRACTOR SHALL BOND THE MAIN GROUND BAR (MGB) & EXTERNAL GROUND BAR (GB2) TO THE GROUND RING USING 2 AWG TINNED SOLID BARE COPPER CONDUCTORS AND EXOTHERMIC WELDS.
6. ALL GROUNDING/BONDING CONDUCTORS LOCATED ABOVE FINISHED GRADE SHALL BE RUN IN 1" PVC CONDUIT.
7. CONTRACTOR SHALL NOTIFY THE OWNER/TENANT ECO-SITE CONSTRUCTION MANAGER TO ALLOW THE OWNER/TENANT ECO-SITE CONSTRUCTION MANAGER TO INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.

LEGEND

- GROUNDING WIRE
- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION/DOUBLE HOLE LUG TYPE CONNECTION
- COMPRESSION FITTING
- GROUND ROD
- GROUND TEST WELL



GROUNDING PLAN

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



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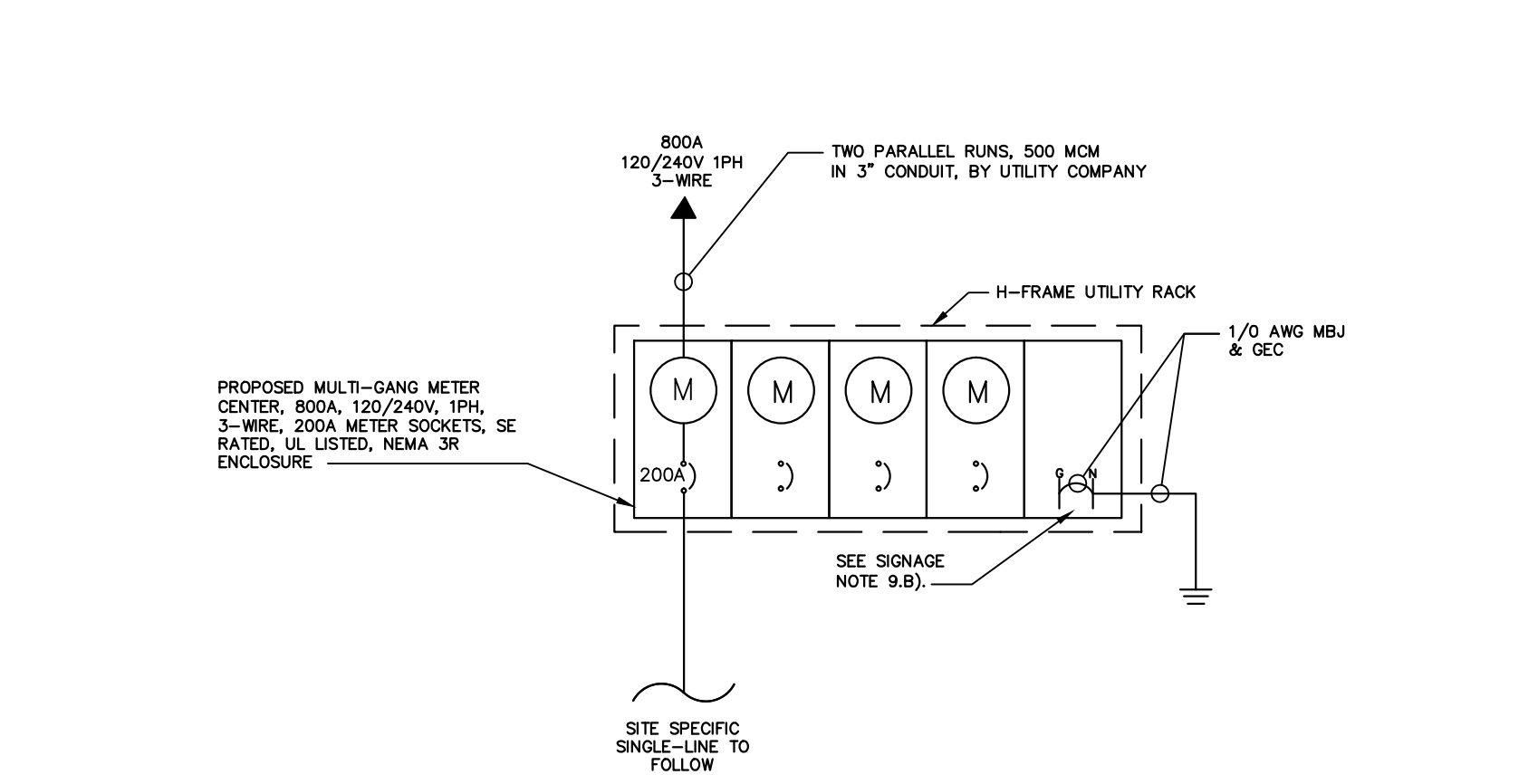
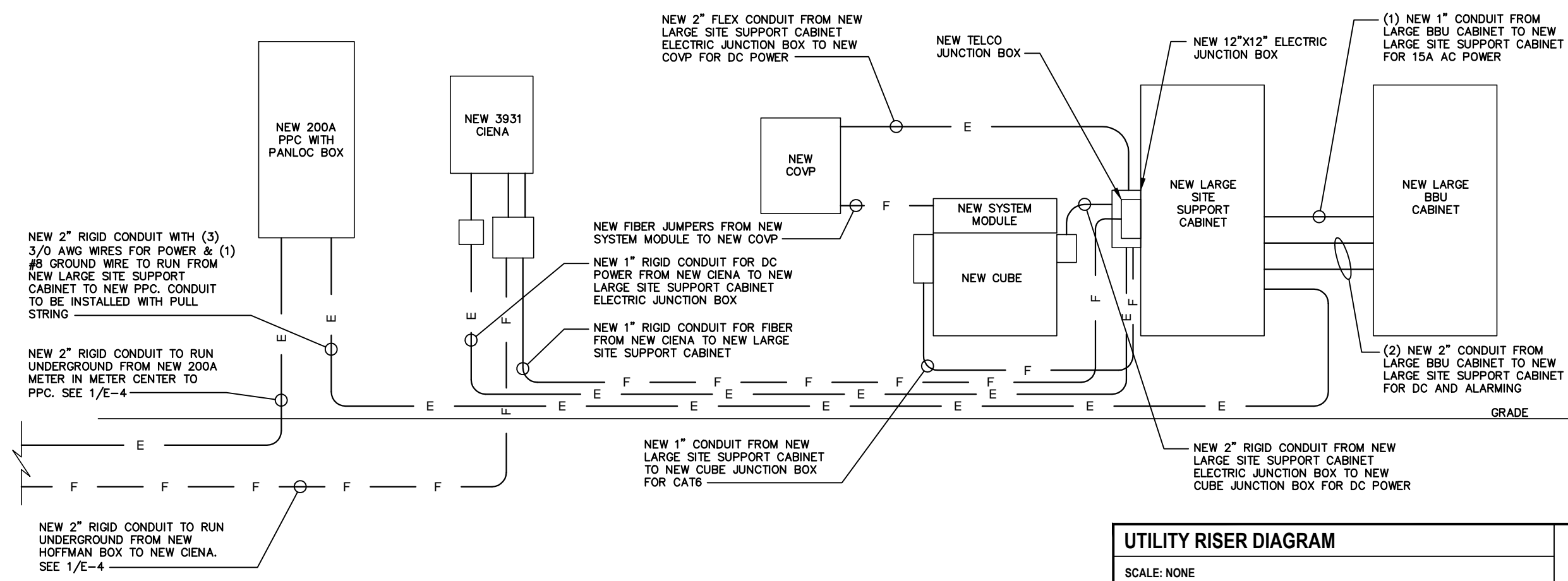
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LICENSER:

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PROFESSIONAL ENGINEER
STATE OF ILLINOIS
LICENSE # 062-047235
EXPIRES: 11/30/17 SIGNED: 05/31/17

SHEET TITLE:
**UTILITY RISER &
SINGLE-LINE
DIAGRAMS**

SHEET NUMBER: **E-3** REVISION: **0**

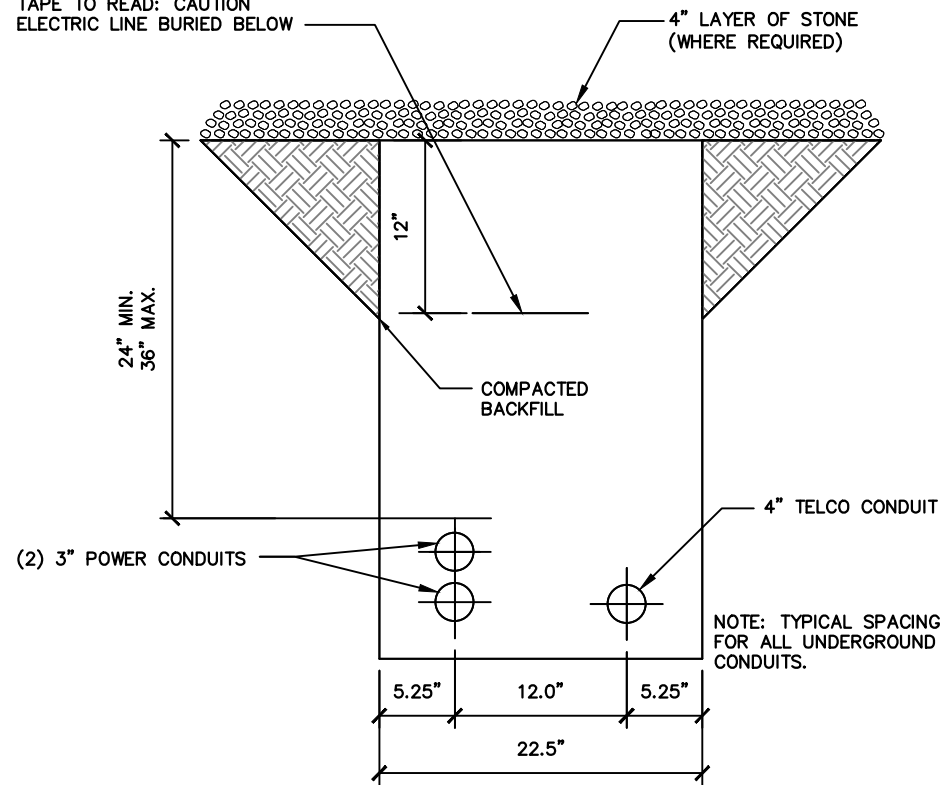


- NOTES AND SPECIFICATIONS:**
- ELECTRIC UTILITY WILL PROVIDE METER AND INCOMING SERVICE LATERAL CONDUCTORS.
 - ALL ELECTRICAL WORK SHALL COMPLY WITH NEC, STATE, AND LOCAL CODES.
 - CONTRACTOR SHALL OBTAIN OWNER/TENANT EQUIPMENT SHELTER DRAWINGS AND REVIEW FOR ADDITIONAL DETAILS AND REQUIREMENTS THAT MAY NOT BE SHOWN IN THESE DRAWINGS. CONTRACTOR SHALL COMPLY WITH ANY ADDITIONAL OWNER/TENANT SPECIFICATIONS AND REQUIREMENTS THAT MAY BE ADDRESSED IN THE EQUIPMENT SHELTER DRAWINGS.
 - PRIOR TO PURCHASING EQUIPMENT, THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY AND OBTAIN IN WRITING THE MAXIMUM AVAILABLE FAULT CURRENT AT THE UTILITY SERVICE POINT. PROVIDE MAX AFC SIGNAGE AS REQUIRED PER NEC 110.24. THE CONTRACTOR SHALL ENSURE ALL ELECTRICAL EQUIPMENT, CIRCUIT BREAKERS, DISCONNECTS, FUSES, AND PANELBOARDS HAVE A FAULT CURRENT INTERRUPTING RATING GREATER THAN THE AVAILABLE FAULT CURRENT. IN NO CASE SHALL THE FAULT CURRENT INTERRUPTING RATING BE LESS THAN 10,000 AMPS.
 - THE GROUNDED SERVICE CONDUCTOR (NEUTRAL CONDUCTOR) SHALL BE GROUNDED AT THE SERVICE DISCONNECT ONLY.
 - ALL POWER CIRCUITS SHALL USE COPPER CONDUCTOR WITH THHN/THWN INSULATION. ALL TERMINATIONS SHALL BE RATED FOR AT LEAST 75 DEGREES C.
 - CONTRACTOR SHALL PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE RECEPTACLES FOR ALL UTILITY RECEPTACLES.
 - CONTRACTOR SHALL ENSURE ALL NEUTRAL CONDUCTORS HAVE WHITE INSULATION AND EQUIPMENT GROUND CONDUCTORS HAVE GREEN INSULATION. COLOR TAPE IDENTIFICATION OF THESE CONDUCTORS IS NOT ALLOWED.
 - PER NEC ART 702 PROVIDE SIGNAGE AS FOLLOWS:
A) AT SHELTER PANEL PP1: "EMERGENCY POWER IS SUPPLIED BY STAND-BY GENERATOR LOCATED IN ADJACENT ROOM"
B) AT SERVICE DISCONNECT:

WARNING - SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.

SINGLE-LINE DIAGRAM
SCALE: NONE

6" WIDE YELLOW WARNING TAPE WITH BLACK LETTERS. TAPE TO READ: CAUTION ELECTRIC LINE BURIED BELOW

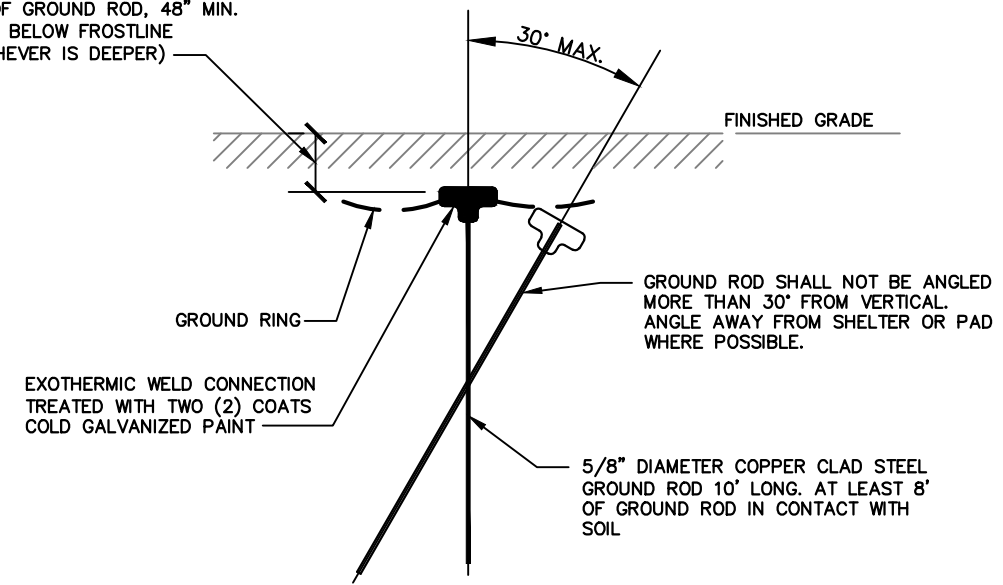


UTILITY TRENCH DETAIL (TYP.)

SCALE: NONE

1

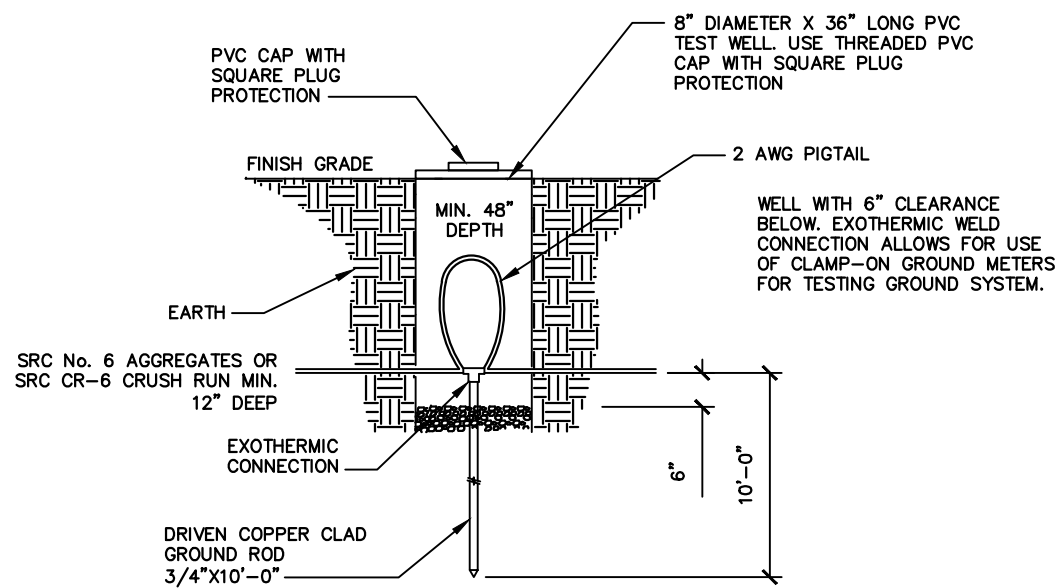
TOP OF GROUND ROD, 48" MIN. OR 6" BELOW FROSTLINE (WHICHEVER IS DEEPER)



GROUND ROD DETAIL

SCALE: NONE

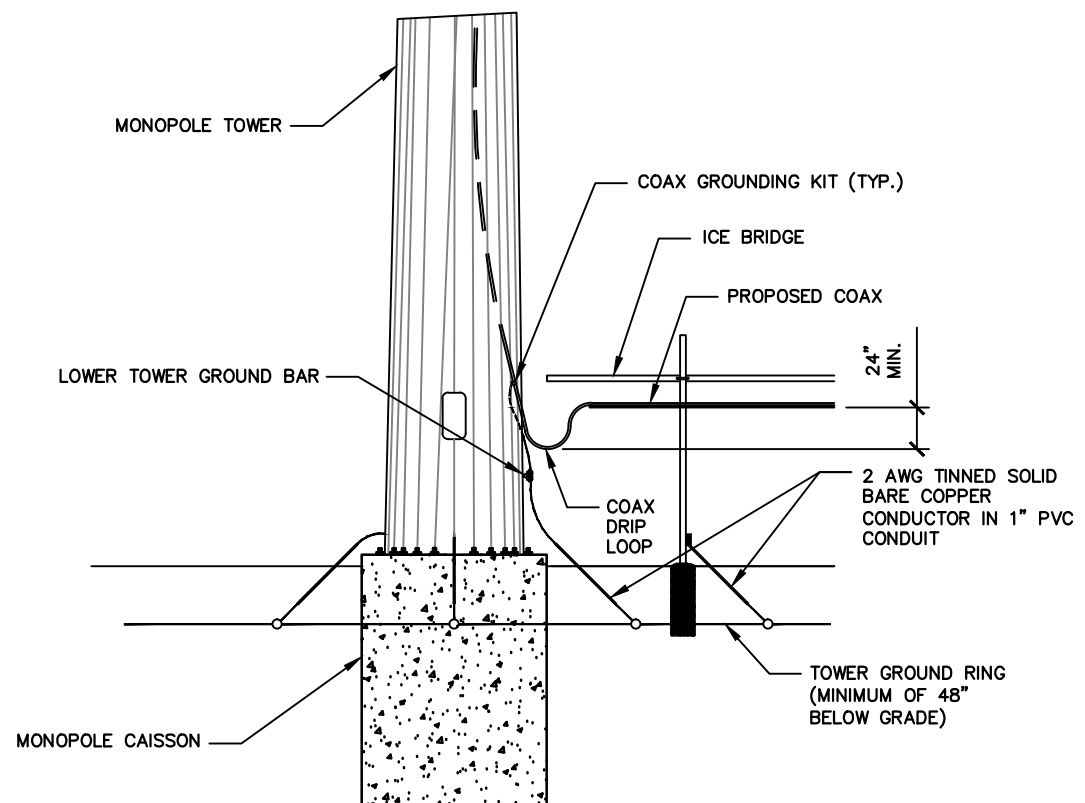
2



GROUND ROD TEST WELL

SCALE: NONE

3



DRIP LOOP DETAIL

SCALE: NONE

4

PROJECT INFORMATION:

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CONSULTANT:



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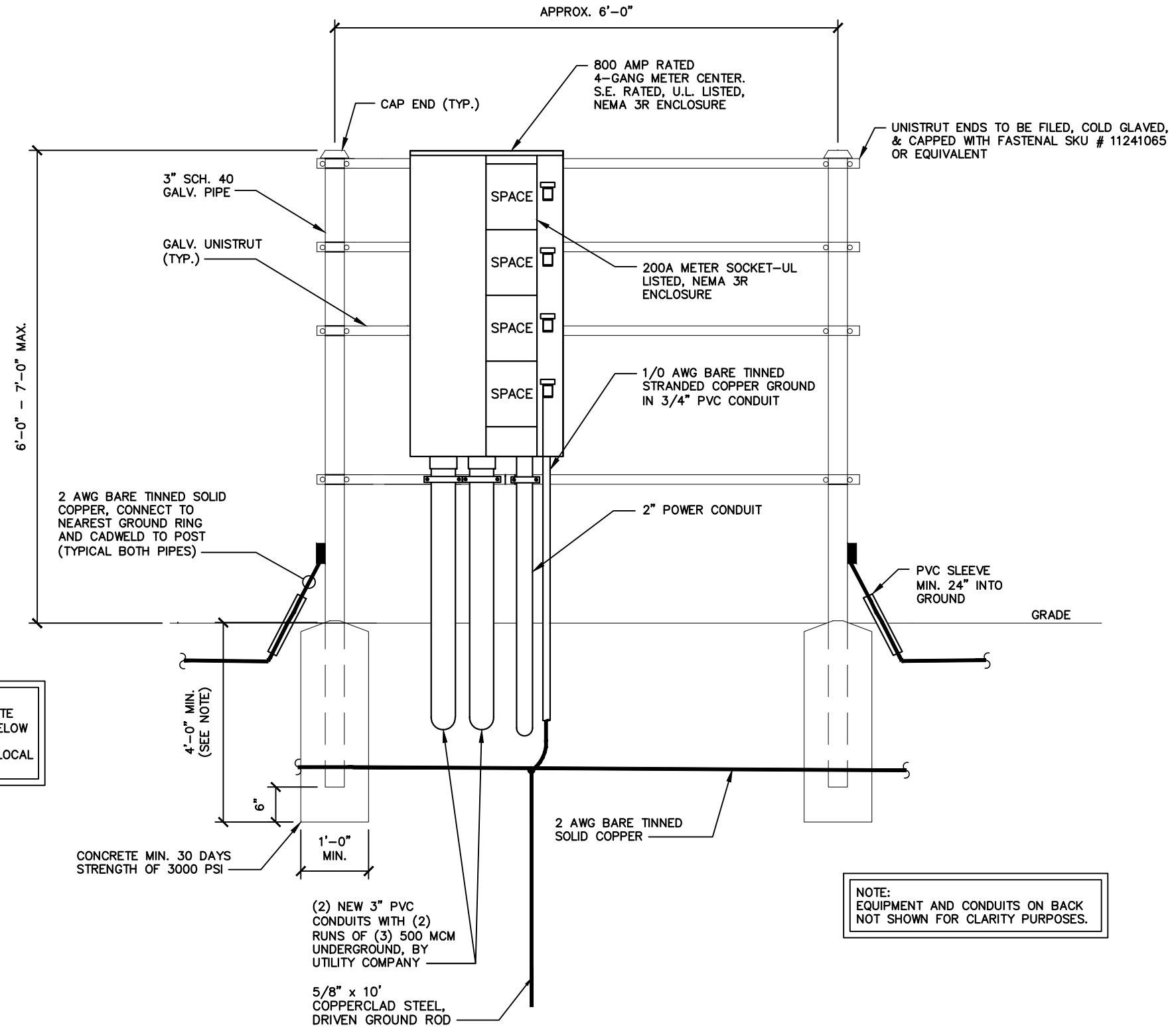
**ELECTRICAL
DETAILS**

SHEET NUMBER: REVISION:

E-4 0

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, STATE BUILDING CODES AND THE LOCAL BUILDING CODES. ALL COMPONENTS SHALL BE U.L. LISTED.
2. REFER TO SITE LAYOUT PLAN FOR THE EXACT LOCATION OF H-FRAME.
3. CONTRACTOR TO COORDINATE WITH LOCAL UTILITY COMPANY FOR METER.
4. CONTRACTOR TO PROVIDE AND INSTALL METER SOCKET.
5. CONTRACTOR TO LOCATE METER RACK TO ENSURE WORKING SPACES REQUIRED BY THE NEC (ART. 110.26), STATE, OR LOCAL CODES ARE MAINTAINED BETWEEN FRONT OF ENCLOSURES AND THE CHAIN LINK FENCE.
6. SHOW LOCATION (INCLUDING DIMENSIONS) OF ALL CAPPED UNDERGROUND CONDUIT ON FINAL AS-BUILT DRAWINGS SUBMITTED TO OWNER.
7. COORDINATE EXACT LOCATION OF UNDERGROUND FEEDERS AND CIRCUITRY WITH THE OWNER.
8. CONTRACTOR SHALL COORDINATE WITH LOCAL ELECTRICAL AUTHORITY HAVING JURISDICTION (AHJ) AND OTHER TRADES TO DETERMINE "FROST" LINE, AND TYPES OF RACEWAYS REQUIRED FOR INSTALLATION.
9. ALL CONDUITS ABOVE GROUND SHALL BE GALVANIZED CONDUIT.
10. CONTRACTOR TO CONTACT LOCAL UTILITY PRIOR TO PURCHASING METER CENTER TO VERIFY ANY PARTICULAR REQUIREMENTS, SUCH AS LEVER BYPASS, ETC.



NOTE:
CONSTRUCT SO CONCRETE FOOTING EXTENDS 6" BELOW FROST LINE AND IN COMPLIANCE WITH ALL LOCAL AND STATE CODES.

NOTE:
EQUIPMENT AND CONDUITS ON BACK NOT SHOWN FOR CLARITY PURPOSES.

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PROJECT INFORMATION:

94TH AVE./IL-0130
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RL/CH75232H

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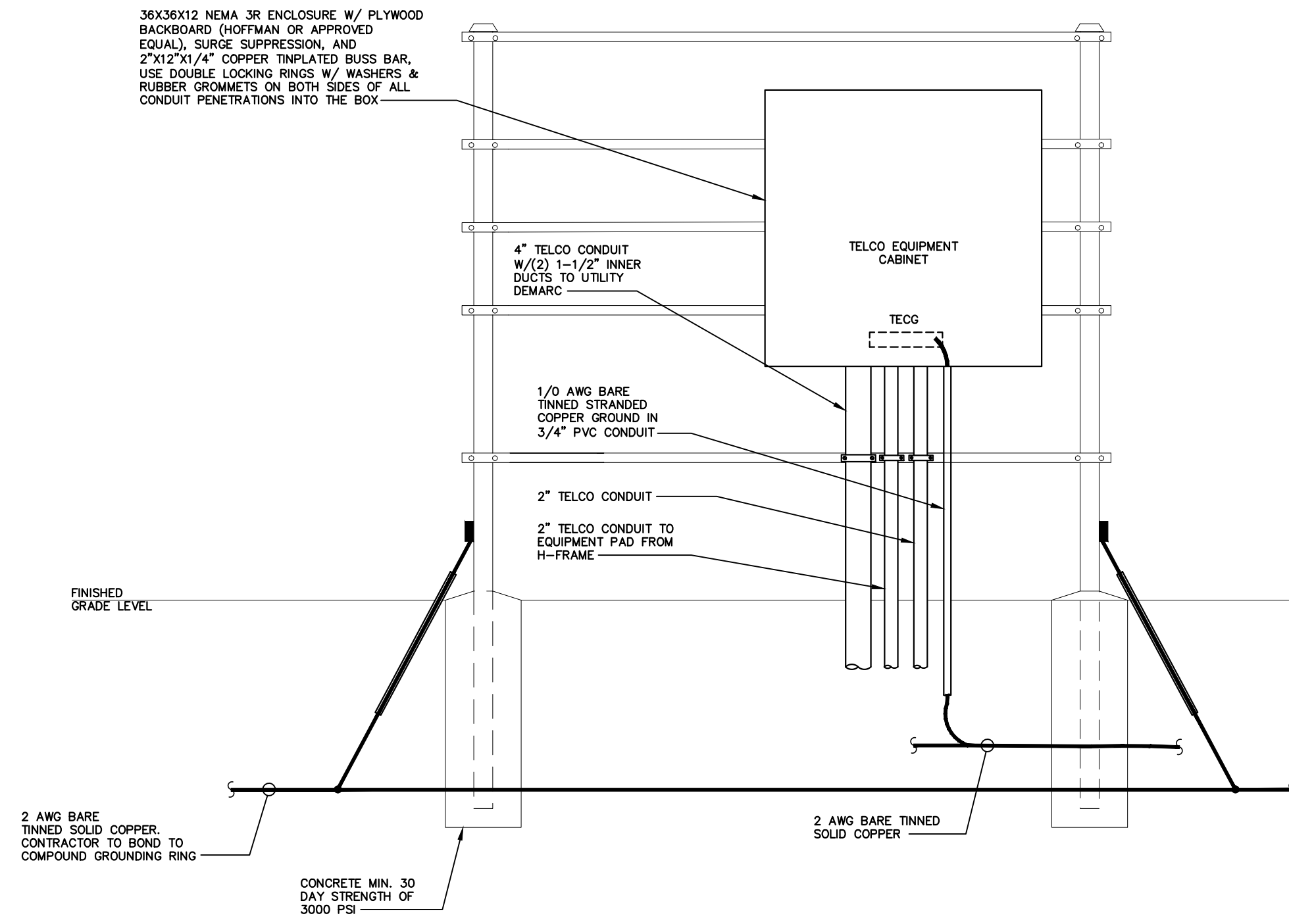
JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
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SHEET TITLE:

H-FRAME
DETAILS

SHEET NUMBER: REVISION:

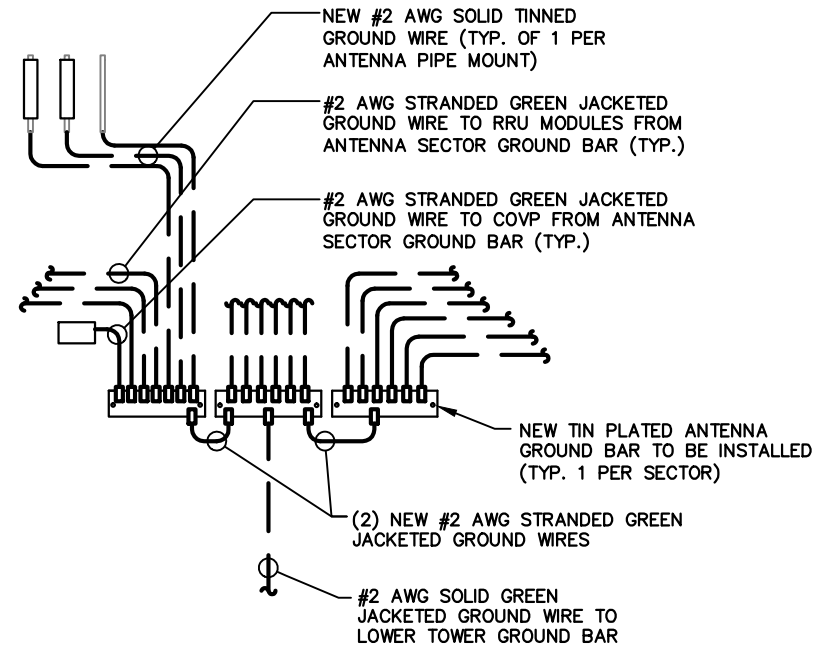
E-6	0
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NOTE:
EQUIPMENT AND CONDUITS ON FRONT SIDE
NOT SHOWN FOR CLARITY PURPOSES.

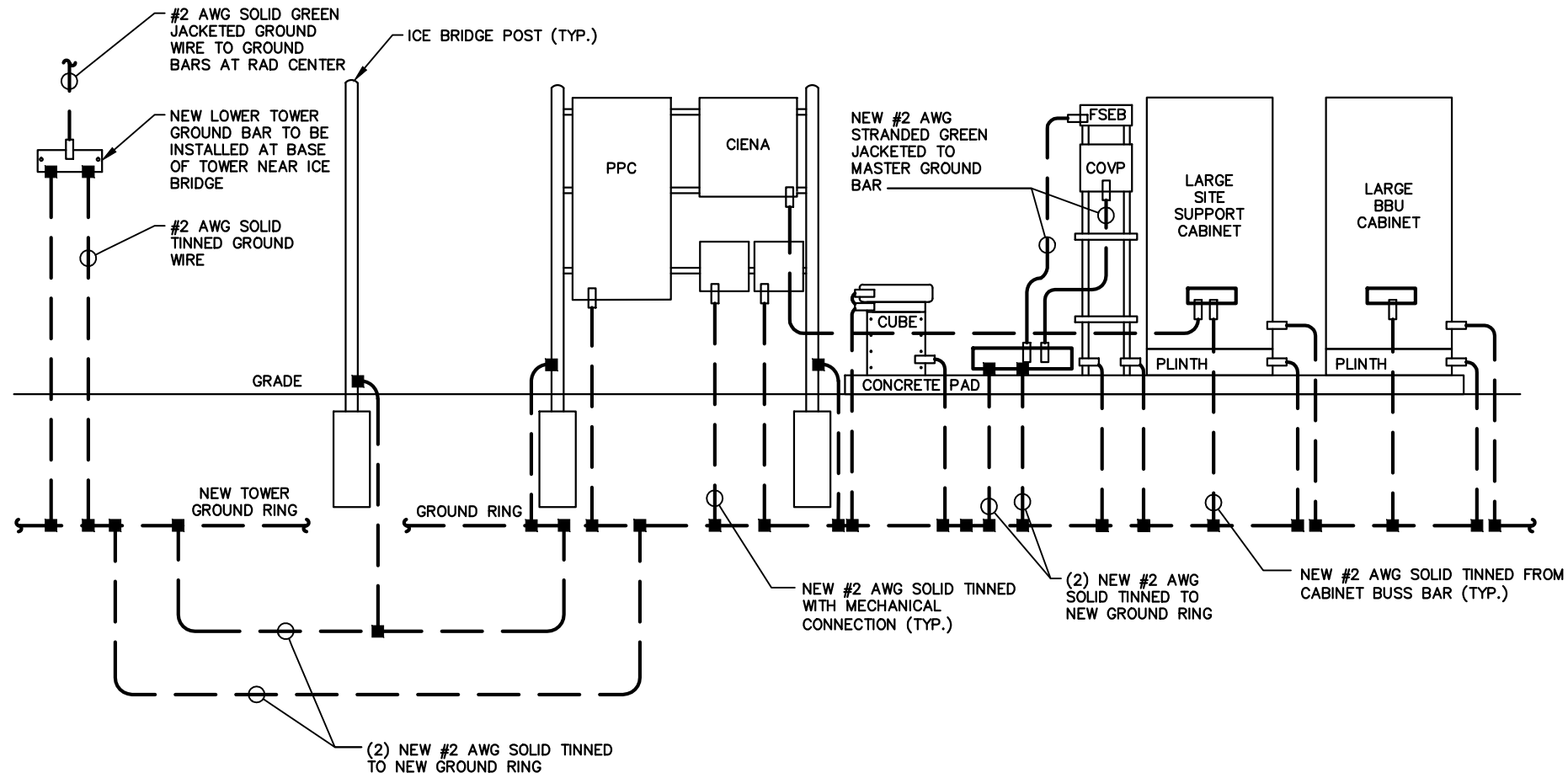
H-FRAME DETAIL (REAR)	1
SCALE: NONE	

TYPICAL ANTENNA SECTOR



LEGEND

- — — — — GROUNDING WIRE
- EXOTHERMIC CONNECTION
- MECHANICAL CONNECTION/DOUBLE HOLE LUG TYPE CONNECTION
- ⚡ BOND TO TOWER



Eco-Site
 240 LEIGH FARM ROAD, SUITE 415
 DURHAM, NC 27707

PROJECT INFORMATION:
94TH AVE./IL-0130
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 PROFESSIONAL ENGINEER
 STATE OF ILLINOIS
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SHEET TITLE:
GROUNDING
DETAILS

SHEET NUMBER: **E-7** REVISION: **0**

GROUNDING RISER
 SCALE: NONE 1

PROJECT INFORMATION:

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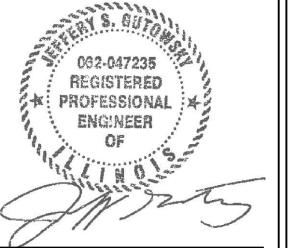
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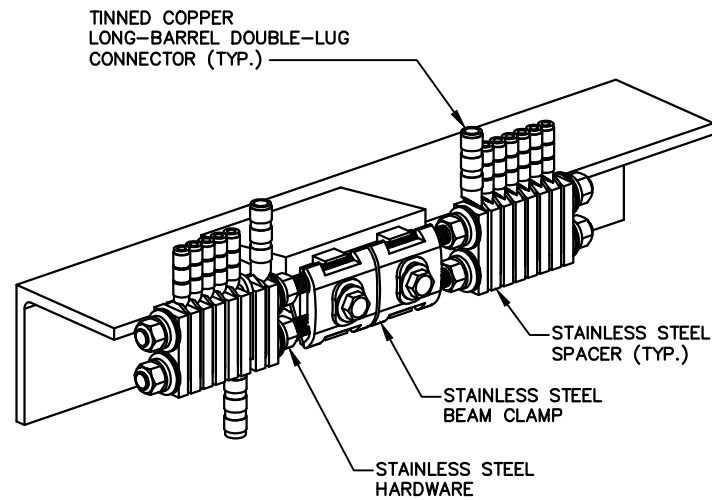
**GROUNDING
DETAILS**

SHEET NUMBER: REVISION:

E-8 0

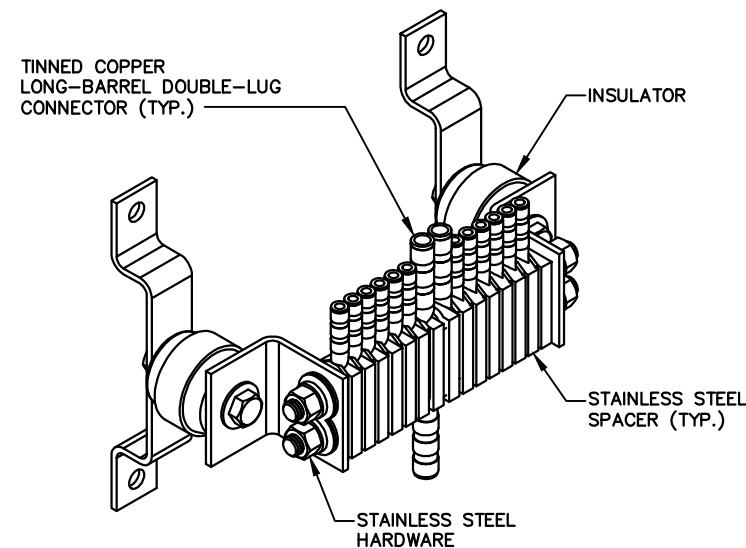
DETAIL NOT USED	1
SCALE: NONE	

NOTE:
ECO-SITE "NO GROUND BAR"
SYSTEM INSTALLED AS NEEDED.



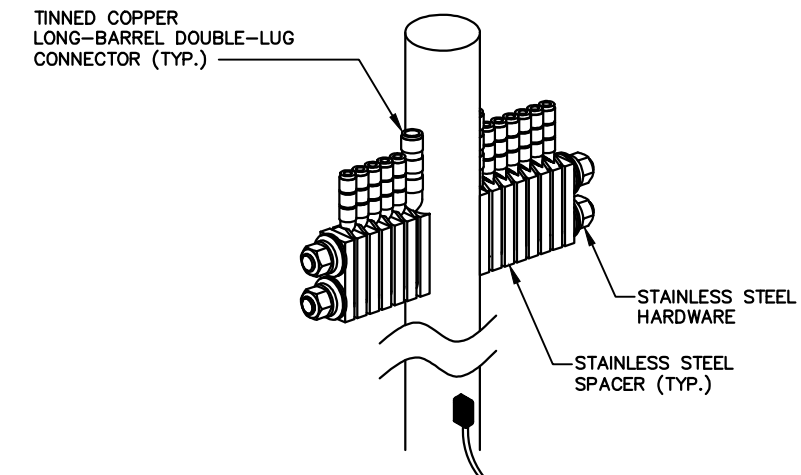
GROUND BAR (BEAM CLAMP)	2
SCALE: NONE	

NOTE:
ECO-SITE "NO GROUND BAR"
SYSTEM INSTALLED AS NEEDED.



GROUND BAR (INSULATED)	3
SCALE: NONE	

NOTE:
ECO-SITE "NO GROUND BAR"
SYSTEM INSTALLED AS NEEDED.



GROUND BAR (POST MOUNTED)	4
SCALE: NONE	

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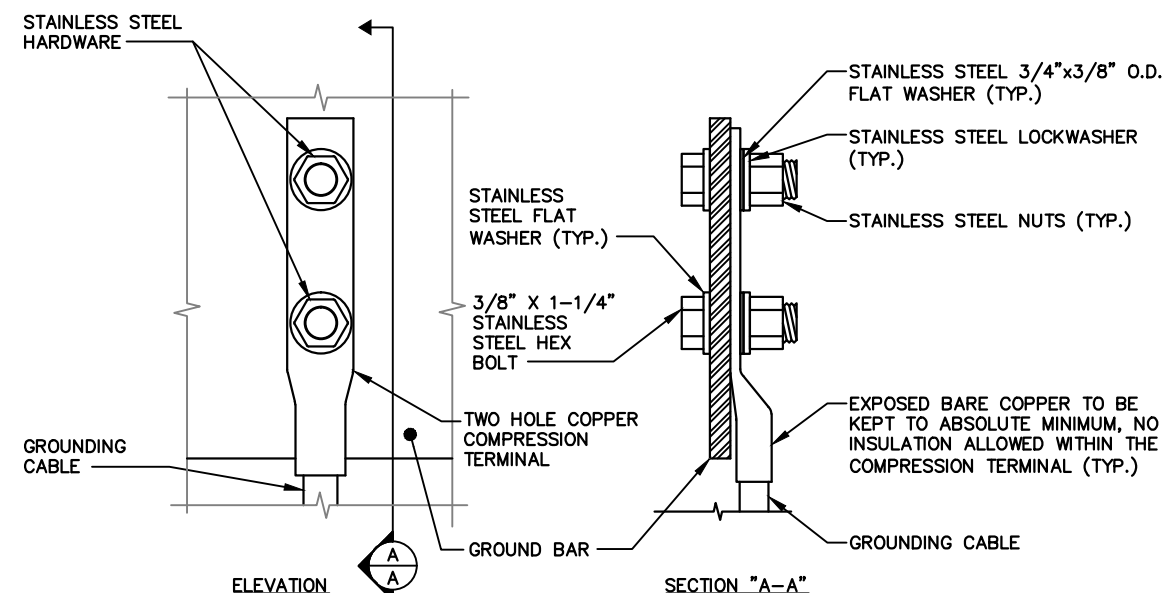
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SC	JKR	JSG
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JEFFERY S. GUTOWSKY
062-047235
REGISTERED
PROFESSIONAL
ENGINEER
OF
ILLINOIS
Jeffery S. Gutowsky
JEFFERY S. GUTOWSKY
PROFESSIONAL ENGINEER
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**GROUNDING
DETAILS**

E-9	0
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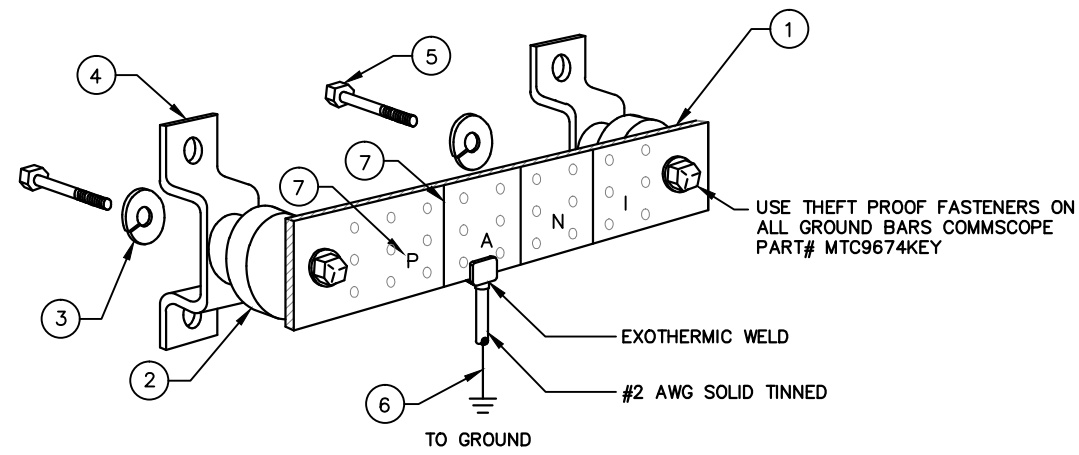


- OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS
- NO CRIMPING OF SOLID #2. USE EXOTHERMIC WELD ONLY

DETAIL NOT USED
SCALE: NONE
1

GROUND BAR CONNECTION DETAIL
SCALE: NONE
2

KEY NOTES:	
1.	1/4" THK ELECTRICAL TINNED GROUND BAR HARGER OR APPROVED EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2.	INSULATORS (UNLESS NOTED OTHERWISE)
3.	3/8" STAINLESS STEEL LOCKWASHERS
4.	WALL MOUNTING BRACKET
5.	3/8" STAINLESS STEEL BNLF BOLTS
6.	EXOTHERMICALLY WELD #2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD
7.	CONTRACTOR SHALL USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "N", "I") WITH 1" HIGH LETTERS



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION

- SECTION "P" - SURGE PRODUCERS**
- COLLECTOR GROUND BAR
 - GENERATOR FRAMEWORK (IF AVAILABLE)
 - TELCO GROUND BAR
 - COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND
 - FIBER GROUND BAR
 - EQUIPMENT ROOM COLLECTOR GROUND BAR
 - HVAC
 - RECTIFIER FRAMES
- SECTION "I" - ISOLATED GROUND ZONE**
- ISOLATED EQUIPMENT FRAMES
 - ISOLATED GROUND BAR - IGB
- SECTION "A" - SURGE ABSORBERS**
- INTERIOR GROUND RING
 - EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING)
 - METALLIC COLD WATER PIPE (IF AVAILABLE)
 - BUILDING STEEL (IF AVAILABLE)
 - AC POWER
- SECTION "N" - NON-ISOLATED GROUND ZONE EQUIPMENT**
- MISCELLANEOUS NON-ISOLATED GROUND ZONE EQUIPMENT
 - CABLE TRAY SYSTEM
 - EQUIPMENT FRAMES
 - BATTERY RACKS
 - DC POWER

NOTES:	
1.	EXTERIOR GROUND BARS TO BE TIN PLATED
2.	HARDWARE SHALL BE STAINLESS STEEL
3.	CONTRACTOR SHALL GROUP INCOMING WIRES
4.	CONTRACTOR TO APPLY 'KOPR-SHIELD' TO ALL CONNECTIONS

GROUND BAR DETAIL
SCALE: NONE
3

REQUEST FOR ACTION REPORT

File Number: **2017-0660**
Orig. Department: **Development Services Department**
File Name: **143rd Street and Wolf Road Intersection Widening - Section 106 National Historic Preservation Act Review**

BACKGROUND:

QUICKFACTS

Project

143rd Street and Wolf Road Intersection Widening

Purpose

To review a local historic asset to the Orland Park community and its relationship to and impact by the intersection widening project by the State of Illinois, Department of Transportation and Cook County Highway Department per the National Historic Preservation Act's Section 106.

Requested Actions: None

Project Attributes

Address: 14299 Wolf Road

P.I.N.(s): 27-05-302-004

Size: .49 acres (21,320 square feet)

Comprehensive Plan Planning District: Orland Grove Planning District

Comprehensive Land Designation: Neighborhood Mixed Use

Existing Zoning: E-1 Estate Residential District

Proposed Zoning: N/A

Existing Land Use: Office/ Institutional

Proposed Land Use: N/A

Surrounding Land Use:

North: BIZ General Business District - Retail Shopping Center

South: E-1 Estate Residential District - (across 143rd Street) Automobile Service Station

East: BIZ General Business District - Retail Shopping Center

West: BIZ General Business District - (across Wolf Road) Financial Institution

Preliminary Engineering: N/A

OVERVIEW AND BACKGROUND

The proposed intersection improvement is a part of the ongoing Phase I Study of 143rd Street corridor widening. The general scope of work for this project is to widen 143rd Street from two (2) and three (3) lanes at various points to generally five (5) lanes. Several coordination meetings with IDOT have been held with CBBEL engineers. IDOT has jurisdiction of 143rd Street and the south leg of Wolf Road, while Cook County has jurisdiction of the north leg of Wolf Road.

This intersection improvement will be funded through Federal funding channels. As a result, CBBEL engineers and the Village are proceeding through IDOT's federal project development process. As part of the Federal process, the various environmental components of the project are reviewed by IDOT and other State agencies.

A review of historic buildings/structures has identified the Yunker Schoolhouse to warrant National Register of Historic Places (NHRP) consideration. IDOT has directed the project team to avoid impact to this and other structures (the IDOT memo is attached for reference).

Per IDOT standard protocol, whenever a project is sent for archaeological survey and/ or when a historic property is in or directly adjacent to a project area, coordination with the state historic preservation office (SHPO), the Illinois Historic Preservation Agency (IHPA), is required. IDOT must obtain concurrence from IHPA for any impacts to the historic property.

The IHPA looks to the Village of Orland Park, as a Certified Local Government, for guidance on significant impacts to this historic property. As a result, this public meeting is conducted to obtain any feedback or comments related to the project. Per Section 3-102 of the Land Development Code, the Plan Commission carries the obligations and duties of the Village's historic preservation program. The Commission's comments are required since this road and intersection widening project goes through the Old Orland Historic District and impacts a number of local landmarks and historic properties.

The Yunker Schoolhouse

The Yunker Schoolhouse is the historic name of the building that is located at 14299 S. Wolf Road, the northeast corner of the intersection. The property is no longer a school and serves as an office building. The structure was surveyed in 2009 by McGuire Iglecki and Associates. The historic building survey found the building to be in "Good" condition with "High" integrity. The original construction date is circa 1910 and served as a one room schoolhouse for School District 134.

The 2009 survey also found the building to be eligible for local landmark designation and to be placed on the National Register of Historic Places. In the past, the Village has reached out to the property owner to designate the historic property as an Orland Park Landmark per Section 5-110 of the Land Development Code. The property owner, Mr. Richard Connor Riley, Esq., however, did not entertain the correspondences. As a result, this historic asset is not an Orland Park Landmark at this time. The Village does consider the structure to be part of the local heritage.

The Yunker Schoolhouse is the last remaining one room schoolhouse in Orland Park and it sits in its original location.

The 2009 historic building survey form is attached for further review.

PROJECT DESCRIPTION & CONTEXT

The proposed improvement currently avoids impacts to the Yunker Schoolhouse building and maintains existing access, which meets ADA standards.

Right-of-way is required from the property and there will be impacts to existing trees, sidewalk, and landscaping. Currently, the subject site's property lines effectively extend to the centerlines of the 143rd Street and Wolf Road roadways. A dedication/acquisition of right-of-way is required to install the proposed improvements. This will mean that the right-of-way lines of 143rd Street and Wolf Road will border the building proper at the front porch.

A small segmental block wall (two feet tall), similar to the one that exists today, will be installed at the right-of-way line behind the proposed sidewalk in order to provide pedestrian accommodations at the intersection.

SITE PLAN

The building will not change location. However, the lot size will be decreased. As the subject site currently reaches to the centerlines of both roadways, the 143rd Street property line will be moved 47 feet north, closer to the building; and 40 feet east, closer to the building.

This amounts to a total of 12,618 square feet of lot area reduction. The total lot size will then be 8,702 square feet. The property will become legal non-conforming to the E-1 Estate Residential District, in which it currently resides. Any rezoning would be to the BIZ General Business District, the minimum lot size in which is 10,000 square feet. The property will be rendered a legal non-conforming lot even upon a rezoning in the future.

MOBILITY

143rd Street is an IDOT minor arterial road in the Village of Orland Park.

Wolf Road is also an IDOT minor arterial road south of 143rd Street. Wolf Road is a Cook County minor arterial road north of 143rd Street.

BUILDING ELEVATIONS

There are no building impacts to the Yunker Schoolhouse following this roadway widening project.

LANDSCAPING

A landscape plan is currently not under consideration. However, the roadway widening does account for pedestrian amenities in the parkways, with some streetscaping.

The final details of these will be planned as part of Phase 2 of the project. This discussion mainly deals with the right-of-way widening and the dimensional impacts to the building.

DETAILED PLANNING DISCUSSION

Variance(s)

As a result of the roadway widening and the widening of the right-of-way lines, the building setbacks fronting 143rd Street and Wolf Road will essentially be reduced to zero along 143rd Street and approximately less than five (5) feet from Wolf Road.

The setback reductions are technical variances. Since they will be the result of roadway widening, they will be considered legal non-conforming and will not require a public hearing to issue variances. This was the policy established by the Village during the La Grange Road

widening project for properties similarly affected.

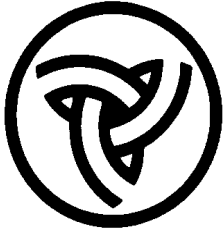
Historical Asset

The Yunker Schoolhouse is a historic asset that contributes to the local heritage of Orland Park. It is not an Orland Park Landmark. It is also not located within a local historic district.

BUDGET IMPACT:

REQUESTED ACTION:

No action required.



Illinois Department of Transportation

Memorandum

To: Maureen Kastl Attn: Bill Raffensperger
From: Maureen Addis By: Brad Koldehoff
Subject: 143rd Street Widening – Historic Property Avoidance
Date: April 7, 2017

Cook County
Orland Park
FAU 1600 (IL 7/143rd St. from Wolf Rd. to Southwest Hwy.)
Road Widening, Reconstruction
Section # 14-00072-00-WR
Sequence # 18959 & 18959A

Thank you for submitting the photo log for the project addendum referenced above. After a review of the National Register of Historic Places (NRHP) listing, National Historic Landmark (NHL) listing, Historic Architectural Resources Geographic Information System (HARGIS) database, local landmark listings (LL), and historic images, our office found the following known historic architectural resources in the project area:

- *Old Orland Historic District*, bounded by 144th Pl., West Ave., 143rd St. & Beacon Ave. (LL) [HSL-29 through HBL-38]
- *Former Christ Lutheran Church*, 9999 W. 143rd St. (LL) [HSL-29]
- *Orland Park School*, 9960 W. 143rd St. (LL) [omitted from photo log]
- *Building*, 9953 W. 143rd St. (LL) [HSL-31]
- *Commercial Building*, 9925 143rd St. (LL) [HSL-13]
- *Orland Park Library*, 9917 W. 143rd St. (LL) [HSL-14 & 15]
- *Orland Park Hotel*, 14306-14310 Union Ave. (LL) [partially on HSL-16]
- *Loebe Brothers General Store*, 14314 Union Ave. (LL) [HSL-32]
- *Building*, 14315 Beacon Ave. (LL) [partially on HSL-38]
- *Twin Tower Sanctuary*, 9967 W. 144th St. (NRHP) [HSL-35]
- *Old Orland State Bank Building*, 14316 Beacon Ave. (LL) [HSL-37]

The review of the ESR project limits also concluded that two other buildings in the project area warrant NRHP consideration:

- Yunker School, 14299 Wolf Rd. [HSL-1]
- House, 10117 143rd St. [HSL-10]

Due to the historic nature of these resources, all feasible means of avoidance need to be considered. If these resources cannot be avoided, please coordinate possible minimization and mitigation measures with this office.

This memorandum is not a project clearance. As the project proposes to widen the existing two-lane roadway to four lanes and make improvements to an existing railroad crossing and no plans are available to review, it has the potential to greatly affect these historic resources. Efforts must be taken to avoid impacting these historic properties. Trees and/or right-of-way should not be taken at these locations if at all possible.

Please verify the property's avoidance or impacts with the Cultural Resources Unit and we will begin coordination with the State Historic Preservation Officer.

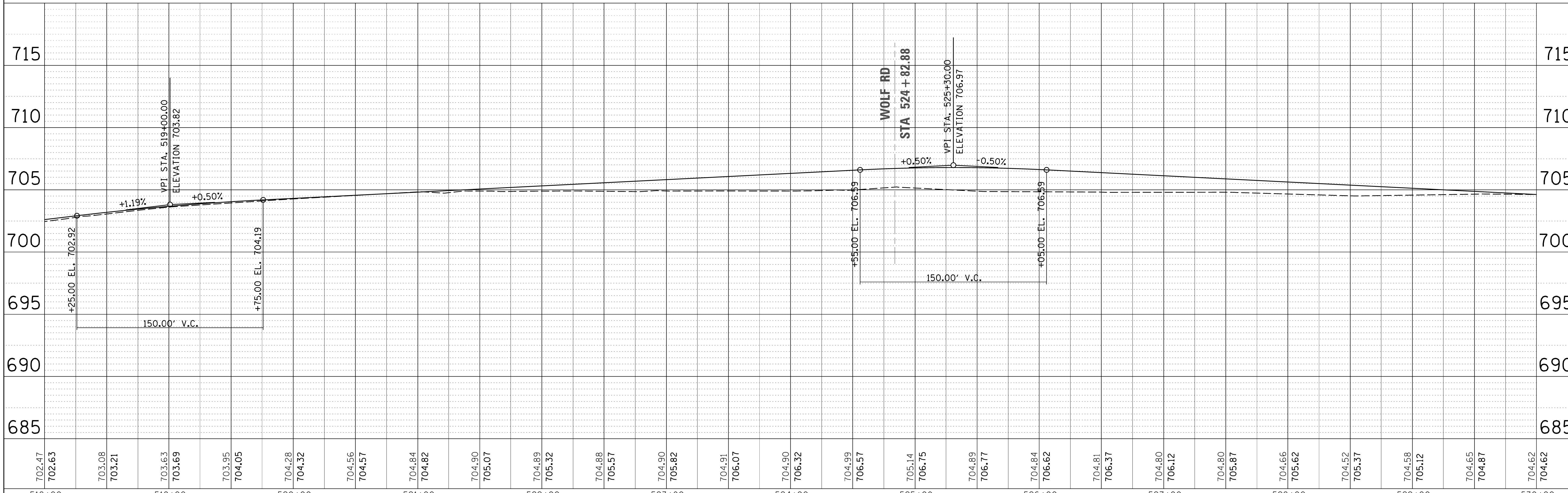
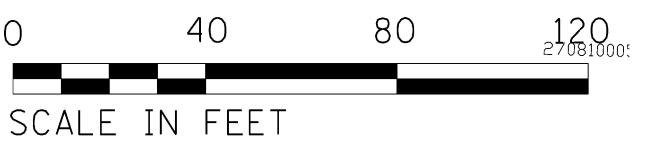
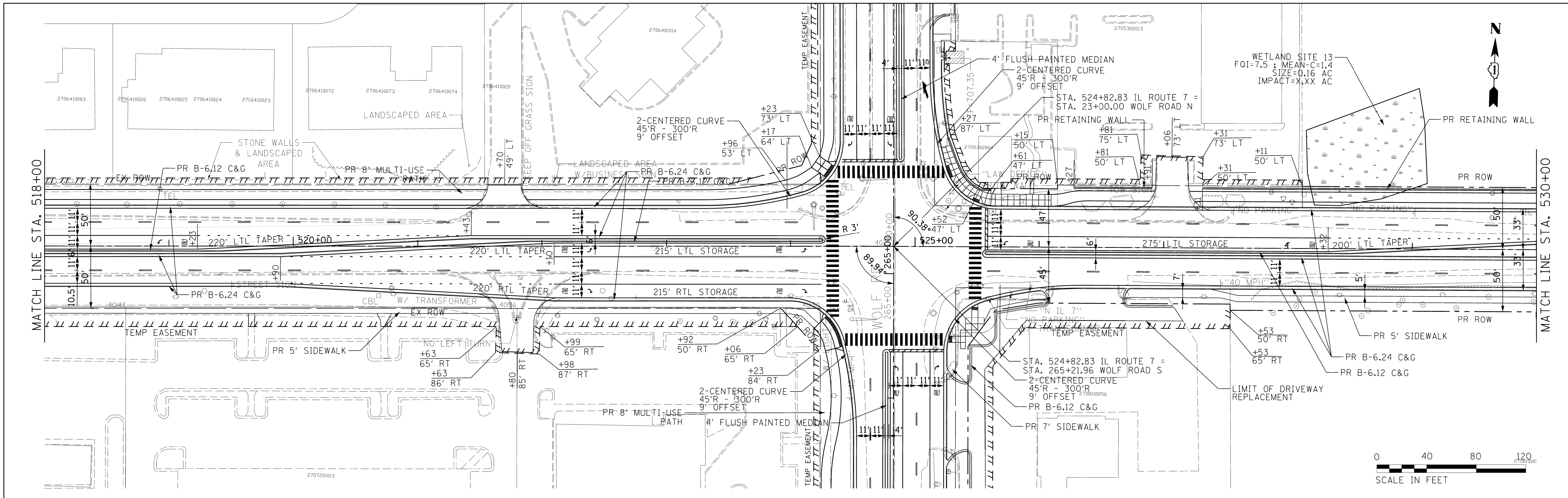
If there are any questions concerning this project review, please contact Emilie Land at Emilie.Land@illinois.gov or 618-346-3824.

Brad H. Koldehoff, RPA
Cultural Resources Unit
Bureau of Design and Environment

BK:el

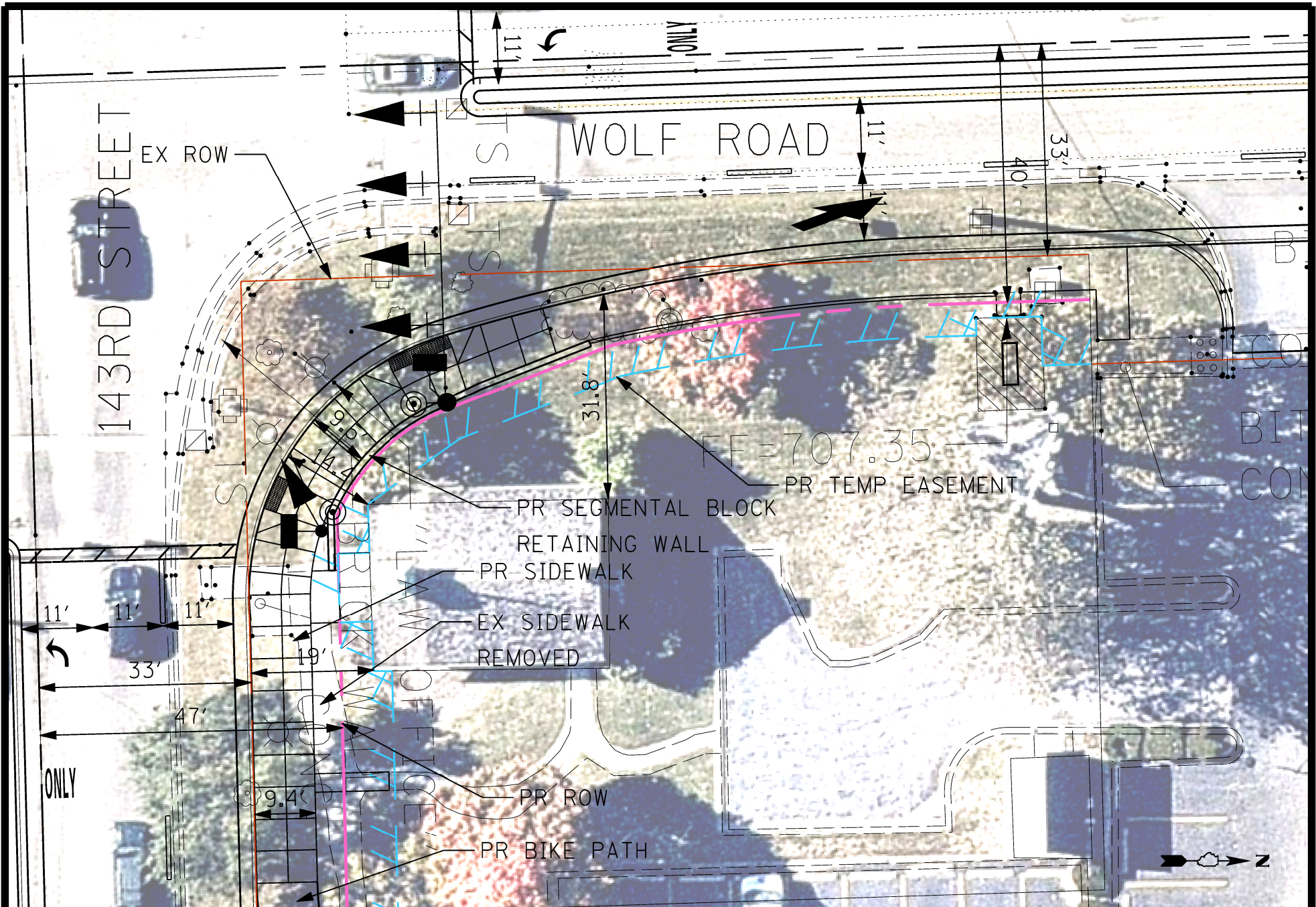
PLAN	SURVEYED	BY	DATE
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	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
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	NO.		



FILE NAME =	USER NAME = rduffy	DESIGNED - MH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	143RD STREET PLAN AND PROFILE	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\ORLANDPARK\140381\CAOD_Sheets\PI18014-ent-plnprf-02.dgn	PLOT SCALE = 40.0000' / in.	DRAWN - PM	REVISED -			1600	14-00072-00-WR	COOK	#TOT	#RPP2	
Default	PLOT DATE = 9/7/2017	CHECKED - MH	REVISED -			CONTRACT NO. \$CONT					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

SCALE: 40H 5V SHEET \$RPP2\$ OF \$RPP1\$ SHEETS STA. 518+00 TO STA. 530+00



CB CHRISTOPHER B. BURKE ENGINEERING, LTD.
 9575 W. Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CLIENT:		VILLAGE OF ORLAND PARK	
DSGN:	MB	TITLE:	
DRN:	RPD		
CHKD:			
SCALE:	20'		
PLOT DATE:	9/6/2017		
CAD USER:	rduffy		
FILE:	YunkerSchoolHouseEIM		
MODEL:	Default		

**YUNKER SCHOOL HOUSE
 PHASE I STUDY - 143RD STREET**

PROJ. NO.	140381
DATE:	08/28/2017
SHEET	1 OF 1
DRAWING NO.	
EXH	

DATE: August 8, 2017

REQUEST FOR ACTION REPORT

File Number: **2017-0046**
Orig. Department: **Development Services Department**
File Name: **Memo: New Petitions & Appearance Review**

BACKGROUND:

BUDGET IMPACT:

REQUESTED ACTION:



Memorandum

To: Plan Commission
From: Nectarios Pittos, Interim Planning Division Manager
Date: August 8, 2017
Subject: New Petitions & Appearance Reviews

Below, please find a summary of recently petitioned projects and appearance reviews. Petitioned projects are currently under review by staff and may or may not be on a future Plan Commission agenda. These projects have been petitioned to the Village but may not have obtained all the approvals required to begin work. Projects sometimes are terminated without moving forward for a variety of reasons. Appearance reviews are reviewed and approved administratively. The below list also does not include cell tower co-location or expansion projects. Please contact me with any questions regarding the below projects.

Appearance Review Petitions

Heartis Senior Living Site Changes & Temporary Trailer – 7420 159th Street
Changes to dumpster enclosure location, landscaping plan and adding a temporary trailer for sales purposes

Certificate of Appropriateness Petitions

Development Petitions

Whisper Pines – 8030 143rd Street
Development of 35 duplex and triplex residential homes