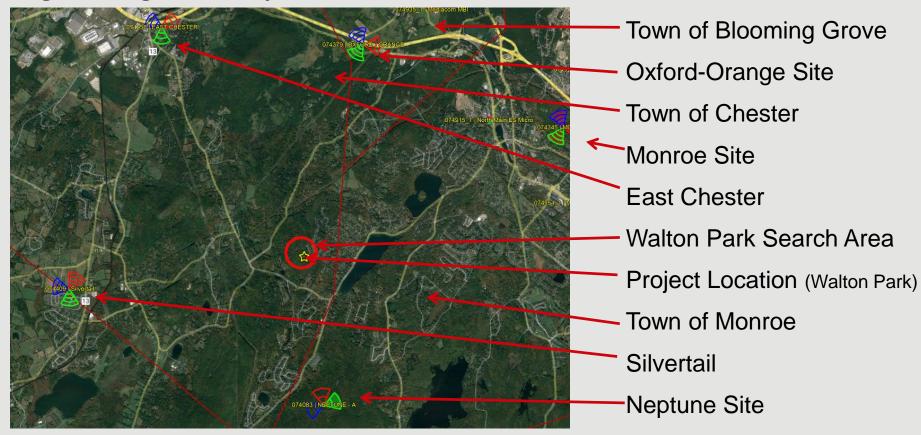
#### Exhibit A

Radio Frequency ("RF") Engineering Necessity Case

### Verizon Wireless Communications Facility

**Engineering Necessity Case – "Walton Park"** 



Prepared by: Wasif Sharif

Project: The project is the installation and operation of a new co-located wireless telecommunications site in the town of Chester (the "Project Facility").



#### Introduction

The purpose of this subsequent analysis is to summarize and communicate the technical radio frequency (RF) information used in the justification of this new site.

Coverage and/or capacity deficiencies are the two main drivers that prompt the need for a new wireless communications facility/site. All sites provide a mixture of both capacity and coverage for the benefit of the end user.

**Coverage** can be defined as the existence of signal of usable strength and quality in an area, including but not limited to in-vehicles or inbuildings.

The need for improved coverage is identified by RF Engineers that are responsible for developing and maintaining the network. RF Engineers utilize both theoretical and empirical data sets (propagation maps and real world coverage measurements). Historically, coverage improvements have been the primary justification of new sites.

**Capacity** can be defined as the amount of traffic (voice and data) a given site can process before significant performance degradation occurs.

When traffic volume exceeds the capacity limits of a site serving a given area, network reliability and user experience degrades. Ultimately this prevents customers from making/receiving calls, applications cease functioning, internet connections time out and data speeds fail. This critical condition is more important than just a simple nuisance for some users. Degradation of network reliability and user experience can affect emergency responders and to persons in a real emergency situation can literally mean life or death.



#### **Project Need Overview**

The project area, located in the south-eastern portion of the town of **Chester**, is currently served by two sites. These sites are overloaded requiring capacity relief. Additionally the project area is subject to significant terrain challenges for RF (signal) propagation. This terrain combined with area foliage and long distance prevent effective propagation of Verizon's RF signals into this area compounding the capacity issue with areas of variable coverage creating significant gaps in coverage.

The first serving site is **NEPTUNE**, located in the town of Monroe, is approximately two miles south (of the project location) situated on an existing hill top tower located off **Neptune Drive**. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

The second serving site is **Silvertail**, located in the town of Chester, is approximately three miles west (of the project location) situated on an tank located off **Evan RD**. While this site provides weak/variable coverage in portions of the project area, it does so from a terrain and distance challenged position making the site not capable of efficiently or effectively providing adequate coverage or capacity.

Available (mid band AWS) carriers at these and other area sites are not capable of effectively serving/offloading the project area due to inherent propagation losses from distance, challenging terrain and in building coverage losses negatively impacting mid band coverage and capacity offload capabilities. There are other Verizon sites in this general area but due to distance and terrain they also do not provide any significant overlapping coverage in the area in question that could allow for increased capacity and improved coverage from other sources.

The primary objectives for this project are to increase capacity and improve coverage throughout south-eastern portions of the town of Chester, more specifically portions of Laroe Road, Gibson Hill Road, Bull Mill Road, Walton Lake, Dug Road, Lakes Road as well as neighboring residential and commercial areas along and near these roads. In order to offload capacity from **NEPTUNE** and **Silvertail** a new dominant server must be created. This new dominant coverage will effectively offload the existing overloaded sites/cells as well as provide improved coverage where significant gaps exist today.

Following the search for co-locatable structures to resolve the aforementioned challenges and finding none available, Verizon proposes to attach the necessary antenna(s) to a new 150′ monopole tower (154′ overall height with lightning rod) to be located at **Poplar Drive**, **Chester**, NY. Verizon's antennas will utilize 146′ for the ACL (Antenna Center Line) with a top of antenna height of 150′. This solution will provide the necessary coverage and capacity improvements needed.



#### Wireless LTE (Voice and Data) Growth



Wireless smart city solutions are being used to track available parking and minimize pollution and wasted time.



These same solutions are being used to track pedestrian and bike traffic to help planning and minimize accidents.



Smart, wireless connected lighting enables cities to control lighting remotely, saving energy and reducing energy costs by 20%.



4G technology is utilized to track and plan vehicle deliveries to minimize travel, maximize efficiency, and minimize carbon footprint.



4G technology is also used to monitor building power usage down to the circuit level remotely, preventing energy waste and supporting predictive maintenance on machines and equipment.



Wireless sensors placed in shipments are being used to track temperature-sensitive medications, equipment, and food. This is important for preventing the spread of food-borne diseases that kill 3,000 Americans each year.

Source: Verizon Innovation Center, February. 2018

Wireless is a critical component in schools and for today's students.



20,000 learning apps are available for iPads. 72% of iTunes top selling educational apps are designed for preschoolers and elementary students.



600+ school districts replaced text books with tablets in classrooms.



77% of parents think tablets are beneficial to kids.



74% of school administrators feel digital content increases student engagement.



70% of teens use cellphones to help with homework.

Source: CTIA's Infographics Today's Wireless Family, October, 2017

#### A wireless network is like a highway system...



US, mobile data traffic was 1.3 Exabytes per month in 2016, the equivalent of 334 million DVDs each month or 3,687 million text messages each second according to Cisco VNI Mobile Forecast Highlights, 2016-2021, Feb 2017



#### Wireless facilities and property values.

Cell service in and around the home has emerged as a critical factor in home-buying decisions.



National studies demonstrate that most home buyers value good cell service over many other factors including the proximity of schools when purchasing a home.



More than 75% of prospective home buyers said a good cellular connection was important to them.1



The same study showed that 83% of Millennials (those born between 1982 and 2004) said cell service was the most important fact in purchasing



90% of U.S. households use wireless service. Citizens need access to 911 and reverse 911 and wireless may be their only connection.2



The average North American smartphone user will consume 48 GB of data per month in 2023, up from just 5.2 GB per month in 2016 and 7.1 GB per month in 2017.<sup>1</sup>



Of American homes are wireless only.2



In North America, the average household has 13 connected devices with smartphones outnumbering tablets 6 to 1.3

Ericsson Mobility Report, November 2017

CDC's 2018 Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, January-July, 2018 IHS Market Connected Device Market Monitor: Q1 2016 June 7, 2016.



With over 80% of 9-1-1 calls now coming from cell phones...1

240 million

911 calls are made annually. In many areas, 80% or more are from wireless devices. 1

1. National Emergency Number Association, Enhancing 9-1-1 Operations With Automated Abandoned Callback & Location Accuracy (Motorola Solutions) (August 23, 2018

### **Explanation of Wireless Capacity**



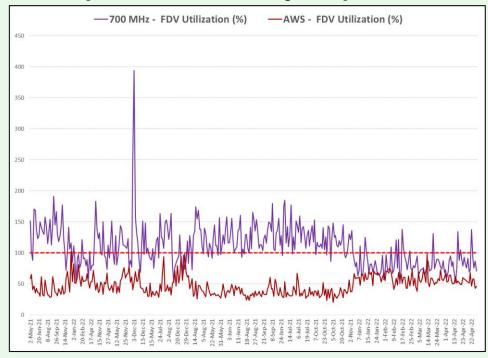
**Capacity** in this analysis is evaluated with up to three metrics further explained below. These metrics assist in determining actual usage for a given site as well as are used to project when a site is expected to run out of capacity (i.e. reach a point of exhaustion where it can no longer process the volume of voice and data requested by local wireless devices, thus no longer providing adequate service).

- Forward Data Volume ("FDV"), is a measurement of usage (data throughput) on a particular site over a given period of time.
- Average Schedule Eligible User ("ASEU"), is a measurement of the loading of the control channels and systems of a given site.
- Average Active Connections ("AvgAC") is a measurement of the number of devices actively connected to a site in any given time slot.

Verizon Wireless uses proprietary algorithms developed by a task force of engineers and computer programmers to monitor each site in the network and accurately project and identify when sites will approach their capacity limits. Using a rolling two-year window for projected exhaustion dates allows enough time, in most cases, to develop and activate a new site. It is critical that these capacity approaching sectors are identified early and the process gets started and completed in time for new solutions (sites) to be on air before network issues impact the customers.



## **Capacity Utilization FDV (NEPTUNE-Alpha)**



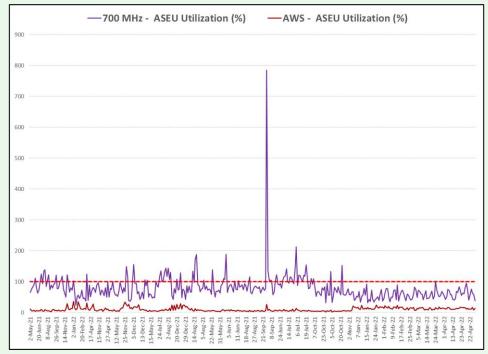
**Summary**: This graph shows FDV (Forward **D**ata **V**olume) which is a measurement of the customer data usage that this sector currently serves. As this limit is approached, data rates slow to unacceptable levels, potentially causing unreliable service for Verizon Wireless customers.

The purple line represents the daily max busy hour 700MHz utilization and the dark red line is daily max busy hour AWS utilization on the **Alpha** sector of the **NEPTUNE** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail**: The existing **NEPTUNE** sector shown above has exceeded its capability of supporting FDV requirements as shown by the purple line exceeding the max utilization threshold (red dashed line). FDV is one of up to three metrics used in this presentation to evaluate capacity capability in this area. This graph also reveals the inability of the AWS carrier (dark red line) to provide the necessary capacity offload for the low band carrier due to differences in RF propagation characteristics. The solution is network densification.



## Capacity Utilization ASEU (NEPTUNE-Alpha)



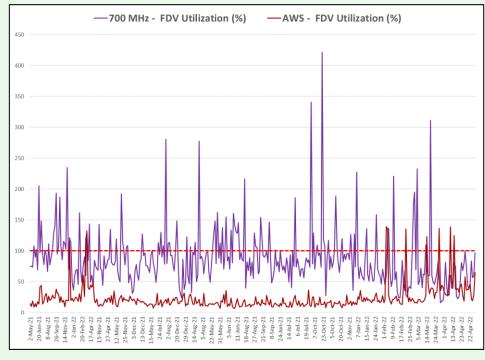
**Summary**: This graph shows ASEU (**A**verage **S**chedule **E**ligible **U**ser). ASEU is a measurement of the loading of the control channels and systems of a given site. The ASEU load is heavily impacted by distant users or those in poor RF conditions.

The purple line represents the daily max busy hour 700MHz utilization and the dark red line is daily max busy hour AWS utilization on the **Alpha** sector of the **NEPTUNE** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail**: The existing **NEPTUNE** sector cannot support the traffic demand throughout the extent of the large geographic area it covers. **NEPTUNE** is overloaded, as shown by the purple actual use line exceeding the red dashed exhaustion threshold. This graph also reveals the inability of the AWS carrier (dark red line) to provide the necessary capacity offload for the low band carrier due to differences in RF propagation characteristics. The solution is network densification.



## **Capacity Utilization FDV (Silvertail Alpha)**



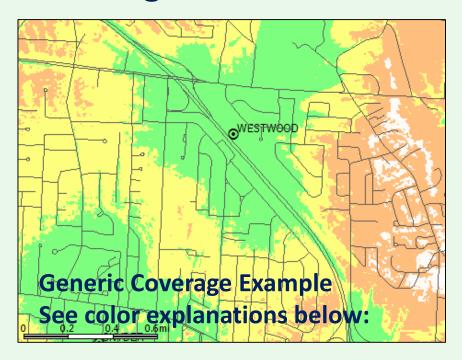
**Summary**: This graph shows FDV (**F**orward **D**ata **V**olume) which is a measurement of the customer data usage that this sector currently serves. As this limit is approached, data rates slow to unacceptable levels, potentially causing unreliable service for Verizon Wireless customers.

The purple line represents the daily max busy hour 700MHz utilization and the dark red line is daily max busy hour AWS utilization on the **Alpha** sector of the **Silvertail** site. The red dashed line is the limit where the sector reaches exhaustion and service starts to significantly degrade. The point in time where we see the purple or dark red lines reach or exceed the red dashed line is when service quickly degrades as usage continues to increase.

**Detail**: The existing **Silvertail** sector shown above has exceeded its capability of supporting FDV requirements as shown by the purple line exceeding the max utilization threshold (red dashed line). FDV is one of up to three metrics used in this presentation to evaluate capacity capability in this area.



### **Explanation of Wireless Coverage**



**Coverage** is best shown via coverage maps. RF engineers use computer simulation tools that take into account terrain, vegetation, building types, and site specifics to model the RF environment. This model is used to simulate the real world network and assist engineers to evaluate the impact of a proposed site (along with industry experience and other tools).

Many Verizon Wireless sites provide 3G CDMA at 850 MHz and 4G LTE at 700 MHz. As capacity requirements increase, higher frequency PCS (1900 MHz) and AWS (2100 MHz) carriers are added. In some mountaintop situations the mid band (higher frequency) AWS and PCS carriers are not fully effective due to excessive distance from the user population.

Coverage provided by a given site is affected by the frequencies used. Lower frequencies propagate further distances, and are less attenuated by clutter than higher frequencies. To provide similar coverage levels at higher frequencies, a denser network of sites is required (network densification).

Note the affect of clutter on the predicted coverage footprint above

\*\*Dark Green >/= -75dBm RSRP, typically serves dense urban areas as well as areas of substantial construction (colleges, hospitals, dense multi family etc.)

Green >/= -85dBm RSRP, typically serves suburban single family residential and light commercial buildings

Yellow >/= -95dBm RSRP, typically serves most rural/suburban-residential and in car applications

Orange >/= -105dBm RSRP, rural highway coverage, subject to variable conditions including fading and seasonality gaps

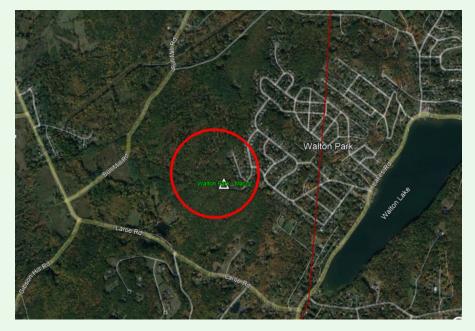
White = <-105dBm RSRP, variable to no reliable coverage gap area

More detailed, site-specific coverage slides are later in the presentation

- \*Signal strength requirements vary as dictated by specific market conditions
- \*\* Not displayed in example map, layer not used in all site justifications



### **Explanation of this Search Area**



Walton Park Search Area

A **Search Area** is the geographical area within which a new site is targeted to solve a coverage or capacity deficiency. Three of the factors taken into consideration when defining a search area are topography, user density, and the existing network.

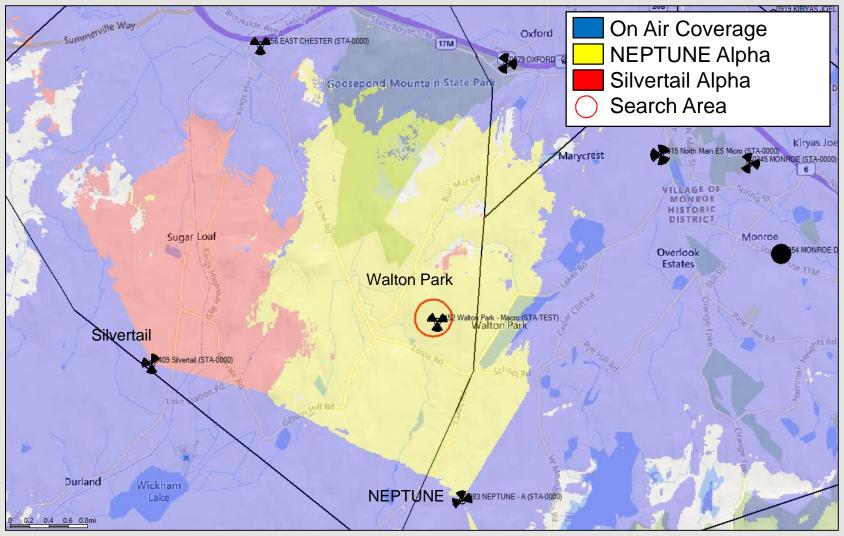
- Topography must be considered to minimize the obstacles between the proposed site and the target coverage area. For example, a site at the bottom of a ridge will not be able to cover the other side from a certain height.
- In general, the farther from a site the User Population is, the weaker
  the RF conditions are and the worse their experience is likely to be.
  These distant users also have an increased impact on the serving site's
  capacity. In the case of a multi sector site, centralized proximity is
  essential to allow users to be evenly distributed and allow efficient
  utilization of the site's resources.
- The existing Network Conditions also guide the design of a new site.
   Sites placed too close together create interference due to overlap and are an inefficient use of resources. Sites that are too tall or not properly integrated with existing sites cause interference and degrade service for existing users.
- Existing co-locatable structures inside the search area as well as within
  a reasonable distance of the search area are submitted by site
  acquisition and reviewed by RF Engineering. If possible, RF will make
  use of existing or nearby structures before proposing to build new
  towers.

To resolve the coverage and capacity deficiencies previously detailed, Verizon Wireless is seeking to add one new cell facility within this area to improve wireless service capacity and coverage. By offloading traffic from **NEPTUNE and Silvertail** with the proposed site, adequate and reliable service will be restored. The new **Walton Park** site will provide dominant and dedicated signal to the identified portions of the town of **Chester**. This helps to improve not only the **Walton Park** project area but will also indirectly result with significant improvements in the south-eastern portion of the town of **Chester**.



#### Existing 700MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.

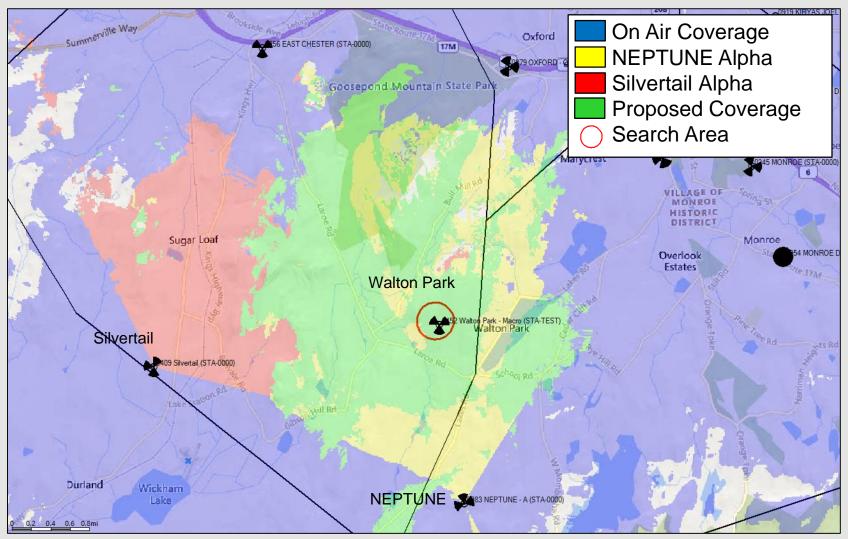


The map above represents existing low band coverage from existing sites, with the sites in need of capacity offload detailed in the legend above. Blue coverage is from other on air sites.



#### Proposed 700MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area (at 146' ACL).

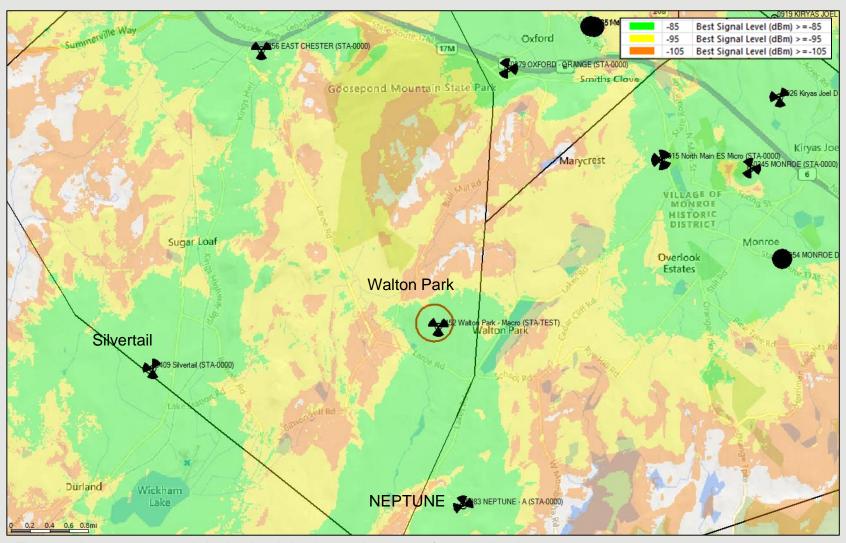


The map above adds the low band footprint of the proposed Walton Park site in green. The green best server footprint provides improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the NEPTUNE Alpha and Silvertail Alpha sectors.



#### **Existing 700MHz Coverage**

This coverage map shows how weak the RF conditions are in and around the Walton Park site area. Refer to slide 9 for further explanation of these color thresholds

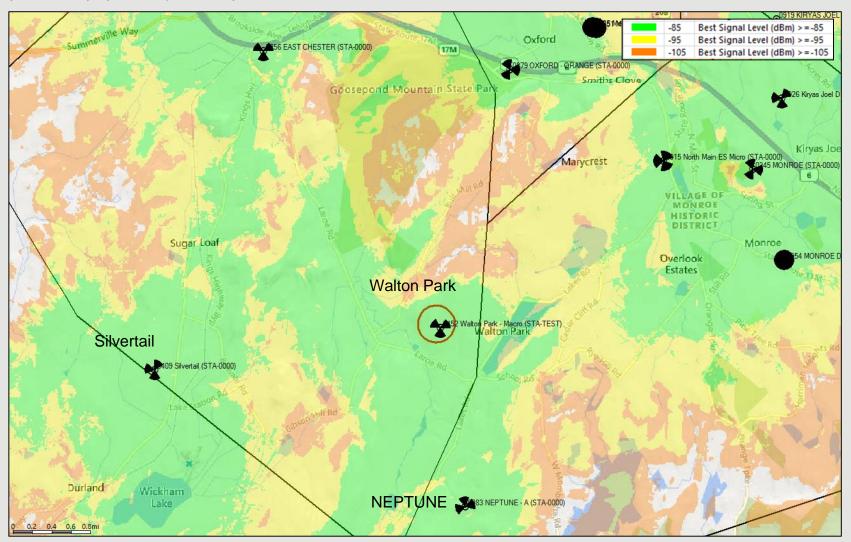


The map above represents existing low band signal strength coverage from existing sites.



#### **Proposed 700MHz Coverage**

This coverage map shows how improved the RF conditions will be in and around the Walton Park site area (at 146' ACL). Refer to slide 9 for further explanation of these color thresholds

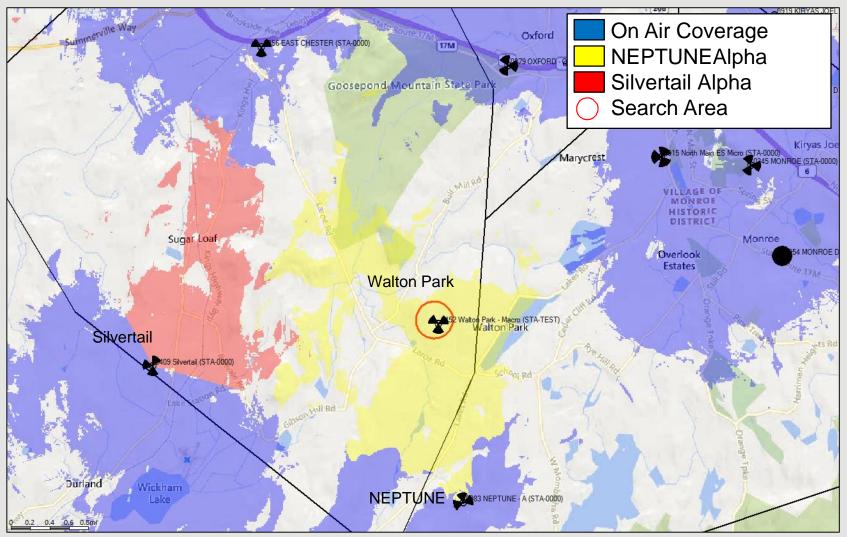


The map above adds the low band footprint of the proposed Walton Park site. The significantly improved signal strength corresponds to improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the NEPTUNE Alpha and Silvertail Alpha sectors.



#### Existing 2100MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area.

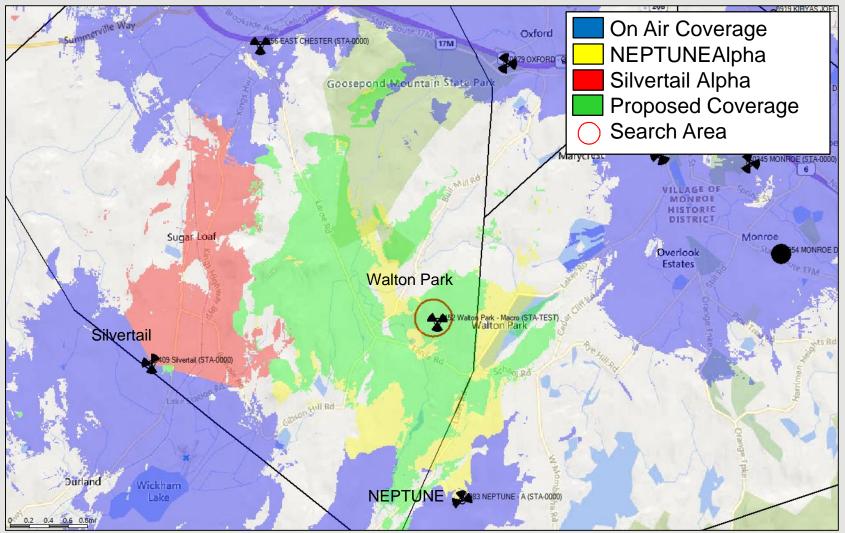


The map above represents mid band coverage from existing sites, with the sites in need of capacity offload detailed in the legend above. Blue coverage is from other on air sites.



#### Proposed 2100MHz Best Server -105dBm RSRP

Best Server plots depict the actual footprint of each sector in question at one threshold so the viewer can accurately evaluate the area offloaded by the new sites dominant signal area (at 146' ACL).

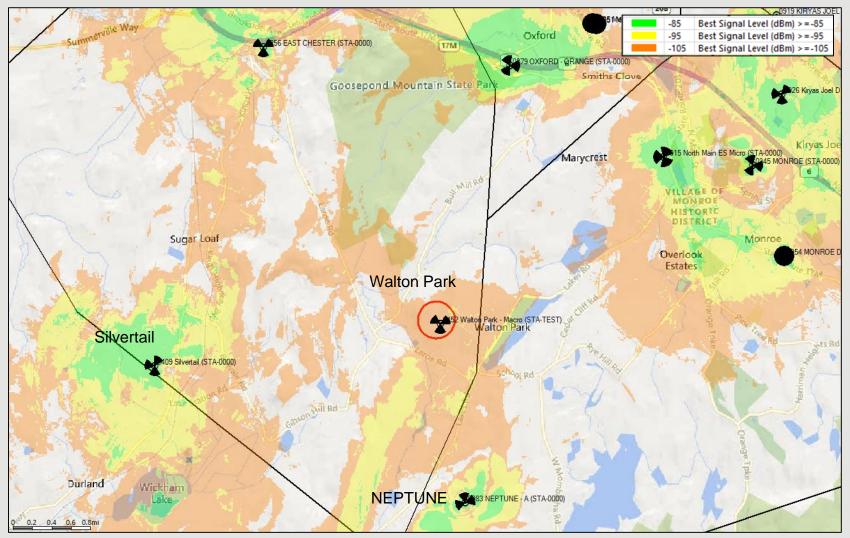


The map above adds the mid band footprint of the proposed Walton Park site in green. The green best server footprint provides improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the NEPTUNE Alpha and Silvertail Alpha sectors.



#### **Existing 2100MHz Coverage**

This coverage map shows the RF conditions in and around the Walton Park site area. Refer to slide 9 for further explanation of these color thresholds

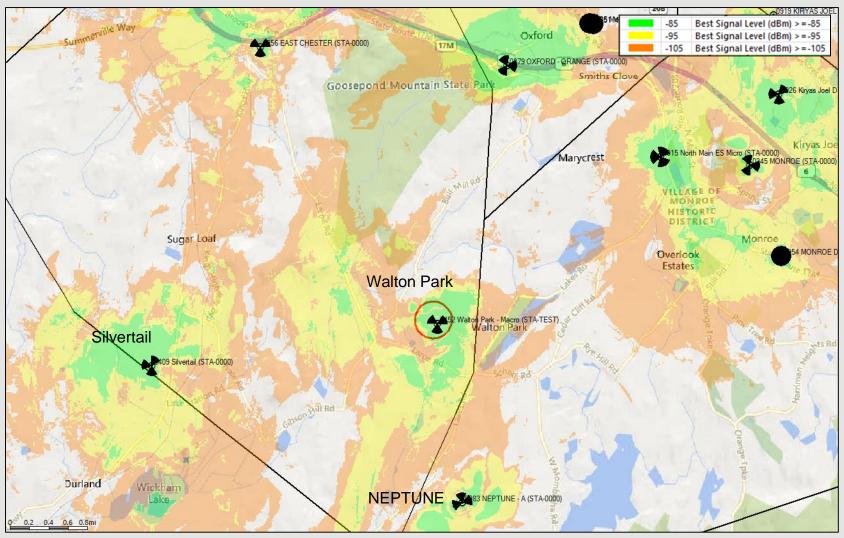


The map above represents mid band coverage from existing sites. This 2100MHz signal is very weak throughout the project area. Additional mid band network densification is required to resolve these conditions.



#### **Proposed 2100MHz Coverage**

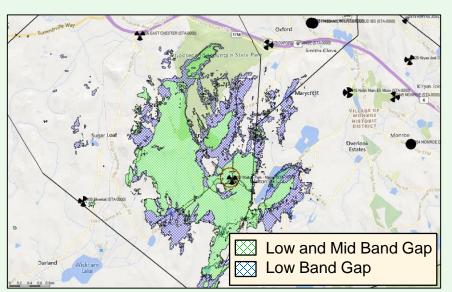
This coverage map shows how improved the RF conditions will be in and around the Walton Park site area (at 146' ACL). Refer to slide 9 for further explanation of these color thresholds



The map above adds the mid band footprint of the proposed Walton Park site. The improved signal strength corresponds to improved coverage and capacity throughout the identified significant gap area. This will help to resolve the coverage and capacity issues impacting the NEPTUNE Alpha and Silvertail Alpha sectors.



#### **RF Justification Summary**



The proposed site at 146' ACL resolves the substantial and significant gaps in coverage and capacity impacting the Walton Park project area. The gaps are shown in the above graphic: The shaded areas as detailed in the legend represent gaps in coverage and capacity that Walton Park (site) will resolve.

The network was analyzed to determine whether there is sufficient **RF coverage and capacity** in the **Town of Chester**. It was determined that there are significant gaps in adequate LTE service for Verizon Wireless in the 700 and 2100MHz frequency bands. In addition to the coverage deficiencies, Verizon Wireless' network does not have sufficient capacity (low band or mid band) to handle the existing and projected LTE voice and data traffic in the area near and neighboring the proposed **Walton Park** facility ("targeted service improvement area"). Based on the need for additional coverage and capacity while considering the topography and specific area requiring service, any further addition of capacity to distant existing sites does not remedy Verizon's significant gap in reliable service. Therefore, the proposed facility is also needed to provide "**capacity relief**" to the existing nearby Verizon Wireless sites, allowing the proposed facility and those neighboring sites to adequately serve the existing and projected capacity demand in this area.

With the existing network configuration there are significant gaps in service which restricts Verizon Wireless customers from originating, maintaining or receiving reliable calls and network access. It is our expert opinion that the proposed height will satisfy the coverage and capacity needs of Verizon Wireless and its subscribers in this portion of the **town of Chester** and the **Walton Park** project area. The proposed location depicted herein satisfies the identified service gaps and is proposed at the minimum height necessary for adequate service.

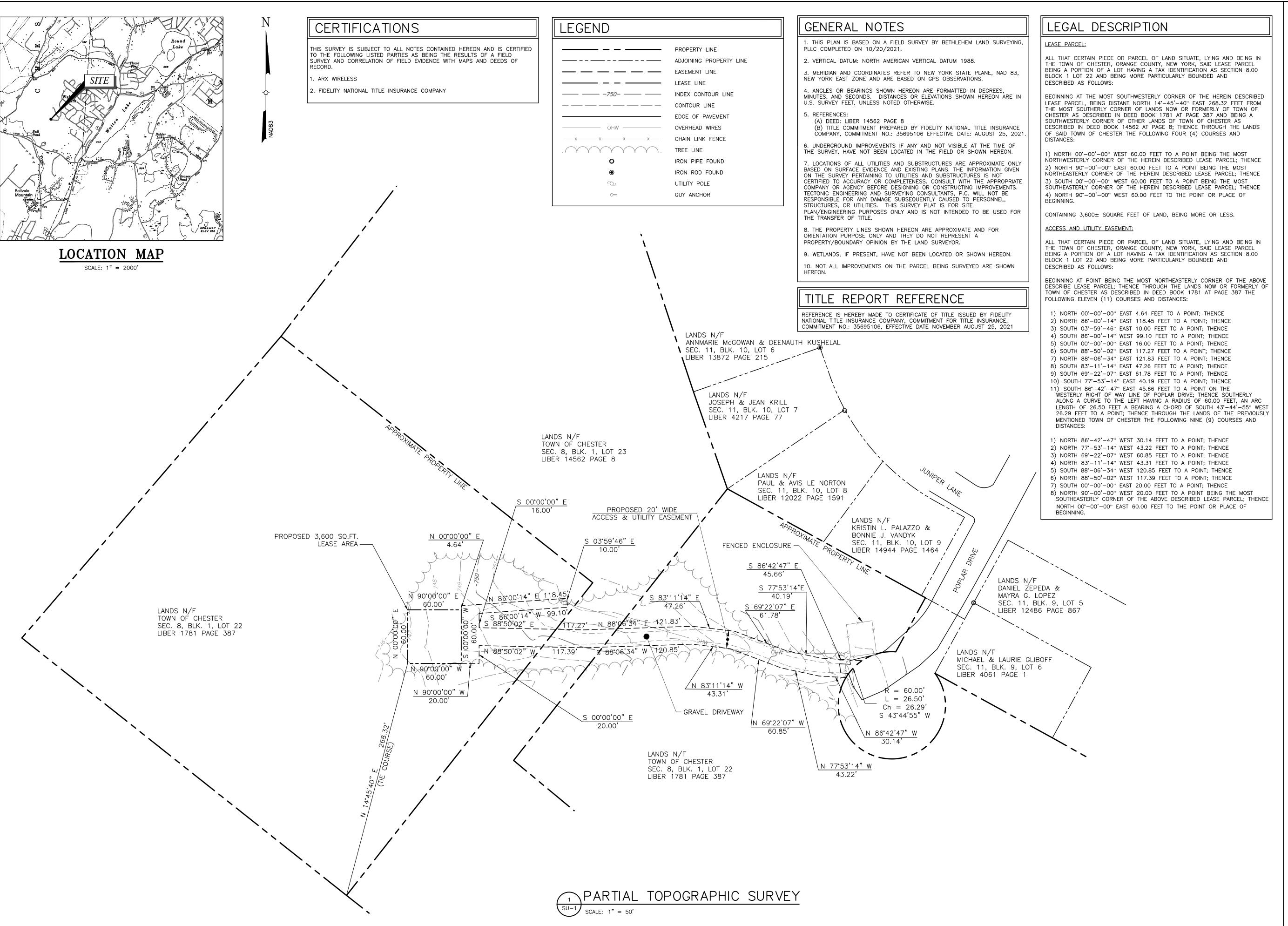
Wasif Sharif
Wasif Sharif
Engineer III – RF Design

Verizon Wireless



#### Exhibit B

Site Plans (illustrating existing and proposed improvements)







Tectonic Engineering & Surveying Consultants P.C. Suite 101 Latham, NY 12110

www.tectonicengineering.com

DESIGN APPROVAL



(518) 813-0059 WORK ORDER NUMBER DRAWN BY

JRP NY0248 NO. DATE 06/17/22 FOR COMMENT

DATE RELEASED BY

06/17/22 REVISED SITE INFORMATION



BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION

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ORIGINAL SIZE IN INCHES

SITE INFORMATION

NY0248-CHESTER DPW

SITE ADDRESS

COUNTY HIGHWAY 45 TOWN OF CHESTER ORANGE COUNTY NY 10950 SHEET TITLE

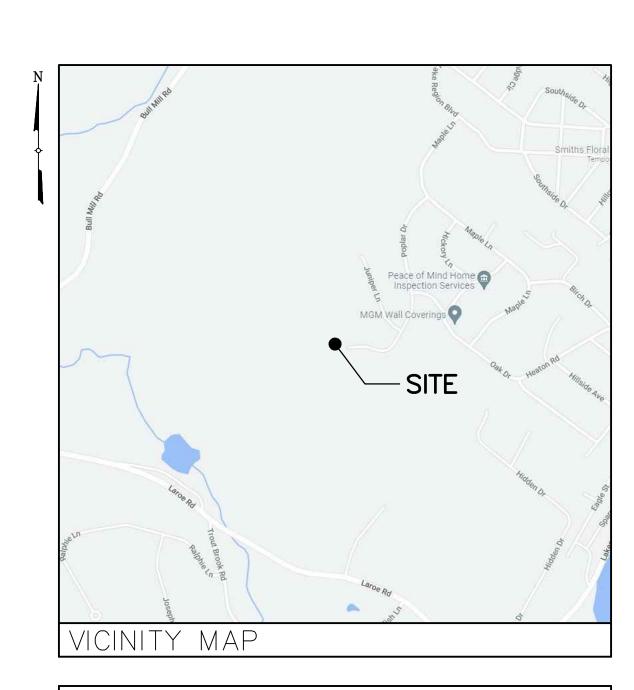
PARTIAL BOUNDARY & TOPOGRAPHIC SURVEY

SHEET NUMBER

**SU-1** 



# SITE NAME: NY0248-CHESTER DPW



### DIRECTIONS

DIRECTIONS TO SITE:

FROM NORTH HAVEN:

MERGE ONTO CT-15 S AND FOLLOW FOR 53.3± MILES. CONTINUE ONTO HUTCHINSON RIVER PKWY S AND FOLLOW FOR 2.8± MILES. TAKE EXIT 15B FOR WESTCHESTER AVE W AND FOLLOW FOR 0.3± MILES. MERGE ONTO WESTCHESTER AVE AND FOLLOW FOR 0.1± MILES. MERGE ONTO I-287 W AND FOLLOW FOR 18.6± MILES. KEEP LEFT TO CONTINUE ON I-87 N AND FOLLOW FOR 8.8± MILES. TAKE EXIT 15A FOR NY-17 N AND FOLLOW FOR 8.8± MILES. TURN LEFT ONTO ORANGE TURNPIKE AND FOLLOW FOR 0.9± MILES. TURN SLIGHT LEFT ONTO BRAMERTOWN RD AND FOLLOW FOR 2.3± MILES. CONTINUE ONTO W MOMBASHA RD AND FOLLOW FOR 2.2± MILES. TURN LEFT ONTO SCHOOL RD AND FOLLOW FOR 0.7± MILES. TURN RIGHT ONTO LAKES RD AND FOLLOW FOR 0.5± MILES. TURN LEFT ONTO HEATON RD AND FOLLOW FOR 0.4± MILES. CONTINUE ONTO OAK DR AND FOLLOW FOR 0.3± MILES. TURN LEFT ONTO POPLAR DR AND FOLLOW FOR 0.2± MILES. SITE WILL BE ON THE RIGHT.

SITE ADDRESS:	CO HWY 45 CHESTER, NY 10950
MUNICIPALITY:	TOWN OF CHESTER
COUNTY:	ORANGE
TAX MAP NUMBER:	8-1-21
ZONING DISTRICT:	SR2 — SUBURBAN RESIDENTIAL
STRUCTURE COORDINATES:	41.307248048° -74.237970327°
GROUND ELEVATION:	748.3'± AMSL
PROPERTY OWNER:	TOWN OF CHESTER 1786 KINGS HWY CHESTER, NY 10918
APPLICANT:	ARX WIRELESS 110 WASHINGTON AVE NORTH HAVEN, CT 06473
CONTACT PERSON:	KEITH COPPINS
CONTACT PHONE:	(203) 623-3287
PROJECT SUMMAR	Y

#### DESCRIPTION

THE PROPOSED WORK CONSISTS OF:

INSTALLATION OF UNDERGROUND POWER AND FIBER UTILITIES TO SERVICE THE FACILITY

INSTALLATION OF A PROPOSED MONOPOLE & FENCED COMPOUND

SHT. NO.	DESCRIPTION	REV NO	REVISION DATE
T-1	TITLE SHEET	3	6/17/22
GN-1	GENERAL NOTES	3	6/17/22
GN-2	GENERAL NOTES	3	6/17/22
AD-1	ADJOINERS PLAN	3	6/17/22
			, ,
SB-1	SETBACK PLAN & BULK REQUIREMENTS	3	6/17/22
C-1	OVERALL SITE PLAN	3	6/17/22
C-2	SITE DETAIL PLAN	3	6/17/22
C-3	ELEVATION	3	6/17/22
C-4	SITE DETAILS	3	6/17/22
			, ,
E-1	UTILITY DIAGRAMS & DETAILS	3	6/17/22
E-2	UTILITY BACKBOARD DETAIL	3	6/17/22
E-3	GROUNDING PLAN	3	6/17/22
E-4	GROUNDING DETAILS	3	6/17/22
$\vdash$			
SHE	EET INDEX		

THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS

UNTIL ALL ITEMS OF CONCERN HAVE BEEN ADDRESSED AND EACH OF THE

DRAWINGS HAS BEEN REVISED AND ISSUED "FOR CONSTRUCTION".



OWNER SIGNATURE DATE

Before You Dig, Drill Or Blast!

### Dig Safely. New York

UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION CALL US TOLL FREE 1-800-962-7962

NY industrial code rule 753 requires no less than two working days notice, but not more than ten days notice. DIG SAFELY - NEW YORK

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED FOR 22"x34" FULL SIZE AND 11"x17 HALF SIZE. OTHER SIZED VERSIONS ARE NOT PRINTED TO THE SCALE SHOWN. CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITI THE WORK OR BE RESPONSIBLE FOR SAME.



110 WASHINGTON AVE NORTH HAVEN, CT 06473



WOF	RK ORDER	NUMBER DRAWN
1113	37.002	TRR
NO.	DATE	ISSUE
Q	4//9/22	FOR COMMENT
1	4/8/22	PER COMMENTS
2	4/15/22	FOR COMMENT
3	6/17/22	PER COMMENTS
	DEL EACED	DATE

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ORIGINAL SIZE IN INCHES SITE INFORMATION

NY0248-CHESTER DPW

SITE ADDRESS

CO HWY 45 TOWN OF CHESTER ORANGE COUNTY NY 10950

SHEET TITLE

TITLE SHEET

SHEET NUMBER

#### FENCING NOTES

- 1. CORNER POSTS, PULL POSTS, AND END POSTS SHALL BE 3" NOMINAL O.D., SCHEDULE 40, STEEL PIPE CONFORMING WITH ASTM F-1083. GATE POSTS SHALL BE 4" NOMINAL O.D., SCHEDULE 40, STEEL PIPE CONFORMING WITH ASTM F-1083 AND MAY BE UTILIZED FOR SINGLE GATE OPENING WIDTHS OF 6 FEET OR LESS AND FOR DOUBLE GATE OPENING WIDTHS OF 12 FEET OR LESS.
- 2. LINE POSTS SHALL BE 2" NOMINAL O.D. SCHEDULE 40 STEEL PIPE CONFORMING WITH ASTM F-1083.
- 3. TOP RAIL AND BRACE RAIL SHALL BE 1 5/8" NOMINAL O.D. PIPE CONFORMING WITH ASTM F-1083.
- 4. GATE FRAMES SHALL BE FABRICATED FROM 1 1/2" NOMINAL O.D. PIPE CONFORMING WITH ASTM F-1083.
- 5. FENCE FABRIC SHALL BE 9 GAUGE WIRE SIZE, 2" MESH CHAIN LINK FENCE CONFORMING WITH ASTM A-392.
- 6. TIE WIRE SHALL BE AS FOLLOWS:
- a) AT POSTS, RAILS, AND WHERE NECESSARY ON GATE FRAMES:
  MINIMUM 11 GAUGE GALVANIZED STEEL SPACED AT NOT LESS THAN
  14" ON CENTER
- b) AT TENSION WIRES: BY HOG RINGS SPACED AT NOT LESS THAN 24" ON CENTER.
- 7. TENSION WIRE SHALL BE 7 GAUGE GALVANIZED STEEL.
- 8. THE GATE LATCH SHALL BE THE MALLEABLE IRON FORK TYPE AS MANUFACTURED BY PAGE WILSON AS THEIR TYPE 75 GATE LATCH ASSEMBLY, OR EQUAL. PAD LOCKS ARE TO BE PROVIDED BY THE OWNER.
- 9. FENCE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM F-567 AND GATES SHALL BE INSTALLED IN ACCORDANCE WITH ASTM F-900.

#### **LEGEND** PROPERTY LINE ADJOINING PROPERTY LINE EXISTING CONTOUR EXISTING INDEX CONTOUR EXISTING BRUSH LINE EXISTING TREE LINE EXISTING EDGE OF PAVEMENT EXISTING EDGE OF GRAVEL DRIVE EXISTING FENCE EXISTING UNDERGROUND UTILITIES EXISTING OVERHEAD WIRES EXISTING UTILITY POLE EXISTING IRON ROD/PIPE EXISTING CENTERLINE OF DITCH EXISTING STORM SEWER EXISTING CATCH BASIN PROPOSED LEASE LINE \_\_\_\_\_ PROPOSED EASEMENT LINE \_\_\_\_\_\_ PROPOSED CHAINLINK FENCE - x---- x---- x----PROPOSED SILT FENCE \_\_\_ o \_\_\_ o \_\_\_ o \_\_ PROPOSED UNDERGROUND UTILITIES \_\_\_\_\_\_ PROPOSED FUTURE U/G UTILITIES TREE TO BE REMOVED TREE TO REMAIN PROPOSED LIMITS OF CLEARING

#### CONCRETE NOTES

- 1. DESIGN AND CONSTRUCTION OF ALL CONCRETE SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"

  ACI 318
- 2. ULTIMATE COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE 3500 PSI.
- 3. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150 TYPE I OR II.
- 4. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60, "DEFORMED AND PLAIN BILLET STEEL BARS FOR CONCRETE REINFORCEMENT".
- 5. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185, "WELDED STEEL WIRE FABRIC PLAIN FOR CONCRETE REINFORCEMENT".
- 6. CONCRETE WORK AND MATERIALS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", ACI 301.
- 7. SUBMIT CONCRETE MIX DESIGN TO THE DESIGN ENGINEER FOR APPROVAL NOT LESS THAN 3 DAYS PRIOR TO CONSTRUCTION. MIX DESIGN SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- B. READY MIX CONCRETE SHALL COMPLY WITH ACI 304 AND ASTM C94 WITH A MAXIMUM WATER—CEMENT RATIO OF 0.50. TIME BETWEEN INTRODUCTION OF WATER AND THE PLACEMENT OF CONCRETE SHALL NOT EXCEED 1-1/2 HOURS.
- CONCRETE AGGREGATES SHALL BE NORMAL WEIGHT, CONFORMING TO ASTM C33. MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 3/4".
- 10. CHLORIDE-CONTAINING ADMIXTURES SHALL NOT BE USED.

STANDARD HOOKS SHALL CONFORM TO ACI 318.7.

OF CONCRETE PLACEMENT.

- 11. CONCRETE SLUMP SHALL NOT EXCEED 5 INCHES UNLESS SPECIFICALLY AUTHORIZED BY THE ENGINEER. SLUMP SHALL BE DETERMINED IN ACCORDANCE WITH ASTM C143
- 12. PROVIDE AIR ENTRAINMENT IN EXTERIOR EXPOSED CONCRETE TO OBTAIN TOTAL AIR CONTENT OF 5%  $\pm$  1% IN ACCORDANCE WITH ACI 301.
- 13. FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH, CONCRETE COVER FOR REINFORCING SHALL BE: 3" FOR ALL BARS FOR CONCRETE EXPOSED TO EARTH OR WEATHER, MINIMUM COVER SHALL BE: 2" FOR #6 AND LARGER BARS
- 14. LAP SPLICES FOR REINFORCING SHALL BE IN ACCORDANCE WITH ACI 318.12 AND
- 15. WELDING OF REINFORCING STEEL OR THE APPLICATION OF HEAT TO FACILITATE BENDING IS SPECIFICALLY PROHIBITED.

1-1/2" FOR #5 AND SMALLER BARS OR WIRE FABRIC

- 16. ALL REINFORCING, ANCHOR BOLTS, DOWELS, EMBEDDED STEEL, INSERTS AND ALL
  OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START
- 17. PROVIDE A 3/4" CHAMFER AT ALL EXPOSED EDGES OF CONCRETE, UNLESS OTHERWISE NOTED.
- 18. PROVIDE NOT LESS THAN 48 HOURS NOTICE TO THE FIELD REPRESENTATIVE PRIOR TO PLACEMENT OF CONCRETE.
- 19. WHEN AMBIENT TEMPERATURE IS BELOW 50 DEGREES F, CONCRETE MATERIALS AND PLACEMENT SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 306R "COLD WEATHER CONCRETING".
- 20. WHEN AMBIENT TEMPERATURE IS ABOVE 90 DEGREES F, CONCRETE MATERIALS AND PLACEMENT SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 305R "HOT WEATHER CONCRETING".
- 21. REMOVE ALL LOOSE MATERIAL AND DEBRIS FROM COMPACTED SUBGRADE SURFACE PRIOR TO PLACING CONCRETE. CONCRETE SHALL NOT BE PLACED ON FROZEN SUBGRADE.
- 22. CONCRETE SHALL BE SUFFICIENTLY CONSOLIDATED BY VIBRATION TO REMOVE AIR VOIDS. VIBRATION SHALL BE IN ACCORDANCE WITH ACI 309 "STANDARD PRACTICE FOR CONSOLIDATION OF CONCRETE".
- 23. THE TOP OF ALL CONCRETE SURFACES SHALL BE TRUE AND LEVEL WITH A SMOOTH FLOAT FINISH, UNLESS OTHERWISE NOTED. ALL DIMENSIONS SHALL BE WITHIN ± 1/8
- 24. TESTING OF CONCRETE SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318. REQUIRED, TESTING OF CONCRETE SHALL BE PERFORMED UNDER THE DIRECTION OF THE CONSTRUCTION MANAGER.
- 25. THROUGHOUT CONSTRUCTION, THE CONCRETE WORK SHALL BE ADEQUATELY PROTECTED AGAINST DAMAGE DUE TO EXCESSIVE LOADING, CONSTRUCTION EQUIPMENT, MATERIALS OR METHODS, ICE, RAIN, OR SNOW. PROTECT CONCRETE FROM EXCESSIVE HEAT AND FREEZING FOR NOT LESS THAN 14 DAYS.
- 26. DRYING OUT OF CONCRETE, ESPECIALLY DURING THE FIRST 24 HOURS, SHALL BE CAREFULLY GUARDED AGAINST. ALL SURFACES SHALL BE MOIST CURED OR PROTECTED USING A MEMBRANE CURING AGENT CONFORMING TO ASTM C309 APPLIED AS SOON AS FORMS ARE REMOVED. IF MEMBRANE CURING AGENT IS USED, EXERCISE CARE NOT TO DAMAGE SURFACE.
- 27. CONTRACTOR SHALL BRING TO THE IMMEDIATE ATTENTION OF THE CONSTRUCTION MANAGER ANY DEFECTS OR ERRORS IN THE WORK, PRIOR TO MAKING REPAIRS. CONTRACTOR SHALL OBTAIN PERMISSION FROM THE CONSTRUCTION MANAGER TO PATCH OR OTHERWISE REPAIR DEFECTS OTHER THAN MINOR HONEYCOMBING.
- 28. FABRIC AND STONE SHALL BE INSTALLED THE ENTIRE LENGTH AND WIDTH BENEATH THE PLATFORM.
- 29. JOINT FILLER SHALL BE PREFORMED RESILIENT BITUMINOUS EXPANSION JOINT FILLER CONFORMING TO ASTM D1751.
- 30. EXTERIOR WALKING SURFACES SHALL RECEIVE A BROOM FINISH.
- 31. GROUT SHALL BE NON METALLIC, NON SHRINK PREPACKAGED GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS. GROUT SHALL BE FIVE STAR GROUT AS MANUFACTURED BY FIVE STAR PRODUCTS, FAIRFIELD, CT OR APPROVED EQUAL.
- 32. CONCRETE ANCHORS SHALL BE HEADED STEEL STUDS MEETING THE REQUIREMENTS OF ASTM A108 "STEEL BARS, CARBON, COLD FINISHED, STANDARD QUALITY".

#### SITE NOTES

- 1. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS.
- 2. RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 3. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE PROPOSED PLATFORM.
- 4. 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.
- 5. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- 6. 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 THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES.
- 7. 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 THE ENGINEER.
- 8. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED, AND COVERED WITH MULCH.
- 9. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE STATE GUIDELINES AND ANY LOCAL REGULATIONS.
- 10. ALL RESTORATION ISSUES SHALL BE COMPLETED WITHIN 72 HOURS OF THE COMPLETION OF THE WORK ACTIVITY OR WITHIN A REASONABLE AMOUNT OF TIME AS DIRECTED BY CONSTRUCTION MANAGER/ENGINEER.
- 11. CARE SHALL BE TAKEN TO RETAIN NATURAL GROWTH AND PREVENT DAMAGE TO TREES WITHIN AND OUTSIDE THE LIMITS OF CONSTRUCTION AND SPECIFIED WORK AREAS CAUSED BY EQUIPMENT AND MATERIALS. ANY DAMAGE TO THIS NATURAL GROWTH SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR.
- 12. ALL AREAS DISTURBED BY THE CONTRACTOR WITHOUT AUTHORIZATION SHALL BE RESTORED BY THE CONTRACTOR.
- 13. IN THE EVENT THE CONTRACTOR DAMAGES AN EXISTING UTILITY SERVICE CAUSING AN INTERRUPTION IN SAID SERVICE, HE SHALL IMMEDIATELY COMMENCE WORK TO RESTORE SERVICE AND MAY NOT CONTINUE HIS WORK OPERATION UNTIL SERVICE IS RESTORED.

#### STRUCTURAL NOTES

I. PROPOSED TOWER AND FOUNDATION TO BE ANALYZED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK.

#### GROUNDING NOTES

GROUND TESTING AFTER CONSTRUCTION:

- 1. AFTER COMPLETION OF CONSTRUCTION OF THE CELL SITE GROUND SYSTEM, A POST INSTALLATION GROUND TEST SHALL BE PERFORMED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE GROUND RESISTANCE FOR ALL SITES AFTER INSTALLATION OF THE EARTH GROUND SYSTEM. A PRELIMINARY EARTH RESISTIVITY TEST (3 POLE TEST OR CLAMP—ON—METER) SHALL BE PERFORMED PRIOR TO BACK FILLING ALL TRENCHES AS SPECIFIED IN VERIZON NETWORK STANDARDS (NSTD46) AND THE NATIONAL ELECTRIC CODE.
- 2. APPROVED MEASUREMENT METHODS FOR POST INSTALLATION GROUND TESTING
- SHALL BE ONE OF THE FOLLOWING METHODS:

  A. FALL OF POTENTIAL METHOD 3 POINT
  - B. CLAMP-ON RESISTANCE TESTC. TOWER AND EXTERNAL CONDUCTOR TEST
- 3. A GROUNDING RESISTANCE TEST REPORT SHALL BE PREPARED UPON COMPLETION OF THE TESTING. THE TEST REPORT SHALL SHOW THE RESISTANCE IN OHMS AT 40%, 52%, 62%, 72% AND 82% POINTS IN 10% INTERVALS. RESISTANCE IS TO BE RECORDED AT EACH INTERVAL FOR EACH POINT FOR FOUR (4) DIFFERENT DIRECTIONS UNTIL THERE IS A PLATEAU SEEN AT THE 62% POINT. TESTING SHOULD BE COMPLETED IN A MINIMUM OF TWO (2) DIFFERENT DIRECTIONS AT 90 DEGREES APART. RECORD THE AVERAGE OR MEAN AS THE RESISTANCE OF THE SITE AND ENTER THIS ON THE POST RESISTANCE DATA CHART.
- 4. PROVIDE THE POST INSTALLATION GROUND RESISTANCE TEST REPORT TO THE REGIONAL PROJECT ENGINEER ACCOMPANIED BY THE POST RESISTANCE DATE CHART.

#### GENERAL NOTES

- 1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NEW YORK STATE BUILDING CODE, AND ALL OTHER APPLICABLE CODES AND ORDINANCES.
- 2. CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- 3. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY, UNLESS OTHERWISE NOTED. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO EFFECT ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 4. DIMENSIONS SHOWN ARE TO FINISH SURFACES, UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS. SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, EXISTING CONDITIONS AND/OR DESIGN INTENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE CARRIER'S AUTHORIZED REPRESENTATIVE OR THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK.
- 5. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.
- 6. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING, AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.
- 7. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND TO BE IN THE FIELD.
- 8. CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK USING THE BEST CONSTRUCTION SKILLS AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT, UNLESS OTHERWISE NOTED.
- 9. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMEN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.
- 10. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA,
  ADJACENT AREAS, AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY
  THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL OSHA
  REQUIREMENTS.
- 11. CONTRACTOR SHALL COORDINATE HIS WORK AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS OF THE OWNER.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.
- 13. CONTRACTOR SHALL MAINTAIN LIABILITY INSURANCE TO PROTECT THE OWNER AND CARRIER.
- 14. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
- 15. MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING, ANTENNA AND ANTENNA CABLES. REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.
- 16. REPAIR ALL EXISTING SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND WITH ADJACENT SURFACES.
- 17. KEEP CONTRACT AREA CLEAN, HAZARD FREE, AND DISPOSE OF ALL DEBRIS AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.
- 18. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
- 19. CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS AND INSPECTIONS AND PAY ALL REQUIRED FEES.
- 20. PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A/10-BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILDOUT AREA DURING CONSTRUCTION.
- 21. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS AND OTHER DOCUMENTATION SHALL BE TURNED OVER TO CARRIER AT COMPLETION OF CONSTRUCTION.
- 22. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF ACCEPTANCE BY CARRIER. ANY WORK, MATERIALS, OR EQUIPMENT FOUND TO BE DEFECTIVE DURING THAT PERIOD SHALL BE CORRECTED IMMEDIATELY UPON WRITTEN NOTIFICATION AT NO ADDITIONAL COST TO CARRIER.
- 23. RIGGING OPERATIONS SHALL BE DONE IN ACCORDANCE WITH STATE AND FEDERAL SAFETY REGULATIONS (OSHA). TECTONIC, CARRIER AND THE OWNER SHALL BE HELD HARMLESS IN THE EVENT THE CONTRACTOR DOES NOT FOLLOW SUCH SAFETY REGULATIONS.
- 24. CONTRACTOR SHALL PROVIDE ACCESS TO THE SITE AND ASSIST THE RADIO EQUIPMENT VENDOR AND THE ANTENNA INSTALLATION CONTRACTOR AS THEY MAY REQUIRE.



110 WASHINGTON AVE NORTH HAVEN, CT 06473



NO.         DATE         ISSUE           Q         4/1/9/22         FOR COMMENT           1         4/8/22         PER COMMENTS           2         4/15/22         FOR COMMENT           3         6/17/22         PER COMMENTS		37.002	TRR
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	3	6/17/22	PER COMMENTS

DATE

RELEASED BY

UNAUTHORIZED ALTERATION OR ADDITIONS TO A PLAN BEARING THE SEAL OF A LICENSED ENGINEER OR LAND SURVEYOR IS A VIOLATION OF SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION

COPIES OF THIS DOCUMENT WITHOUT A FACSIMILE OF THE SIGNATURE AND AN ORIGINAL EMBOSSED SEAL OR ORIGINAL STAMP IN BLUE OR RED INK OF THE PROFESSIONAL ENGINEER OR LAND SURVEYOR SHALL NOT BE CONSIDERED VALID COPIES.

ORIGINAL SIZE IN INCHES

SITE INFORMATION

NY0248-CHESTER DPW

SITE ADDRESS

CO HWY 45
TOWN OF CHESTER
ORANGE COUNTY
NY 10950

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-1



- 1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- 2. ALL ELECTRICAL EQUIPMENT AND ACCESSORIES SHALL BE U.L. APPROVED OR LISTED.
- 3. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.
- 4. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- 5. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
- 6. CABLES SHALL NOT BE ROUTED THROUGH LADDER—STYLE CABLE TRAY RUNGS.
- 7. 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 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC & OSHA.
- 8. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- 9. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- 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, STRANDED COPPER CABLE RATED FOR 90°C (WET AND 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), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, 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 USE-2 CABLE (#14 AWG OR LARGER), 600 V, OIL RESISTANT RHW-2 OR XHHW-2, 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 90°C.
- 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 METALLIC CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- 16. ELECTRICAL METALLIC TUBING (EMT) OR RIGID METALLIC CONDUIT (RMC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- 17. PVC SCHEDULE 40 CONDUIT SHALL BE USED UNDERGROUND EXCEPT IN AREAS OF VEHICULAR TRAFFIC. IN SUCH AREAS, PVC SCHEDULE 80 SHOULD BE USED.

- 18. ALL OUTDOOR EXPOSED CONDUIT SHALL BE PVC SCHEDULE 80 AND SHALL BE SUPPORTED ADEQUATELY.
- 19. LIQUID—TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID—TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED. LFMC SHALL CONFORM TO NEC ARTICLE 350.
- 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 WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE, AND NEC.
- 22. WREWAYS SHALL BE EPOXY—COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 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. NON-METALLIC 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. CONTRACTOR SHALL APPLY FOR ELECTRICAL SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS, SERVICE ROUTING, AND METER SOCKET TYPE WITH LOCAL POWER COMPANY.
- 27. CONTRACTOR SHALL APPLY FOR TELEPHONE SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS AND SERVICE ROUTING WITH TELEPHONE COMPANY.
- 28. CONTRACTOR SHALL OBTAIN ALL PERMITS, PAY PERMIT FEES, AND SCHEDULE INSPECTIONS.
- 29. CONTRACTOR SHALL LABEL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC 110.16 AND 110.24.
- 30. CONTRACTOR SHALL VERIFY THAT THE MAIN BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR IS INSTALLED PROPERLY AT SERVICE ENTRANCE.
- 31. CONTRACTOR SHALL SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH WALLS, FLOORS AND ROOFS TO PREVENT MOISTURE PENETRATION OR VERMIN INFESTATIONS.
- 32. WHERE ELECTRICAL POWER IS TO BE SUB-FED FROM AN EXISTING DISTRIBUTION SYSTEM, THE FOLLOWING SHALL APPLY:

  A. CONTRACTOR SHALL PERFORM LOAD TESTING TO DETERMINE

  MAXIMUM FEEDER DEMAND PER N.E.C. APPLICE 320
- MAXIMUM FEEDER DEMAND PER N.E.C. ARTICLE 220.

  B. CONTRACTOR SHALL VERIFY WHETHER EXISTING FEEDER CAPACITY EXCEEDS VALUE CALCULATED PER N.E.C. ARTICLE 220.
- C. EACH BRANCH CIRCUIT PROTECTIVE DEVICE SHALL HAVE SAME INTERRUPTING RATING AS EQUIPMENT SUPPLYING IT.

  D. PREFERRED MEANS OF SUPPLY SHALL BE A BRANCH CIRCUIT
- PROTECTIVE DEVICE LOCATED IN EXISTING PANEL.

  36. DURING TRENCH BACK—FILLING FOR EACH UNDERGROUND ELECTRICAL, TELEPHONE, SIGNAL AND COMMUNICATIONS LINE, PROVIDE A CONTINUOUS UNDERGROUND WARNING TAPE TWELVE INCHES BELOW

FINISHED GRADE.

1. DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", LATEST

STEEL NOTES

- 2. STRUCTURAL STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992. "STEEL FOR STRUCTURAL SHAPES FOR USE IN BUILDING FRAMING", GRADE 50, UNLESS OTHERWISE INDICATED. IF THE MEMBER SIZES INDICATED ARE NOT AVAILABLE IN THIS GRADE, ASTM A572 "HIGH-STRENTH LOW-ALLOY COLUMBIUM-VANADIUM STRUCTURAL STEEL", GRADE 50, MAY BE SUBSTITUTED.
- 3. STEEL PLATES, CHANNELS AND ANGLES SHALL CONFORM TO ASTM A36 "CARBON STRUCTURAL STEEL".
- 4. ROUND AND SQUARE HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A500 "COLD—FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B.
- 5. STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 "PIPE, STEEL, BLACK AND HOT-DIPPED, ZINC-COATED WELDED AND SEAMLESS", TYPE E OR S, GRADE B.
- 6. ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT—DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- 7. STRUCTURAL CONNECTION BOLTS SHALL BE BOLTS CONFORMING TO ASTM A307 "CARBON STEEL BOLTS, STUDS, AND THREADED ROD, 60000 PSI TENSILE STRENGTH", UNLESS OTHERWISE NOTED. MATCHING NUTS SHALL BE HEX TYPE, CONFORMING TO ASTM A563, "CARBON AND ALLOY STEEL NUTS".

- 8. ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC—COATING (HOT—DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE
- 9. DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- 10. STRUCTURAL STEEL CONNECTIONS SHALL BE WELDED OR BOLTED, AS INDICATED:
- A) CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES".
- B) ALL FILLET WELDS SHALL BE MADE USING THE SHIELDED METAL ARC WELDING (SMAW) PROCESS WITH E70XX ELECTRODES UNLESS OTHERWISE NOTED.
- C) MINIMUM SIZE OF CLIP ANGLES SHALL BE L3x3x3/8" UNLESS OTHERWISE NOTED.
- D) ALL GUSSET PLATES SHALL BE 3/8" THICK UNLESS NOTED.
- E) ALL HOLES FOR BOLTS SHALL BE 1/16 INCH LARGER THAN THE BOLT DIAMETER WITH AN EDGE DISTANCE OF AT LEAST 1 1/2 TIMES THE BOLT DIAMETER AND A SPACING OF AT LEAST 3 TIMES THE BOLT DIAMETER. ALL BOLTS SHALL BE PROVIDED WITH PALNUTS OR LOCK NUTS.
- 11. ALL STEEL PIPE ANTENNA SUPPORTS SHALL BE INSTALLED WITH DOUBLE NUTS SNUG TIGHT.



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ORANGE COUNTY
NY 10950

SHEET TITLE

| |GENERAL NOTES

SHEET NUMBER

GN-2



ID	SBL	OWNER	ADDRESS	CITY/STATE/ZIP
			NB BRESS	, ,
1	81-21	TOWN OF CHESTER	1786 KINGS HWY	CHESTER, NY 10918
2	81-23	TOWN OF CHESTER	1786 KINGS HWY	CHESTER, NY 10918
	01-23	TOWN OF CHESTER	1780 KINGS HVV I	CHESTER, IVI 10510
3	81-22	TOWN OF CHESTER	1786 KINGS HWY	CHESTER, NY 10918
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4	81-20	PALISADES INTERSTATE PARK COMM	26 ABLE NOBLE DR	ALBANY, NY 12238
5	81-50.21	TOWN OF CHESTER	1786 KINGS HWY	CHESTER, NY 10918





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TOWN OF CHESTER
ORANGE COUNTY
NY 10950

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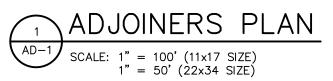
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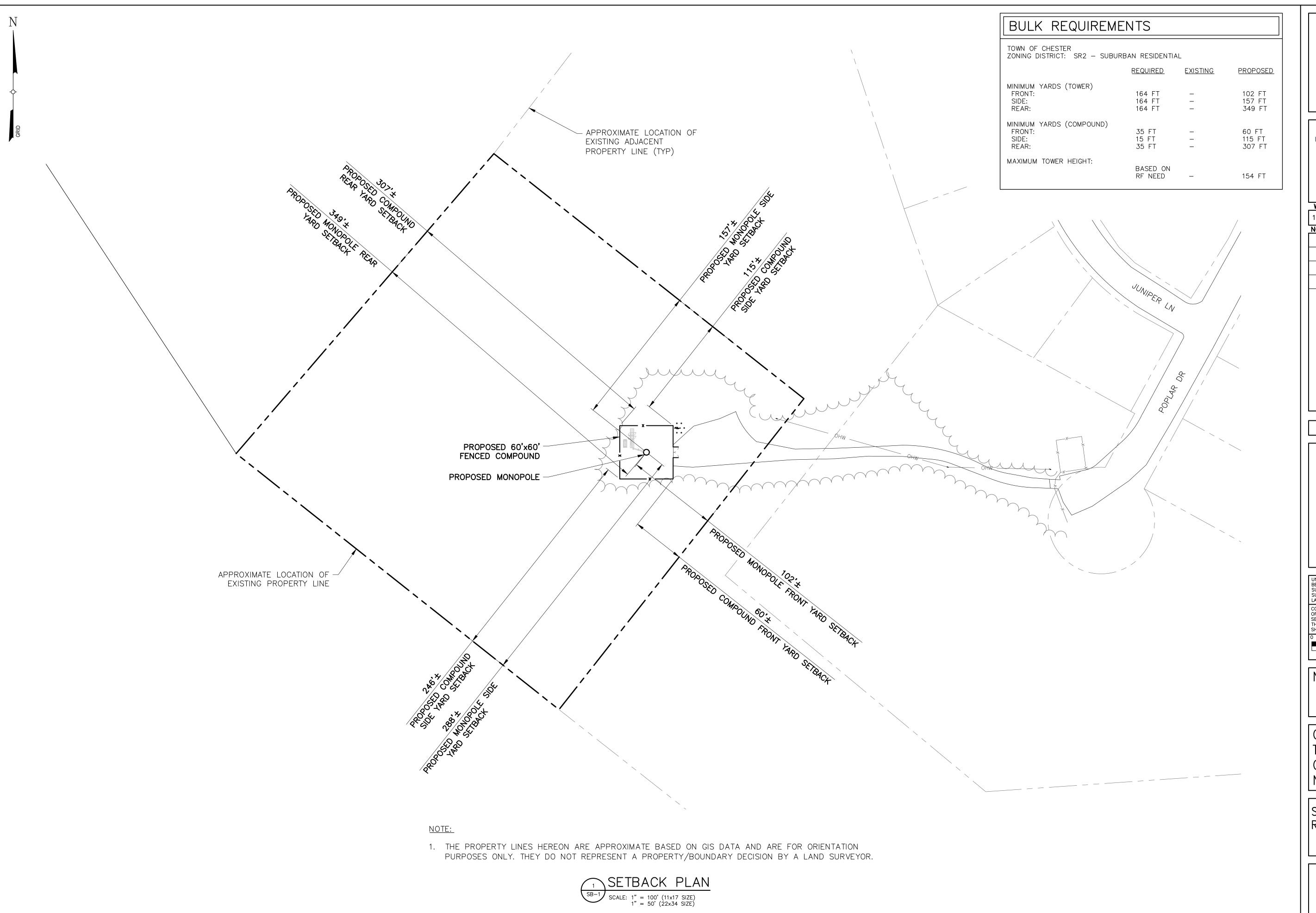
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NOTE:

THE PROPERTY LINES HEREON ARE APPROXIMATE BASED ON GIS DATA AND ARE FOR ORIENTATION PURPOSES ONLY. THEY DO NOT REPRESENT A PROPERTY/BOUNDARY DECISION BY A LAND SURVEYOR.







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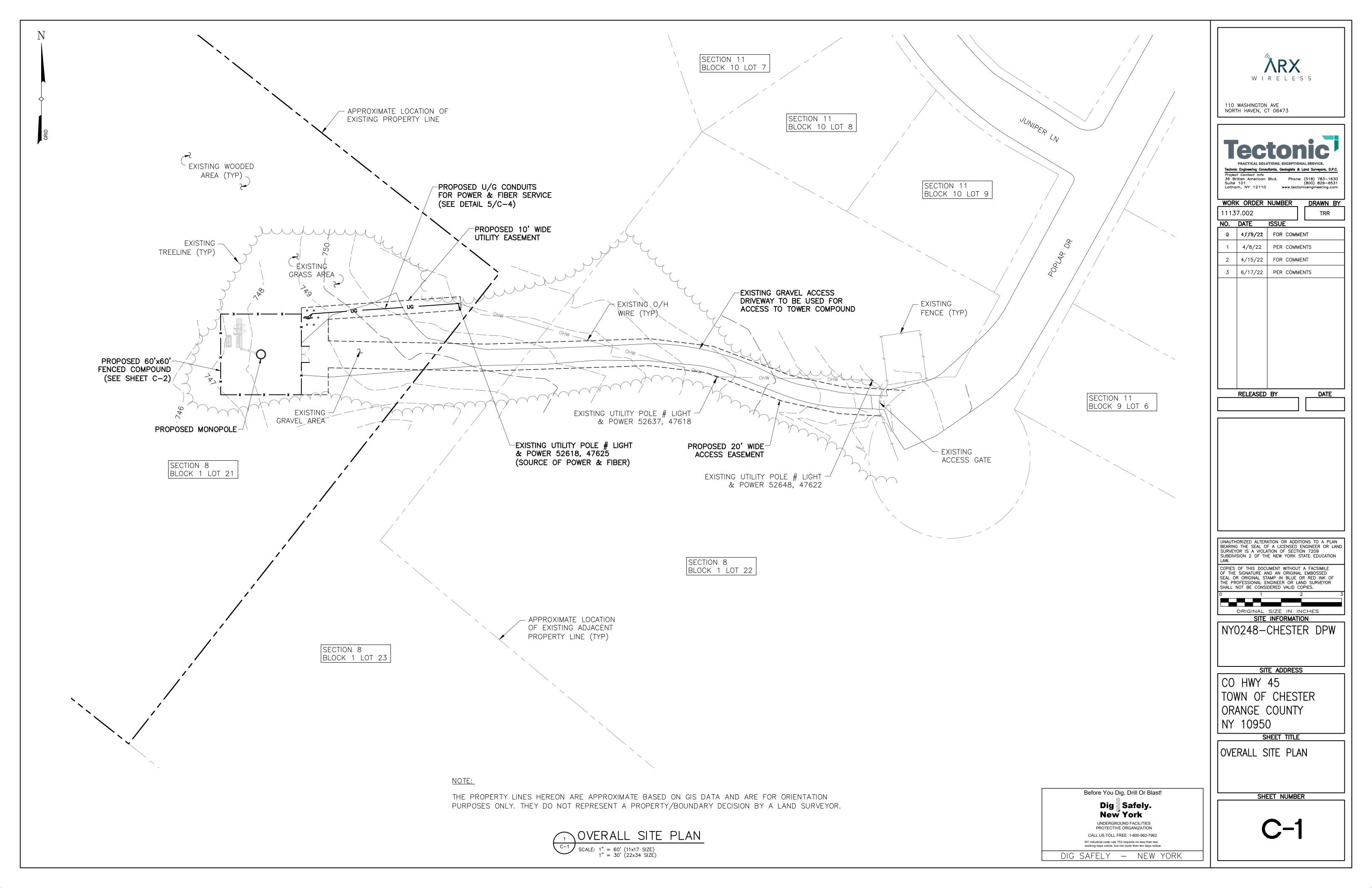
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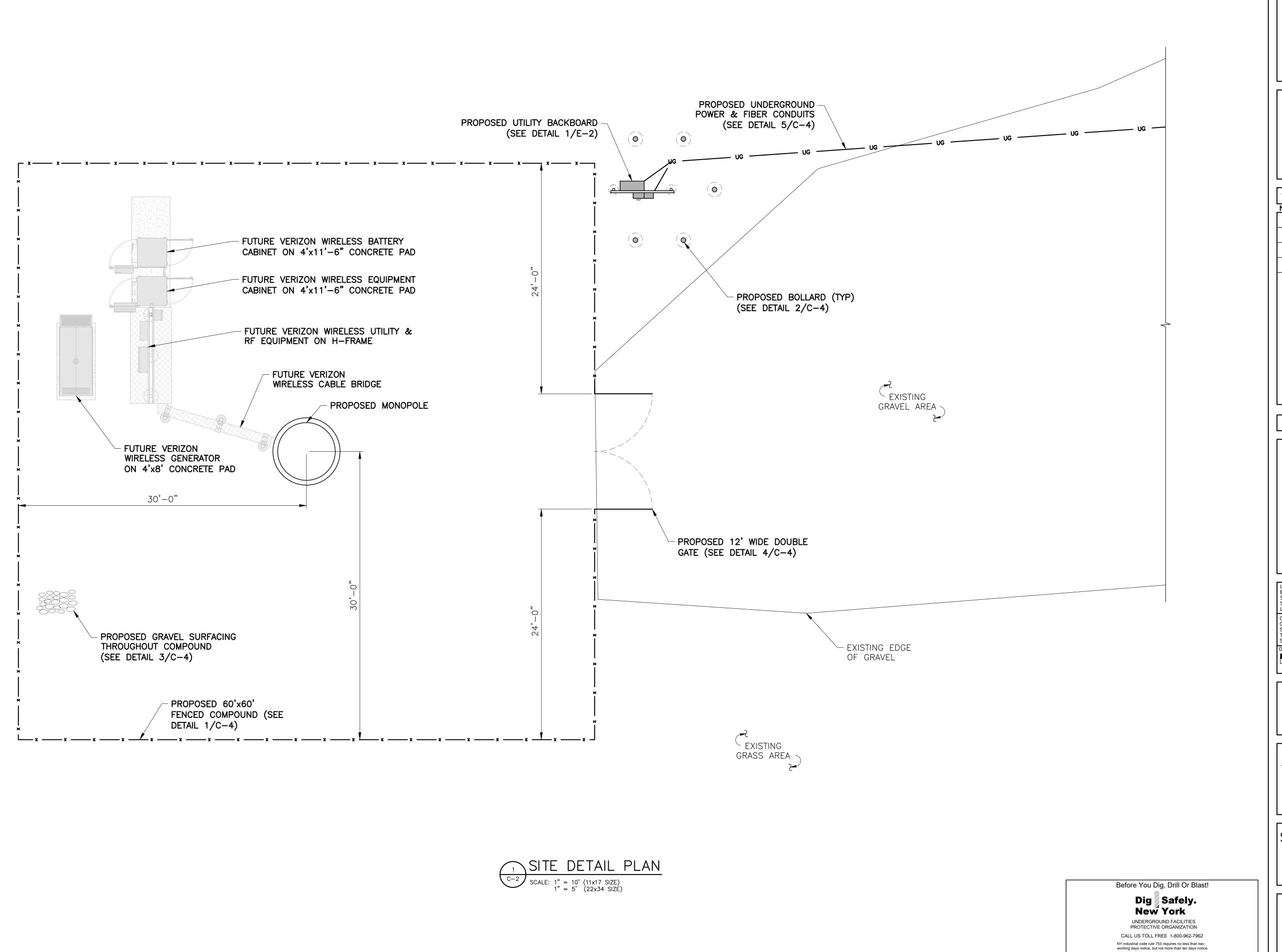
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SETBACK PLAN & BULK REQUIREMENTS

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SB-1







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Project Contact Info
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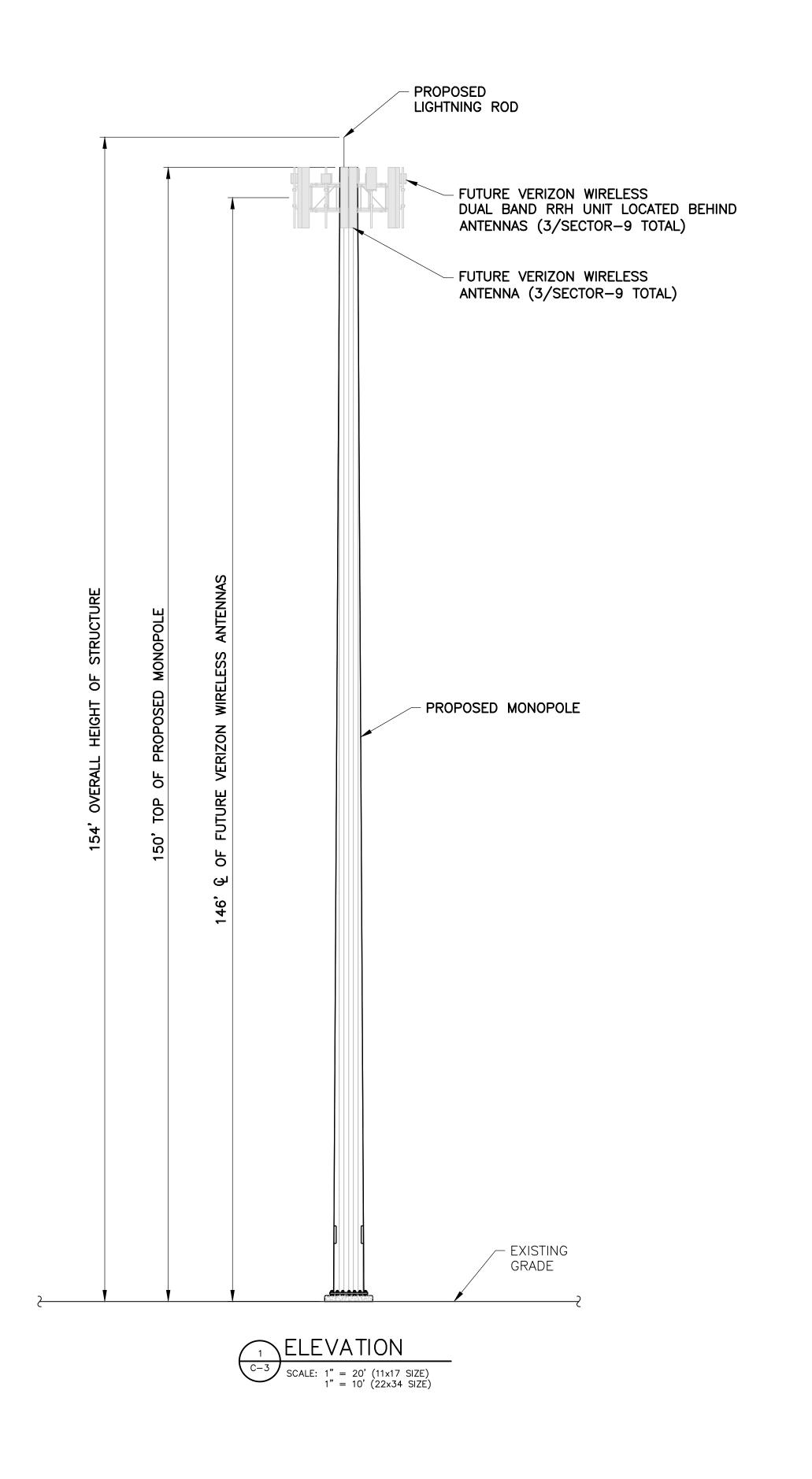
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SITE DETAIL PLAN

DIG SAFELY - NEW YORK

SHEET NUMBER

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Project Contact Info
36 British American Blvd.
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Substitute Contact Info
Www.tectonicengineering.com

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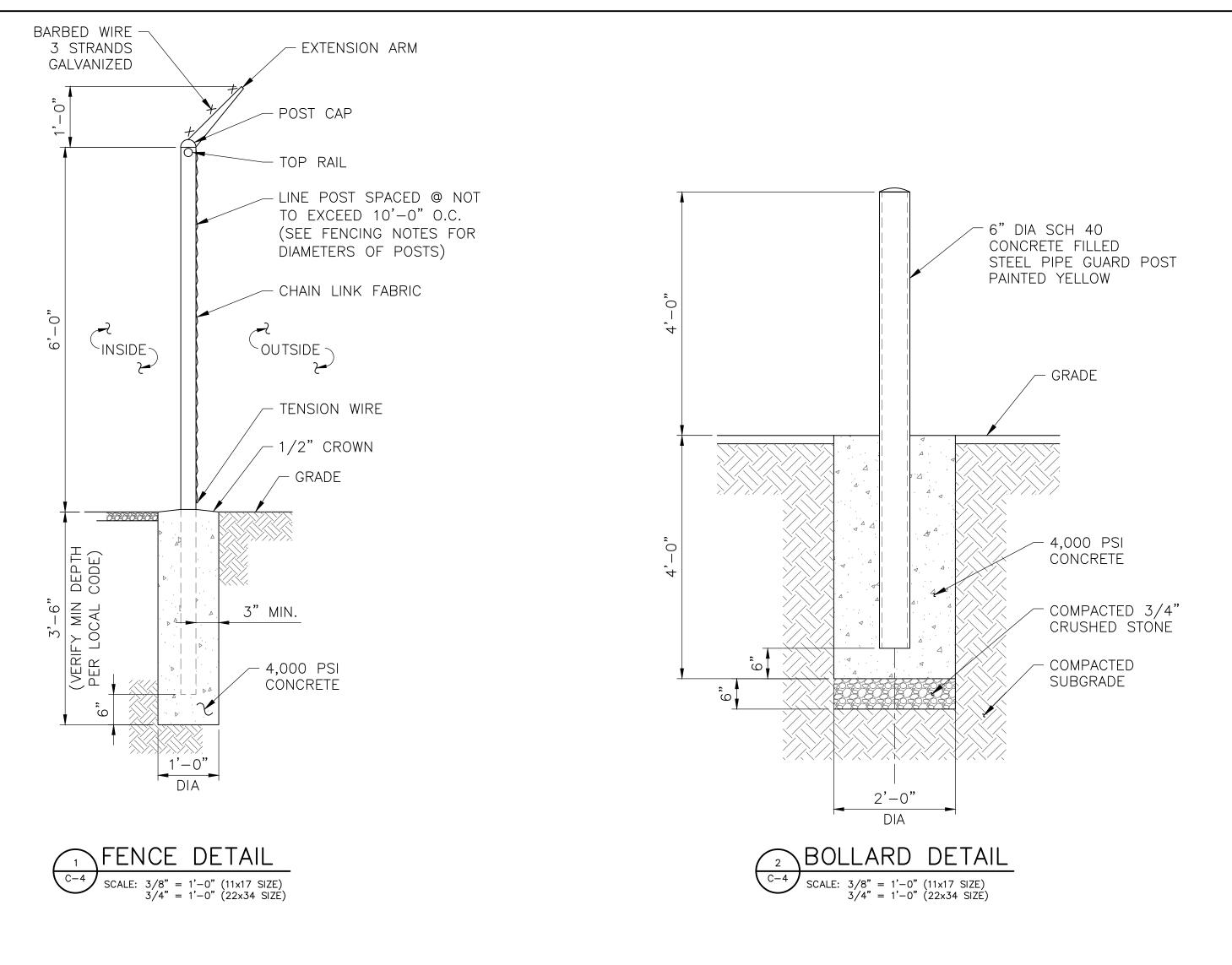
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ORANGE COUNTY
NY 10950

ELEVATION

SHEET NUMBER

C-3



3/4" CRUSHED STONE CONFORMING WITH
NYSDOT STANDARD SPECIFICATIONS SECTION
703-AGGREGATE, SUB-SECTION 703-02-COURSE
AGGREGATE, TABLE 703-4 NO. 2 STONE

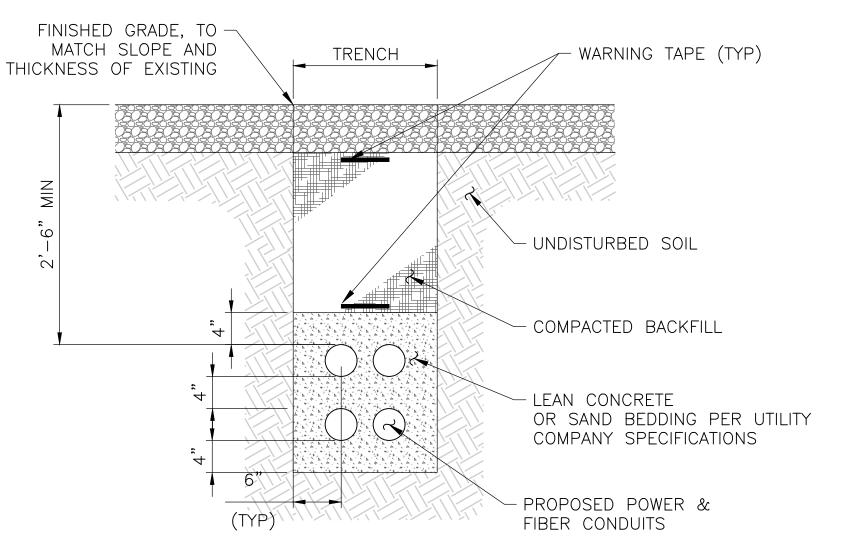
WEED BARRIER SHALL BE
TYPAR LANDSCAPE FABRIC OR
ENGINEER APPROVED EQUAL

COMPACTED SUBGRADE

GRAVEL SURFACING TREATMENT

SCALE: 1/2" = 1'-0" (11x17 SIZE)
1 1/2" = 1'-0" (22x34 SIZE)

WELDED HEAVY DUTYHASP AND STAPLE W/INTEGRAL DROP BAR AND PADLOCK / 9"x9" BANDED HAND - CAP (TYP ON ALL POSTS) HOLE (TYP) W/CHAIN WELDED @ ONE SIDE 12'-0" (3) STRANDS OF GALVANIZED (3) INDUSTRIAL MALLEABLE IRON OFFSET PIN HINGES BARBED WIRE - 3/8" DIA STEEL TRUSS PER GATE PANEL (PAGE-WILSON ROD AT GATE (TYP) M-6 OR EQUAL) TOP RAIL - GATE FRAME 4" DIA SCH 40 GATE POST - TENSION WIRE ✓ GRADE CENTER DROP - SLOTTED MUSHROOM CAP CONCRETE (SEE FENCE DETAIL) DOUBLE GATE DETAIL SCALE: 1/4" = 1'-0" (11x17 SIZE)1/2" = 1'-0" (22x34 SIZÉ)



NOTES:

1. BACKFILL SHALL BE CLEAN FILL WITHOUT STONES AND SHALL BE THOROUGHLY COMPACTED IN 12" LAYERS BY TAMPING OR APPROVED EQUAL METHOD. NO BELLYING OF TRENCH SHALL BE ALLOWED.

- 2. SCH 40 PVC CONDUIT SHALL BE USED BELOW GRADE.
- 3. SCH 80 PVC CONDUIT SHALL BE USED UNDER ROADWAY.

MAIN ELECTRIC/FIBER UTILITY TRENCH DETAIL

SCALE: 1/2" = 1'-0" (11x17 SIZE)
1" = 1'-0" (22x34 SIZE)



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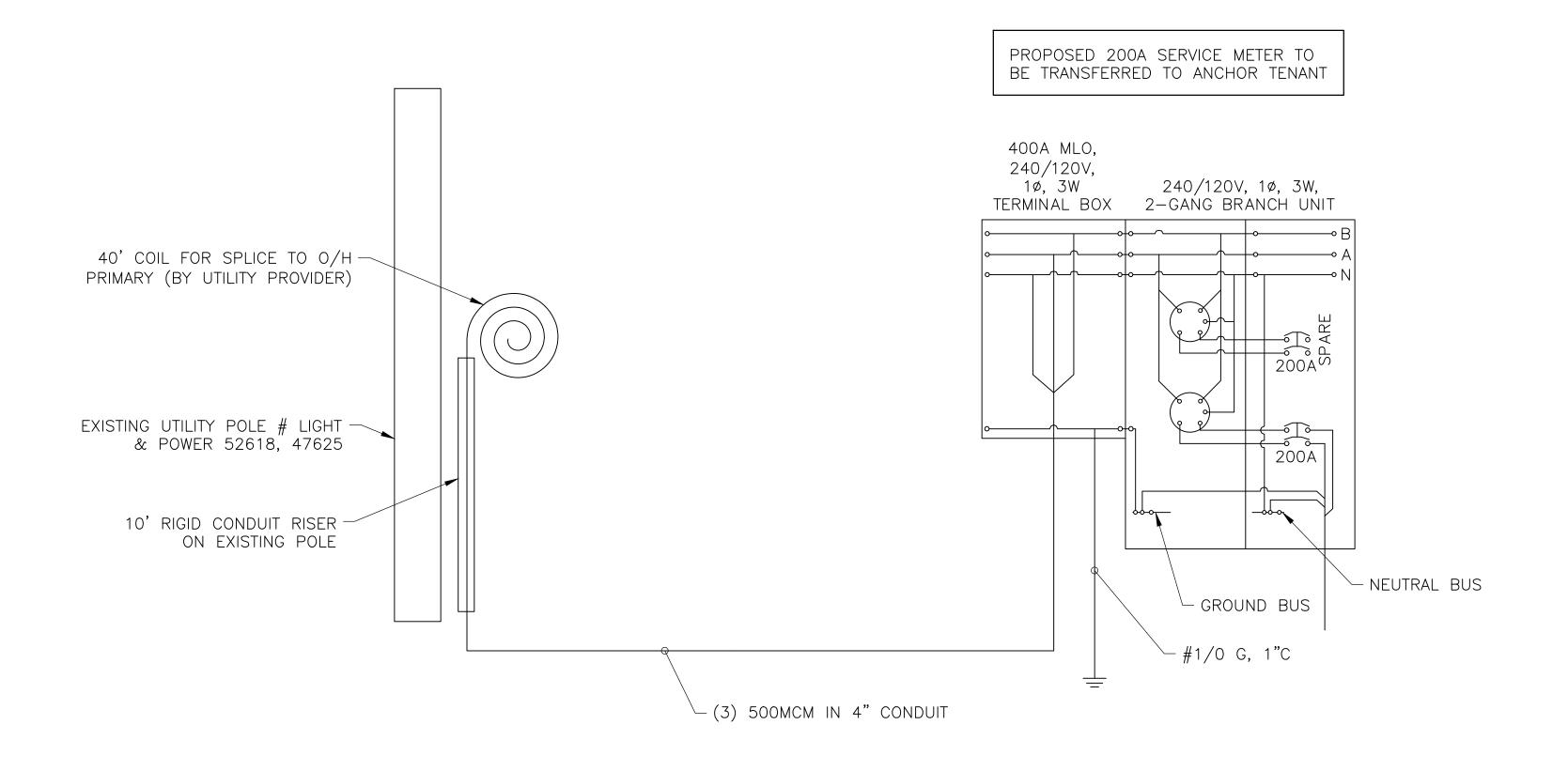
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NY 10950

SITE DETAILS

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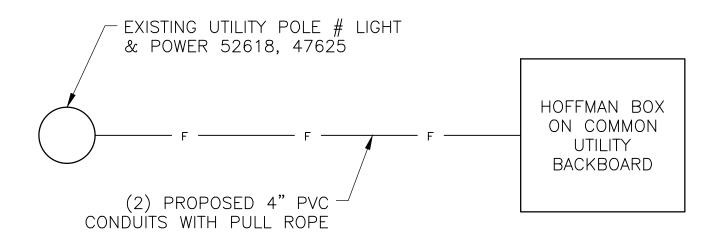
C-4



#### NOTES:

- 1. EMT CONDUIT W/COMPRESSION FITTINGS SHALL BE USED ABOVE GRADE.
- 2. SCH 40 PVC CONDUIT SHALL BE USED BELOW GRADE.
- 3. SCH 80 PVC CONDUIT SHALL BE USED UNDER ROADWAY.









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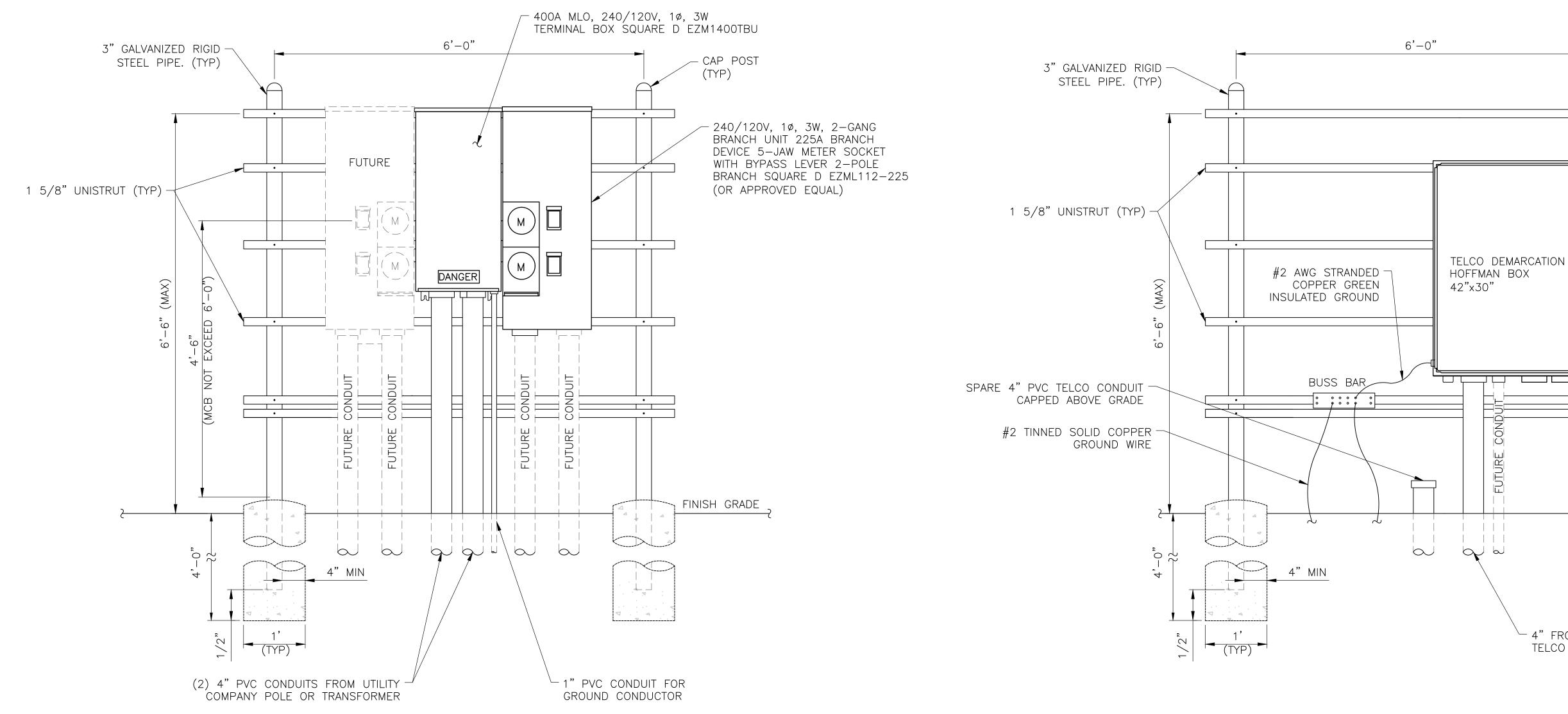
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SITE ADDRESS

CO HWY 45
TOWN OF CHESTER
ORANGE COUNTY
NY 10950
SHEET TITLE

UTILITY DIAGRAMS & DETAILS

SHEET NUMBER



<u>FRONT</u>

1. CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT 30" BELOW GRADE.

2. CONDUIT FROM 30" BELOW GRADE, INCLUDING THE SWEEP, SHALL BE SCHEDULE 80 PVC FOR ABOVE GRADE AND UNDER ALL ROADWAYS (UNLESS CONCRETE ENCASED).

3. ALL CONDUITS SHALL HAVE EXPANSION FITTINGS ABOVE GRADE.





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POST (TYP)

, FINISH GRADE

−4"FROM

<u>REAR</u>

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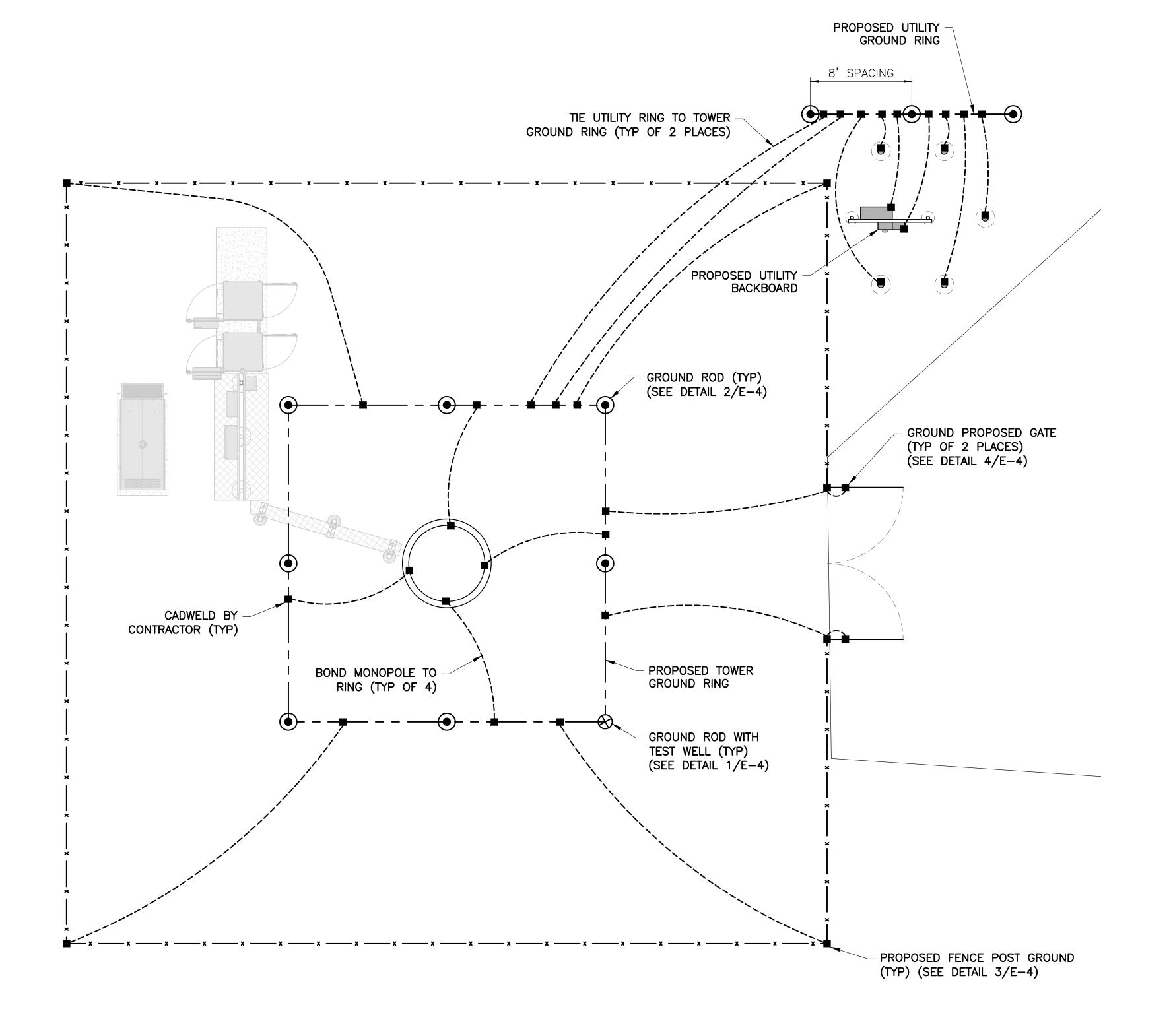
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UTILITY BACKBOARD DETAIL

SHEET NUMBER

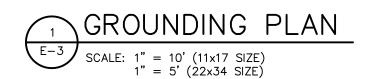
LEG	END		
M	METER	00000	COPPER GROUND BAR
	CIRCUIT BREAKER		GROUND CONDUCTOR BY CONTRACTOR
•	CADWELD TYPE CONNECTION BY CONTRACTOR		GROUND RING BY CONTRACTOR
	COAXIAL CABLE SHIELD GROUND KIT CONNECTION	$\otimes$	GROUND ROD WITH TEST WELL
•	COMPRESSSION FITTING GROUND CONNECTION	•	GROUND ROD

_				
	ABBR	REVIATIONS		
	А	AMPERE	W	WIRE
	С	CONDUIT	WP	WEATHERPROOF
	GND	GROUND	Ø	PHASE
	KWH	KILOWATT HOUR	TGB	TOP GROUND BAR
	Р	POLE	MGB	MASTER GROUND BAR
	SN	SOLID NEUTRAL	BGB	BOTTOM GROUND BAR
	SW	SWITCH	EGB	EXISTING GROUND BAR
	V	VOLT		



NOTE:

GROUNDING SYSTEM SHOWN IS PRELIMINARY AND IS NOT BASED UPON SOIL RESISTIVITY TEST DATA. CONTRACTOR SHALL CONFIRM FINAL GROUNDING DESIGN WITH VERIZON WIRELESS PRIOR TO CONSTRUCTION.





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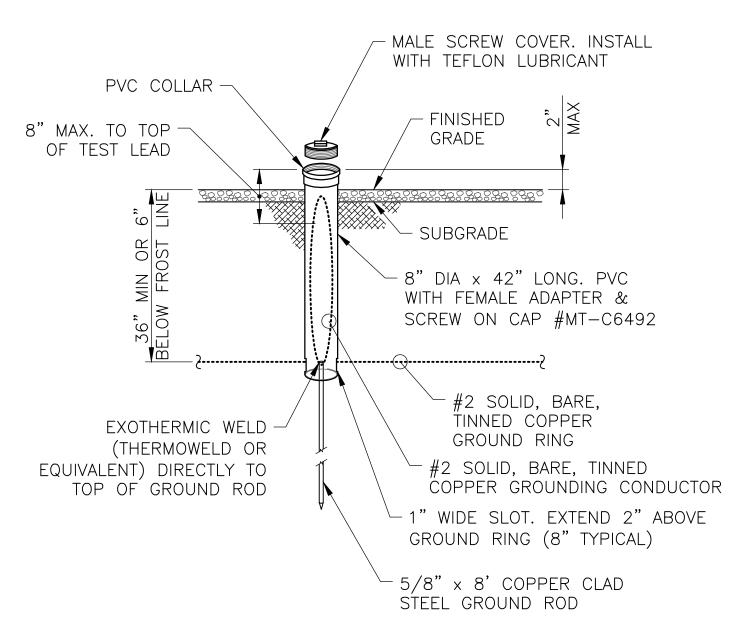
SITE ADDRESS

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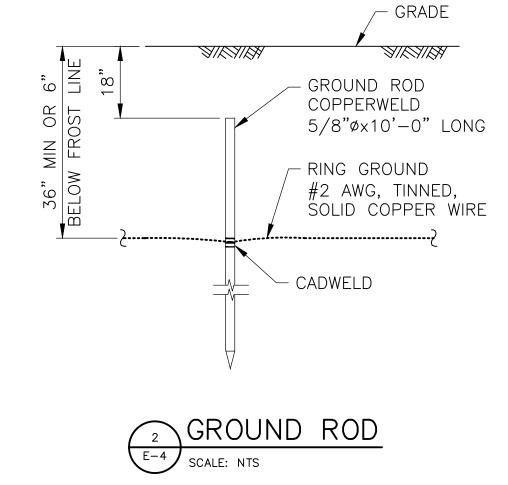
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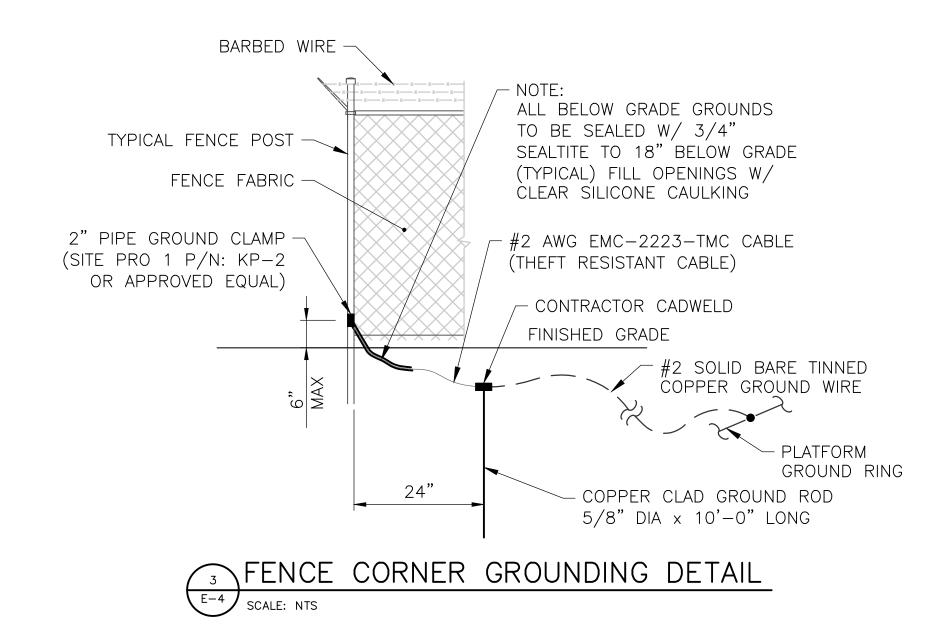
GROUNDING PLAN

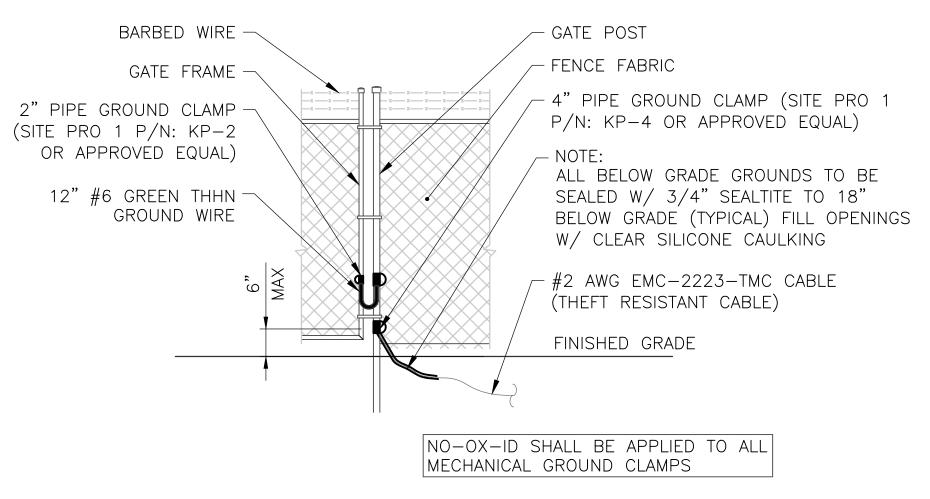
SHEET NUMBER











NO-OX-ID SHALL BE APPLIED TO ALL MECHANICAL GROUND CLAMPS

GATE GROUNDING DETAIL

SCALE: NTS



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36 British American Blvd. Phone: (518) 783–1630
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SITE ADDRESS

CO HWY 45
TOWN OF CHESTER
ORANGE COUNTY
NY 10950

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

# Exhibit C SiteSafe Site Compliance Report



# Verizon Wireless Site Compliance Report

Site Name: Walton Park

**Site Address: Poplar Drive** 

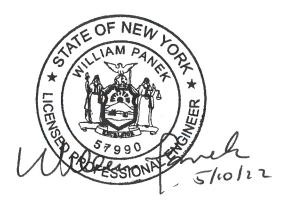
Chester, NY 10950

**Orange County** 

Structure Type: Monopole

Report generated on: May 9, 2022 Report by: Benjamin Schnable Customer Contact: Wasif Sharif

Verizon Wireless will be compliant with the FCC Rules and Regulations in all publicly accessible areas.



Site Safe, LLC 8618 Westwood Center Drive, Suite 315, Vienna, VA 22182 703.276.1100 • 703.276.1169 fax info@sitesafe.com • www.sitesafe.com



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## 1 Executive Summary

Verizon Wireless has contracted with Site Safe, LLC (Sitesafe), an independent radiofrequency (RF) regulatory and engineering consulting firm, to determine if the proposed telecommunications facility is in compliance with the Federal Communications Commission (FCC) Rules and Regulations for RF emissions (see Appendix A of this report for further explanation of the FCC Rules and Regulations). This document and the conclusions herein are based on the information provided by representatives of Verizon Wireless which is assumed to be true and correct.

Verizon Wireless is proposing to construct a new 180' monopole and collocate (6) multi-band, (3) integrated active single-band antennas and (6) dual-band remote radio heads at the 146' level.

The analysis evaluates the telecommunications facility with respect to the General Public maximum permissible exposure (MPE) limits ("General Public" is also referred to as "Uncontrolled Environment"; see Appendix A for further explanation of this classification). Sitesafe has taken into consideration the proposed Verizon Wireless antenna system at the subject location. No other antenna systems are currently proposed.

Based on the analysis, Sitesafe has determined that:

**Verizon Wireless will comply** in all publicly accessible areas with the FCC Rules and Regulations governing human exposure to RF electromagnetic fields as described in 47 CFR § 1.1307(b) and 1.1310 in accordance with the methods for evaluating compliance contained in OET Bulletin 65.

Furthermore, with the proposed Verizon Wireless antenna configuration in service, the composite exposure from this facility in all areas at ground level will be below 1% of the General Public MPE limit, or over 100 times less than the maximum allowed exposure in publicly accessible areas.



## 2 Analysis

In this analysis, Sitesafe has taken into consideration the proposed Verizon Wireless antenna system at the subject location. No other antenna systems are currently proposed. All proposed licensees are listed in the antenna inventory table in Section 3 of this report.

Using this data, software modeling was performed for all transmitting antennas located at the site. Sitesafe has assumed a 100% duty cycle and maximum radiated power. The site has been modeled with these assumptions to determine the maximum potential RF energy density. Sitesafe believes this to be a worst-case analysis based on the best available data.

The power density calculations performed by the software tool use FCC prescribed methodologies as contained in OET Bulletin 65, which was compiled by the FCC to provide assistance in evaluating compliance with FCC guidelines for human exposure to electromagnetic fields.

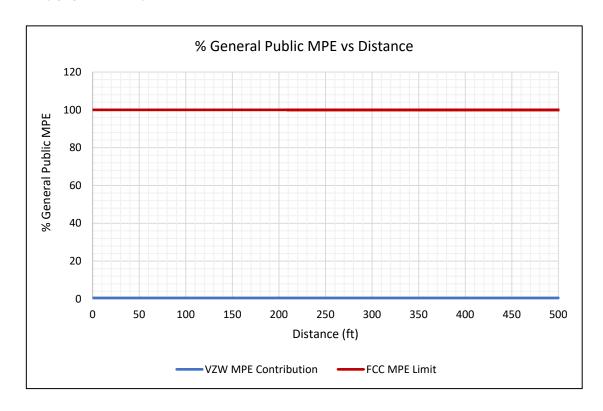
As stated in Section 1, based on this analysis, the calculated ground level exposure from the Verizon Wireless antenna system will be below 1% of the General Public MPE limit. No other antenna systems are currently proposed.

Keep in mind that the FCC did not arbitrarily establish their own standards but rather adopted the recommendations of national and international organizations such as the National Council on Radiation Protection and Measurements (NCRP), the American National Standards Institute (ANSI) and the Institute of Electrical and Electronics Engineers (IEEE). These recommendations were developed by expert scientists and engineers following extensive evaluation of the potential biological effects from RF exposure. The FCC MPE limits are based on thresholds for known adverse effects, and they were designed to provide a substantial margin of safety. There is a safety factor of 50 built into the General Public MPE limits, and the predicted Verizon Wireless exposure levels are over 100 times below these very conservative limits.

In cases where such compliance exists, the subject of electromagnetic field safety is preempted by the Telecommunications Act of 1996, which states: "No state or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the (Federal Communication) Commission's regulations concerning such emissions."



Lastly, the graph below provides a visual depiction of the rather insignificant electromagnetic field exposure contribution from the Verizon Wireless antenna system at any distance from the base of the structure. This portrays how low the Verizon Wireless contribution is when compared to the General Public MPE limit.





# 3 Antenna Inventory

The following antenna inventory contains data provided by the customer and/or gathered by Sitesafe personnel which was used to perform the analysis:

Ant #	Operator	Antenna Make/Model	TX Freq (MHz)	Tech.	Az (Deg)	ERP (Watts)	AGL (ft)	MDT	EDT
1	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	60	1945.76	146'	0	2
1	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	60	995.54	146'	0	2
1	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	5G	60	995.54	146'	0	2
1	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	1900	LTE	60	5755.99	146'	0	2
2	VERIZON WIRELESS (Proposed)	Samsung MT6407-77A	3700	5G	60	43167.43	148.5'	0	6
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE/AWS1	60	6608.76	146'	0	2
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	60	995.54	146'	0	2
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	5G	60	995.54	146'	0	2
3	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	60	1945.76	146'	0	2
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	180	1945.76	146'	0	4
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	180	995.54	146'	0	4
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	5G	180	995.54	146'	0	4
4	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	1900	LTE	180	5755.99	146'	0	4
5	VERIZON WIRELESS (Proposed)	Samsung MT6407-77A	3700	5G	180	43167.43	148.5'	0	6
6	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE/AWS1	180	6608.76	146'	0	4
6	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	180	995.54	146'	0	4
6	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	5G	180	995.54	146'	0	4
6	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	180	1945.76	146'	0	4
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	300	1945.76	146'	0	2
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	300	995.54	146'	0	2
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	5G	300	995.54	146'	0	2
7	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	1900	LTE	300	5755.99	146'	0	2



Ant #	Operator	Antenna Make/Model	TX Freq (MHz)	Tech.	Az (Deg)	ERP (Watts)	AGL (ft)	MDT	EDT
8	VERIZON WIRELESS (Proposed)	Samsung MT6407-77A	3700	5G	300	43167.43	148.5'	0	6
9	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	2100	LTE/AWS1	300	6608.76	146'	0	2
9	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	751	LTE	300	1945.76	146'	0	2
9	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	LTE	300	995.54	146'	0	2
9	VERIZON WIRELESS (Proposed)	Commscope NHH-65C-R2B	850	5G	300	995.54	146'	0	2

Notes: Each row with the same number in the Ant # column references the same physical antenna. Proposed equipment is tagged as (Proposed) under Operator or Antenna Make and Model. Power values provided by the client and used in the analysis may be greater than what is initially deployed. For additional modeling information, refer to Appendix B of this report.



## 4 Engineer Certification

The Professional engineer whose seal appears on the cover of this document herby certifies and affirms:

That I am registered as a Professional Engineer in the jurisdiction indicated in the professional engineering stamp on the cover of this document; and

That I am providing professional engineering services on behalf of QualTek Engineering, P.C., and am an employee of QualTek Wireless, LLC, sister company to Site Safe, LLC (both under the parent company QualTek)

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specially as they apply to the FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Benjamin Schnable.

May 9, 2022



## Appendix A - Technical Framework: FCC Rules and Regulations

In 1996, the FCC adopted regulations for evaluating of the effects of RF emissions in 47 CFR § 1.1307(b) and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (OET Bulletin 65), Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, Edition 97-01, published August 1997. Since 1996, the FCC periodically reviews these rules and regulations as per its congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or "Controlled Environment" and General Public or "Uncontrolled Environment". The General Public limits are generally five times more conservative or restrictive than the Occupational limits.

General Public or Uncontrolled limits apply to *accessible* areas where workers or the general public may be exposed to RF electromagnetic fields.

Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (e.g. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage.

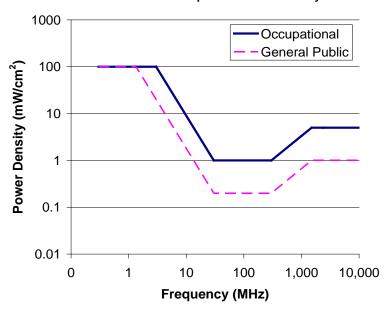
A site with Controlled environments is evaluated with Occupational limits. All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage, it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The MPE limits utilized in this analysis are outlined in the following diagram and table:



## **FCC Limits for Maximum Permissible Exposure (MPE)**

Plane-wave Equivalent Power Density



## Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time   E  <sup>2</sup> ,   H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-			5	6
100,000				

## Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time  E 2,  H 2 or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-			1.0	30
100,000				

f = frequency in MHz \*Plane-wave equivalent power density



## **Appendix B - Definitions**

**Compliance** – The determination of whether a site complies with FCC standards with regards to Human Exposure to Radio Frequency Electromagnetic Fields from transmitting antennas.

**Decibel (dB)** – A unit for measuring power or strength of a signal.

**Duty Cycle** – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

**Effective Radiated Power (ERP)** – The product of the power supplied to the antenna and the antenna gain in a given direction relative to a half-wave dipole antenna.

Gain (of an antenna) – The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power density at the same distance. When not specified otherwise, the gain refers to the direction of maximum radiation. Gain may be considered for a specified polarization. Gain may be referenced to an isotropic antenna (dBi) or a half-wave dipole (dBd) antenna.

**Generic Antenna** – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided. In the event of unknown information, Sitesafe will use its industry specific knowledge of antenna models to select a worst-case scenario antenna to model the site.

**Maximum Permissible Exposure (MPE)** – The rms and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.

**OET Bulletin 65** – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of RF exposure on humans. The guideline was published in August 1997.

**Radio Frequency Exposure or Electromagnetic Fields** – Electromagnetic waves that are propagated from antennas through space.



## Appendix C - Statement of Limiting Conditions

Sitesafe will not be responsible for matters of a legal nature that affect the site or property.

Due to the complexity of some wireless sites, Sitesafe performed this analysis and created this report utilizing best industry practices and due diligence. Sitesafe cannot be held accountable or responsible for anomalies or discrepancies due to actual site conditions or information or data supplied by Verizon Wireless, the site manager, or their affiliates, subcontractors or assigns.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data provided by a second party and physical data collected by Sitesafe, the physical data will be used.



# Appendix D - Additional Resources

Additional RF information is available at the following sites: <a href="https://www.fcc.gov/general/radio-frequency-safety-0">https://www.fcc.gov/general/radio-frequency-safety-0</a> <a href="https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety">https://www.fcc.gov/engineering-technology/electromagnetic-compatibility-division/radio-frequency-safety/faq/rf-safety</a>

# Exhibit D Antenna Manufacturer Specifications



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 65° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

# General Specifications

Antenna TypeSectorBandMultibandColorLight gray

**Grounding Type** RF connector body grounded to reflector and mounting bracket

Performance Note Outdoor usage | Wind loading figures are validated by wind tunnel

measurements described in white paper WP-112534-EN

**Radome Material** Fiberglass, UV resistant

Radiator Material Copper | Low loss circuit board

Reflector Material Aluminum

**RF Connector Interface** 4.3-10 Female

**RF Connector Location** Bottom

RF Connector Quantity, high band 4
RF Connector Quantity, low band 2
RF Connector Quantity, total 6

## Remote Electrical Tilt (RET) Information

RET Interface 8-pin DIN Female | 8-pin DIN Male

**RET Interface, quantity** 2 female | 2 male

Input Voltage 10-30 Vdc

Internal Bias Tee Port 1 | Port 3

Internal RET High band (1) | Low band (1)

Power Consumption, idle state, maximum 2 W
Power Consumption, normal conditions, maximum 13 W

Page 1 of 4



Protocol 3GPP/AISG 2.0 (Single RET)

**Dimensions** 

**Width** 301 mm | 11.85 in

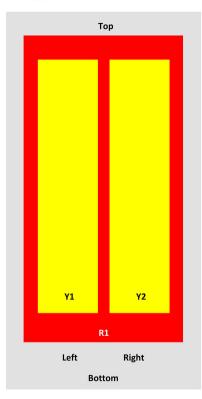
**Depth** 180 mm | 7.087 in

**Length** 2438 mm | 95.984 in

Net Weight, without mounting kit 23.4 kg | 51.588 lb

# Array Layout

<u>NHH</u>



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxxxxxxxx
Y2	1605-2360	5.6	1	

View from the front of the antenna (Sizes of colored boxes are not true depictions of array sizes)

# **Electrical Specifications**

**Impedance** 50 ohm

**Operating Frequency Band** 1695 – 2360 MHz | 698 – 896 MHz

**COMMSCOPE®** 

Polarization ±45°

Total Input Power, maximum  $900~\mathrm{W} \ @ \ 50~\mathrm{^{\circ}C}$ 

# **Electrical Specifications**

Frequency Band, MHz	698-806	806-896	1695-1880	1850-1990	1920-2200	2300-2360
Gain, dBi	16	16.1	17.3	17.7	18.3	18.2
Beamwidth, Horizontal, degrees	65	62	74	66	62	59
Beamwidth, Vertical, degrees	9	7.9	5.6	5.2	4.9	4.5
Beam Tilt, degrees	0-11	0-11	0-7	0-7	0-7	0-7
USLS (First Lobe), dB	21	18	19	20	22	18
Front-to-Back Ratio at 180°, dB	35	31	33	29	29	30
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	30	30	30	30
VSWR   Return loss, dB	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0	1.5   14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port, maximum, watts	400	400	350	350	350	300

# Electrical Specifications, BASTA

!	,					
Frequency Band, MHz	698-806	806-896	1695-1880	1850-1990	1920-2200	2300-2360
Gain by all Beam Tilts, average, dBi	15.8	15.9	16.9	17.5	18	17.9
Gain by all Beam Tilts Tolerance, dB	±0.4	±0.4	±0.4	±0.3	±0.6	±0.4
Gain by Beam Tilt, average, dBi	0° 15.9 5° 15.9 11° 15.5	0° 15.8 5° 16.0 11° 15.7	0° 16.9 4° 17.0 7° 16.9	0° 17.4 4° 17.5 7° 17.4	0° 17.9 4° 18.0 7° 18.0	0° 17.8 4° 17.9 7° 17.9
Beamwidth, Horizontal Tolerance, degrees	±1.2	±1.6	±5.3	±3.4	±6	±3.1
Beamwidth, Vertical Tolerance, degrees	±0.6	±0.4	±0.3	±0.2	±0.2	±0.2
USLS, beampeak to 20° above beampeak, dB	15	14	17	16	17	15
Front-to-Back Total Power at 180° ± 30°, dB	25.6	23.8	28	25	25	24
CPR at Boresight, dB	18	26	20	25	20	17

Page 3 of 4



**CPR at Sector, dB** 15 9 11 10 8 2

Mechanical Specifications

Effective Projective Area (EPA), frontal  $0.37 \text{ m}^2 \mid 3.983 \text{ ft}^2$ Effective Projective Area (EPA), lateral  $0.31 \text{ m}^2 \mid 3.337 \text{ ft}^2$ 

 Wind Loading @ Velocity, frontal
 393.0 N @ 150 km/h (88.3 lbf @ 150 km/h)

 Wind Loading @ Velocity, lateral
 330.0 N @ 150 km/h (74.2 lbf @ 150 km/h)

 Wind Loading @ Velocity, maximum
 757.0 N @ 150 km/h (170.2 lbf @ 150 km/h)

 Wind Loading @ Velocity, rear
 398.0 N @ 150 km/h (89.5 lbf @ 150 km/h)

Wind Speed, maximum 241 km/h | 149.75 mph

Packaging and Weights

 Width, packed
 409 mm | 16.102 in

 Depth, packed
 299 mm | 11.772 in

 Length, packed
 2561 mm | 100.827 in

 Weight, gross
 36.1 kg | 79.587 lb

# Regulatory Compliance/Certifications

Agency Classification

CHINA-ROHS Above maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

ROHS Compliant/Exempted



## Included Products

BSAMNT-3 – Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

\* Footnotes

**Performance Note**Severe environmental conditions may degrade optimum performance

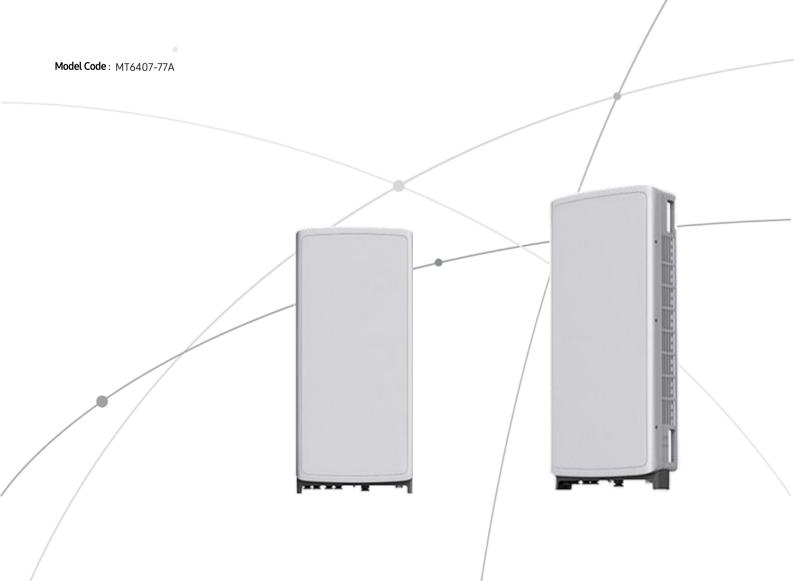


# SAMSUNG

# SAMSUNG C-Band 64T64R Massive MIMO Radio

# for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..



# Points of Differentiation

## Wide Bandwidth

With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks

C-Band spectrum supported by Massive MIMO Radio



# **Enhanced Performance**

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

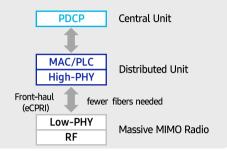
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

Furthermore, as C-Band massive MIMO Radio supports MU-MIMO(Multi-user MIMO), it enables to increase user throughput by minimizing interference.



## **Future Proof Product**

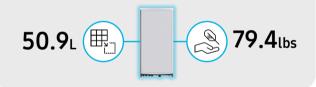
Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface. It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



# Well Matched Design

Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment..





# Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs

# Exhibit E Radio Frequency Certification of Non-Interference





Apr 20, 2022

Planning Board Town of Chester 1786 Kings Highway Chester, NY 10918

RE: Walton Park – Application of Verizon Wireless - Non-Interference Letter

#### Ladies and Gentlemen:

With respect to the above application, and in accordance with applicable provisions of the Wireless Telecommunications Facilities Siting Law for the **Town of Chester**, Verizon Wireless ("Verizon Wireless") operates Wireless Communications Forth Generation (4G) Services, Personal Communication Service (PCS) and/or Cellular Radiotelephone Services network authorized by the Federal Communications Commission (FCC) to provide state of the art digital and/or cellular wireless communications in many parts of the nation, including upstate New York. Verizon Wireless' operations and network are licensed and regulated by the FCC.

Verizon Wireless' radio equipment is designed to transmit frequencies only within the allocated frequency bands and each transmitter is carefully adjusted to comply with FCC regulations for power output and frequency. These procedures prevent interference with other radio services, public safety communications, airport navigation, cordless phones, computers and other community office or residential household appliances.

The incidence of these transmissions causing interference with other radio service is rare. All other radio communication services, including broadcast radio and television, are assigned to specific frequency bands, separate and distinct from cellular and other frequencies. For instance, AM Radio operates between 0.5 -1.5 MHz and VHF Television operates between 54 - 215 MHz. In addition, receivers for other services are similarly designed to prevent interference from out of band service. In the unlikely event that malfunctioning equipment or improper settings are shown to cause interference with an existing service, Verizon Wireless would be required, under the conditions of its FCC license, to take immediate steps to correct any problems.

Thank you for considering this application.

Very truly yours,

Wasif Sharif

Wasif Sharif

Radio Frequency (RF) Design Engineer

# Exhibit F Federal Communications Commission Licenses

#### REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> WQBT539	<b>File Number</b> 0007490681		
Radio Service CW - PCS Broadband			

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 12-06-2016	Effective Date 12-06-2016	Expiration Date 01-03-2027	<b>Print Date</b> 12-07-2016
Market Number BTA321		nel Block C	Sub-Market Designator 4
		t Name ork, NY	
<b>1st Build-out Date</b> 12-07-2003	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is conditioned upon the full and timely payment of all monies due pursuant to Sections 1.2110 and 24.711 of the Commission's Rules and the terms of the Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation of this authorization.

#### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Pursuant to Order DA 03-617 (rel. March 3, 2003), the designated entity holding period for this license is extended by 703 days, or until the licensee meets its five-year construction requirement, whichever is sooner.

Licensee Name: CELLCO PARTNERSHIP

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

#### REFERENCE COPY

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> KNLH264	<b>File Number</b> 0007716974			
Radio Service				
CW - PCS Broadband				

FCC Registration Number (FRN): 0003290673

•			
<b>Grant Date</b> 06-02-2017	Effective Date 06-02-2017	Expiration Date 06-27-2027	<b>Print Date</b> 06-06-2017
Market Number BTA321	Channel Block Sub-Mar		Sub-Market Designator
	Market New Yo		
<b>1st Build-out Date</b> 06-27-2002	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

This authorization is conditioned upon the full and timely payment of all monies due pursuant to Sections 1.2110 and 24.716 of the Commission's Rules and the terms of the Commission's installment plan as set forth in the Note and Security Agreement executed by the licensee. Failure to comply with this condition will result in the automatic cancellation of this authorization.

### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

**Call Sign:** KNLH264 **File Number:** 0007716974 **Print Date:** 06-06-2017

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

#### REFERENCE COPY

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# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

#### RADIO STATION AUTHORIZATION

LICENSEE: AIRTOUCH CELLULAR

ATTN: REGULATORY AIRTOUCH CELLULAR 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> KNLF644	<b>File Number</b> 0007490664		
Radio Service CW - PCS Broadband			

FCC Registration Number (FRN): 0006146468

,			
<b>Grant Date</b> 12-02-2016	Effective Date 12-02-2016	Expiration Date 01-03-2027	<b>Print Date</b> 12-03-2016
Market Number BTA321	Channel Block C Sub-Market De		Sub-Market Designator 3
	Market New Yo		
<b>1st Build-out Date</b> 12-07-2003	<b>2nd Build-out Date</b> 01-03-2007	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

This authorization is subject to the condition that, in the event that systems using the same frequencies as granted herein are authorized in an adjacent foreign territory (Canada/United States), future coordination of any base station transmitters within 72 km (45 miles) of the United States/Canada border shall be required to eliminate any harmful interference to operations in the adjacent foreign territory and to ensure continuance of equal access to the frequencies by both countries.

Special Condition for AU/name change (6/4/2016): Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

#### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: AIRTOUCH CELLULAR

**Call Sign:** KNLF644 **File Number:** 0007490664 **Print Date:** 12-03-2016

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

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## **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

Call Sign WRNE583	File Number
Radio	Service
PM - 3.7 G	Hz Service

FCC Registration Number (FRN): 0003290673

registration rumber (11	= 1,1 0000= 0010		
<b>Grant Date</b> 07-23-2021	<b>Effective Date</b> 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA001		nel Block A3	Sub-Market Designator
		t Name ork, NY	
<b>1st Build-out Date</b> 07-23-2029	<b>2nd Build-out Date</b> 07-23-2033	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

Operation for this combination license grants both interim and final rights for this PEA and is not impacted by the relocation process pursuant to 47 CFR ? 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE583 File Number: Print Date:

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

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## **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> WRNE582	File Number
Radio	Service
PM - 3.7 G	Hz Service

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 07-23-2021	Effective Date 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA001		nel Block	Sub-Market Designator
	Market New Yo		
<b>1st Build-out Date</b> 07-23-2029	<b>2nd Build-out Date</b> 07-23-2033	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

Operation for this combination license grants both interim and final rights for this PEA and is not impacted by the relocation process pursuant to 47 CFR ? 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE582 File Number: Print Date:

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

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## **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> WRNE581	File Number
Radio	<b>Service</b>
PM - 3.7 G	Hz Service

FCC Registration Number (FRN): 0003290673

Registration Number (F1	11): 0003270073		
<b>Grant Date</b> 07-23-2021	<b>Effective Date</b> 07-23-2021	Expiration Date 07-23-2036	Print Date
Market Number PEA001		nel Block A1	Sub-Market Designator
		t Name ork, NY	
<b>1st Build-out Date</b> 07-23-2029	<b>2nd Build-out Date</b> 07-23-2033	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

Operation for this combination license grants both interim and final rights for this PEA and is not impacted by the relocation process pursuant to 47 CFR ? 27.1412(g).

License is conditioned on compliance with all applicable FCC rules and regulations, including licensee making payments required by 47 C.F.R. §§ 27.1401- 27.1424 as described in FCC 20-22. See FCC 20-22, paras. 178-331.

### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

Call Sign: WRNE581 File Number: Print Date:

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

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# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

# RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> WQGA906	<b>File Number</b> 0009773259		
Radio Service			
AW - AWS (1710-1755 MHz and			
2110-2155 MHz)			

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 12-21-2021	Effective Date 12-21-2021			
Market Number BEA010		nel Block B	Sub-Market Designator 15	
	<b>Market</b> New York-No. N			
1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date	

#### Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

# **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

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# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

#### RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> WQGA801	<b>File Number</b> 0009761479		
Radio Service			
AW - AWS (1710-1755 MHz and			
2110-2155 MHz)			

FCC Registration Number (FRN): 0003290673

<b>Grant Date</b> 12-14-2021	Effective Date 12-14-2021	Expiration Date 11-29-2036	<b>Print Date</b> 12-14-2021
Market Number CMA144		nel Block A	Sub-Market Designator 0
	Market Orange Co		
1st Build-out Date	2nd Build-out Date	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

This authorization is conditioned upon the licensee, prior to initiating operations from any base or fixed station, making reasonable efforts to coordinate frequency usage with known co-channel and adjacent channel incumbent federal users operating in the 1710-1755 MHz band whose facilities could be affected by the proposed operations. See, e.g., FCC and NTIA Coordination Procedures in the 1710-1755 MHz Band, Public Notice, FCC 06-50, WTB Docket No. 02-353, rel. April 20, 2006.

#### **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Licensee Name: CELLCO PARTNERSHIP

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

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# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

# RADIO STATION AUTHORIZATION

LICENSEE: VERIZON WIRELESS OF THE EAST LP

ATTN: REGULATORY VERIZON WIRELESS OF THE EAST LP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

Call Sign KNKA580	File Number	
	Service Cellular	
Market Numer	Channel Block	
CMA144	В	
Sub-Market Designator		

FCC Registration Number (FRN): 0007609324

Market Name Orange County, NY

Grant Date	Effective Date	<b>Expiration Date</b>	Five Yr Build-Out Date	Print Date
12-19-2017	01-09-2020	01-22-2028		01-10-2020

#### **Site Information:**

Location LatitudeLongitudeGround Elevation (meters)Structure Hgt to Tip (meters)Antenna Structure Registration No.141-12-35.0 N074-21-09.0 W442.970.71003029

Address: WARWICK BRADY ROAD

City: WARWICK County: ORANGE State: NY Construction Deadline:

					*			
Antenna: 2								
<b>Maximum Transmitting ERP in Watts:</b>	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	313.500	264.400	247.600	294.300	238.400	133.000	253.100	356,100
Transmitting ERP (watts) Antenna: 3	0.200	0.200	0.200	0.200	0.200	2.710	20.110	8.700
<b>Maximum Transmitting ERP in Watts:</b>	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	315.600	266.500	249.800	296.500	240,600	135.100	255.200	358.200
Transmitting ERP (watts) Antenna: 4	20.110	8.700	0.200	0.200	0.200	0.200	0.200	2.710
<b>Maximum Transmitting ERP in Watts:</b>	140.820							
Azimuth(from true north)	0	45	90	135	180	225	270	315
Antenna Height AAT (meters)	315.600	266.500	249.800	296.500	240.600	135.100	255.200	358.200
Transmitting ERP (watts)	0.200	0.200	0.330	0.460	52.890	37.600	0.570	0.200

## **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Licensee Name: VERIZON WIRELESS OF THE EAST LP

Azimuth(from true north)
Antenna Height AAT (meters)

Transmitting ERP (watts)

Call Sign: KNKA580 File Number: Print Date: 01-10-2020

**Location Latitude** Longitude Ground Elevation Structure Hgt to Tip **Antenna Structure** (meters) (meters) Registration No. 41-12-35.0 N 074-21-09.0 W 442.9 70.7 1003029 Address: WARWICK BRADY ROAD City: WARWICK **County: ORANGE** State: NY **Construction Deadline:** Antenna: 5 **Maximum Transmitting ERP in Watts:** 140.820 Azimuth(from true north)
Antenna Height AAT (meters) 90 135 180 225 270 315 45 315.600 266.500 249.800 296.500 240.600 135.100 255.200 358.200 Transmitting ERP (watts) 0.200 0.450 11.730 18.090 1.550 0.200 0.200 0.200 Ground Elevation **Structure Hgt to Tip Location Latitude** Longitude Antenna Structure (meters) (meters) Registration No. 2 074-34-52.6 W 381.3 58.5 41-25-36.3 N Address: FINCHVILLE - 0.5 MILE FROM THE INTERSECTION OF GUYMARD TURNPIKE AND MOUNTAIN ROA City: FINCHVILLE **County:** ORANGE State: NY **Construction Deadline:** Antenna: 4 **Maximum Transmitting ERP in Watts: 140.820** Azimuth(from true north)
Antenna Height AAT (meters) 180 225 270 45 135 315 145,900 219.500 227.500 263.500 189.100 243.000 176.700 52.500 Transmitting ERP (watts) 48.980 100.000 43.650 6.920 0.950 0.220 1.100 8.510 Antenna: 5 **Maximum Transmitting ERP in Watts:** 140.820 Azimuth(from true north)
Antenna Height AAT (meters) 90 180 225 270 315 45 135 145,900 219.500 227.500 263.500 189.100 243.000 176.700 52.500 **Transmitting ERP (watts)** 1.260 0.620 0.200 12.880 61.660 95.500 32.360 4.470 Antenna: 6 **Maximum Transmitting ERP in Watts:** 140.820 Azimuth(from true north)
Antenna Height AAT (meters) 45 90 135 180 225 270 315 145.900 219.500 227.500 189.100 243.000 263.500 176.700 52.500 Transmitting ERP (watts) 83.180 17.380 2.290 0.210 0.200 2.240 22.910 75.860 **Ground Elevation** Structure Hgt to Tip **Location Latitude** Longitude **Antenna Structure** (meters) (meters) Registration No. 137.2 41-22-03.3 N 074-40-55.6 W 40.0 Address: (Port Jervis site) 160 EAST MAIN ST. County: ORANGE State: NY **Construction Deadline:** City: PORT JERVIS Antenna: 2 **Maximum Transmitting ERP in Watts: 140.820** Azimuth(from true north) 225 45 90 135 180 270 315 Antenna Height AAT (meters) -218.200 -76.200 -216.300 -45.200 -191.400 -96.900 -105.700 -94.600 Transmitting ERP (watts) 162.690 437.890 100.310 2.460 0.8900.890 0.890 8.740 Antenna: 3 **Maximum Transmitting ERP in Watts:** 140.820

315

-96.900

0.960

45

-76.200

0.960

-218.200

0.960

90

-105.700

2.160

180

-216.300

38.800

135

-94.600

35.100

225

-45.200

2.320

270

0.960

-191.400

Licensee Name: VERIZON WIRELESS OF THE EAST LP

Call Sign: KNKA580 File Number: Print Date: 01-10-2020

Location Latitude  3 41-22-03.3 N  Address: (Port Jervis site) 1  City: PORT JERVIS Cou		( <b>n</b> 13	round Elev neters) 37.2 Construct		Structure Hgt (meters) 40.0	to Tip	Antenna St Registration	
City, I OIXI JERVID - COU	inty. Old Holl Bi		Consti uci					
Antenna: 4 Maximum Transmitting ERP Azimuth(from true north Antenna Height AAT (meters Transmitting ERP (watts)	0	<b>45</b> -76.200 0.980	<b>90</b> -105.700 0.980	135 -94.60 0.980	180 0 -216.300 0.980	<b>225</b> -45.200 0.980	<b>270</b> -191.400 32.460	<b>315</b> -96.900 241.190
<b>Location Latitude</b>	Longitude		round Elev neters)		Structure Hgt (meters)	to Tip	Antenna St Registratio	
4 41-33-04.8 N	074-05-01.0 W	19	96.3		47.5		1014196	
Address: OFF VALLEY VI								
City: Newburgh County:	ORANGE State:	NY Co	nstruction 1	Deadlin	ie:			
Antenna: 4		1						
<b>Maximum Transmitting ERP</b>			7					
Azimuth(from true north Antenna Height AAT (meters Transmitting ERP (watts) Antenna: 5		<b>45</b> 95.800 3.090	90 164.400 31.620	135 145.90 14.790		225 104.800 0.200	<b>270</b> 113.800 0.200	<b>315</b> 116.300 0.200
Maximum Transmitting ERP Azimuth(from true north Antenna Height AAT (meters	<b>0</b>	<b>45</b> 95.800	90	135	180	225	270	315
Transmitting ERP (watts) Antenna: 6	0.200	0.200	164.400 0.200	145.90 0.200	0 123.900 9.550	104.800 34.670	113.800 5.620	116.300 0.200
Maximum Transmitting ERP Azimuth(from true north		45	90	135	180	225	270	315
Antenna Height AAT (meters Transmitting ERP (watts)		95.800 23.440	164.400 3.160	145.90 0.280		104.800 1.410	113.800 17.380	116.300 72.440
<b>Location Latitude</b>	Longitude		round Elev neters)	ation	Structure Hgt	to Tip	Antenna St Registratio	
5 41-23-22.3 N	073-58-50.5 W	,	01.5		43.0		Acgisti atio	11 140.
Address: ATOP SKI SLOP		_						
	,	ate: NY	Construct					
	•							
Antenna: 4								
Maximum Transmitting ERP	A CONTRACTOR OF THE CONTRACTOR	4-	00	105	100		2=0	24.5
Azimuth(from true north Antenna Height AAT (meters		<b>45</b> 148.900	<b>90</b> 183.200	135 234.30	180 0 267.000	<b>225</b> 63.800	<b>270</b> 54,400	<b>315</b> 214.100
Transmitting ERP (watts) Antenna: 5	2.690	22.390	66.070	47.860	-	0.710	0.200	0.410
Maximum Transmitting ERP Azimuth(from true north		45	90	135	180	225	270	315
Antenna Height AAT (meters Transmitting ERP (watts)		148.900 0.200	183.200 1.230	234.30 7.240		63.800 95.500	54.400 40.740	214.100 5.010
								7

Licensee Name: VERIZON WIRELESS OF THE EAST LP

Call Sign: KNKA580 File Number: Print Date: 01-10-2020

Location Latitude 5 41-23-22.3 N Address: ATOP SKI SLOPE, City: WEST POINT County		( <b>m</b> 30 THE INT.	round Eleva eters) 1.5 OF ROUTE Construction	(n 43 S 9W Al		to Tip	Antenna St Registratio	
Antenna: 6 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	Watts: 140.820 0 306.700 83.180	<b>45</b> 148.900 22.910		<b>135</b> 234.300 0.230	180 267.000 0.210	225 63.800 1.820	<b>270</b> 54.400 15.850	<b>315</b> 214.100 74.130
Location Latitude  6 41-18-12.3 N  Address: Arden House Road City: Woodbury County: O	Longitude 074-06-51.5 W RANGE State:	(m 43	round Eleva eters) 2.8 astruction D	(n 27	tructure Hgt neters) 7.7	to Tip	Antenna St Registratio	
Antenna: 4 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 5 Maximum Transmitting ERP in	<b>0</b> 225.700 40.240	<b>45</b> 204.000 79.460	90 315.400 36.390	135 275.600 2.570	<b>180</b> 135.500 0.200	<b>225</b> 217.200 0.200	<b>270</b> 239.900 0.200	315 260.800 3.310
Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts) Antenna: 6 Maximum Transmitting ERP in Azimuth(from true north) Antenna Height AAT (meters) Transmitting ERP (watts)	<b>0</b> 225.700 0.200	45 204.000 0.200 45 204.000 0.740	0.200 <b>90</b> 315.400	135 275,600 3.310 135 275,600 0,200	180 135.500 40.240 180 135.500 0.200	225 217.200 79.460 225 217.200 0.830	270 239.900 36.390 270 239.900 30.200	315 260.800 2.570 315 260.800 100.000

# **Control Points:**

Control Pt. No. 1

Address: 500 West Dove Road

City: Southlake County: TARRANT State: TX Telephone Number: (800)264-6620

# Waivers/Conditions:

Special Condition for AU/name change (6/4/2016): Grant of the request to update licensee name is conditioned on it not reflecting an assignment or transfer of control (see Rule 1.948); if an assignment or transfer occurred without proper notification or FCC approval, the grant is void and the station is licensed under the prior name.

This is not an official FCC license. It is a record of public information contained in the FCC's licensing database on the date that this reference copy was generated. In cases where FCC rules require the presentation, posting, or display of an FCC license, this document may not be used in place of an official FCC license.



# **Federal Communications Commission**

**Wireless Telecommunications Bureau** 

## RADIO STATION AUTHORIZATION

LICENSEE: CELLCO PARTNERSHIP

ATTN: REGULATORY CELLCO PARTNERSHIP 5055 NORTH POINT PKWY, NP2NE NETWORK ENGINEERING ALPHARETTA, GA 30022

<b>Call Sign</b> WQJQ689	File Number
<b>Radio</b>	Service
WU - 700 MHz Up	per Band (Block C)

FCC Registration Number (FRN): 0003290673

,			
<b>Grant Date</b> 09-11-2019	Effective Date 07-15-2020	Expiration Date 06-13-2029	Print Date
Market Number REA001		el Block	Sub-Market Designator
	Market North		
<b>1st Build-out Date</b> 06-13-2013	<b>2nd Build-out Date</b> 06-13-2019	3rd Build-out Date	4th Build-out Date

#### Waivers/Conditions:

If the facilities authorized herein are used to provide broadcast operations, whether exclusively or in combination with other services, the licensee must seek renewal of the license either within eight years from the commencement of the broadcast service or within the term of the license had the broadcast service not been provided, whichever period is shorter in length. See 47 CFR §27.13(b).

This authorization is conditioned upon compliance with section 27.16 of the Commission's rules

# **Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

This license may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum authorized by this license, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at http://wireless.fcc.gov/uls/index.htm?job=home and select "License Search". Follow the instructions on how to search for license information.

Licensee Name: CELLCO PARTNERSHIP

Call Sign: WQJQ689 File Number: Print Date:

700 MHz Relicensed Area Information:

Market Name Buildout Deadline Buildout Notification Status

# Exhibit G

# **Full Environmental Assessment Form**

# Full Environmental Assessment Form Part 1 - Project and Setting

# **Instructions for Completing Part 1**

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1 is accurate and complete.

# A. Project and Applicant/Sponsor Information.

ARX Wireless - Unmanned Wireless Communications Facility - "NY0248-Chester DPW"  Project Location (describe, and attach a general location map):			
00 H 45 OL 4 N V 1 40050			
CO Hwy 45, Chester, New York 10950			
Brief Description of Proposed Action (include purpose or need):			
ARX Wireless ("ARX Wireless" or the "Applicant") proposes the installation of an unmanned w property. Said property being located on Poplar Dr .09 miles South West of Juniper Ln. Accesutilizing existing gravel driveway.			
In general, the installation will consist of the following: a 150' tall monopole (154' including 4' li equipment at grade. The project also includes the installation of power and fiber utilities to ser		fenced compound, and utility	
Name of Applicant/Sponsor:	Telephone: (203) 623-3287		
ARX Wireless, attn: Keith Coppins	E-Mail: kcoppins@arxwireless.com		
Address: 110 Washington Ave			
City/PO: North Haven	State: CT	Zip Code: 06473	
Project Contact (if not same as sponsor; give name and title/role):	Telephone:	<b></b>	
	E-Mail:		
Address:			
City/PO:	State:	Zip Code:	
Property Owner (if not same as sponsor):	Telephone:		
Town of Chester	E-Mail:		
Address: 1786 Kings Hwy			
City/PO: Chester	State: NY	Zip Code: 10918	

# **B.** Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)				
Government Entity	If Yes: Identify Agency and Approval(s) Required	Applicati (Actual or		
a. City Counsel, Town Board, ☐ Yes☑ No or Village Board of Trustees				
b. City, Town or Village   ✓ Yes   No  Planning Board or Commission	Planning Board - Special Use Permit and Site Plan approval	TBD		
c. City, Town or ✓Yes□No Village Zoning Board of Appeals	Zoning Board of Appeals - Area Variance	TBD		
d. Other local agencies   ✓ Yes   No	Building Department - Building/Work Permit	TBD		
e. County agencies ☐Yes ☑No				
f. Regional agencies ☐Yes☑No				
g. State agencies ☐Yes ☑No				
h. Federal agencies ☐Yes☑No				
<ul><li>i. Coastal Resources.</li><li>i. Is the project site within a Coastal Area, or</li></ul>	or the waterfront area of a Designated Inland W	aterway?	□Yes <b>☑</b> No	
<ul><li>ii. Is the project site located in a community</li><li>iii. Is the project site within a Coastal Erosion</li></ul>	with an approved Local Waterfront Revitalizate Hazard Area?	tion Program?	☐ Yes ☑ No ☐ Yes ☑ No	
C. Planning and Zoning				
C.1. Planning and zoning actions.				
<ul> <li>Will administrative or legislative adoption, or a only approval(s) which must be granted to enal</li> <li>If Yes, complete sections C, F and G.</li> <li>If No, proceed to question C.2 and corr</li> </ul>			∐Yes <b>Z</b> INo	
C.2. Adopted land use plans.				
a. Do any municipally- adopted (city, town, vil where the proposed action would be located? If Yes, does the comprehensive plan include spewould be located?			✓Yes No	
b. Is the site of the proposed action within any l	ocal or regional special planning district (for exated State or Federal heritage area; watershed i		□Yes <b>☑</b> No	
c. Is the proposed action located wholly or part or an adopted municipal farmland protection If Yes, identify the plan(s):		pal open space plan,	∐Yes <b>☑</b> No	

C.3. Zoning	
a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance.  If Yes, what is the zoning classification(s) including any applicable overlay district?  SR2 - Suburban Residential	<b>☑</b> Yes <b>□</b> No
b. Is the use permitted or allowed by a special or conditional use permit?	<b>∠</b> Yes No
c. Is a zoning change requested as part of the proposed action?	☐ Yes <b>Z</b> No
If Yes,  i. What is the proposed new zoning for the site?	1631110
C.4. Existing community services.	
a. In what school district is the project site located? Monroe-Woodbury Central School District	
b. What police or other public protection forces serve the project site?  Town of Chester Police Department	
c. Which fire protection and emergency medical services serve the project site?  Chester Fire Department, Lakeside Fire & Rescue Co, Monroe Fire Department, Florida Fire & Rescue, Mombasha Fire Co, Kiryas	s Joel Fire Department
d. What parks serve the project site?  Airport Park, Goosepond Mountain State Park, JFK Memorial Park, Mombasha Park, Monroe Town Berry Rd Park, Roy A. Monta	nye Park
D. Project Details	
D.1. Proposed and Potential Development	
a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, components)? Unmanned telecommunications facility	include all
b. a. Total acreage of the site of the proposed action?  4.60 acres	
b. Total acreage to be physically disturbed? 0.08 acres c. Total acreage (project site and any contiguous properties) owned	
or controlled by the applicant or project sponsor?	
c. Is the proposed action an expansion of an existing project or use?  i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, because feet)? %	☐ Yes  No nousing units,
square feet)? % Units:   d. Is the proposed action a subdivision, or does it include a subdivision?	□Yes <b>☑</b> No
If Yes,  i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)	
<ul><li>ii. Is a cluster/conservation layout proposed?</li><li>iii. Number of lots proposed?</li></ul>	□Yes□No
e. Will the proposed action be constructed in multiple phases?	☐ Yes <b>☑</b> No
i. If No, anticipated period of construction:2 months	
ii. If Yes:	
<ul> <li>Total number of phases anticipated</li> <li>Anticipated commencement date of phase 1 (including demolition) month year</li> </ul>	
Anticipated completion date of final phase      Anticipated completion date of final phase      month  year	
Generally describe connections or relationships among phases, including any contingencies where progress determine timing or duration of future phases:	

f. Does the project					□Yes <b>☑</b> No
If Yes, show number			Thurs Family	Multiple Femile (female man)	
	One Family	Two Family	Three Family	Multiple Family (four or more)	
Initial Phase					
At completion					
of all phases	<del></del>			<del></del>	
g. Does the propos	sed action include	new non-residentia	al construction (inclu	ading expansions)?	<b>Z</b> Yes□No
If Yes,					
<i>i</i> . Total number	of structures1	(tower)	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	01 111 1 1 1	
ii. Dimensions (1	n feet) of largest p	roposed structure:	154' height;	6' width; and length o square feet	
				l result in the impoundment of any agoon or other storage?	☐Yes <b>Z</b> No
If Yes,	creation of a wate	r suppry, reservoir,	, pond, iake, waste i	agoon or other storage?	
· ·	impoundment:				
ii. If a water impo	oundment, the princ	cipal source of the	water:	☐ Ground water ☐ Surface water stream	ms Other specify:
10 1 1		C: 1 1/		1.4	
iii. If other than w	ater, identify the ty	ype of impounded/o	contained liquids an	d their source.	
iv. Approximate s	size of the propose	d impoundment.	Volume:	million gallons: surface area:	acres
v. Dimensions of	the proposed dam	or impounding str	ucture:	million gallons; surface area: height; length	
vi. Construction r	method/materials f	for the proposed da	m or impounding st	ructure (e.g., earth fill, rock, wood, cond	crete):
D.2. Davidson Over					
D.2. Project Ope					
				uring construction, operations, or both?	∐Yes <b></b> ✓No
(Not including g materials will re		ation, grading or in	stallation of utilities	or foundations where all excavated	
If Yes:	mam onsite)				
	rpose of the excava	ation or dredging?			
ii. How much mat	erial (including roo	ck, earth, sediment	s, etc.) is proposed t	o be removed from the site?	
<ul> <li>Volume (</li> </ul>	(specify tons or cul	bic yards):			
<ul> <li>Over what</li> </ul>	at duration of time	?			
iii. Describe natur	e and characteristic	cs of materials to b	e excavated or dred	ged, and plans to use, manage or dispos	e of them.
iv. Will there be	onsite dewatering	or processing of ex	cavated materials?		Yes No
If yes, describ	e				
	al area to be dredg		<i></i>	acres	
vi. What is the ma	aximum area to be	worked at any one	time?	acres	
	e the maximum de vation require blas		or dredging?	feet	□Yes□No
w. Sammarize sice	rectamation goals	, and plan.			_
b. Would the prop	osed action cause	or result in alteration	on of, increase or de	crease in size of, or encroachment	☐Yes <b></b> ✓No
	ng wetland, waterb	ody, shoreline, bea	ch or adjacent area?	•	
If Yes:	.1 1 . 1 .	1 1 1 111	66 + 1.4		1.
				water index number, wetland map numb	er or geographic
description): _					·····

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placem alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in sq	
iii. Will the proposed action cause or result in disturbance to bottom sediments? If Yes, describe:	□Yes □No
iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation?	□Yes□No
If Yes:	
acres of aquatic vegetation proposed to be removed:	
expected acreage of aquatic vegetation remaining after project completion:	
• purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):	
proposed method of plant removal:	
if chemical/herbicide treatment will be used, specify product(s):	
v. Describe any proposed reclamation/mitigation following disturbance:	
c. Will the proposed action use, or create a new demand for water?	□Yes <b>Z</b> No
If Yes:  i. Total anticipated water usage/demand per day:  gallons/day  gallons/day	
ii. Will the proposed action obtain water from an existing public water supply?	□Yes□No
If Yes:	
Name of district or service area:	
Does the existing public water supply have capacity to serve the proposal?	☐ Yes ☐ No
• Is the project site in the existing district?	☐ Yes ☐ No
Is expansion of the district needed?	☐ Yes ☐ No
<ul> <li>Do existing lines serve the project site?</li> </ul>	☐ Yes ☐ No
<i>iii.</i> Will line extension within an existing district be necessary to supply the project? If Yes:	□Yes □No
Describe extensions or capacity expansions proposed to serve this project:	
Source(s) of supply for the district:	
<i>iv.</i> Is a new water supply district or service area proposed to be formed to serve the project site? If, Yes:	☐ Yes☐No
Applicant/sponsor for new district:	
Date application submitted or anticipated:	
Proposed source(s) of supply for new district:	
v. If a public water supply will not be used, describe plans to provide water supply for the project:	
vi. If water supply will be from wells (public or private), what is the maximum pumping capacity:	gallons/minute.
d. Will the proposed action generate liquid wastes?	☐ Yes <b>Z</b> No
If Yes:	
i. Total anticipated liquid waste generation per day: gallons/day	
<i>ii.</i> Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all approximate volumes or proportions of each):	_
iii. Will the proposed action use any existing public wastewater treatment facilities?	□Yes □No
If Yes:	
Name of wastewater treatment plant to be used:	
Name of district:	
Does the existing wastewater treatment plant have capacity to serve the project?  Let be a sixty of the control of the co	☐Yes ☐No
Is the project site in the existing district?  Is a very project and the district model of the district m	☐ Yes ☐ No
• Is expansion of the district needed?	☐Yes ☐No

<ul> <li>Do existing sewer lines serve the project site?</li> </ul>	□Yes□No
Will a line extension within an existing district be necessary to serve the project?	□Yes□No
If Yes:	
<ul> <li>Describe extensions or capacity expansions proposed to serve this project:</li> </ul>	
Describe extensions of capacity expansions proposed to serve this project:	
iv. Will a new wastewater (sewage) treatment district be formed to serve the project site?	□Yes□No
If Yes:	
Applicant/sponsor for new district:	
Data amplication submitted an anticipated	
What is the receiving water for the wastewater discharge?	
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including speci	ifving proposed
receiving water (name and classification if surface discharge or describe subsurface disposal plans):	nying proposed
vi. Describe any plans or designs to capture, recycle or reuse liquid waste:	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point	□Yes <b>Z</b> No
sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point	□ 1 es M 140
source (i.e. sheet flow) during construction or post construction?	
If Yes:	
i. How much impervious surface will the project create in relation to total size of project parcel?	
Square feet or acres (impervious surface) Square feet or acres (parcel size)	
Square feet or acres (parcel size)	
ii. Describe types of new point sources.	
171	
iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent pr	roperties,
groundwater, on-site surface water or off-site surface waters)?	
If to surface waters, identify receiving water bodies or wetlands:	
in to surface waters, identify receiving water obtained in weithings.	
Will stormwater runoff flow to adjacent properties?	□Yes□No
<i>iv.</i> Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater?	□Yes□No
f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel	<b>Z</b> Yes □ No
combustion, waste incineration, or other processes or operations?	<b>—</b> 1 30 — 1 10
If Yes, identify:	
<i>i.</i> Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)	
Construction equipment  ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)	
N/A  iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)	
N/A	
g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit,	□Yes <b>☑</b> No
or Federal Clean Air Act Title IV or Title V Permit?	1 65 2 1 10
If Yes:	
<i>i.</i> Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet	□Yes□No
ambient air quality standards for all or some parts of the year)	
ii. In addition to emissions as calculated in the application, the project will generate:	
•Tons/year (short tons) of Carbon Dioxide (CO <sub>2</sub> )	
•Tons/year (short tons) of Nitrous Oxide (N <sub>2</sub> O)	
•Tons/year (short tons) of Perfluorocarbons (PFCs)	
•Tons/year (short tons) of Sulfur Hexafluoride (SF <sub>6</sub> )	
•Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)	
Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	

h. Will the proposed action generate or emit methane (includent landfills, composting facilities)?  If Yes:  i. Estimate methane generation in tons/year (metric):  ii. Describe any methane capture, control or elimination medelectricity, flaring):	easures included in project design (e.g., combustion to	☐Yes ☑ No  generate heat or
i. Will the proposed action result in the release of air pollutar quarry or landfill operations?  If Yes: Describe operations and nature of emissions (e.g., discount).		∏Yes <b>∏</b> No
<ul> <li>j. Will the proposed action result in a substantial increase in new demand for transportation facilities or services?</li> <li>If Yes: <ul> <li>i. When is the peak traffic expected (Check all that apply)</li> <li>Randomly between hours of</li></ul></li></ul>	): ☐ Morning ☐ Evening ☐ Weekend	□Yes <b>☑</b> No cks):
<ul> <li>iii. Parking spaces: Existing</li></ul>	available within ½ mile of the proposed site?  ortation or accommodations for use of hybrid, electric	☐Yes☐No ng access, describe: ☐Yes☐No ☐Yes☐No ☐Yes☐No
k. Will the proposed action (for commercial or industrial profor energy?  If Yes:  i. Estimate annual electricity demand during operation of to Minimal increase in electrical power usage as necessary to operation. Anticipated sources/suppliers of electricity for the project other):  Local utility  iii. Will the proposed action require a new, or an upgrade, to	the proposed action:erate the facility. ct (e.g., on-site combustion, on-site renewable, via gri	d/local utility, or
Hours of operation. Answer all items which apply.     i. During Construction:	<ul> <li>ii. During Operations:</li> <li>Monday - Friday:</li> <li>Saturday:</li> <li>Sunday:</li> <li>Holidays:</li> <li>24 hours</li> <li>24 hours</li> <li>24 hours</li> <li>24 hours</li> </ul>	

<ul> <li>m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both?</li> <li>If yes: <ul> <li>i. Provide details including sources, time of day and duration:</li> <li>During construction, noise associated with the operation of construction equipment</li> </ul> </li> </ul>	☑ Yes □No
ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen?  Describe:	☐ Yes <b>☑</b> No
n. Will the proposed action have outdoor lighting?  If yes:  i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:	□Yes <b>☑</b> No
<ul> <li>ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen?</li> <li>Describe:</li> </ul>	□Yes□No
o. Does the proposed action have the potential to produce odors for more than one hour per day?  If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:	□ Yes <b>☑</b> No
p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage?  If Yes:  i. Product(s) to be stored  ii. Volume(s) per unit time (e.g., month, year)  iii. Generally, describe the proposed storage facilities:	☐ Yes ☑ No
<ul> <li>q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation?</li> <li>If Yes:  <ul> <li>i. Describe proposed treatment(s):</li> </ul> </li> </ul>	☐ Yes <b>☑</b> No
<ul> <li>ii. Will the proposed action use Integrated Pest Management Practices?</li> <li>r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)?</li> </ul>	☐ Yes ☐ No ☐ Yes ☑ No
If Yes:  i. Describe any solid waste(s) to be generated during construction or operation of the facility:  • Construction: tons per (unit of time)  • Operation: tons per (unit of time)  ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste  • Construction:	
Operation:      iii. Proposed disposal methods/facilities for solid waste generated on-site:         Construction:	
Operation:	

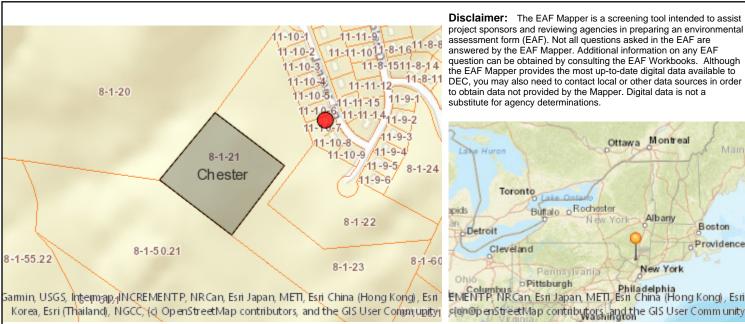
s. Does the proposed action include construction or modification of a solid waste management facility?			
If Yes:  i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or			
	for the site (e.g., recycling	g or transfer station, composting	g, landfill, or
other disposal activities):			
ii. Anticipated rate of disposal/processing:	1 2 71 14 4		
• Tons/month, if transfer or other non-co		ient, or	
• Tons/hour, if combustion or thermal tr			
iii. If landfill, anticipated site life:			
t. Will the proposed action at the site involve the commerce	cial generation, treatment,	, storage, or disposal of hazardo	ous 🗌 Yes 🗸 No
waste?			
If Yes:			
<i>i</i> . Name(s) of all hazardous wastes or constituents to be	generated, handled or ma	naged at facility:	
ii. Generally describe processes or activities involving ha	azardous wastes or constit	hiente	
ii. Generally describe processes of activities involving no	azardous wasies of constit		
iii. Specify amount to be handled or generated to	ns/month		
iv. Describe any proposals for on-site minimization, recy	cling or reuse of hazardo	us constituents:	
v. Will any hazardous wastes be disposed at an existing	offsite hazardous waste fa	acility?	□Yes□No
If Yes: provide name and location of facility:			
ICN 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 1 11 41		
If No: describe proposed management of any hazardous w	vastes which will not be so	ent to a nazardous waste facility	y:
E. Site and Setting of Proposed Action			
E.1. Land uses on and surrounding the project site			
a. Existing land uses.			
<i>i.</i> Check all uses that occur on, adjoining and near the p	roject site		
Urban ☐ Industrial ☐ Commercial ☑ Reside		ıral (non-farm)	
Forest Agriculture Aquatic Other	(specify):	arur (non rurin)	
ii. If mix of uses, generally describe:	(sp**11)		
b. Land uses and covertypes on the project site.			
3	<u> </u>	1	CI.
Land use or	Current	Acreage After	Change
Covertype	Acreage	Project Completion	(Acres +/-)
Roads, buildings, and other paved or impervious	0.10	0.18	+0.08
surfaces			
• Forested	4.12	4.12	0.00
Meadows, grasslands or brushlands (non-	0.38	0.30	-0.08
agricultural, including abandoned agricultural)		5.55	
Agricultural			
(includes active orchards, field, greenhouse etc.)			
Surface water features			
( -			
(lakes, ponds, streams, rivers, etc.)			
Wetlands (freshwater or tidal)			
` '			
Wetlands (freshwater or tidal)     Non-vegetated (bare rock, earth or fill)			
<ul> <li>Wetlands (freshwater or tidal)</li> <li>Non-vegetated (bare rock, earth or fill)</li> <li>Other</li> </ul>			
<ul> <li>Wetlands (freshwater or tidal)</li> <li>Non-vegetated (bare rock, earth or fill)</li> </ul>			

c. Is the project site presently used by members of the community for public recreation?  i. If Yes: explain:	□Yes☑No
d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site?  If Yes,  i. Identify Facilities:	∏Yes <b>∏</b> No
e. Does the project site contain an existing dam?  If Yes:  i. Dimensions of the dam and impoundment:	□Yes <b>☑</b> No
Dam height:  feet	
• Dam length: feet	
• Surface area: acres	
Volume impounded: gallons OR acre-feet	
ii. Dam's existing hazard classification:	
iii. Provide date and summarize results of last inspection:	
f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facil If Yes:	☐Yes <b>☑</b> No ity?
i. Has the facility been formally closed?	☐Yes☐ No
If yes, cite sources/documentation:	
ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:	
iii. Describe any development constraints due to the prior solid waste activities:	
m. Describe any development constraints due to the prior sond waste derivities.	<del></del>
g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? If Yes:	□Yes <b>☑</b> No
i. Describe waste(s) handled and waste management activities, including approximate time when activities occurre	ed:
<ul> <li>h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site?</li> <li>If Yes:</li> </ul>	☐Yes <b>☑</b> No
<i>i.</i> Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply:	□Yes□No
Yes – Spills Incidents database Provide DEC ID number(s):	
☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): Neither database	
ii. If site has been subject of RCRA corrective activities, describe control measures:	
iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? If yes, provide DEC ID number(s):	□Yes□No
iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):	
	<del></del>

• If yes DEC site ID number:		□Yes□No
If yes, DEC site ID number:		
Describe the type of institutional control (e.g., deed restriction or easement):		
<ul> <li>Describe any use limitations:</li> <li>Describe any engineering controls:</li> </ul>		<del></del>
<ul> <li>Will the project affect the institutional or engineering controls in place?</li> </ul>		□Yes□No
Explain:		
E.2. Natural Resources On or Near Project Site		
a. What is the average depth to bedrock on the project site?	7+ feet	
b. Are there bedrock outcroppings on the project site?		☐ Yes <b>Z</b> No
If Yes, what proportion of the site is comprised of bedrock outcroppings?		
c. Predominant soil type(s) present on project site: SXC	100 %	
	%	
	%	
d. What is the average depth to the water table on the project site? Average: 7+	Peet	
e. Drainage status of project site soils: ✓ Well Drained:		
✓ Moderately Well Drained:50 % of site		
Poorly Drained% of site		
f. Approximate proportion of proposed action site with slopes: 2 0-10%:	100_% of site	
10-15%:	% of site	
☐ 15% or greater:	% of site	
g. Are there any unique geologic features on the project site?		☐ Yes <b> N</b> o
If Yes, describe:		
h. Surface water features.		
i. Does any portion of the project site contain wetlands or other waterbodies (including st	reams, rivers,	□Yes☑No
<i>i.</i> Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?	reams, rivers,	
<ul><li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li><li>ii. Do any wetlands or other waterbodies adjoin the project site?</li></ul>	reams, rivers,	□Yes☑No ☑Yes□No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> </ul>		<b>Z</b> Yes□No
<ul><li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li><li>ii. Do any wetlands or other waterbodies adjoin the project site?</li></ul>		
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<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the form of the streams:</li> <li>Name</li> </ul>	y any federal, llowing information: Classification	<b>☑</b> Yes□No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the form of the streams:</li> <li>Name</li> </ul>	y any federal, llowing information: Classification	<b>☑</b> Yes□No
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<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the formula of the project site.</li> <li>Streams: Name</li> <li>Lakes or Ponds: Name</li> <li>Wetlands: Name</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Wetland No. (if regulated by DEC)</li> </ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A	☑Yes□No ☑Yes□No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the formula of the project site.</li> <li>Streams: Name</li> <li>Lakes or Ponds: Name</li> <li>Wetlands: Name</li> <li>Freshwater Forested/Shrub Wetland</li> </ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A	<b>☑</b> Yes□No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including steponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the form of the streams:    Name</li></ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A	☑Yes□No ☑Yes□No
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<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the form of the streams:    Name</li></ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A	✓Yes No ✓Yes No  Yes ✓No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the formula of the state or Ponds: Name</li> <li>Lakes or Ponds: Name</li> <li>Wetlands: Name</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Wetland No. (if regulated by DEC)</li> <li>v. Are any of the above water bodies listed in the most recent compilation of NYS water of waterbodies?</li> <li>If yes, name of impaired water body/bodies and basis for listing as impaired:</li> </ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A	✓Yes□No ✓Yes□No □Yes□No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the formula of the streams:  Name  Lakes or Ponds: Name  Wetlands: Name  Freshwater Forested/Shrub Wetland  Wetland No. (if regulated by DEC)</li> <li>v. Are any of the above water bodies listed in the most recent compilation of NYS water of waterbodies?</li> <li>If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?</li> <li>j. Is the project site in the 100-year Floodplain?</li> <li>k. Is the project site in the 500-year Floodplain?</li> </ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A  quality-impaired	✓Yes No ✓Yes No  Yes ✓No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the form of the streams:  <ul> <li>Streams:</li> <li>Name</li> <li>Wetlands:</li> <li>Name</li> <li>Freshwater Forested/Shrub Wetland</li> <li>Wetland No. (if regulated by DEC)</li> </ul> </li> <li>v. Are any of the above water bodies listed in the most recent compilation of NYS water of waterbodies?</li> <li>If yes, name of impaired water body/bodies and basis for listing as impaired:  <ul> <li>i. Is the project site in a designated Floodway?</li> <li>j. Is the project site in the 100-year Floodplain?</li> </ul> </li> <li>k. Is the project site in the 500-year Floodplain?</li> <li>l. Is the project site located over, or immediately adjoining, a primary, principal or sole sole</li> </ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A  quality-impaired	✓Yes No ✓Yes No  Yes No  Yes No  Yes No
<ul> <li>i. Does any portion of the project site contain wetlands or other waterbodies (including st ponds or lakes)?</li> <li>ii. Do any wetlands or other waterbodies adjoin the project site?</li> <li>If Yes to either i or ii, continue. If No, skip to E.2.i.</li> <li>iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated be state or local agency?</li> <li>iv. For each identified regulated wetland and waterbody on the project site, provide the formula of the streams:  Name  Lakes or Ponds: Name  Wetlands: Name  Freshwater Forested/Shrub Wetland  Wetland No. (if regulated by DEC)</li> <li>v. Are any of the above water bodies listed in the most recent compilation of NYS water of waterbodies?</li> <li>If yes, name of impaired water body/bodies and basis for listing as impaired:  i. Is the project site in a designated Floodway?</li> <li>j. Is the project site in the 100-year Floodplain?</li> <li>k. Is the project site in the 500-year Floodplain?</li> </ul>	y any federal,  llowing information:  Classification  Classification  Approximate Size N/A  quality-impaired  urce aquifer?	✓Yes No

m. Identify the mundeminent wildlife energies	that accounts on use the musical site.		
m. Identify the predominant wildlife species	1.0	Skunks	
Rabbits	Squirrels		
Chipmunks	Oppossums	Foxes	
Birds	Raccoons	Deer	
<ul><li>n. Does the project site contain a designated of the If Yes:</li><li>i. Describe the habitat/community (composition)</li></ul>		ution):	☐ Yes <b>Z</b> No
ii. Source(s) of description or evaluation:			
iii. Extent of community/habitat:			
• Currently:		nores	
E 11 ' 1 ' C ' '	nronosad:	acres	
- 1	proposed:	<del></del>	
• Gain or loss (indicate + or -):		acres	
<ul> <li>o. Does project site contain any species of ple endangered or threatened, or does it contains</li> <li>If Yes: <ul> <li>i. Species and listing (endangered or threatened)</li> </ul> </li> <li>Northern long eared bat is noted as being present in</li> </ul>	n any areas identified as habitat for a	nn endangered or threatened speci	
	The area, nowever there is no nabitat at	the project site for this species, thereit	ore there is no potential
impact.			
<ul><li>p. Does the project site contain any species of special concern?</li><li>If Yes:     <ul><li>i. Species and listing:</li></ul></li></ul>	·	•	□Yes <b>☑</b> No
q. Is the project site or adjoining area current If yes, give a brief description of how the pro-			Yes <b>Z</b> No
E 2 Decimal Address Decimal October	J D 4 C'4 .		
E.3. Designated Public Resources On or N	•		
<ul> <li>a. Is the project site, or any portion of it, local</li> <li>Agriculture and Markets Law, Article 25-</li> <li>If Yes, provide county plus district name/num</li> </ul>	AA, Section 303 and 304?	ict certified pursuant to	∐Yes <b>∏</b> No
b. Are agricultural lands consisting of highly <i>i</i> . If Yes: acreage(s) on project site? <i>ii</i> . Source(s) of soil rating(s):			□Yes <b>Z</b> No
c. Does the project site contain all or part of, Natural Landmark?  If Yes:  i. Nature of the natural landmark:  ii. Provide brief description of landmark, in	Biological Community	Geological Feature	□Yes <b>Z</b> No
D . C . 1	in a state listed Critical Environmen		□Yes <b>☑</b> No

e. Does the project site contain, or is it substantially contiguous to, a but which is listed on the National or State Register of Historic Places, or Office of Parks, Recreation and Historic Preservation to be eligible for If Yes:	that has been determined by the Commission	
i. Nature of historic/archaeological resource: ✓ Archaeological Site ii. Name: Six prehistoric sites (all associated with larger project: Chester Golf iii. Brief description of attributes on which listing is based:	☐ Historic Building or District Course) Undetermined eligibility/National Register	of Historic Places
New York Cultural Resource Information System		
f. Is the project site, or any portion of it, located in or adjacent to an are archaeological sites on the NY State Historic Preservation Office (SH		<b>✓</b> Yes □No
g. Have additional archaeological or historic site(s) or resources been id If Yes:	• •	☐Yes <b>Z</b> No
<ul><li>i. Describe possible resource(s):</li><li>ii. Basis for identification:</li></ul>		
h. Is the project site within fives miles of any officially designated and pascenic or aesthetic resource?	publicly accessible federal, state, or local	<b>✓</b> Yes <b>□</b> No
If Yes:  i. Identify resource: Airport Park, Goosepond Mountain State Park, JFK Men	norial Park, Mombasha Park, Monroe Town Berry	Rd Park
<ul><li>ii. Nature of, or basis for, designation (e.g., established highway overloetc.): State Recreation, Designated Greenway Trails</li></ul>	ook, state or local park, state historic trail or	
1 3	iles.	
<ul><li>i. Is the project site located within a designated river corridor under the Program 6 NYCRR 666?</li><li>If Yes:</li></ul>	e Wild, Scenic and Recreational Rivers	☐ Yes  No
<ul><li>i. Identify the name of the river and its designation:</li><li>ii. Is the activity consistent with development restrictions contained in</li></ul>	6NYCRR Part 666?	∐Yes ∐No
<b>F. Additional Information</b> Attach any additional information which may be needed to clarify you	r project.	
If you have identified any adverse impacts which could be associated measures which you propose to avoid or minimize them.	with your proposal, please describe those im	pacts plus any
<b>G. Verification</b> I certify that the information provided is true to the best of my knowle	dge.	
Applicant/Sponsor Name Steven Matthews, agent on behalf of applicant	Date 4/15/22	
Signature Steven Matthews	Title Director of Engineering	



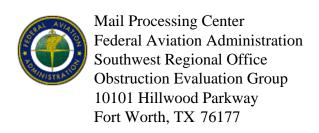
Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.I. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Northern Long-eared Bat

E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

# Exhibit H FAA Determination of No Hazard to Air Navigation



Issued Date: 04/13/2022

Keith Drucker Arx Wireless Infrastructure, LLC 110 Washington Avenue North Haven, CT 06473

# \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Monopole NY0248 Chester DPW

Location: Chester, NY

Latitude: 41-18-26.09N NAD 83

Longitude: 74-14-16.69W

Heights: 749 feet site elevation (SE)

150 feet above ground level (AGL) 899 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M.

This determination expires on 10/13/2023 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (718) 553-4199, or Dianne.Marin@FAA.GOV. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2022-AEA-477-OE.

(DNE)

Signature Control No: 507365254-523521735

Dianne Marin Technician

Attachment(s)
Case Description
Frequency Data
Map(s)

cc: FCC

# Case Description for ASN 2022-AEA-477-OE

Construct a new 150' stealth monopole on Town of Chester Property. Both AT&T Wireless and Verizon Wireless will be collocating on the tower when built. Tower will be built for 4 towers and any additional tenants including public safety/first responders

# Frequency Data for ASN 2022-AEA-477-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	55	dBW
6	7	GHz	42	dBW
10	11.7	GHz	55	dBW
10	11.7	GHz	42	dBW
17.7	19.7	GHz	55	dBW
17.7	19.7	GHz	42	dBW
21.2	23.6	GHz	55	dBW
21.2	23.6	GHz	42	dBW
614	698	MHz	1000	W
614	698	MHz	2000	W
698	806	MHz	1000	W
806	901	MHz	500	W
806	824	MHz	500	W
824	849	MHz	500	W
851	866	MHz	500	W
869	894	MHz	500	W
896	901	MHz	500	W
901	902	MHz	7	W
929	932	MHz	3500	W
930	931	MHz	3500	W
931	932	MHz	3500	W
932	932.5	MHz	17	dBW
935	940	MHz	1000	W
940	941	MHz	3500	W
1670	1675	MHz	500	W
1710	1755	MHz	500	W
1850	1910	MHz	1640	W
1850	1990	MHz	1640	W
1930	1990	MHz	1640	W
1990	2025	MHz	500	W
2110	2200	MHz	500	W
2305	2360	MHz	2000	W
2305	2310	MHz	2000	W
2345	2360	MHz	2000	W
2496	2690	MHz	500	W

# Verified Map for ASN 2022-AEA-477-OE

