



APPLICATION FOR SPECIAL USE PERMIT FOR WIRELESS TELECOMMUNICATIONS FACILITIES

VILLAGE OF PLANDOME MANOR, NY

OCTOBER 15, 2019

RICHARD LAMBERT
ER DIRECTOR, EAST



STATEMENT OF INTENT

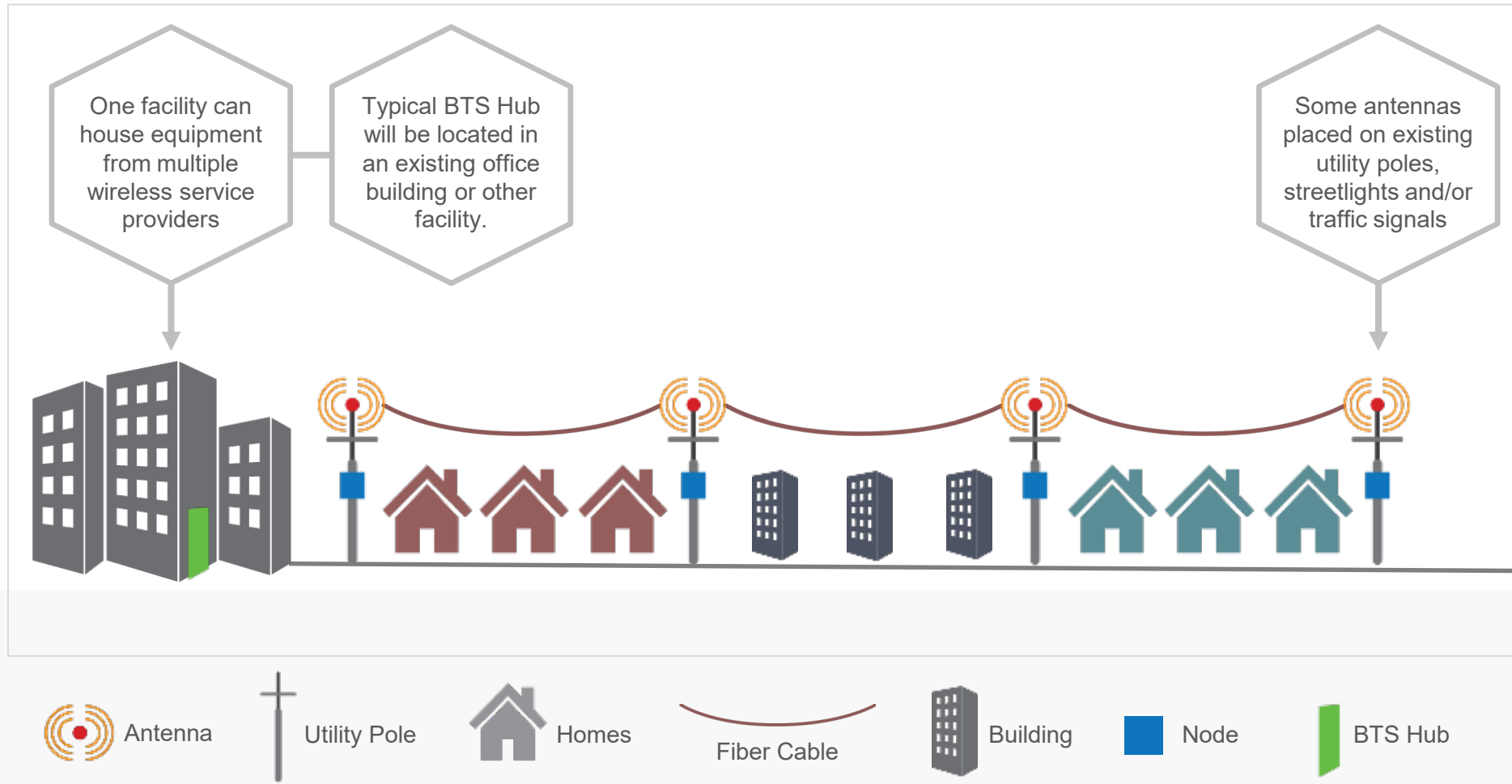
ExteNet Systems, Inc is requesting a Special Use Permit for the construction of a wireless telecommunications facility within the Village of Plandome Manor.

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

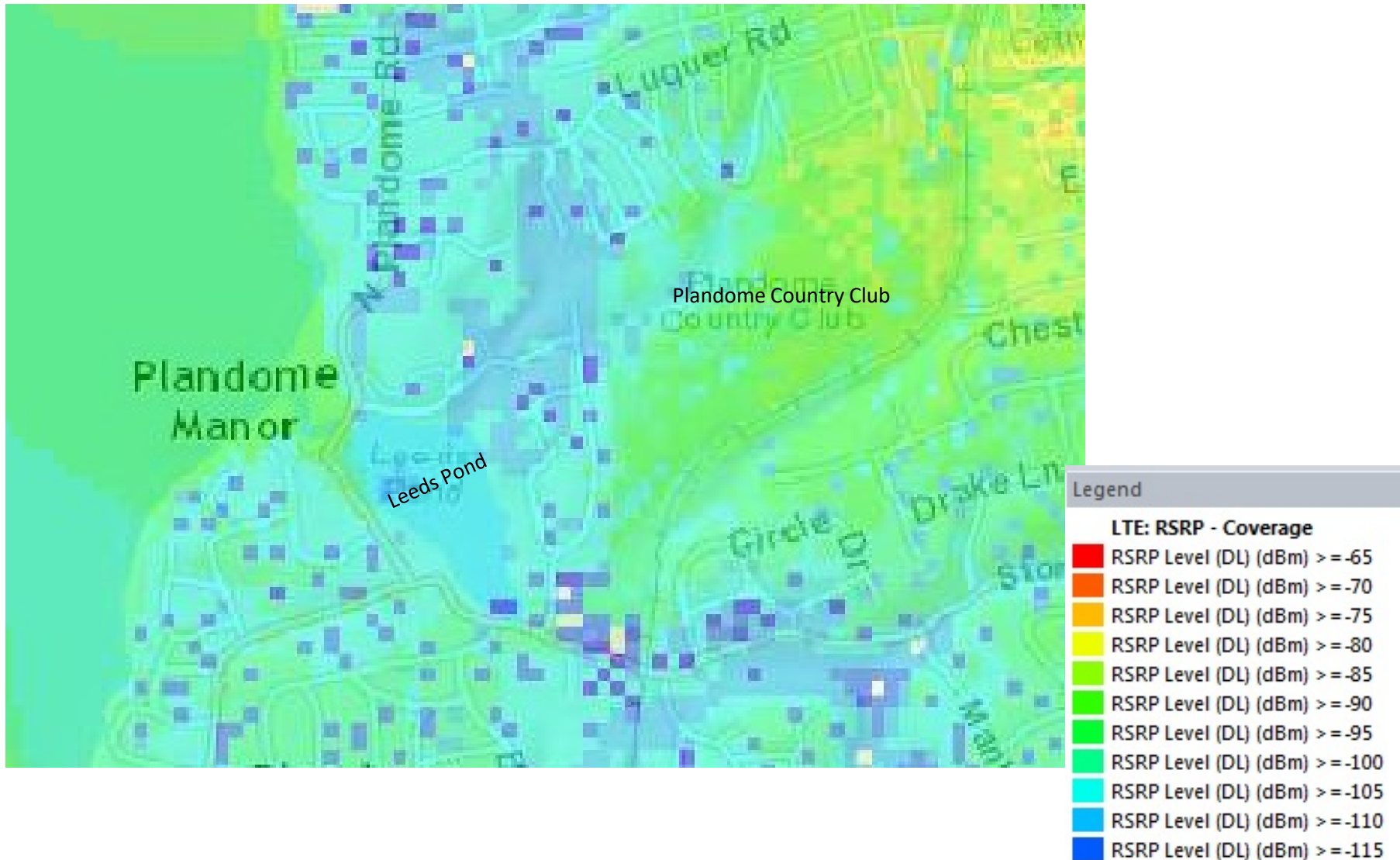
- Improved capacity and coverage
- Increased wireless speeds
- Smaller form-factor and less obtrusive than towers
- Public safety
- Carrier neutral host approach reduces proliferation of equipment

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



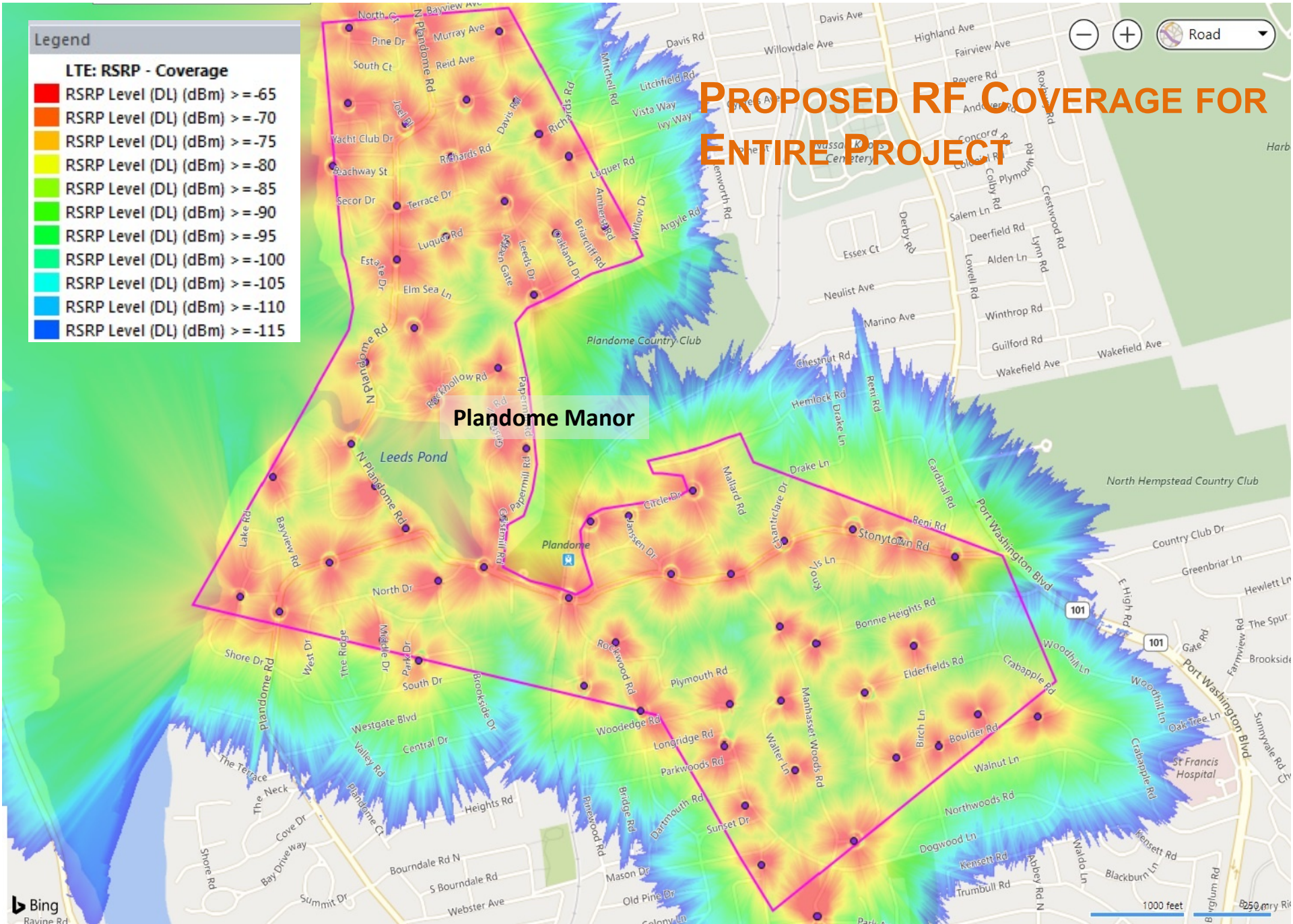
Legend

LTE: RSRP - Coverage

- RSRP Level (DL) (dBm) ≥ -65
- RSRP Level (DL) (dBm) ≥ -70
- RSRP Level (DL) (dBm) ≥ -75
- RSRP Level (DL) (dBm) ≥ -80
- RSRP Level (DL) (dBm) ≥ -85
- RSRP Level (DL) (dBm) ≥ -90
- RSRP Level (DL) (dBm) ≥ -95
- RSRP Level (DL) (dBm) ≥ -100
- RSRP Level (DL) (dBm) ≥ -105
- RSRP Level (DL) (dBm) ≥ -110
- RSRP Level (DL) (dBm) ≥ -115

PROPOSED RF COVERAGE FOR ENTIRE PROJECT

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.

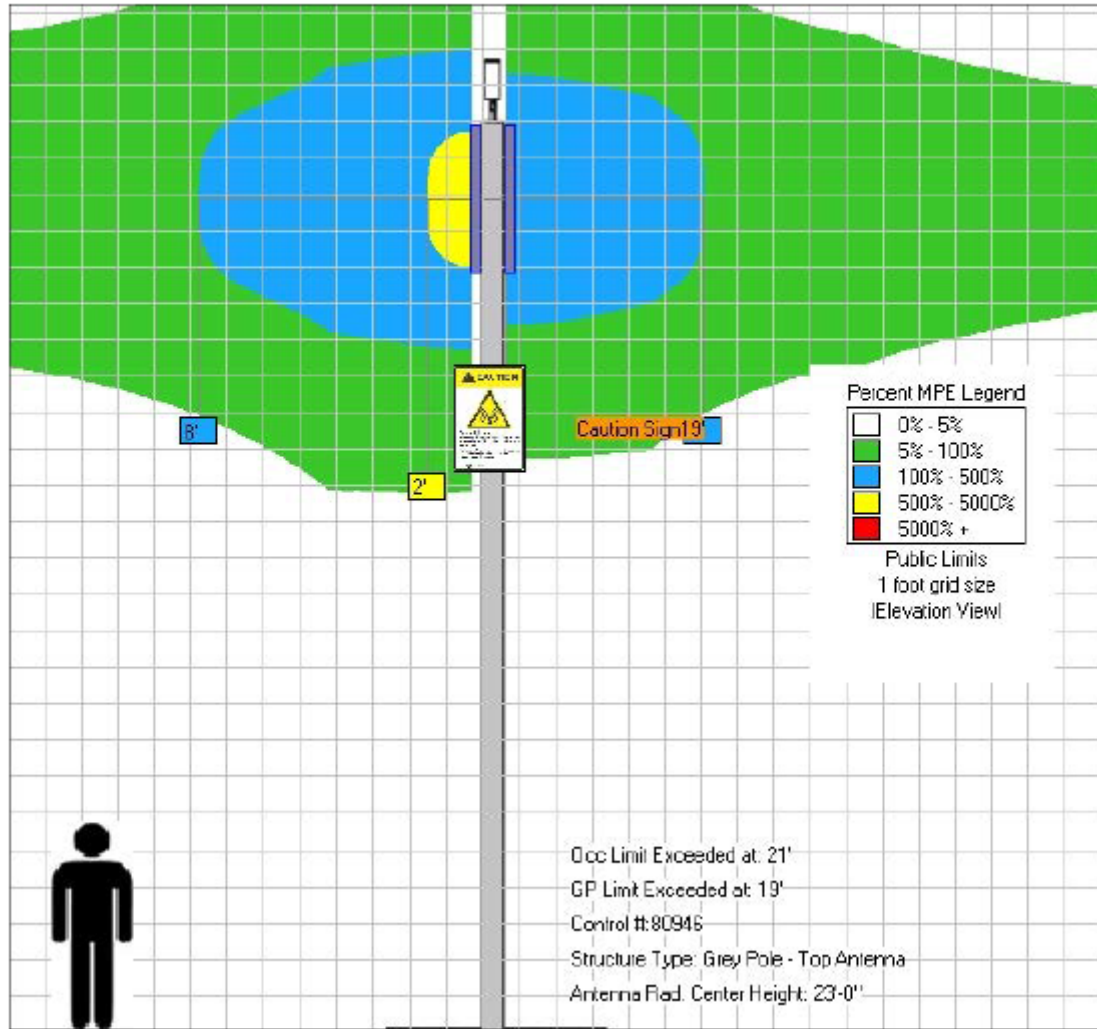
Do the RF emissions exceed what's allowed?

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.

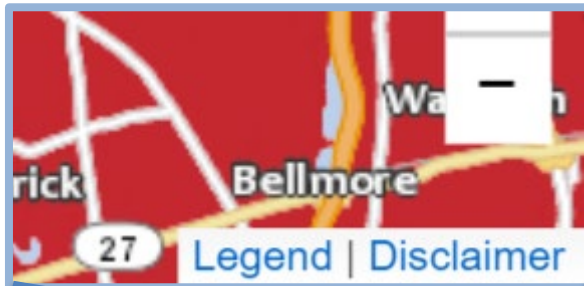
Editors at Anton Media Group published an article called "[Testing the Nodes](#)" in which the editors completed a drive test of Flower Hill and Plandome potential cell node locations using their phones. They found that all sites had signals greater than -100 or worse. The same method used to determine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

COMMON QUESTIONS (CONT)

I visited the Verizon coverage map and it says our community has coverage, so why are you here?

Although the 4GLTE map may be useful in choosing a wireless service provider, the authors of the map provide a Coverage Disclaimer that indicates its limited use as a coverage map.

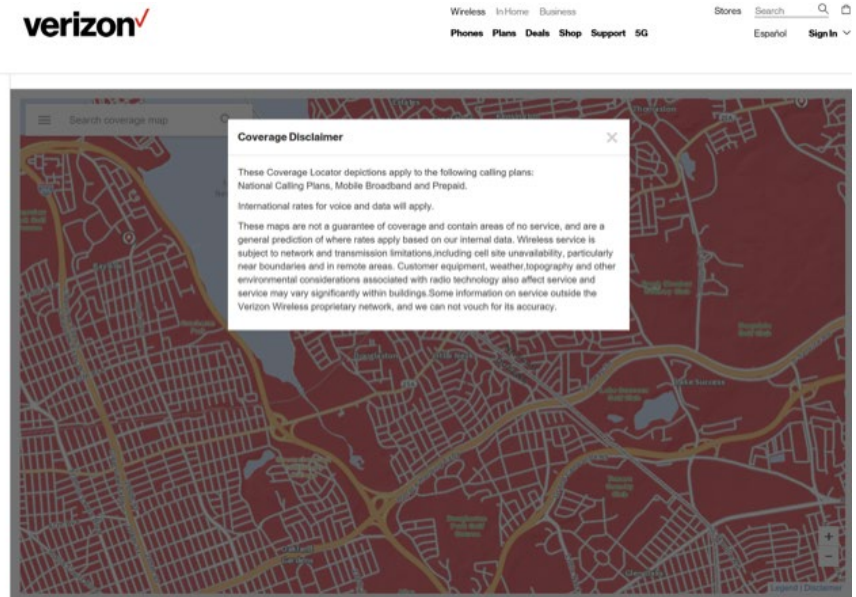


A screenshot of the Verizon website's coverage map. The top navigation bar includes 'verizon', 'Wireless', 'In Home', 'Business', 'Stores', 'Search', 'Phones', 'Plans', 'Deals', 'Shop', 'Support', '50', 'Español', and 'Sign In'. The main content area features a large map of the United States with red coverage areas. Text on the left states: 'We have coverage where it counts. We cover 326.5 million people. More than 98% of the U.S. population. More than 2.56 million square miles.' A legend indicates '4G LTE coverage' and 'Verizon 4G LTE service available to more than 200 metropolitan areas in the U.S.'. Below the main map is a search bar with 'plandome manor ny' and a search icon. A detailed map of the New York City area is shown below, with a red location marker. A blue callout box from the zoomed-in image points to a specific location on this detailed map. At the bottom, the text 'Rest for a' is partially visible.

COMMON QUESTIONS (CONT)

I visited the Verizon coverage map and it says our community has coverage, so why are you here?

“These maps are not a guarantee of coverage and contain areas of no service, and are a general prediction of where rates apply based on our internal data. Wireless service is subject to network and transmission limitations, including cell site unavailability, particularly near boundaries and in remote areas. Customer equipment, weather, topography and other environmental considerations associated with radio technology also affect service and service may vary significantly within buildings. Some information on service outside the Verizon Wireless proprietary network, and we can not vouch for its accuracy. Some devices may not be compatible with extended coverage areas depicted in the map.”



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



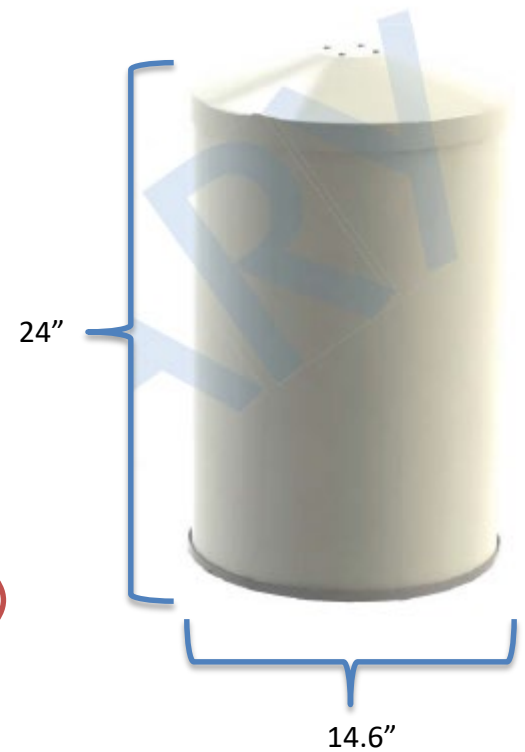
Top Mounting, Pipe Mounting Kit

Part Number: CWT-MKS-TOP



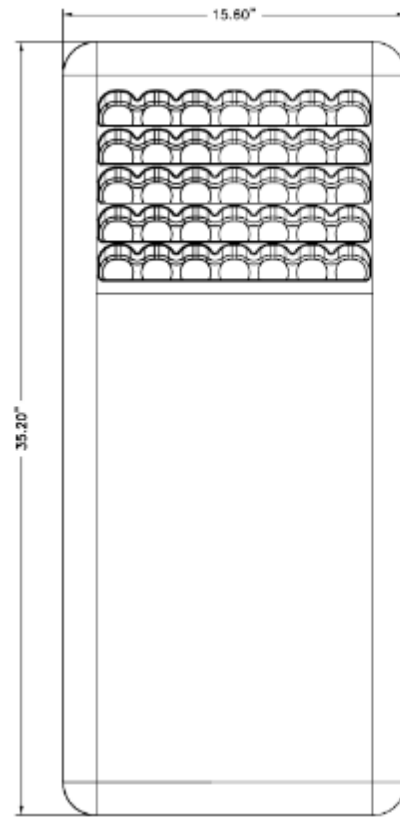
Utility Pole Mounting Kit

Part Number: WB3X-MKS-01



PROPOSED EQUIPMENT

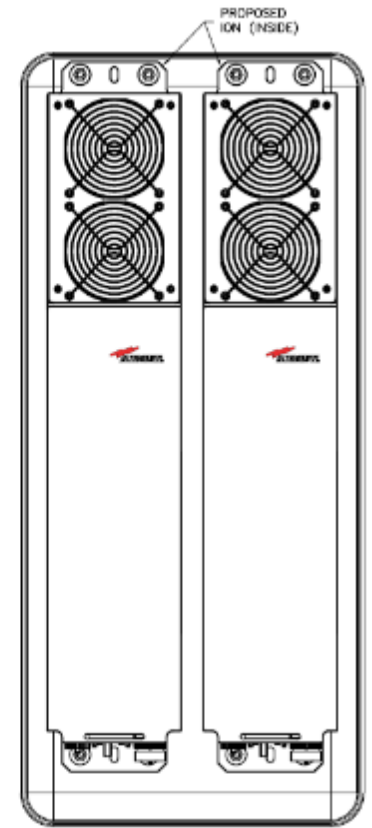
COMMSCOPE SHROUD WITH RADIOS



FRONT_VIEW



SIDE_VIEW



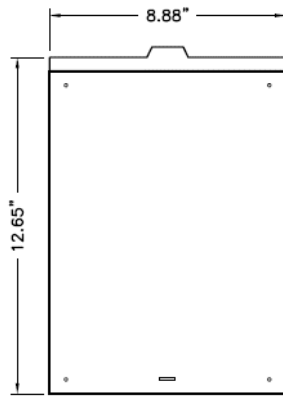
INSIDE_VIEW

PROPOSED EQUIPMENT

OTHER EQUIPMENT



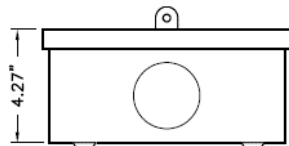
AC Load Center



FRONT



SIDE



TOP

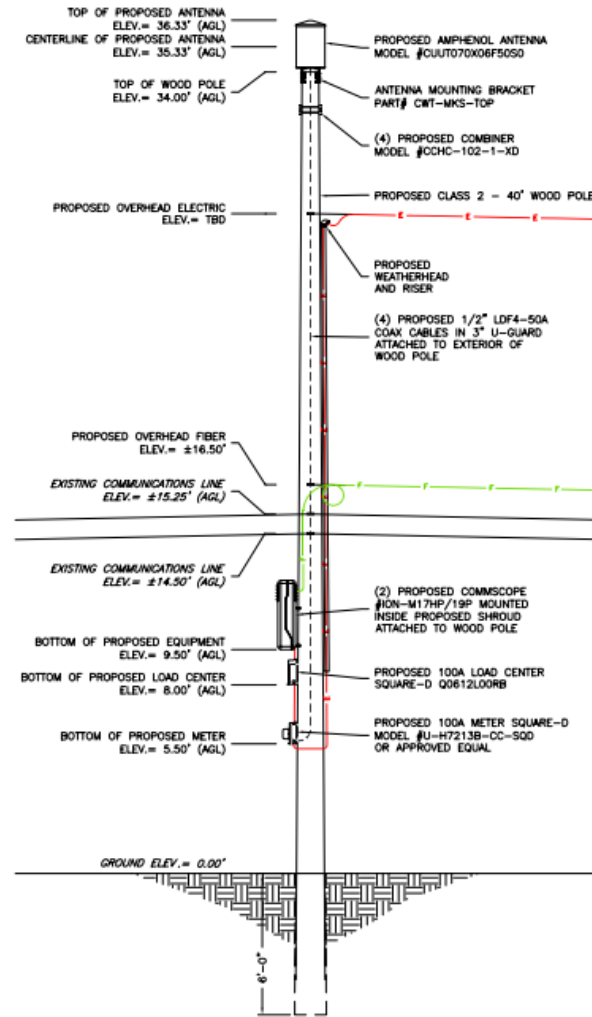
SQUARE D LOAD CENTER:
PART NO. Q0612L100RB



100A Electrical Meter

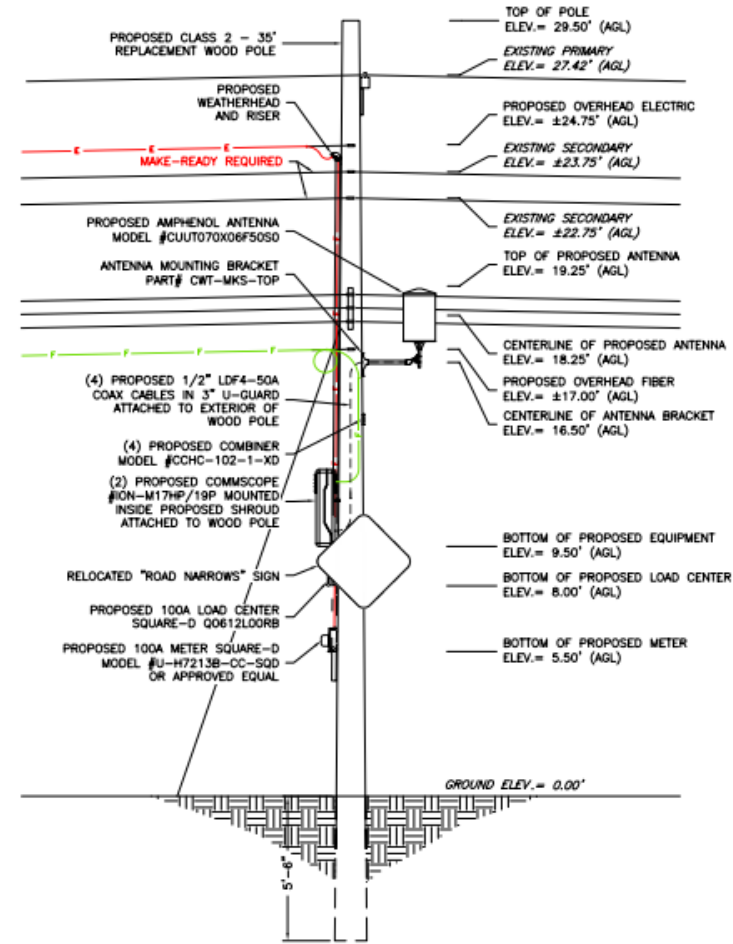
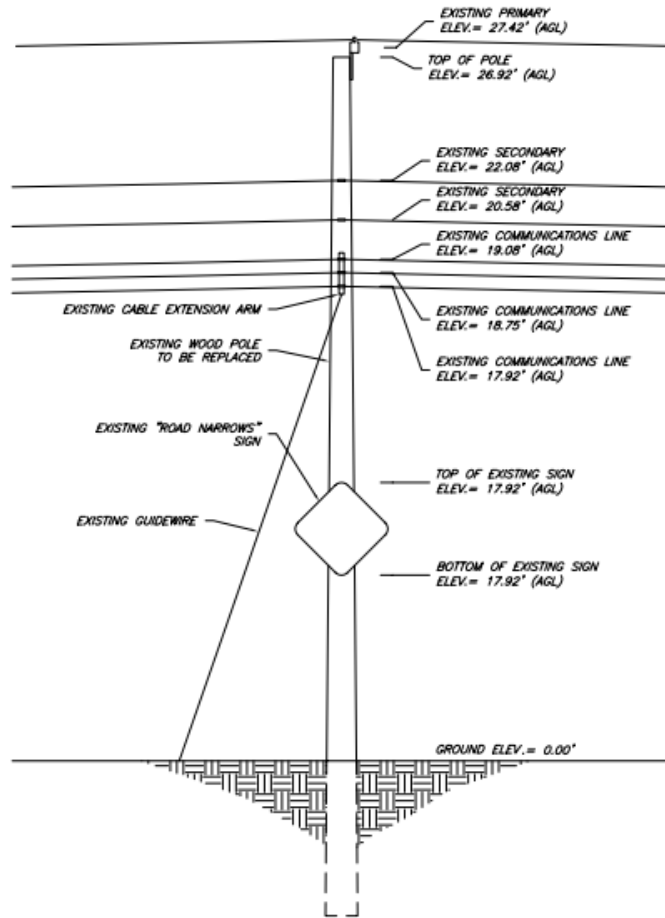
Depth 3.5in
Length 8in
Height 10.9in

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.

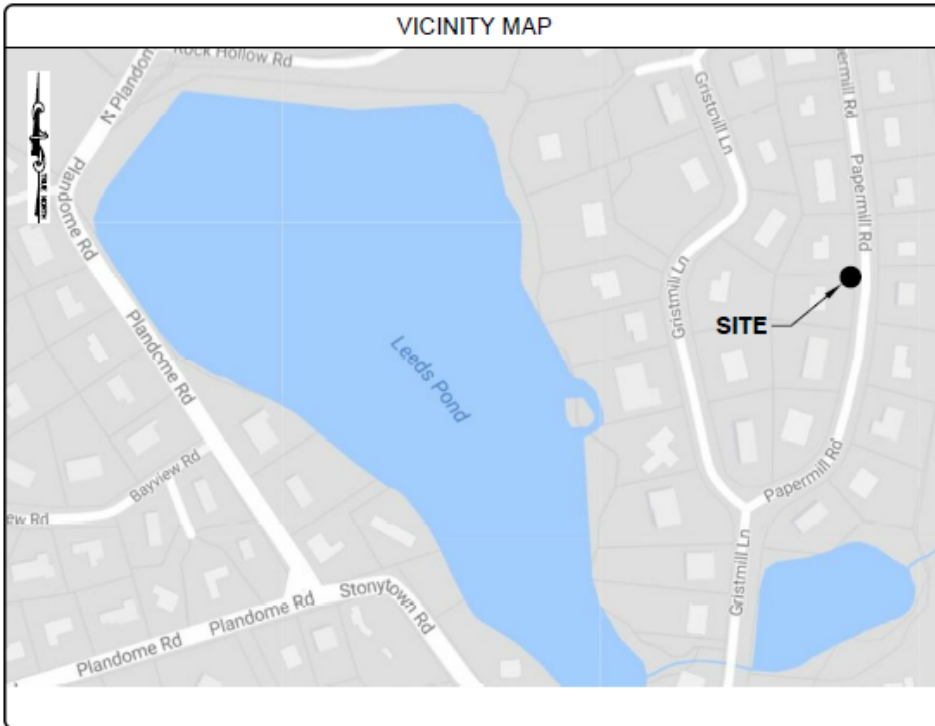
LOCATION DETAILS

**NODES 23, 24, 27, 28, 29, 33, 35, 37, 39
AND 40.**

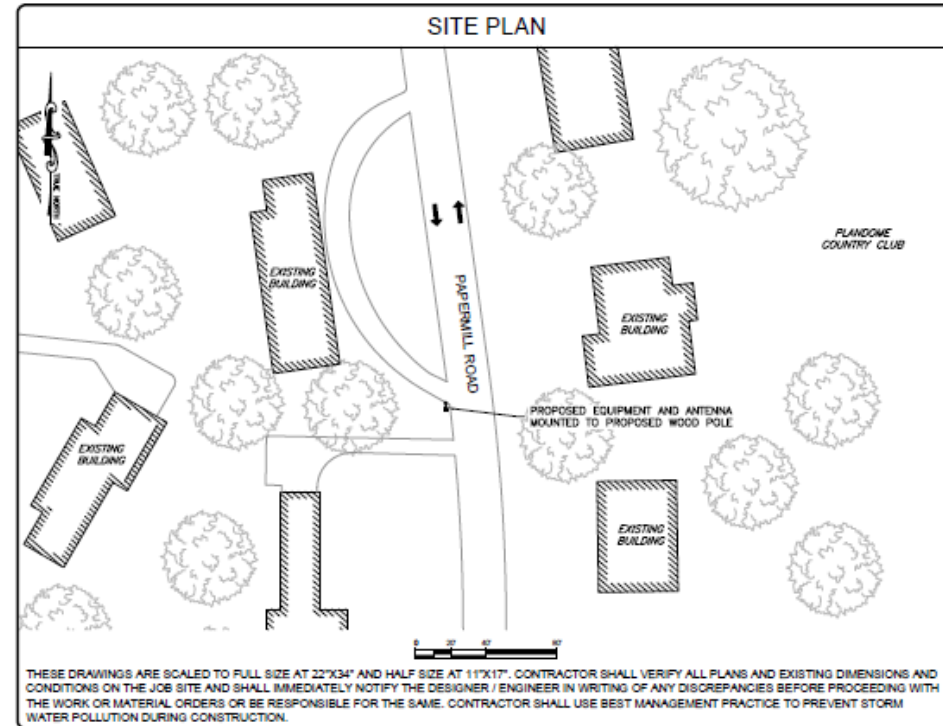
NODE 23

NEAR 54 PAPERMILL RD.

VICINITY MAP



SITE PLAN



NODE 23

NEAR 54 PAPERMILL RD.



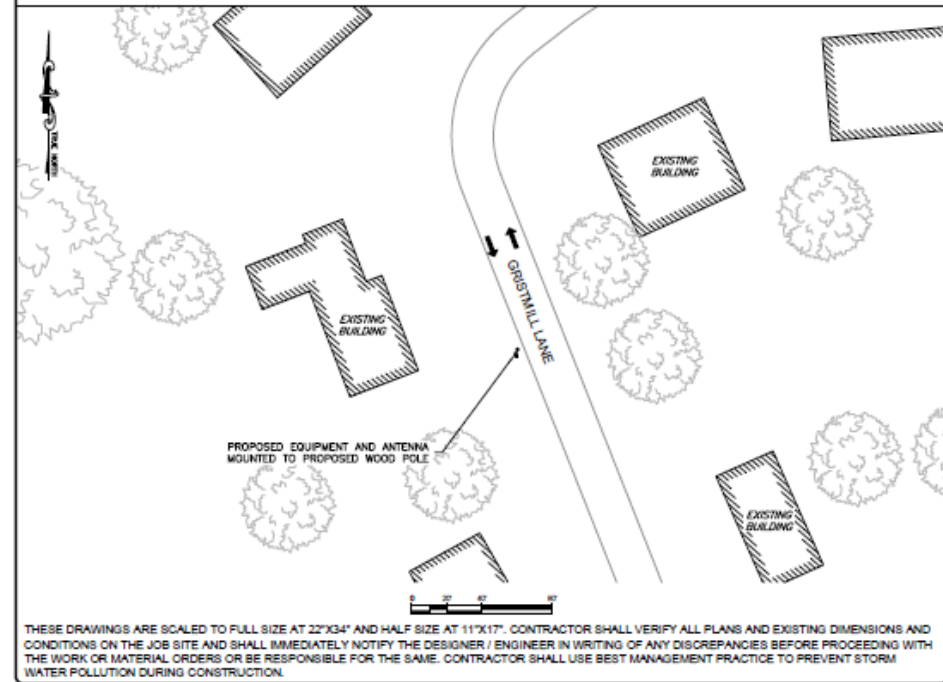
NODE 24

NEAR 90 GRISTMILL LN.

VICINITY MAP



SITE PLAN



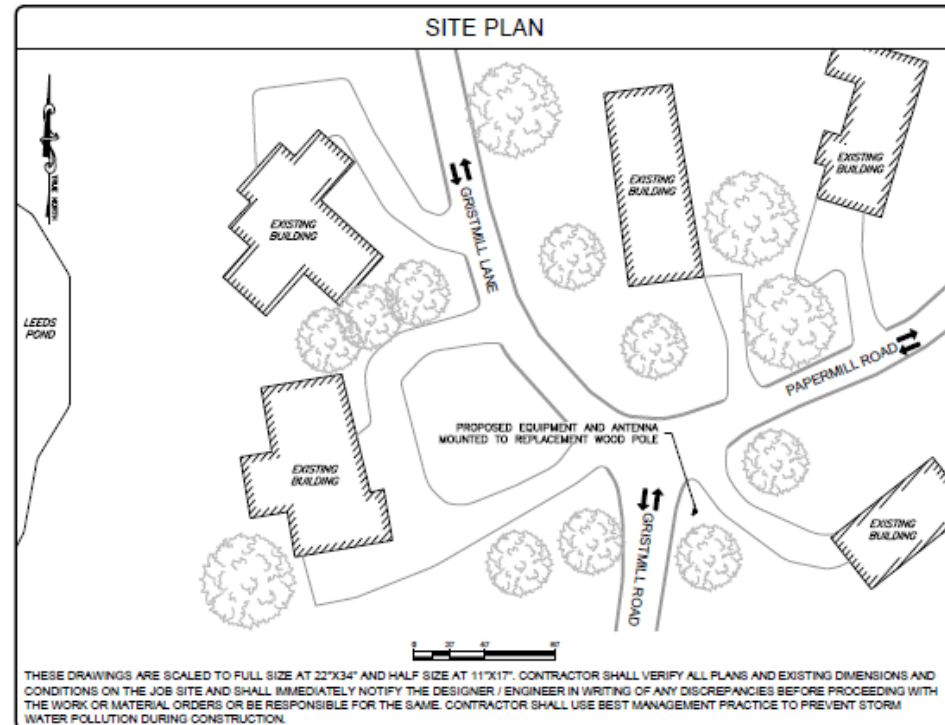
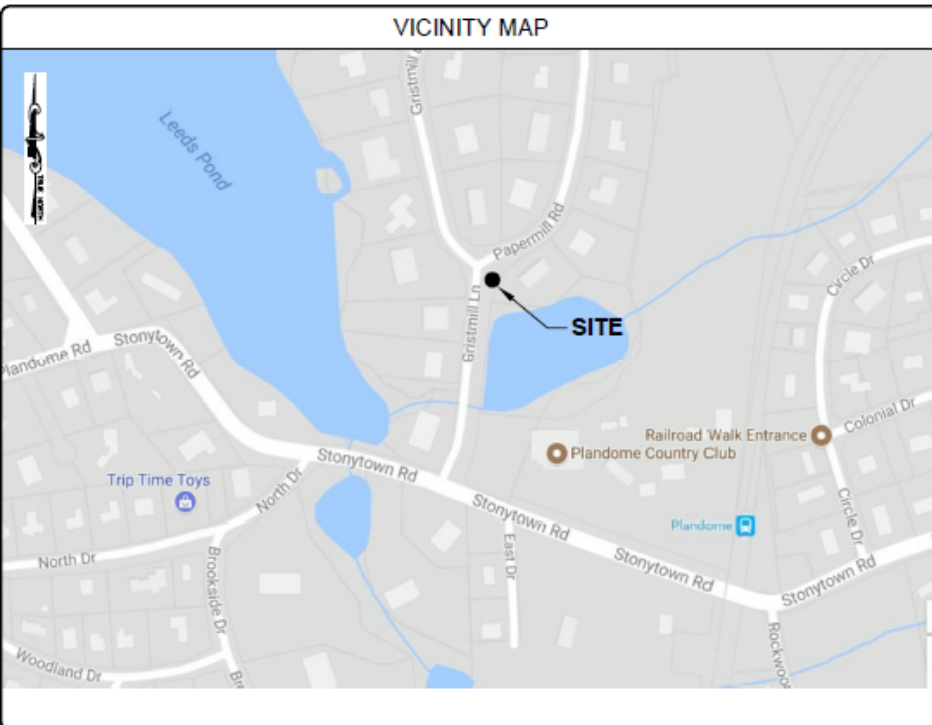
NODE 24

NEAR 90 GRISTMILL LN.



NODE 27

NEAR 7 PAPERMILL RD.



NODE 27

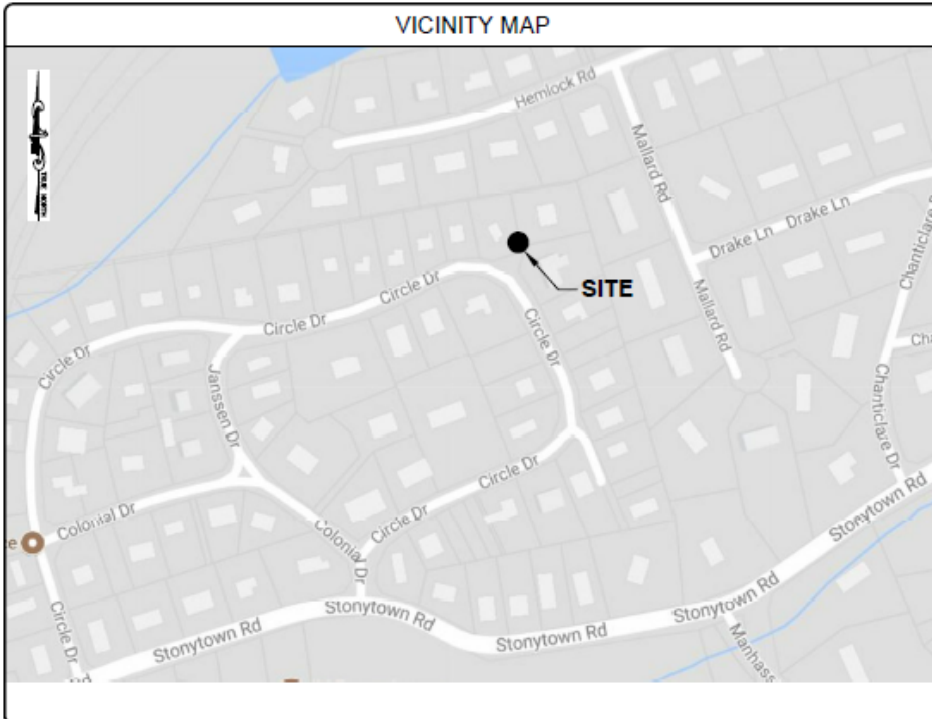
NEAR 7 PAPERMILL RD.



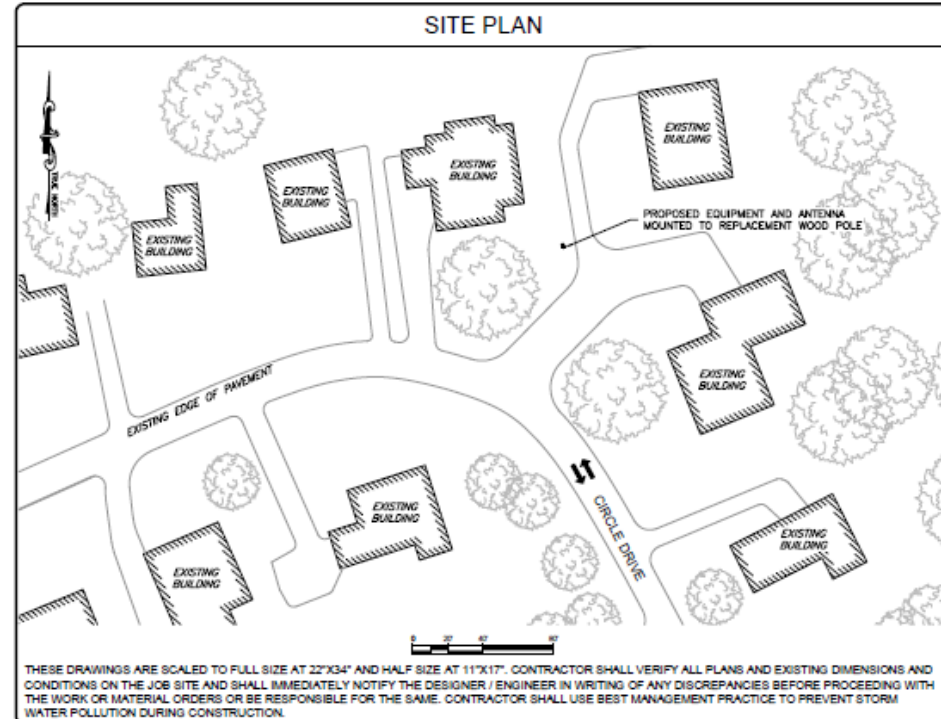
NODE 28

NEAR 189 CIRCLE DR.

VICINITY MAP



SITE PLAN



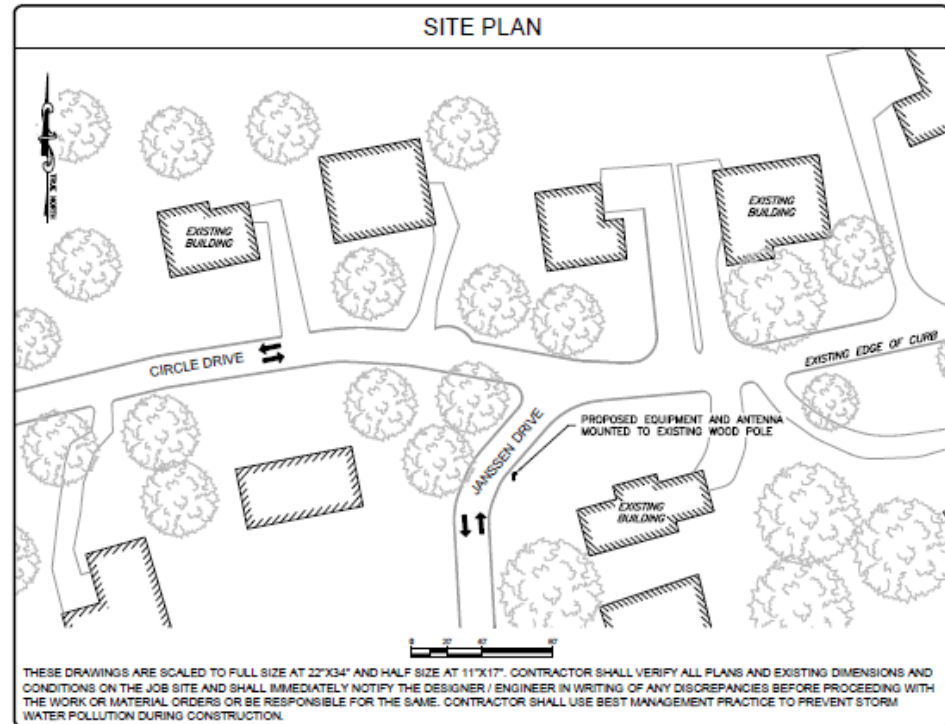
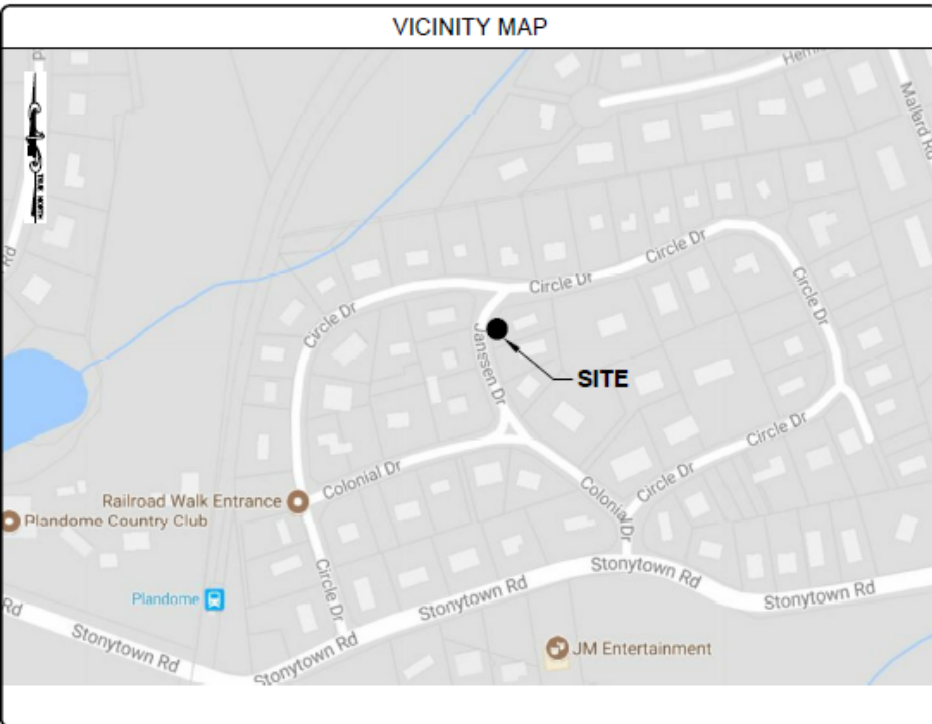
NODE 28

NEAR 189 CIRCLE DR.



NODE 29

NEAR 134 CIRCLE DR.



NODE 29

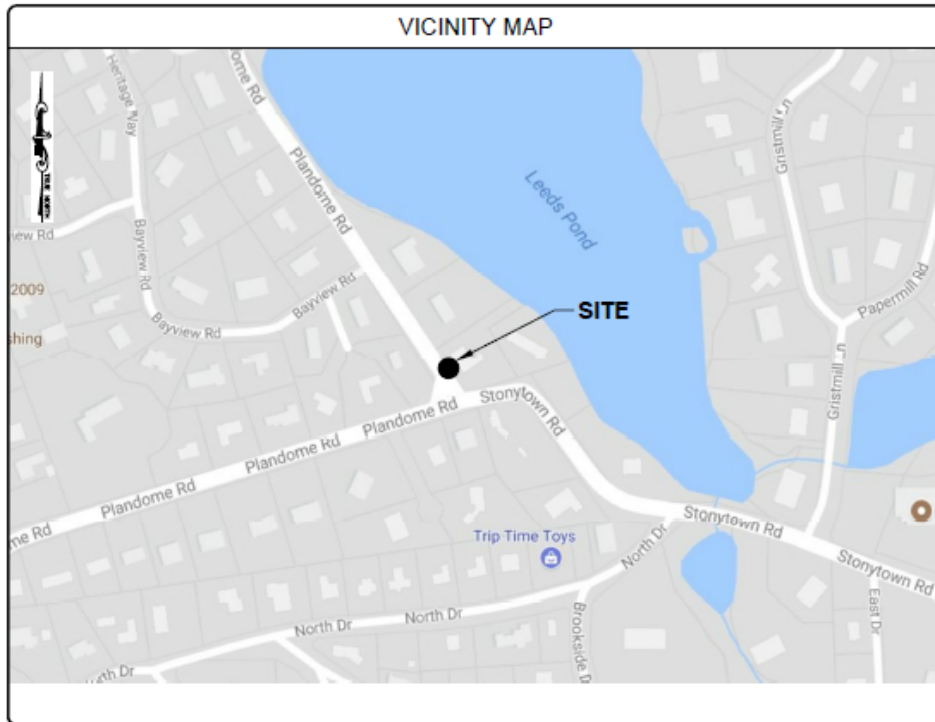
NEAR 134 CIRCLE DR.



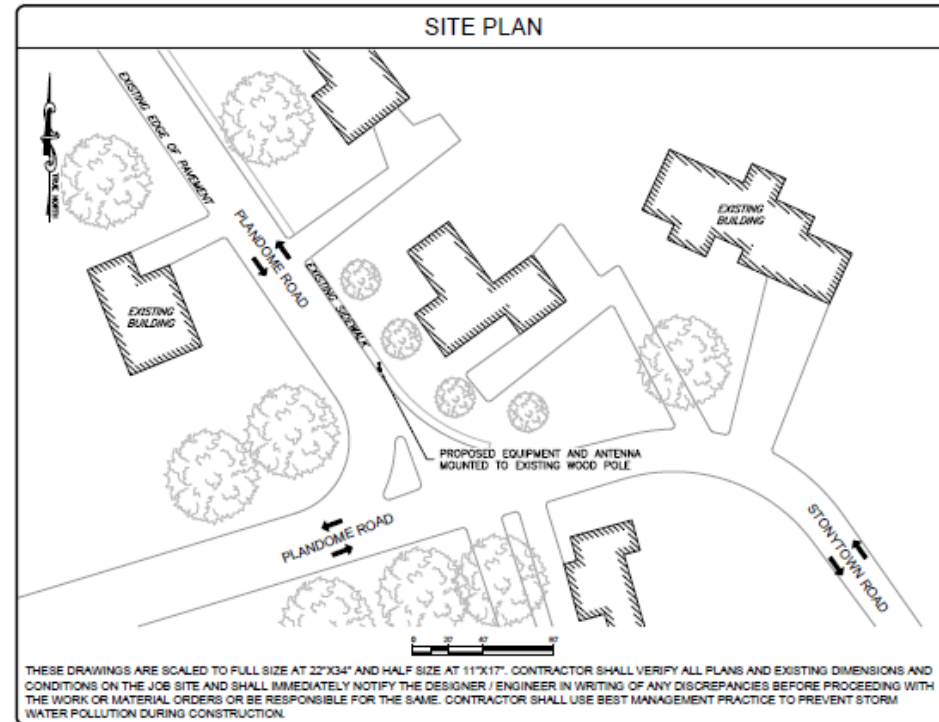
NODE 33

NEAR 1 STONYTOWN RD.

VICINITY MAP



SITE PLAN



NODE 33

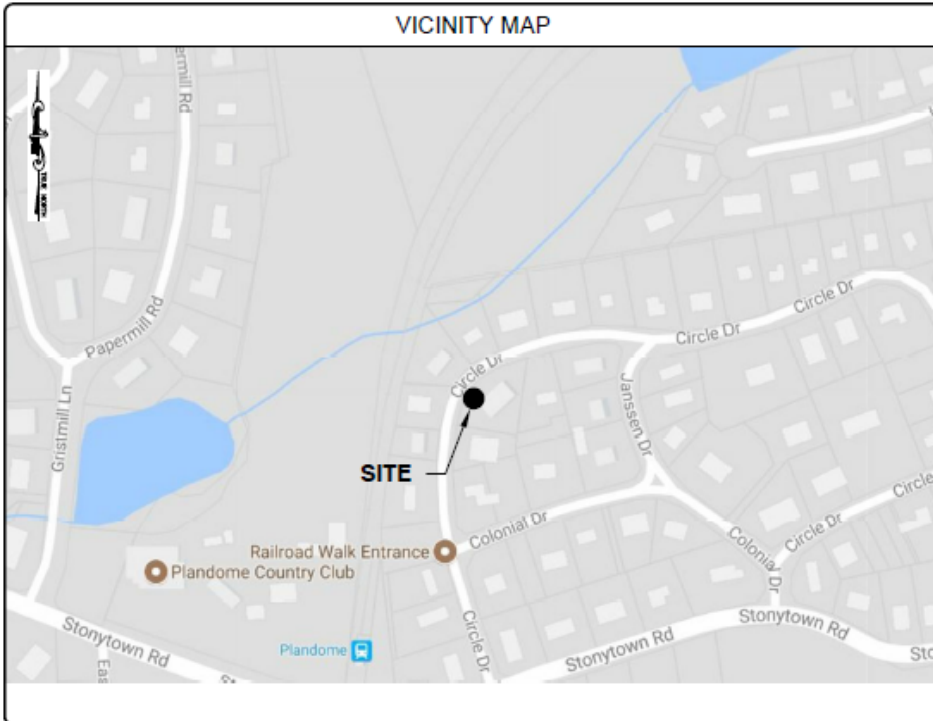
NEAR 1 STONYTOWN RD.



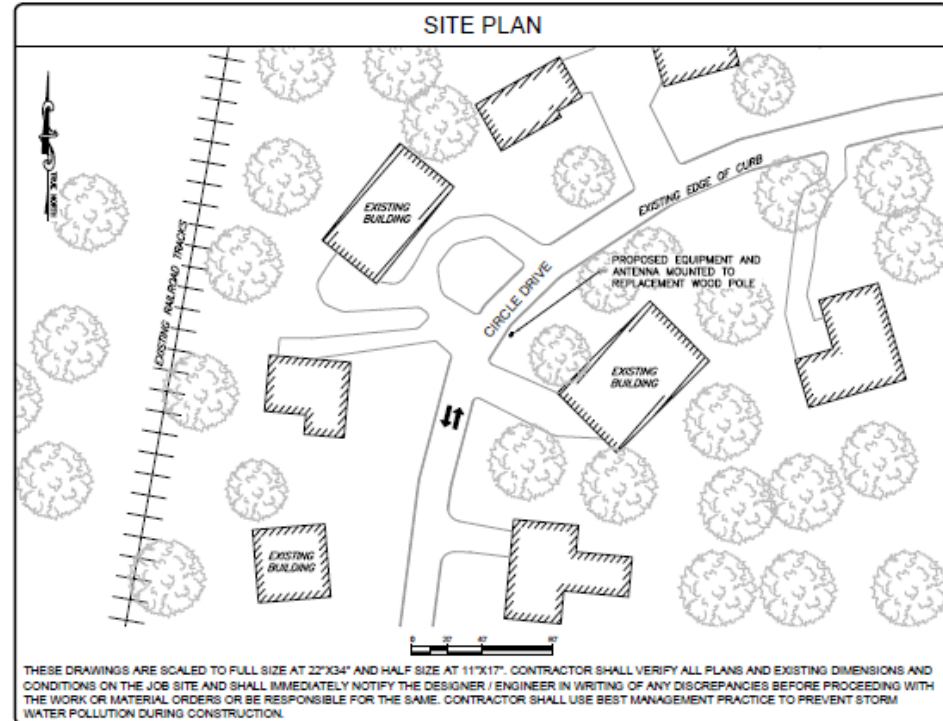
NODE 35

NEAR 100 CIRCLE DR.

VICINITY MAP



SITE PLAN



THESE DRAWINGS ARE SCALED TO FULL SIZE AT 22"X34" AND HALF SIZE AT 11"X17". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

NODE 35

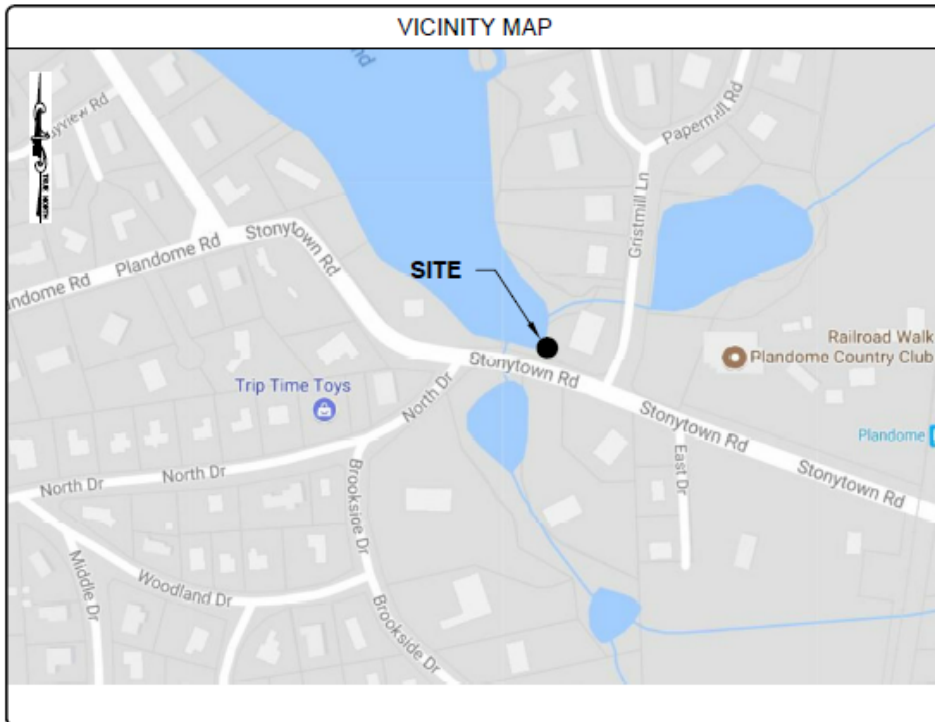
NEAR 100 CIRCLE DR.



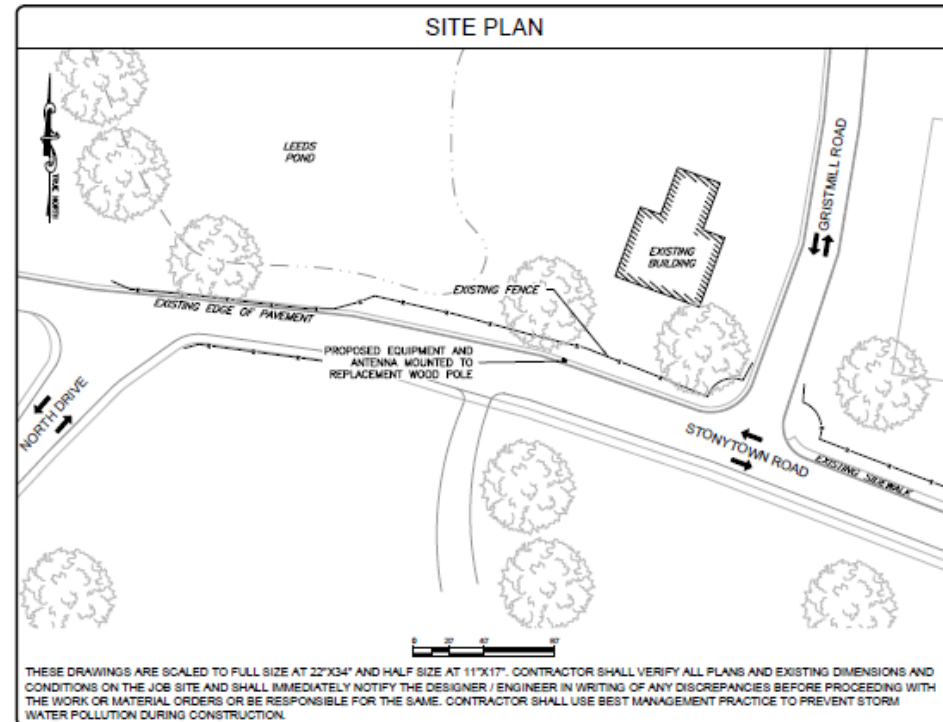
NODE 37

NEAR 2 GRIST MILL LN.

VICINITY MAP



SITE PLAN



NODE 37

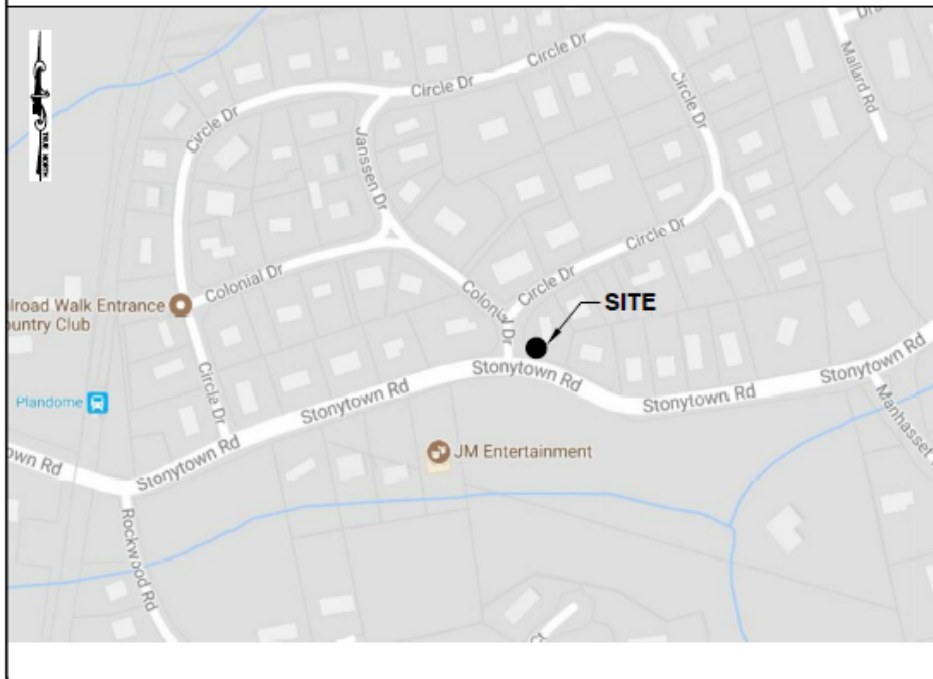
NEAR 2 GRIST MILL LN.



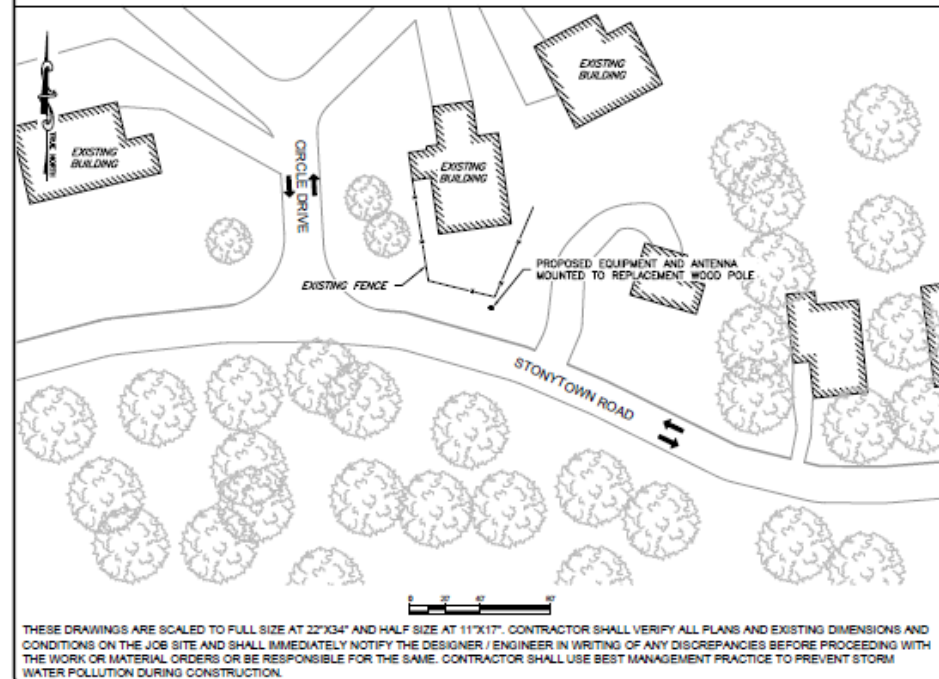
NODE 39

NEAR 305 CIRCLE DR.

VICINITY MAP



SITE PLAN



NODE 39

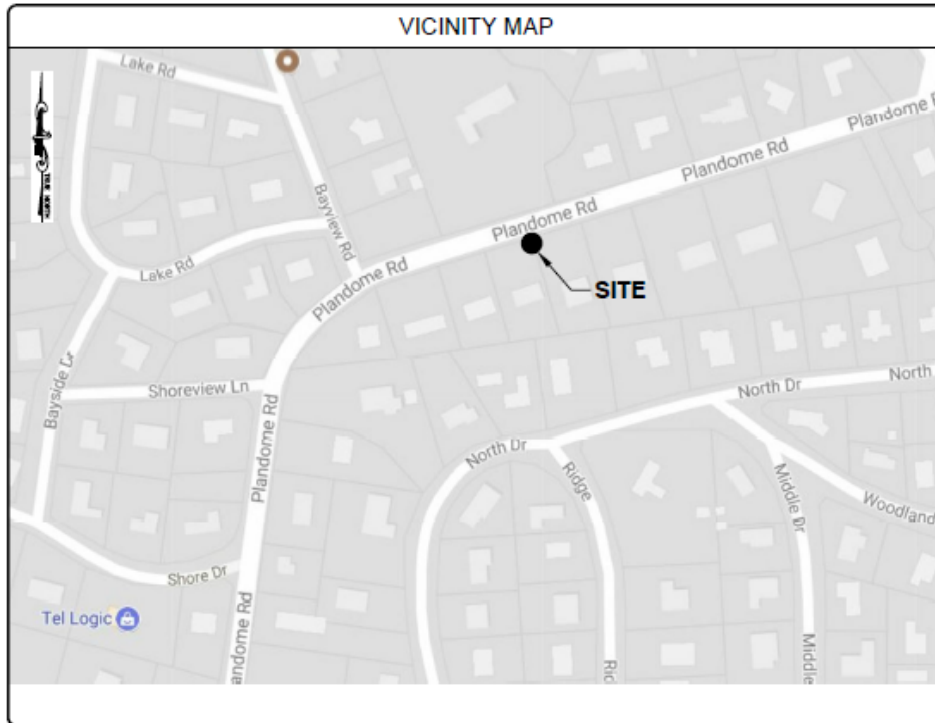
NEAR 305 CIRCLE DR.



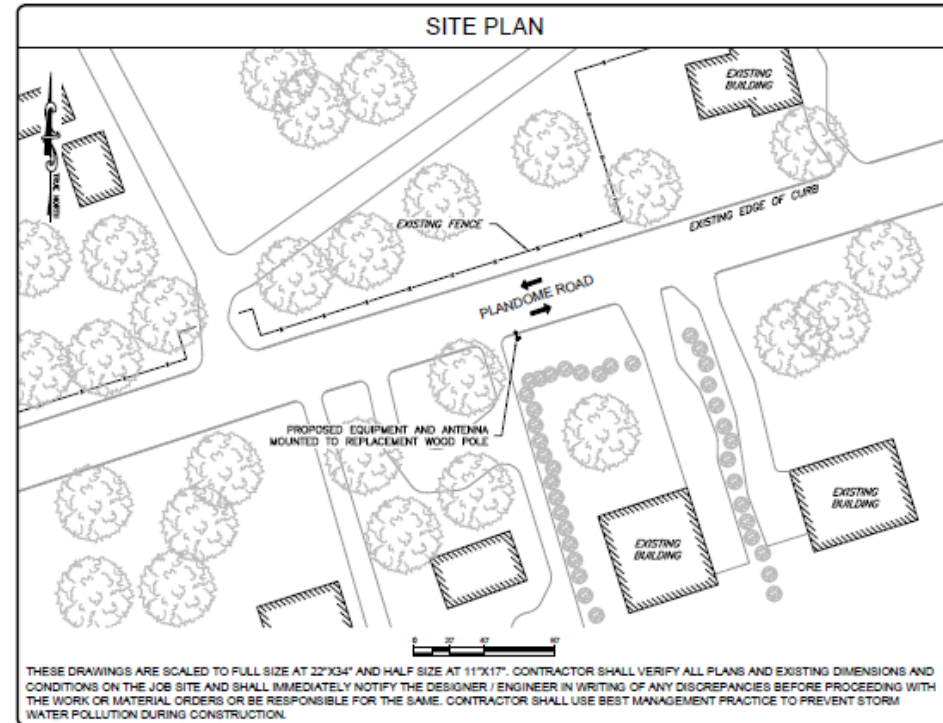
NODE 40

NEAR 1270 PLANDOME RD.

VICINITY MAP



SITE PLAN



NODE 40

NEAR 1270 PLANDOME RD.



QUESTIONS?

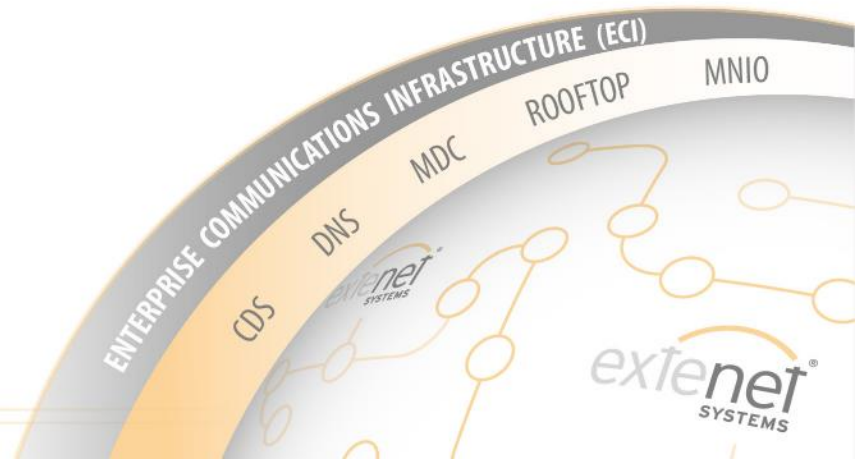
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