



APPLICATION FOR SPECIAL USE PERMIT FOR WIRELESS TELECOMMUNICATIONS FACILITIES

VILLAGE OF PLANDOME MANOR, NY

OCTOBER 10, 2019

RICHARD LAMBERT
ER DIRECTOR, EAST



STATEMENT OF INTENT

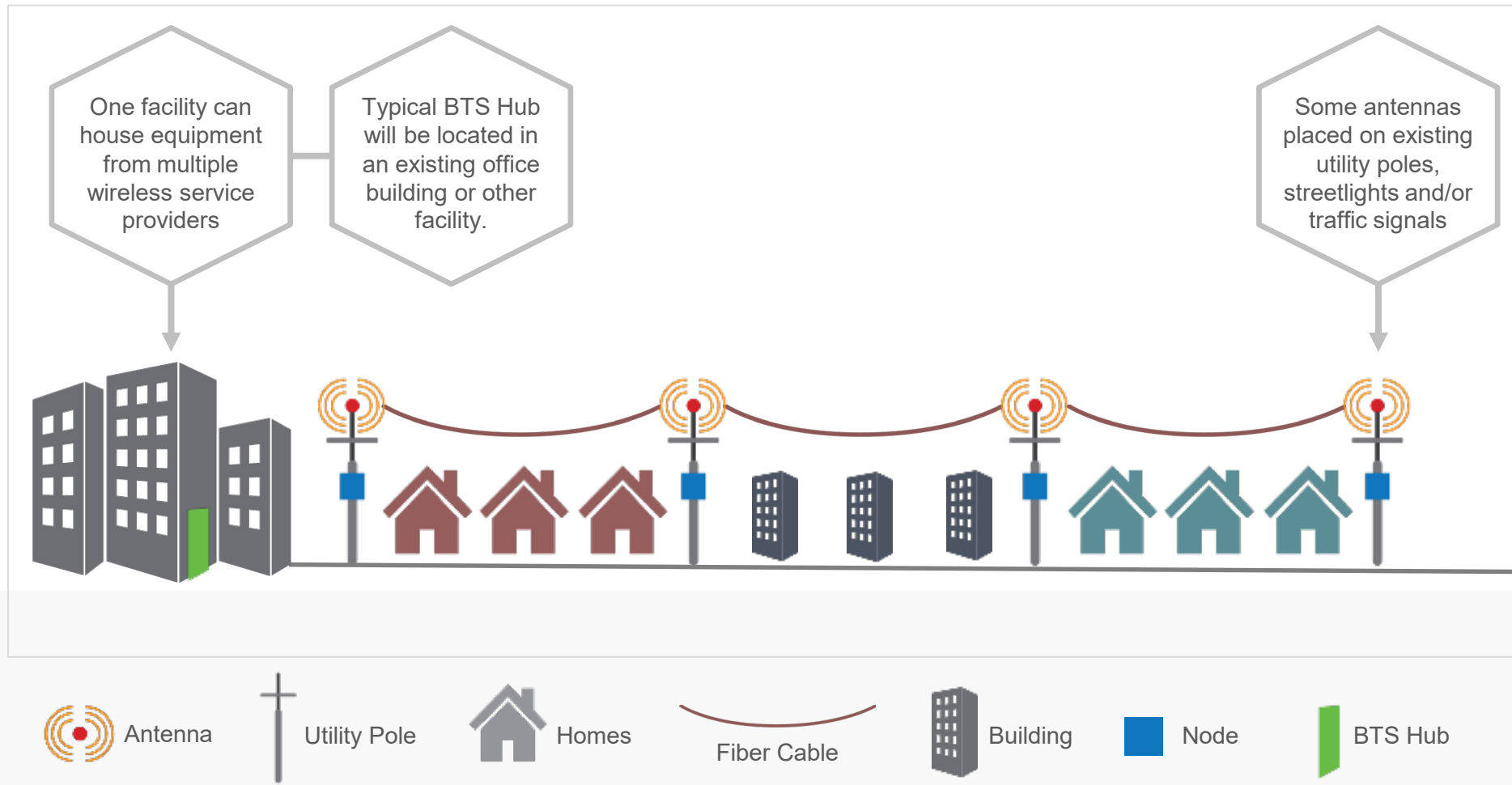
ExteNet Systems, Inc is requesting a Special Use Permit for the construction of a wireless telecommunications facility within the Village of Plandome Manor.

PURPOSE

Install small cell wireless infrastructure to patch discrete holes in Verizon Wireless 4G coverage and provide greater capacity to 4G wireless network.

WHAT ARE DISTRIBUTED NETWORKS AND WHY ARE THEY NEEDED?

OUR DISTRIBUTED NETWORKS (DNS) BRING NETWORKS CLOSER TO USER TO AUGMENT CONNECTIVITY



BENEFITS

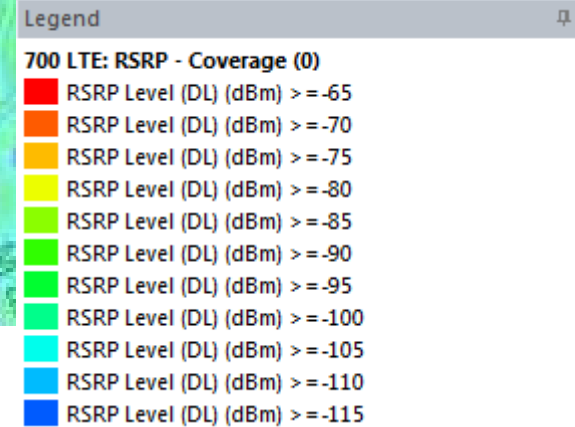
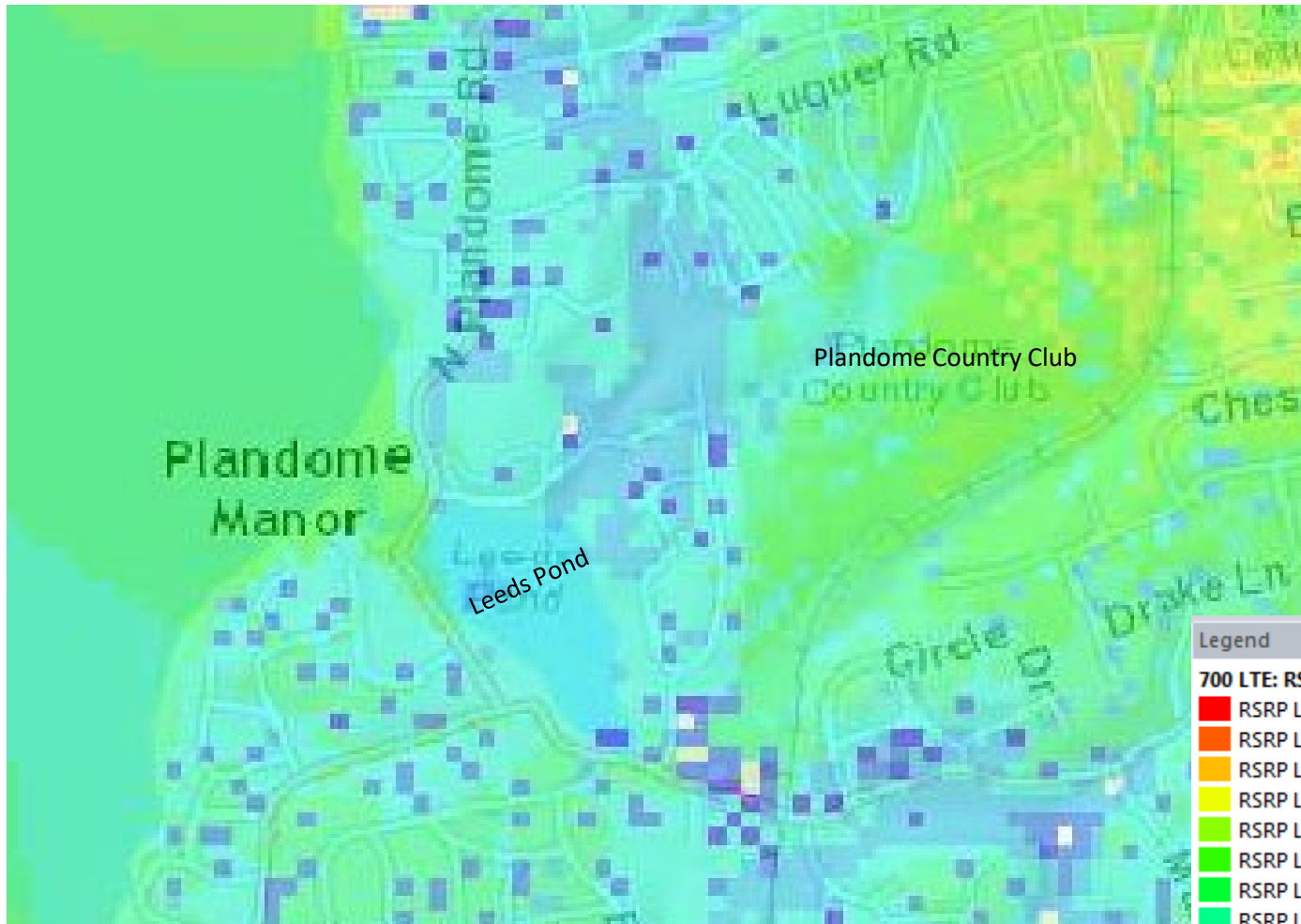
- Improved capacity and coverage
- Increased wireless speeds
- Smaller form-factor and less obtrusive than towers
- Public safety
- Carrier neutral host approach reduces proliferation of equipment

APPLICATION SUMMARY

- Distributed Antenna System (DAS) Nodes Constructed on wood utility poles. Fiber is not part of the application.
- 20 Sites
 - 4 Existing poles
 - 11 Replacement poles
 - 5 New Poles
- Form Factor
 - Wood Utility Poles
 - Heights range from 29.5ft to 40.5ft
 - Antenna – 14.6in diameter by 24in height (pole top or within communications zone)
 - Radio Shroud – 35.2in x 15.6in x 9in (9.5 ft above ground)

CURRENT VERIZON COVERAGE MAP

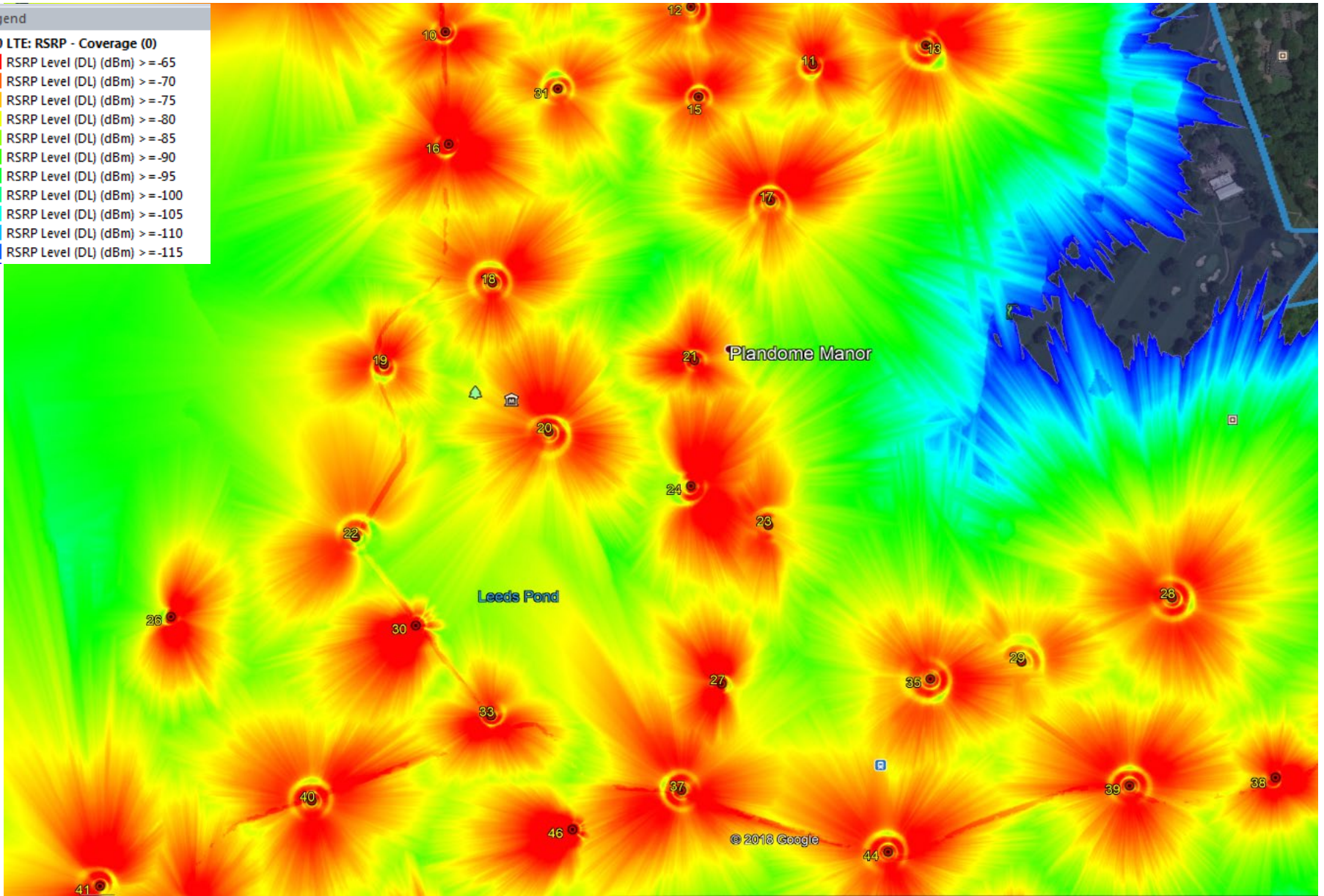
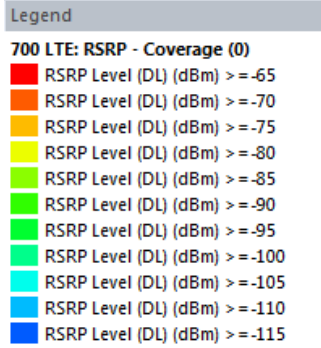
Red is good. Yellow is just OK. Anything below yellow is substandard.



LOCATION OF PROPOSED DAS NODES IN PLANDOME MANOR



COVERAGE FOR PROPOSED DAS NODES IN PLANDOME MANOR



COMMON QUESTIONS

COMMON QUESTIONS

Is ExteNet proposing a 4G and 5G network?

This is a 4G Project, not 5G.

Will this network be 5G in the future?

The node design and equipment being proposed is for 4G and would not facilitate the use of 5G. Deployment of tech for the 5G standards, as is currently being developed as high speed millimeter wave technology, is unlikely in Plandome. Plandome would, more than likely, continue to receive the results of advancements in 4G technology.

Hypothetically speaking, if these nodes were to be converted to 5G, new radios and antennas would be required and many more poles would have to be installed and/or used, thus requiring a new permit.

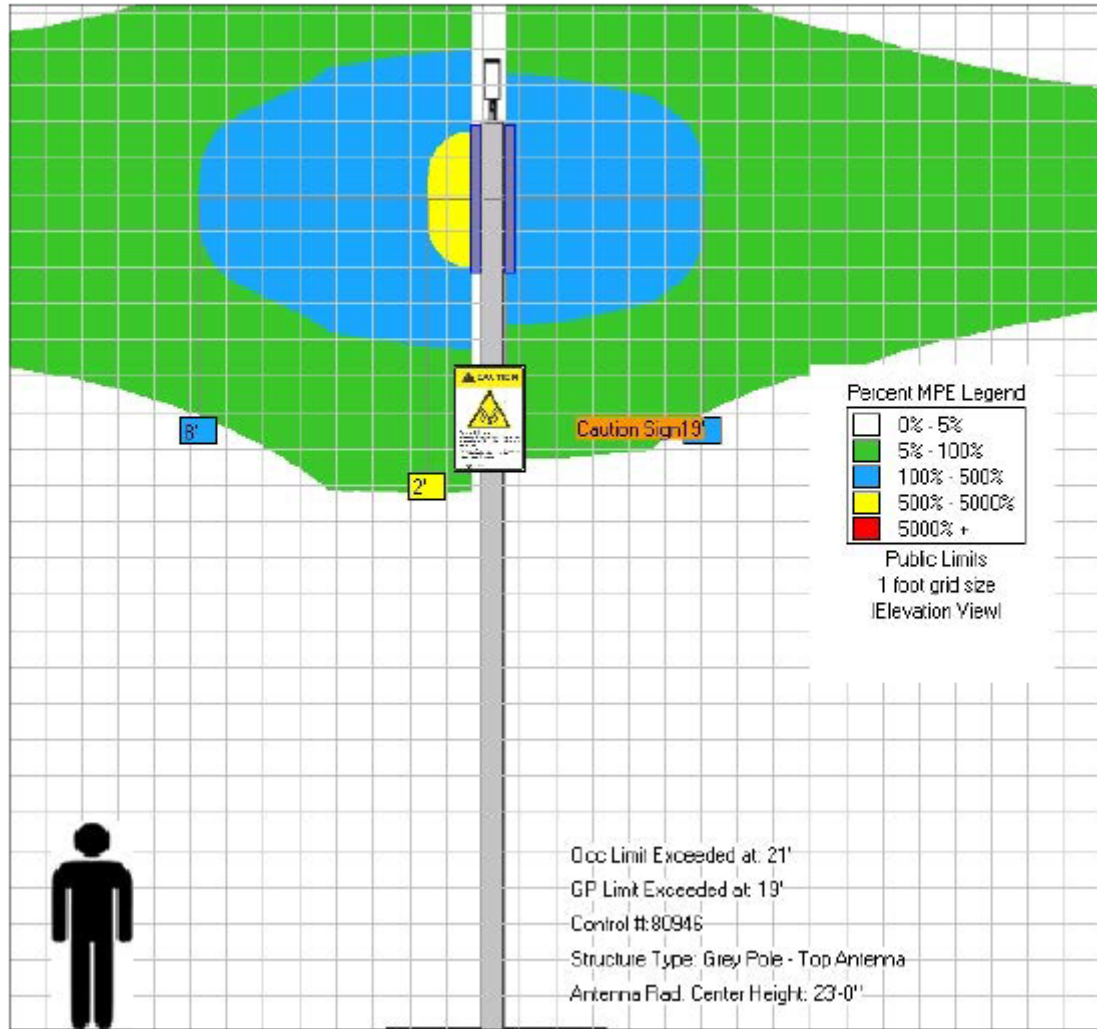
Do the RF emissions exceed what's allowed?

The analysis in a 3rd Party Maximum Permissible Exposure report finds that the “worst case” emissions are less than 1% of the FCC limits at the base of the installation. These values are within the rules adopted by FCC which specify that RF emissions should not be in excess of 5% of the exposure limit.

Public Limits for Maximum Permissible Exposure (Antenna at 23ft)

ELEVATION DETAIL

Predicted MPE depicted at the center of the 6 ft vertical zone that a person could occupy



COMMON QUESTIONS (CONT)

What are other RF Impact Studies beyond the FCC?

International Commission on Nonionizing Radiation Protection

- 2009 critical review by the International Commission on Nonionizing Radiation Protection (ICNIRP) which has the most influential international limit
- 2009 statement by ICNIRP based on this review that "it is the opinion of ICNIRP that the scientific literature published since the 1998 [ICNIRP] guidelines has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields.
" approved 1996
- ICNIRP 1998 guidelines which are quite similar to present FCC guidelines, approved 1996
- Draft ICNIRP guidelines presently being considered for approval (this is a version released for public comment dated July 2018; the final version is undergoing approval but does not differ greatly from this). These are also quite similar to current FCC guidelines.

More information at <https://www.wirelesshealthfacts.com/experts/>

COMMON QUESTIONS (CONT)

My coverage is fine, so why does the carrier need to improve service?

The carriers use sophisticated modeling tools that incorporate network activity from users in the immediate service area, impacts on the network from usage on the larger network, and future needs to identify areas of poor performance.



Editors at Anton Media Group published an article called "[Testing the Nodes](#)" in which the editors completed a drive test of Flower Hill and Plandome potential cell node locations using their phones. They found that all sites had signals greater than -100 or worse. The same method used to determine sites for Plandome and Flower Hill was used for Plandome Manor.

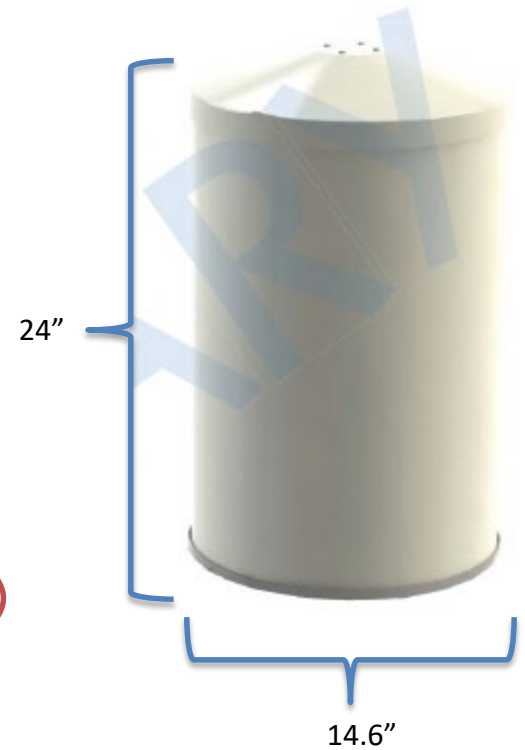
dBm signal ranges according to Wilson Amplifiers	
-50 to 79 dBm	Great
-80 to -89 dBm	Good
-90 to -99 dBm	Average
-100 to -109 dBm	Poor
-110 to -120 dBm	Very Poor or Dead Zone

EQUIPMENT DETAILS

PROPOSED EQUIPMENT

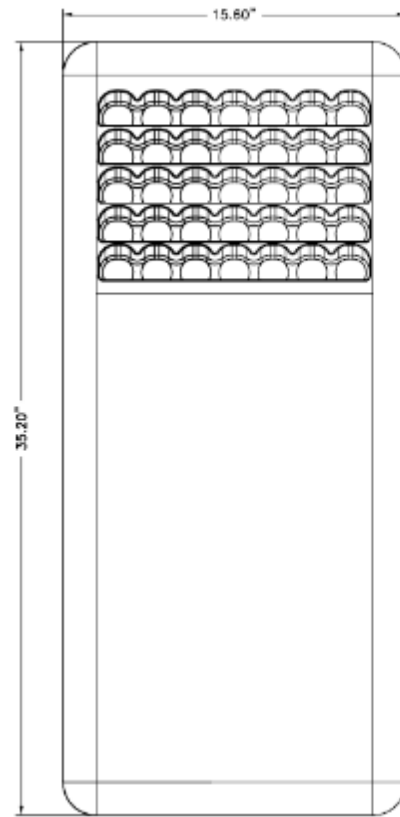
AMPHENOL ANTENNA

Mounting Options	
This antenna can be mounted using any of the following mounting kits. Mounting kits can be ordered as a separate line item with model number CWWT070X05Fxy-0 or can be included with the antenna as a single line item. See Ordering Options (page 1) for details.	
Side Mounting, Pipe Mounting Kit	Part Number: CWT MKS SIDL 
Top Mounting, Pipe Mounting Kit	Part Number: CWT MKS TOP 
Utility Pole Mounting Kit	Part Number: WB3X-MKS-01 



PROPOSED EQUIPMENT

COMMSCOPE SHROUD WITH RADIOS



FRONT VIEW



SIDE VIEW



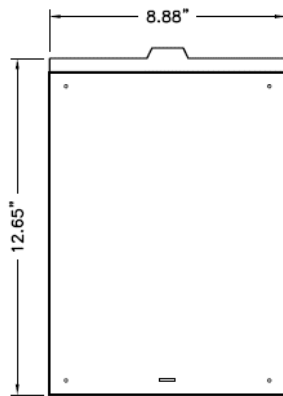
INSIDE VIEW

PROPOSED EQUIPMENT

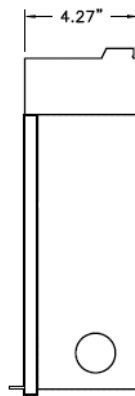
OTHER EQUIPMENT



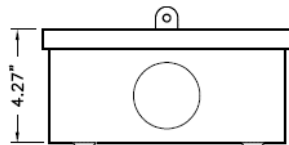
AC Load Center



FRONT



SIDE



TOP

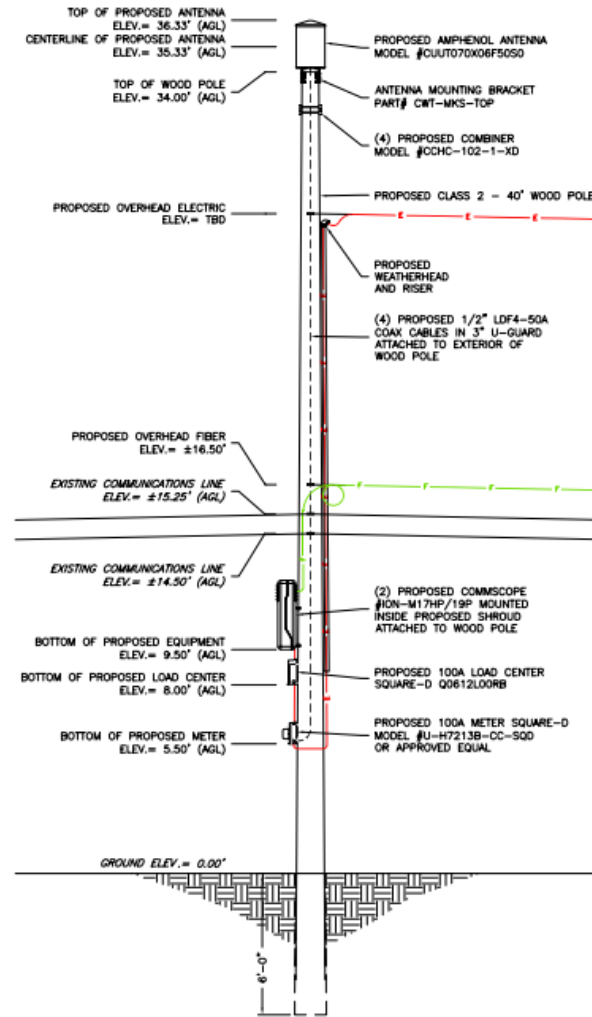
SQUARE D LOAD CENTER:
PART NO. Q0612L100RB



100A Electrical Meter

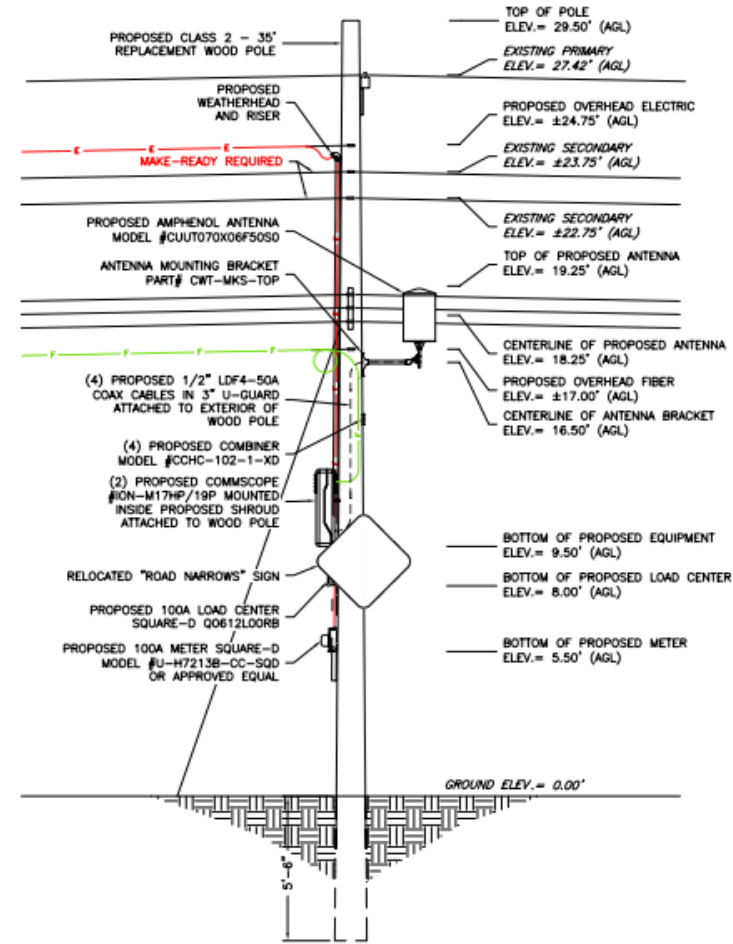
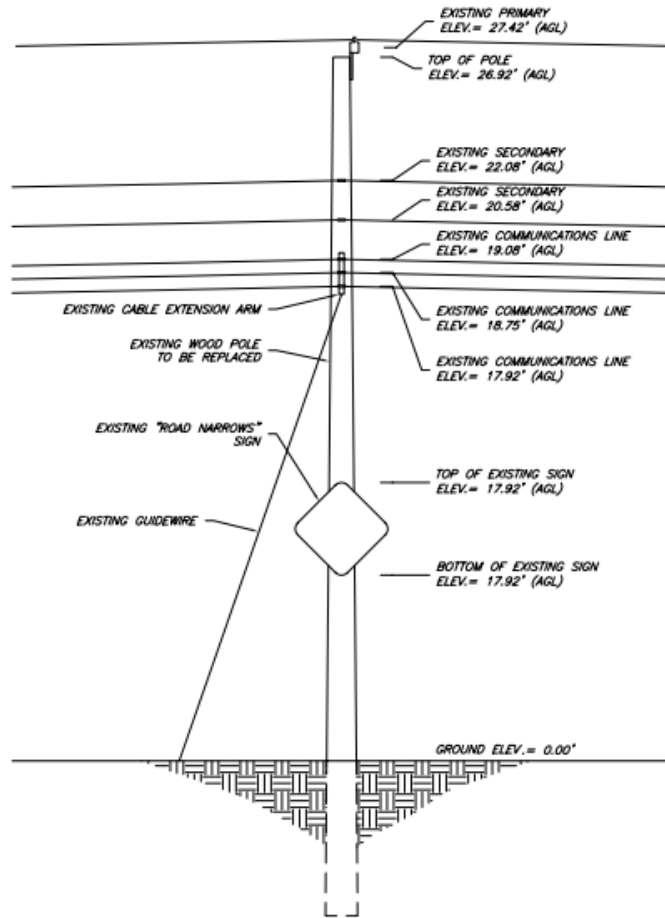
Depth 3.5in
Length 8in
Height 10.9in

EXAMPLE CONCEPTUAL DRAWING (POLE TOP ANTENNA)



PROPOSED ELEVATION (LOOKING NORTHEAST)

EXAMPLE CONCEPTUAL DRAWING (COM ZONE ANTENNA)



Node 38
Near 335 Stonytown Rd

EXISTING ELEVATION (LOOKING EAST)

PROPOSED ELEVATION (LOOKING EAST)

FCC COMPLIANCE

The Telecommunications Act of 1996

The Telecommunications Act of 1996 includes five limitations on local regulation of wireless telecommunication facilities.

One limitation involves the RF energy associated with wireless telecommunications facilities:

“Local regulations may not regulate the placement, construction or modification of personal wireless service facilities on the basis of the “environmental effects of radio frequency emissions” as long as the facilities meet standards set by the FCC.”

The Telecommunications Act, 47 USC § 332(c)(7)(B)

This site will be in compliance with FCC Regulations

FCC Office of Engineering and Technology Bulletin 65 (OET Bulletin 65) provides guidelines for mathematical models to calculate potential RF exposure levels at various points around transmitting antennas.

Conservative methodology and worst case assumptions are incorporated into the calculations. This significantly overstates the calculated RF levels relative to the levels that are actually likely to occur. The purpose of this approach is to assure the safest conclusions for compliance with MPE limit.

The analysis in this report find that the “worst case” emissions are less than 1% of the FCC limits at the base of the installation.

These values will decrease even more the further one moves away from the cell site.

These values are within the rules adopted by FCC which specify that RF emissions should not be in excess of 5% of the exposure limit.

FCC Small Cell Order

Local aesthetic requirements for small cell wireless facilities must be (1) reasonable; (2) no more burdensome than those applied to other infrastructure deployments in the right-of-way; and (3) objective and published in advance.

DAS/Small Cell Applications are subject to the Shot Clock; which proscribes a 60 day decision timeline for a local municipality. Non-compliance with the Shot Clock is a violation of The Telecommunications Act.

Recent FCC Small Cell Order sets forth specific right-of-way access fees.

LOCATION DETAILS AND PHOTOSIMULATIONS

**NODES 16, 31, 15, 18, 19, 20,
21, 22, 26, AND 30**

NODES TO BE DISCUSSED ON OCT 10



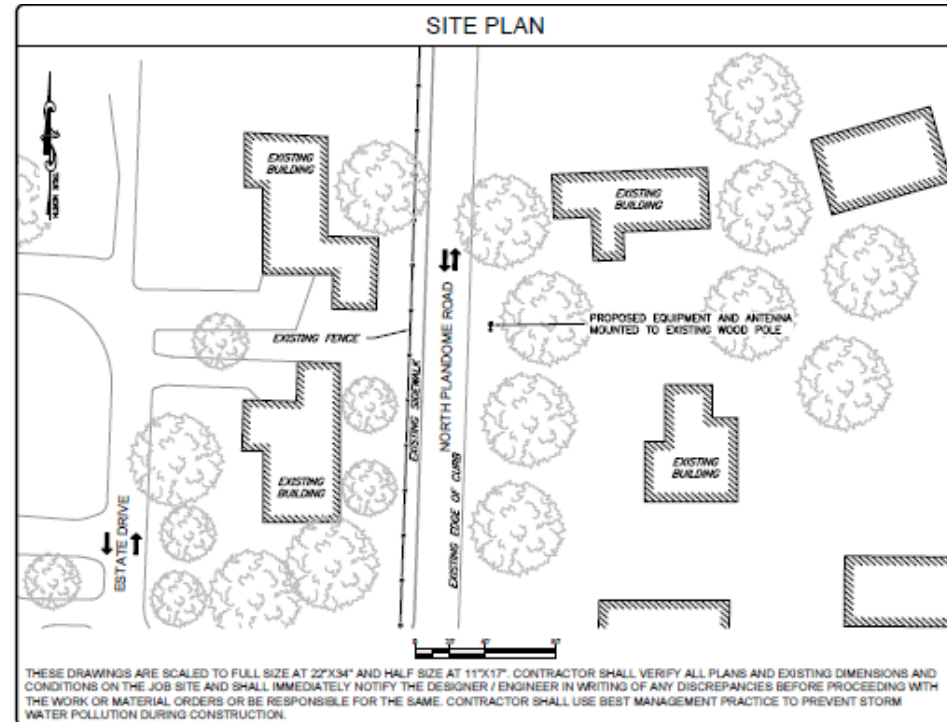
NODE 16

NEAR 1 LUQUER RD.

VICINITY MAP



SITE PLAN



NODE 16 PHOTOSIMULATION

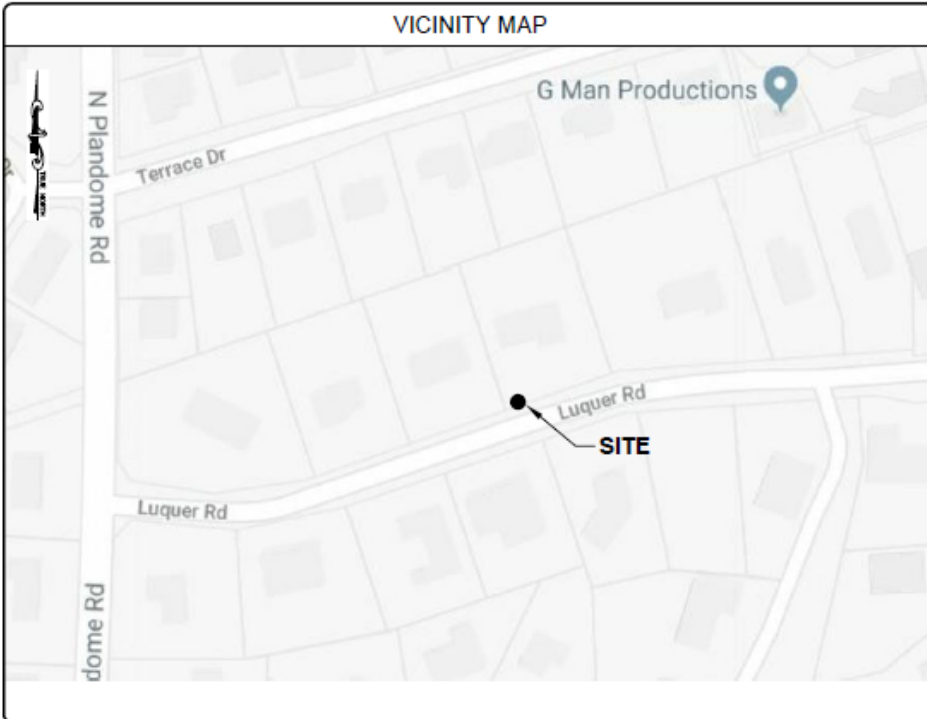
NEAR 1 LUQUER RD.



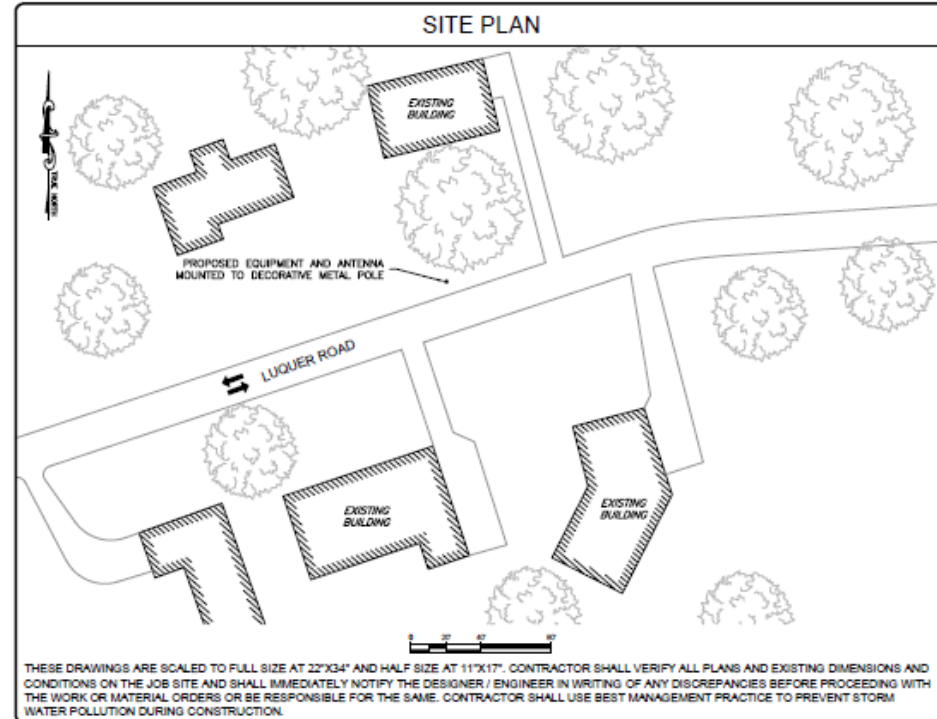
NODE 31

NEAR 8 LUQUER RD.

VICINITY MAP



SITE PLAN



NODE 31 PHOTOSIMULATION

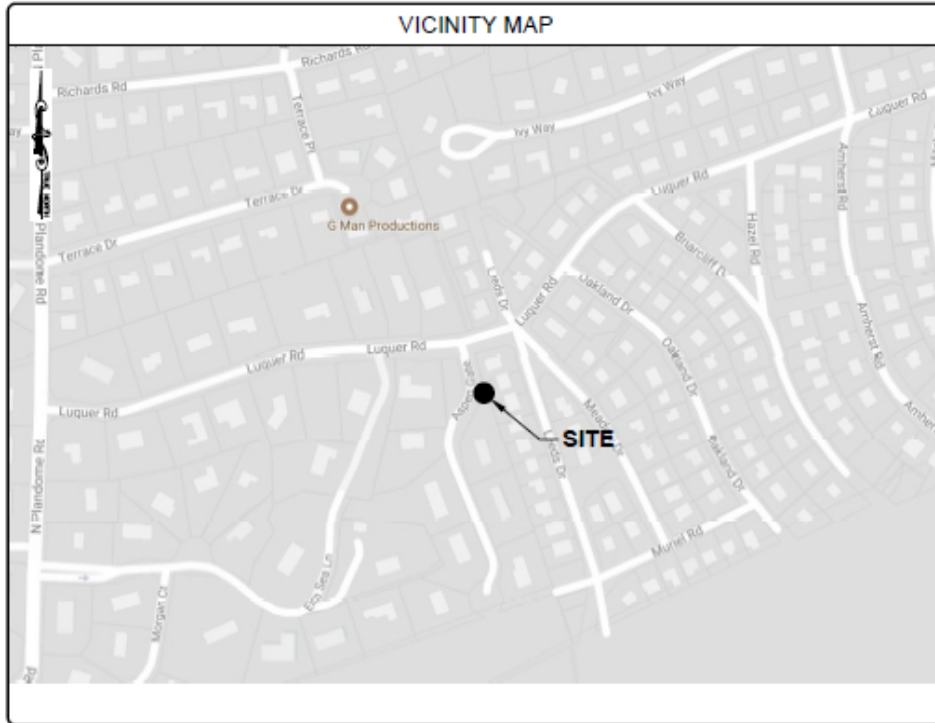
NEAR 8 LUQUER RD.



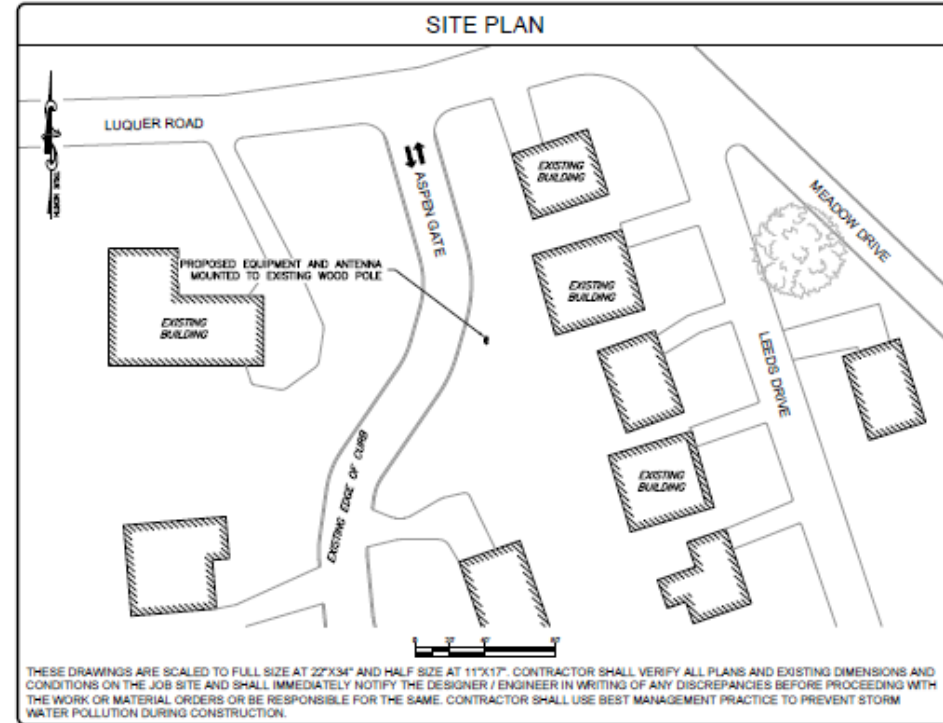
NODE 15

NEAR 2 ASPEN GATE DR.

VICINITY MAP



SITE PLAN



NODE 15 PHOTOSIMULATION

NEAR 2 ASPEN GATE DR.



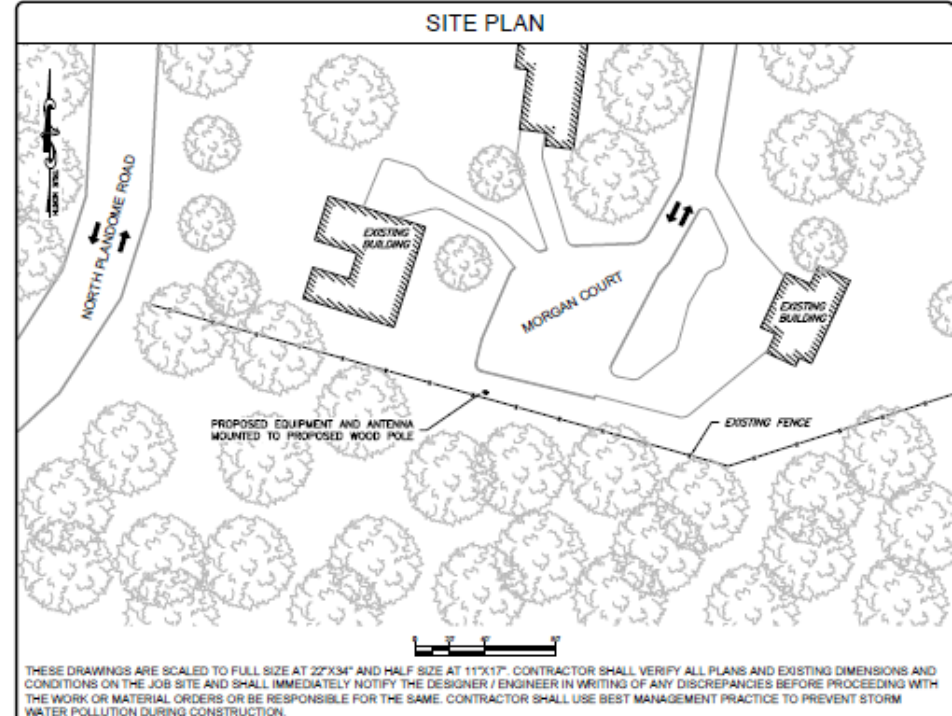
NODE 18

NEAR 25 MORGAN CT.

VICINITY MAP



SITE PLAN



NODE 18 PHOTOSIMULATION

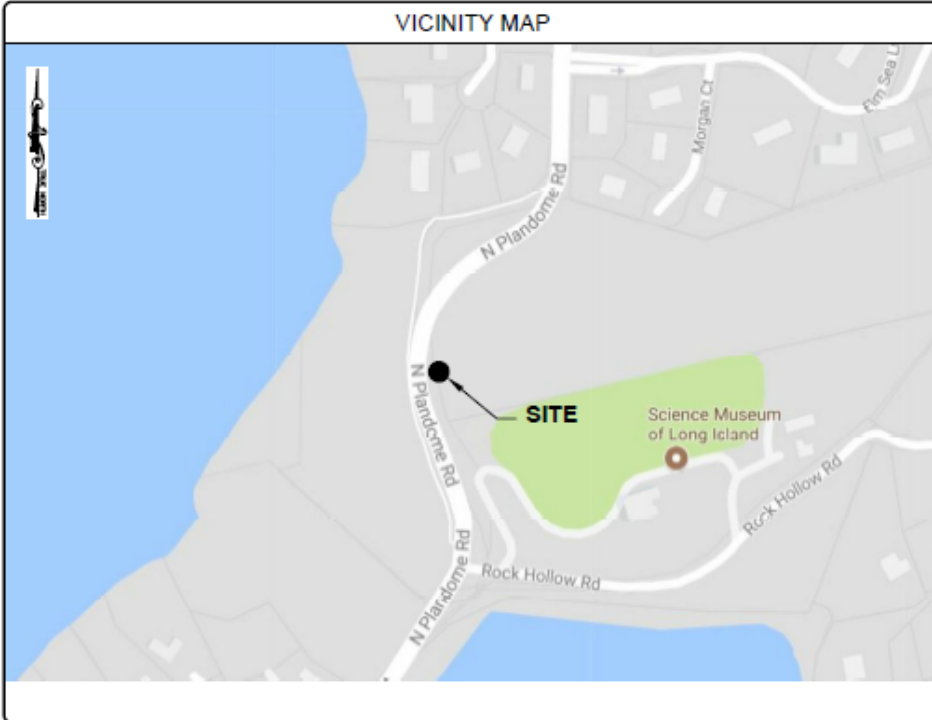
NEAR 25 MORGAN CT.



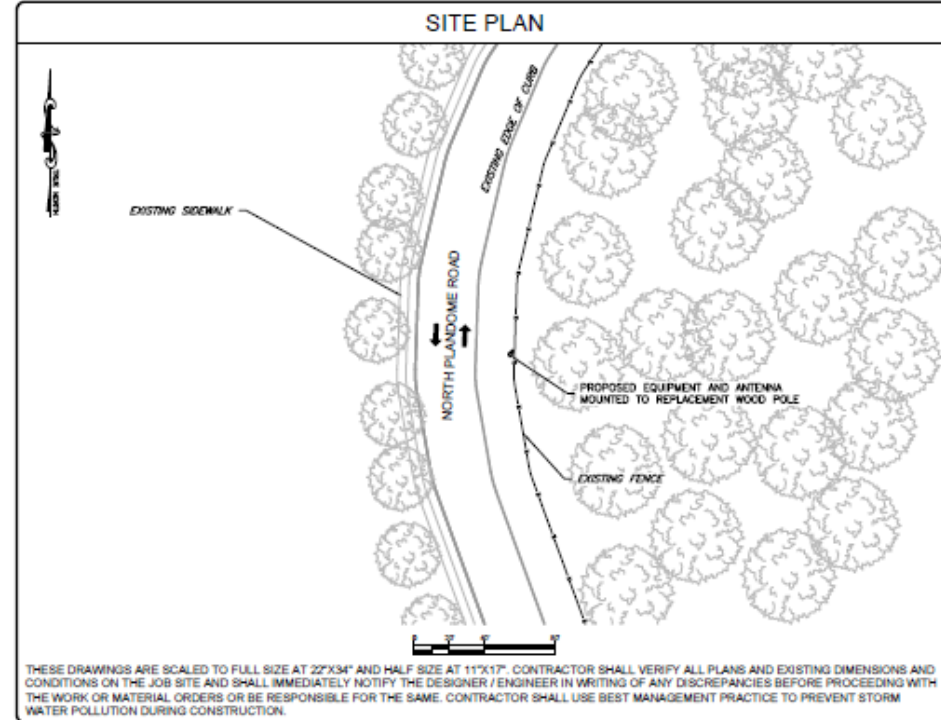
NODE 19

NEAR 1526 PLANDOME RD.

VICINITY MAP



SITE PLAN



NODE 19 PHOTOSIMULATION

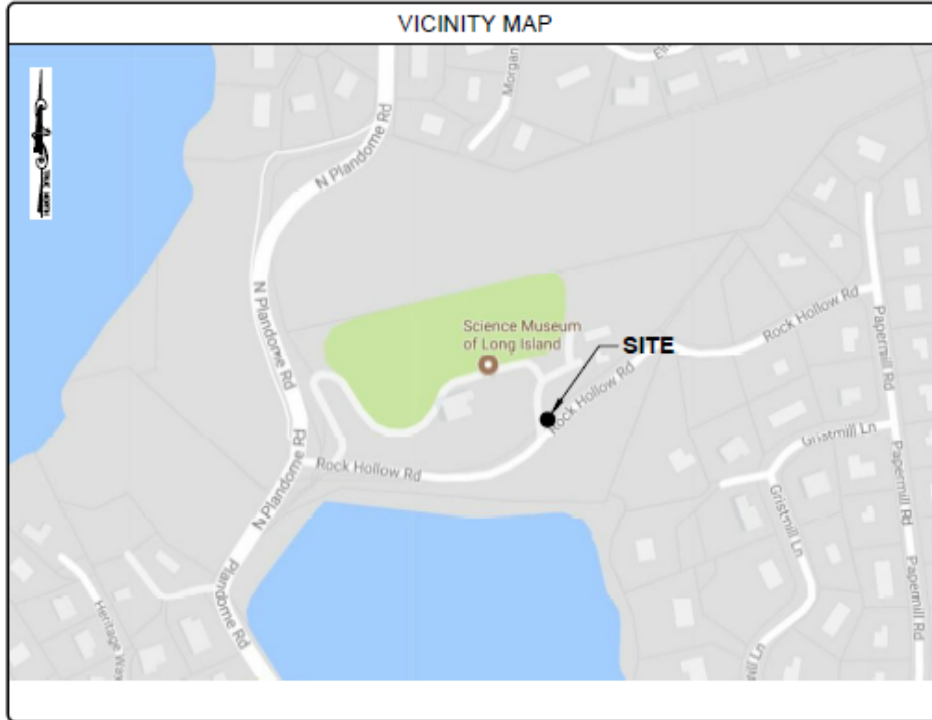
NEAR 1526 PLANDOME RD.



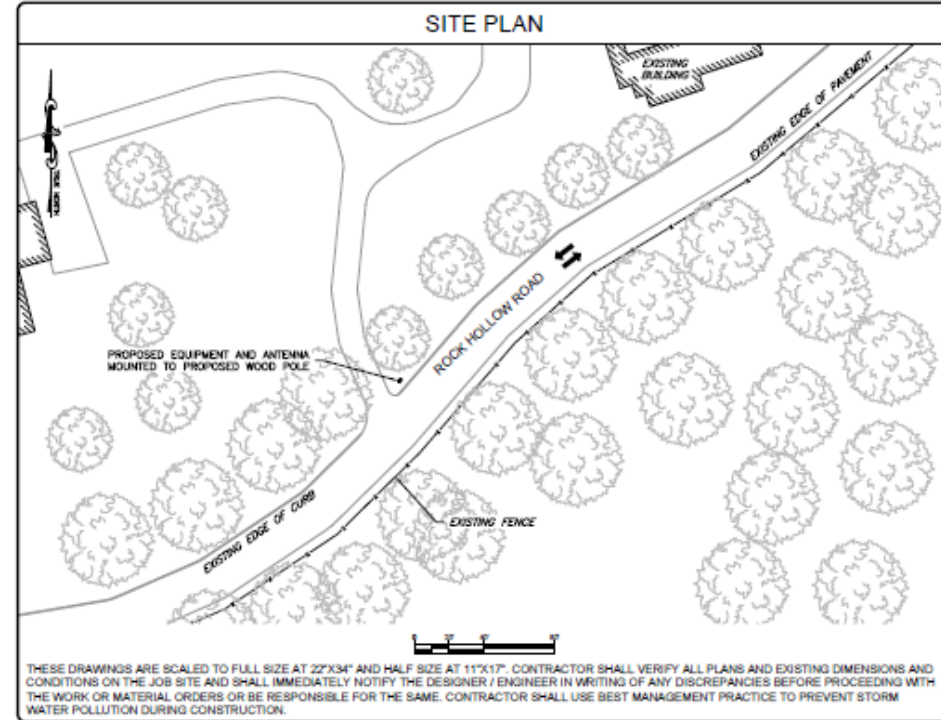
NODE 20

NEAR 14 ROCK HOLLOW RD.

VICINITY MAP



SITE PLAN



NODE 20 PHOTOSIMULATION

NEAR 14 ROCK HOLLOW RD.



NODE 21

NEAR 21 ROCK HOLLOW RD.



NODE 21 PHOTOSIMULATION

NEAR 21 ROCK HOLLOW RD.



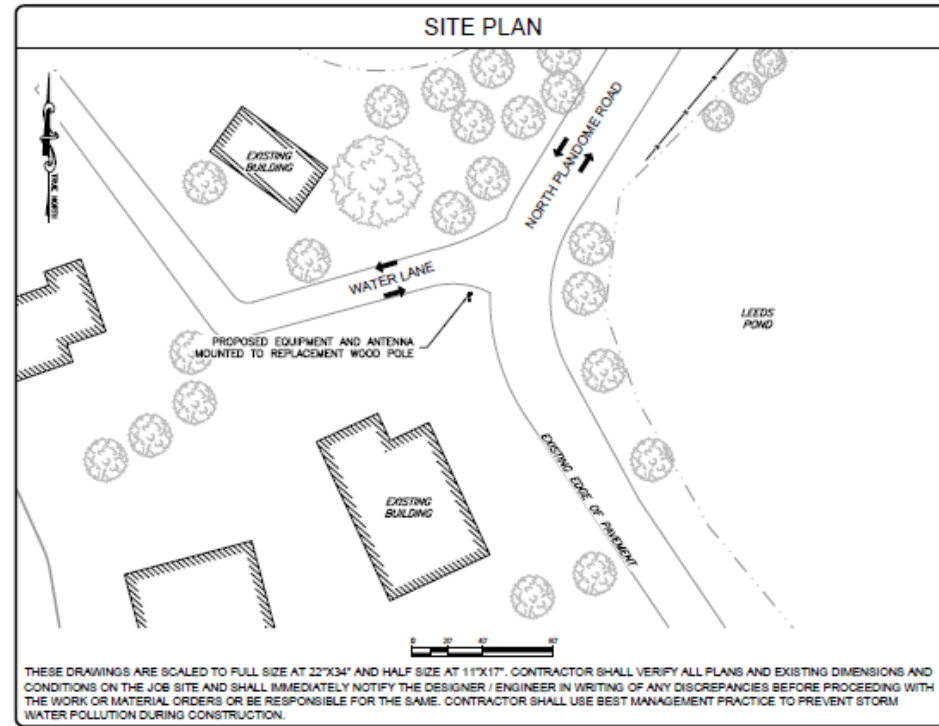
NODE 22

NEAR 1 WATER LN.

VICINITY MAP



SITE PLAN



NODE 22 PHOTOSIMULATION

NEAR 1 WATER LN.



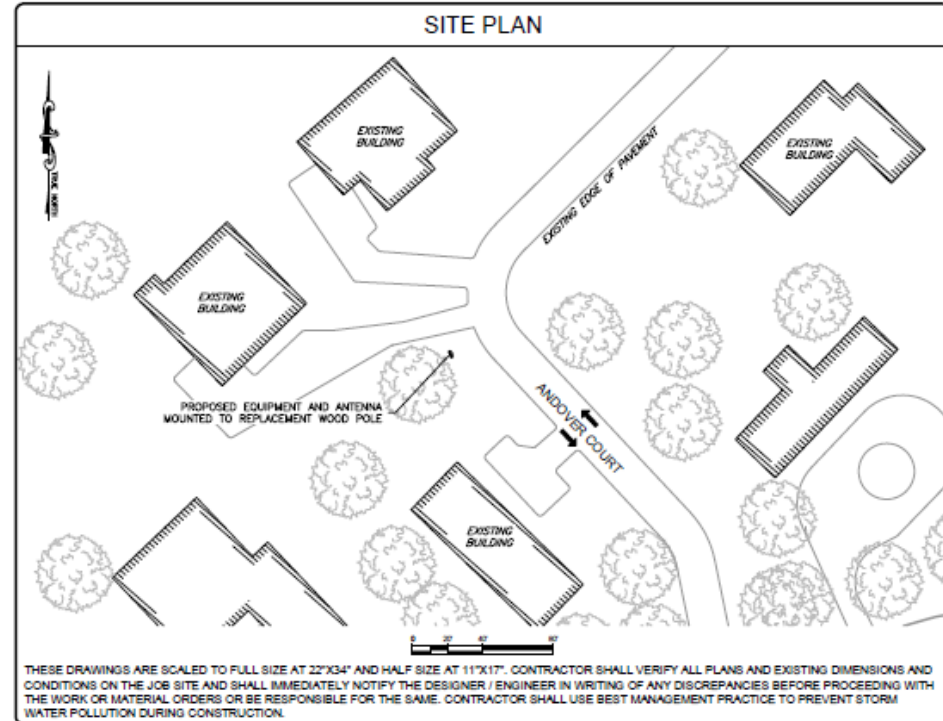
NODE 26

NEAR 20 ANDOVER CT.

VICINITY MAP



SITE PLAN



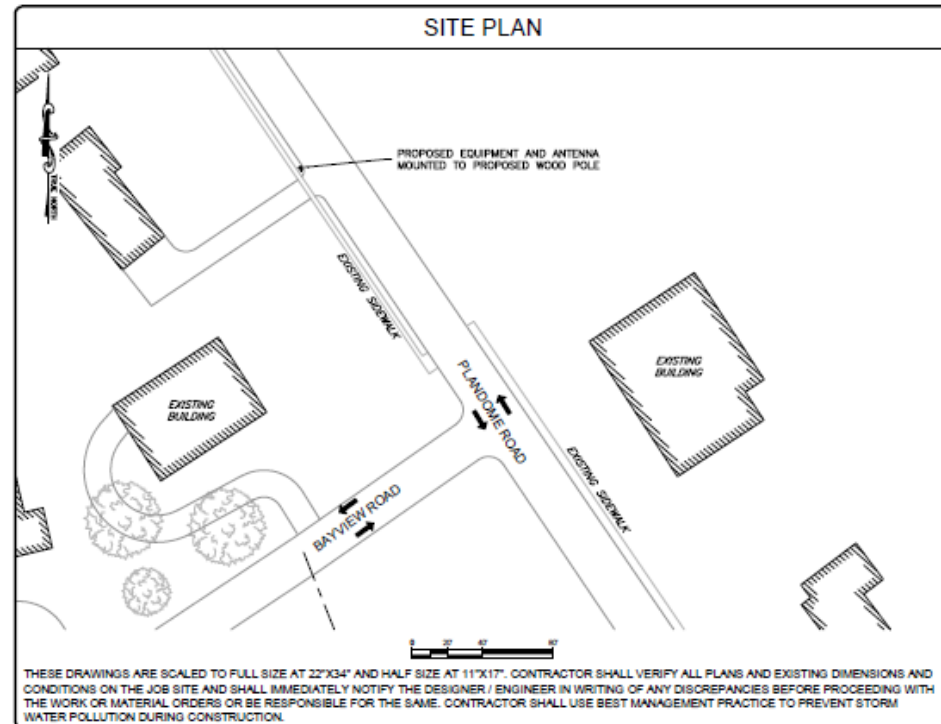
NODE 26 PHOTOSIMULATION

NEAR 20 ANDOVER CT.



NODE 30

NEAR 1405 PLANDOME RD.



NODE 30 PHOTOSIMULATION

NEAR 1405 PLANDOME RD.



QUESTIONS?

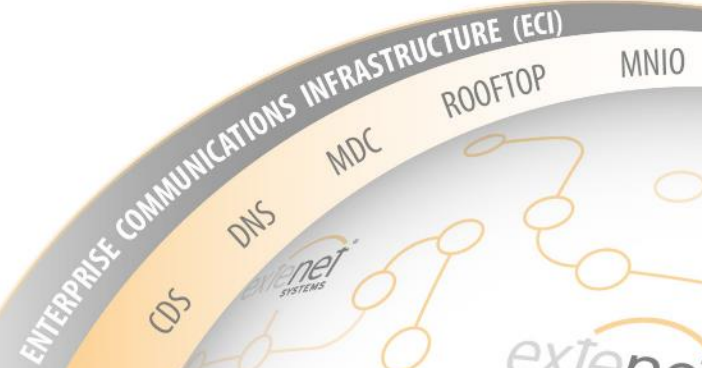
Richard Lambert
ER Director, East

rlambert@extenetsystems.com

202.677.3765

The logo for Extenet Systems, featuring a stylized orange arc above the text "extenet" in a bold, lowercase font, with "SYSTEMS" in a smaller, uppercase font below it. A thin orange line extends from the top left of the logo across the bottom of the slide.

extenet[®]
SYSTEMS

A diagram showing a curved, layered structure representing Enterprise Communications Infrastructure (ECI). The layers are labeled from top to bottom: ENTERPRISE COMMUNICATIONS INFRASTRUCTURE (ECI), ROOFTOP, MDC, DNS, and CDS. The Extenet Systems logo is visible on the MDC and CDS layers.

ENTERPRISE COMMUNICATIONS INFRASTRUCTURE (ECI)
ROOFTOP
MDC
DNS
CDS

extenet[®]
SYSTEMS

extenet[®]
SYSTEMS



Mobile Connectivity Everywhere



Connecting America

with **Distributed Networks**



- Outdoor
- Indoor
- Sports & Entertainment
- Healthcare
- Hospitality
- Commercial Real Estate

