

# TOWN OF NORTH SALEM

## WIRELESS TELECOMMUNICATION INFRASTRUCTURE ANALYSIS



# OVERVIEW

Smartphones and smart wireless devices are a fixture of every-day life for millions of people. In 2021, the number of unique mobile internet users globally was 4.32 billion with over 90% using a wireless device to connect.<sup>1</sup> Consumers using these devices expect fast and uninterrupted network connections to the internet, maps, files, videos, news, music, along with the myriad of available applications. For these devices to function optimally a lot of bandwidth is required. To facilitate the device demands, antennas mounted on towers or other elevated infrastructure is necessary.

Functionality is best when the signal transmits directly from the antenna to the consumer's wireless device(s) without obstruction from buildings, trees and/or ridgelines. Macro cell wireless facilities provide the greatest flexibility and coverages for wireless service providers. Without obstructions these facilities can generally cover a two-mile geographic radius in more densely populated areas and about a four-mile radius in suburban and rural areas. Small wireless facilities can be utilized in more populated areas to provide additional services where capacity overloads may be an issue or in areas with viewshed sensitivities. These small wireless facilities typically have approximately a quarter mile service radius.

Coverage gaps result from having facilities with a lot of obstructions, too few antennas within a particular service area or in areas where network capacity overloads occur. Capacity overloads are when the number of wireless subscribers using their devices simultaneously exceeds the performance capability of the wireless facility. Additional antenna infrastructure would be necessary to improve these coverage and/or capacity concerns.

Understanding, evaluating and planning for a well-designed wireless system begins with identifying all existing towers and base stations.

---

<sup>1</sup> Statista, October 18, 2022



# WIRELESS INFRASTRUCTURE INVENTORY

The existing wireless facilities in North Salem have been assessed, mapped and analyzed in order to estimate the new wireless facilities anticipated in the Town over the next ten years.

The North Salem Study Area is defined as the North Salem jurisdictional boundary and a one-mile perimeter surrounding the Town. As of January 1, 2023 there are a total of 21 facilities verified within the North Salem Study Area. The facilities consist of 17 towers and four base stations. Of these towers and base stations, one is proposed and under review and three are inquiries and eight sites are outside of the Town within the one-mile perimeter.

Within the North Salem jurisdictional boundary there are specifically 13 sites consisting of six existing towers, one proposed and under review tower, three tower inquiries and three existing base stations.

Of the nine existing towers and base stations, three are on public property and two are concealed. Site N4 on Bloomer Road is one of the best concealed design facilities in the entire NWC study area and is featured on the cover the Plan. This faux tree has significant branch density to conceal the AT&T and Verizon antenna arrays and all ground equipment is contained in a shelter designed to be a small barn. The site is well maintained and has easy access from the roadway.

The following *Table N1* summarizes the total number of sites and identifies the inventory by structure type, antenna type, location and design. The inventory of facilities are further depicted on corresponding maps as follows: *Figure N1* Structure Type, *Figure N2* All Antenna Type, *Figure N3* PWSF Antenna Type, *Figure N4* Location and *Figure N5* Design Type.

Greater site detail including facility picture, location map, ownership, providers, type of facility along with any other pertinent individual site information can be found in the North Salem Wireless Inventory Catalog in *Appendix F1*.

NORTH SALEM STUDY AREA		INSIDE JURISDICTION				ONE-MILE PERIMETER			
TOTAL 21		Existing	Approved Not Built	Proposed Under Review	Inquiry	Existing	Approved Not Built	Proposed Under Review	Inquiry
STRUCTURE TYPE									
Towers	17	6	0	1	3	7	0	0	0
Base Stations	4	3	0	0	0	1	0	0	0
ANTENNA TYPE									
Macro Wireless	13	4	0	1	2	6	0	0	0
Small Wireless	0	0	0	0	0	0	0	0	0
Public Safety/Macro	3	2	0	0	0	1	0	0	0
Public Safety	4	3	0	0	1	0	0	0	0
Other	1	0	0	0	0	1	0	0	0
LOCATION									
Private Property	16	6	0	1	2	7	0	0	0
Public Property	3	3	0	0	0	0	0	0	0
Utility Easement	0	0	0	0	0	0	0	0	0
ROW	2	0	0	0	1	1	0	0	1
DESIGN TYPE									
Concealed	5	2	0	1	0	2	0	0	0
Semi-Concealed	0	0	0	0	0	0	0	0	0
Non-Concealed	16	7	0	0	3	6	0	0	0

Table N1: Inventory by Structure Type

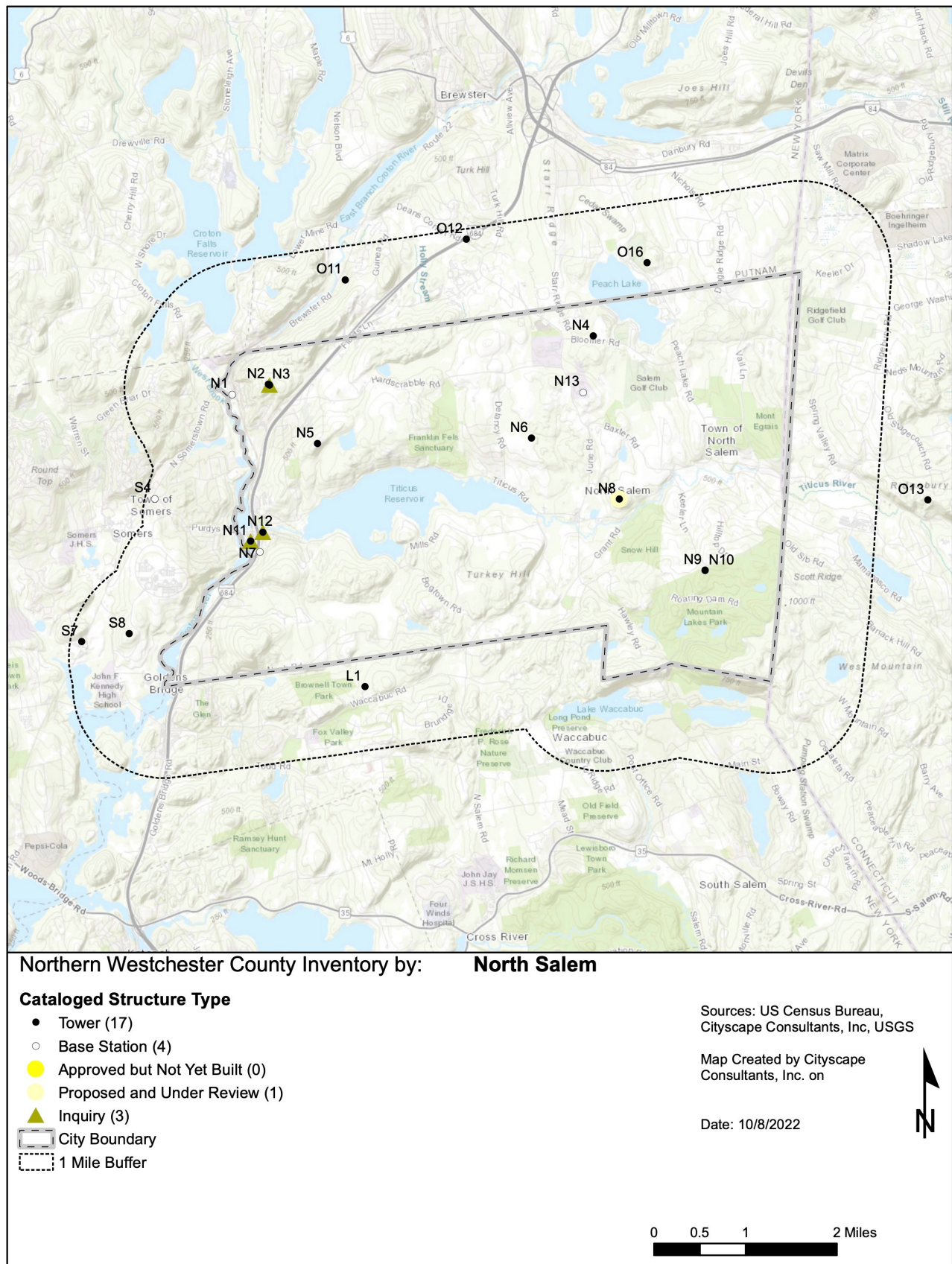
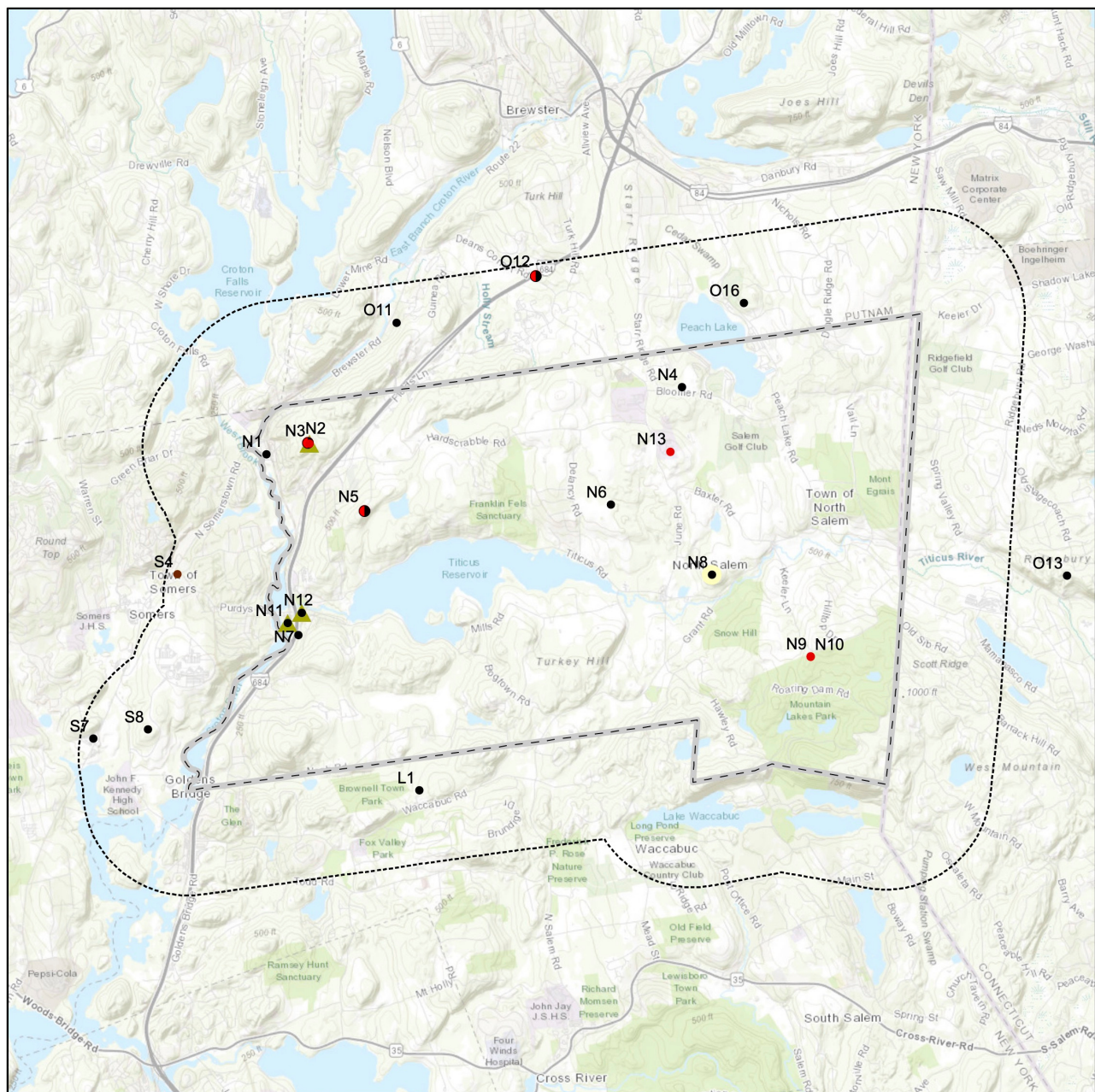


Figure N1: Map of Existing Inventory by Structure Type





# Northern Westchester County Inventory by: **North Salem**

## **Cataloged Antenna Type**

- Macrocell Facility (13)
- Small Wireless Facility (0)
- Public Safety (4)
- Macrocell Facility and Public Safety (3)
- Draft Green Field Options (0)
- Other (1)
- Approved but Not Yet Built (0)
- Proposed and Under Review (1)
- Inquiry (3)

- City Boundary
- 1 Mile Buffer

Sources: US Census Bureau,  
Cityscape Consultants, Inc, USGS

Map Created by Cityscape  
Consultants, Inc. on

Date: 10/8/2022



0 0.5 1 2 Miles

Figure N2: Map of Existing Inventory by All Antenna Type



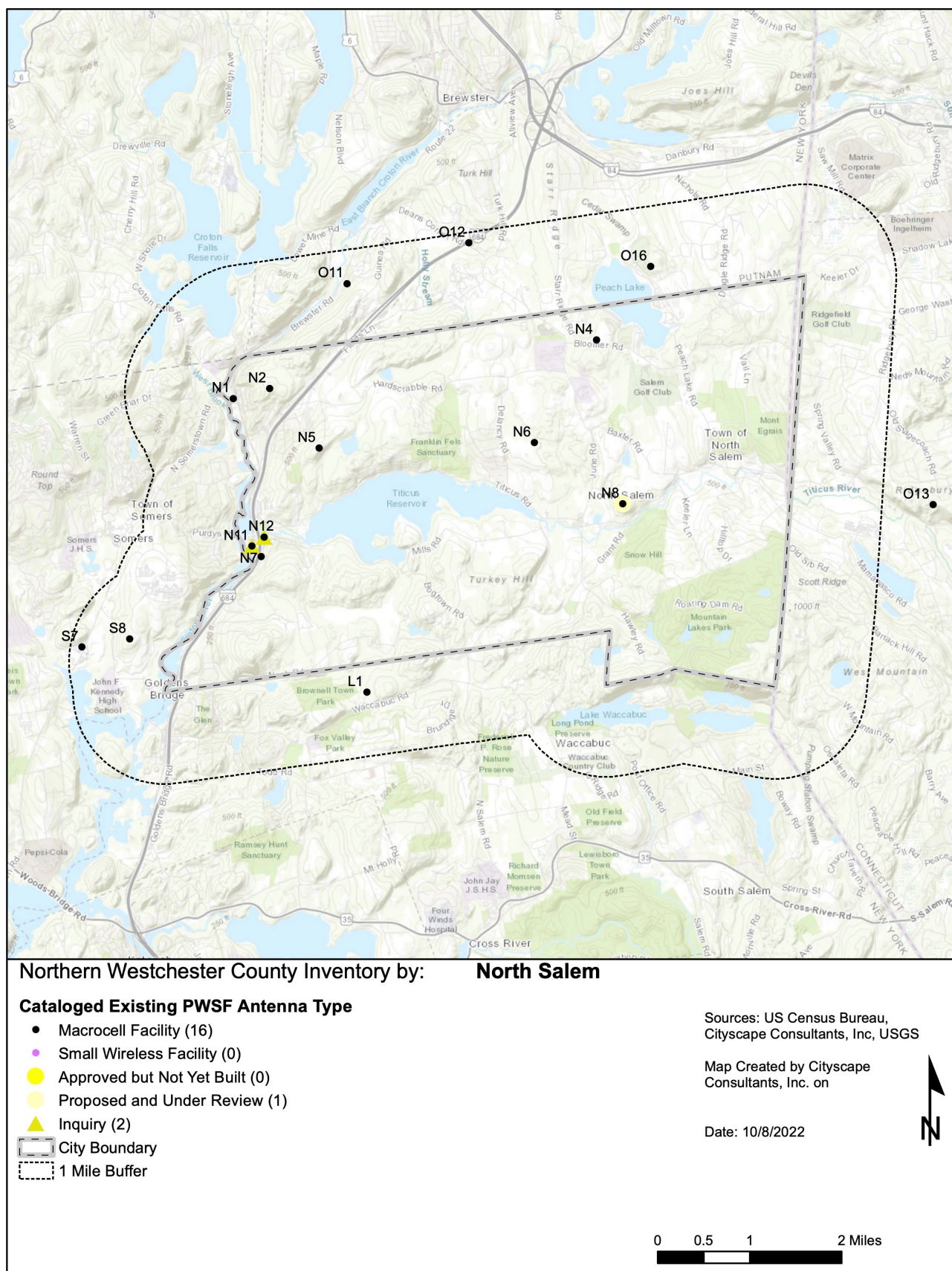


Figure N3: Map of Existing Inventory by PWSF Antenna Type



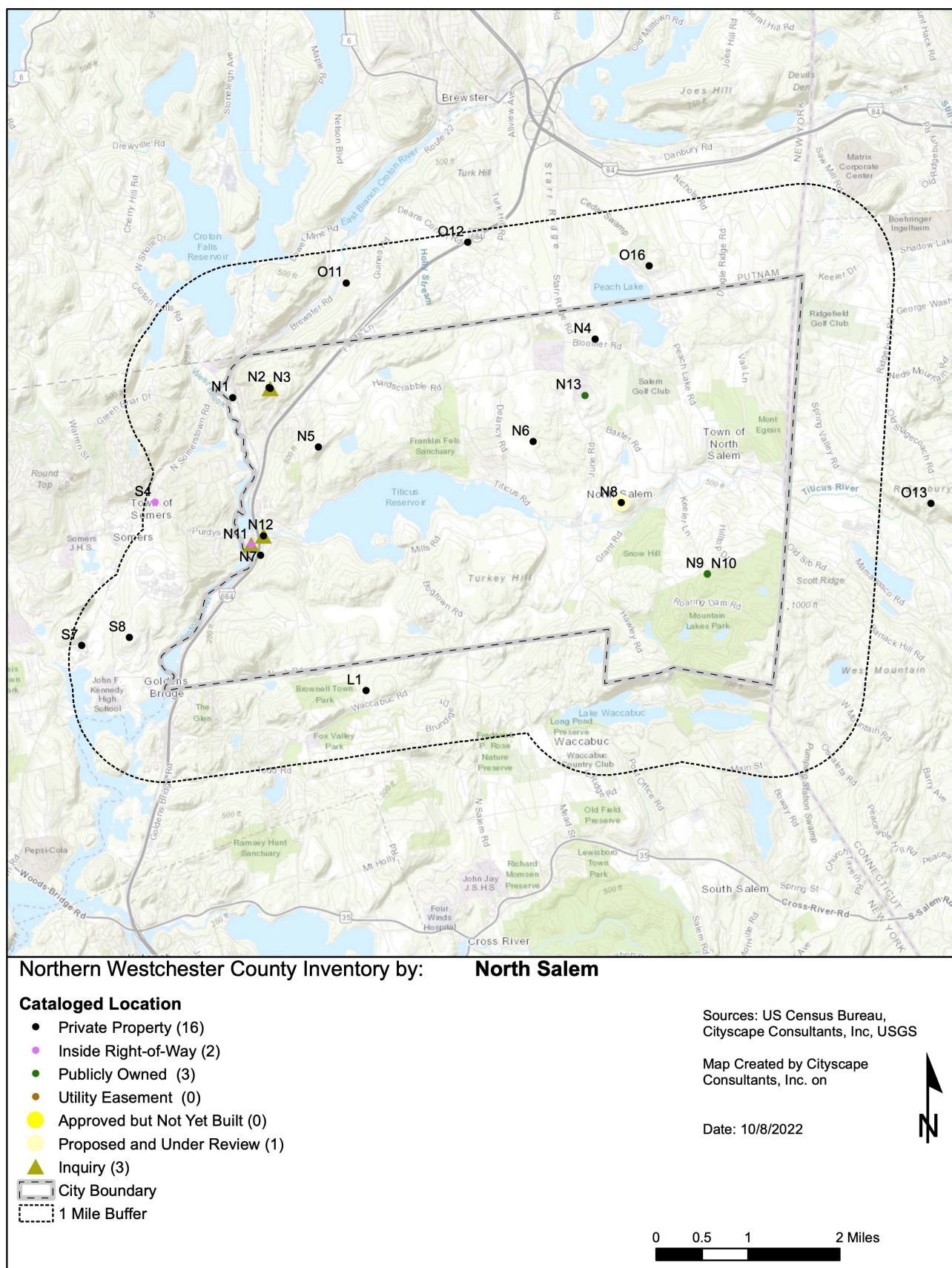
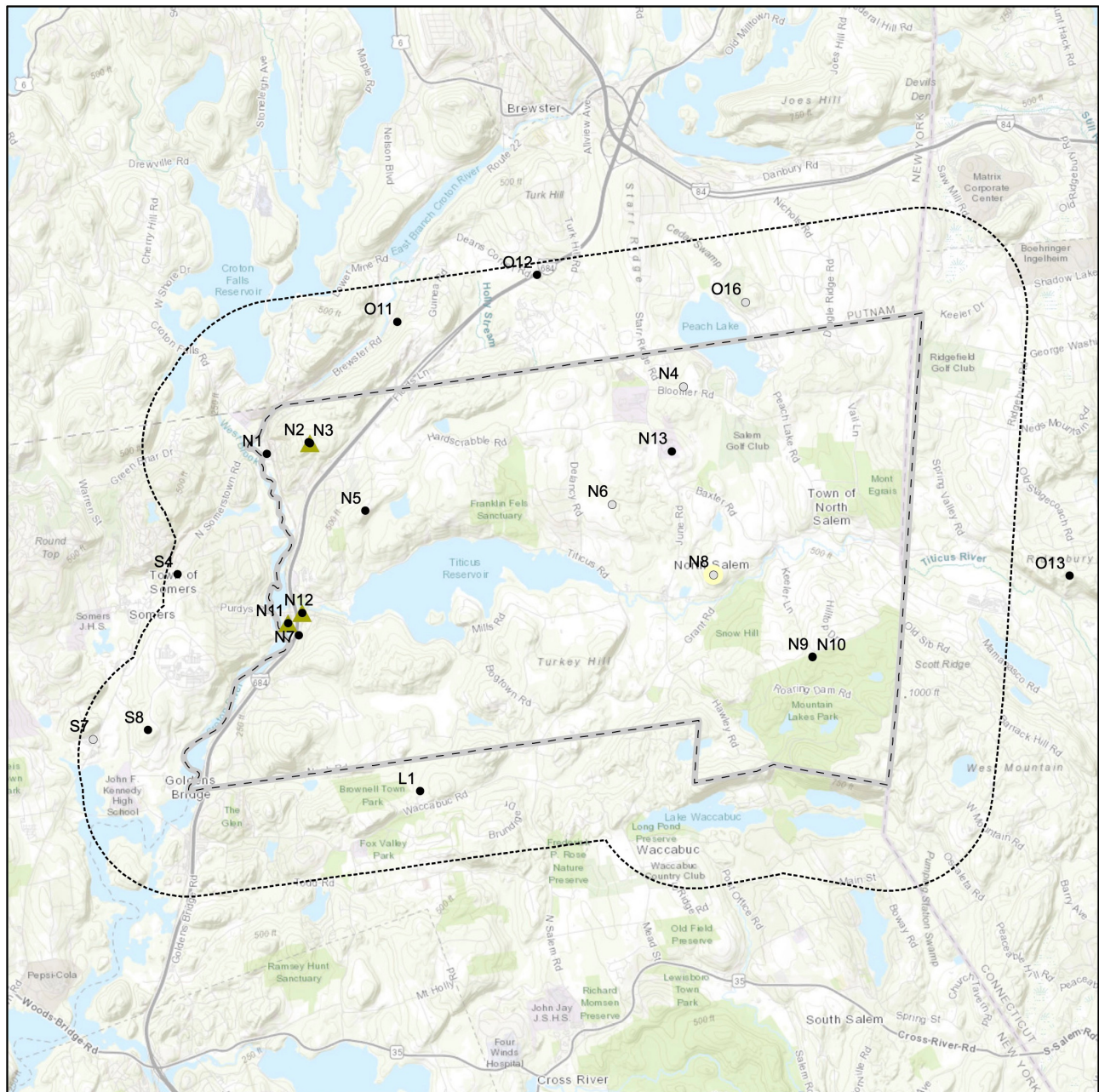


Figure N4: Map of Existing Inventory by Location





Northern Westchester County Inventory by:

**North Salem**

#### Cataloged Design Type

- Concealed Tower or Base Station (5)
- Semi-Concealed Tower or Base Station (0)
- Non-concealed Tower or Base Station (16)
- Approved but Not Yet Built (0)
- Proposed and Under Review (1)
- ▲ Inquiry (3)
- ▭ City Boundary
- ⋯ 1 Mile Buffer

Sources: US Census Bureau,  
Cityscape Consultants, Inc, USGS

Map Created by Cityscape  
Consultants, Inc. on

Date: 10/8/2022



0 0.5 1 2 Miles



Figure N5: Map of Existing Inventory by Design Type

# PROPAGATION MAPPING AND SIGNAL STRENGTH

Propagation mapping is a tool used to simulate antenna signal strength. Signal strength is a term used to describe the level and operability of a wireless device. The stronger the signal between the elevated antenna and the wireless handset device the more likely the device and all the built-in features will work as expected. As a wireless device approaches the outer edge of the antenna's service area, the signal strength becomes more prone to degradation, particularly as usage in the area increases or environmental conditions worsen.

A reduced signal causes unsatisfactory service, results in slow download or upload speeds and can cause dropped calls. Other factors affecting signal strength are any natural or man-made obstructions such as location of buildings, type of building materials, vegetation, humidity or weather that comes between the antenna and devices. The use of devices indoors or outdoors is also a factor when determining signal strength. Consider this much like a light bulb in a lamp; the further away you are from the lamp, the dimmer the light becomes. Any obstructions in between you and the lamp dims or obscures the light, just like signal strength.

The following propagation map provided in *Figure N6* illustrates simulated predicted coverage from the existing and approved but not built personal wireless service facility (PWSF) sites for wireless service providers operating in the Town. The map is generated using mid-band frequency spectrum 1700-2400 MHz assuming maximum operating power from each of the towers or base stations. This simulated propagation considers a generic antenna model similar to those used by wireless service providers and assumes each provider is located at the highest mounting height on each facility represented.

The gradation of colors from yellow to blue represents the signal strength emanating from each personal wireless service facility. The geographic areas in yellow identify superior outdoor and indoor signal strength, green equates to areas with average in vehicle signal strength and shades of blue symbolize acceptable or poor outdoor signal strength. Areas with no shades show marginal, spotty or no signal. A quick reference of the shades and descriptions are as follows in *Table N2*.

SIGNAL STRENGTH COLOR	dBm	SIGNAL STRENGTH DESCRIPTION
Yellow	> -75	In Building
Green	-95	In Vehicle
Blue	-105	Outdoor
Gray or White		Marginal or No Service

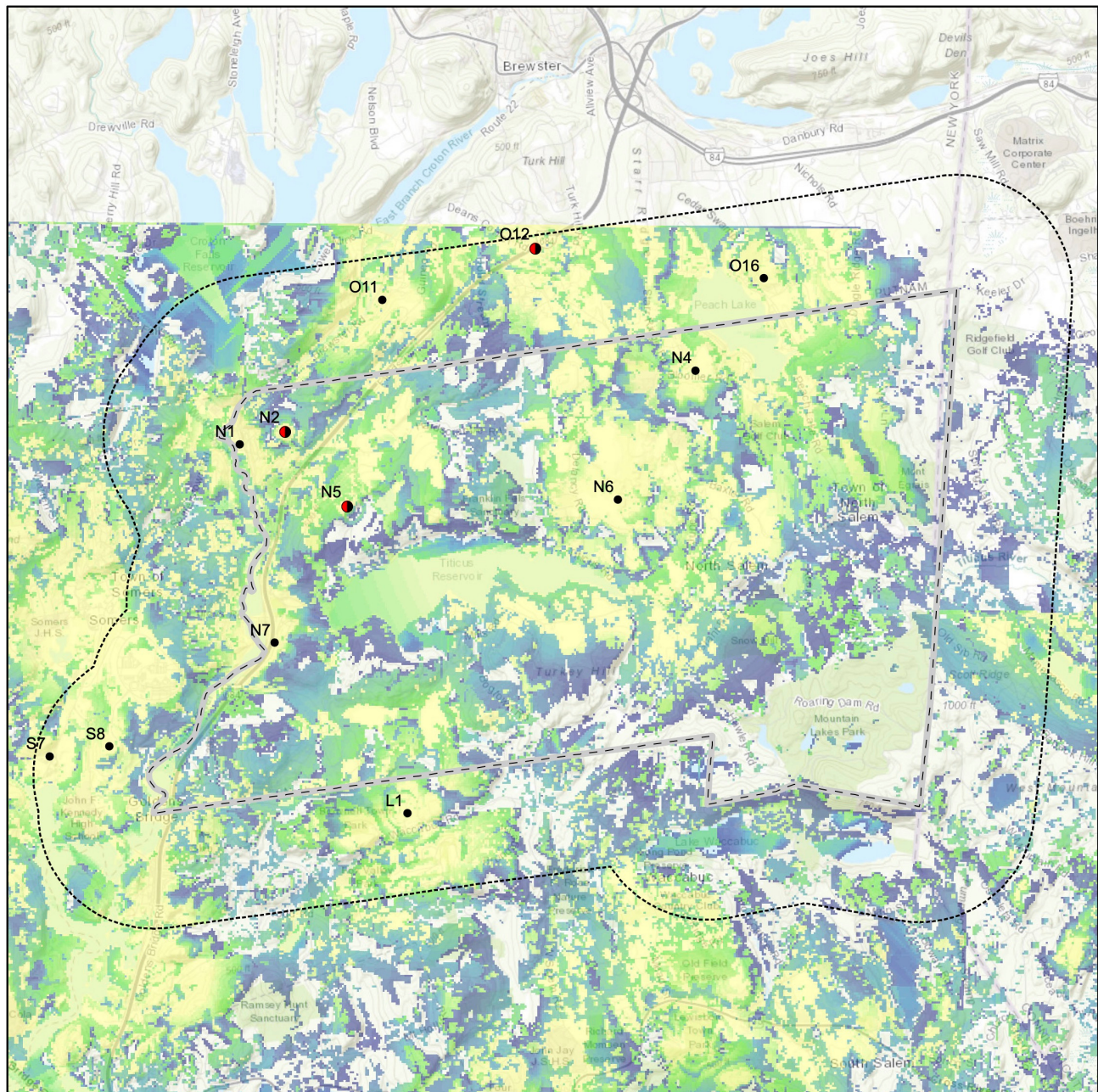
Table N2: Signal Strength Description

This modeling assumption gives an estimation of the wireless coverages in the Town if each service provider was located on each facility. It is noted that not all service providers are on every tower or base station but the goal is to maximize the existing infrastructure already in place to accommodate the other providers.

Observations of *Figure N6* indicate there are nine existing towers and base stations within North Salem's jurisdictional boundary, but only six of these facilities have antennas used for commercial wireless communication purposes. These sites are identified as N1, N2, N4, N5, N6, and N7. Site N8 north of Titicus Road and east of June Road is proposed and under review. Sites N11 and N12 are inquiries for a new tower along the I-684 corridor with the intent of picking one of the two sites as the best location for a wireless facility. Land areas outside of these major transportation networks have limited or no wireless coverage.

One existing tower (N1) and one existing base station (N7) are located along the I-684 corridor. The low mounting elevation of the antenna on N7 and limited rooftop space make collocation difficult which is why the industry is searching for a new tower location nearby Site N7. Site N4 is along the Bloomer Road corridor and the macro cell sites, N5 and N6 are on hilltops maximizing the height for the antennas transmitting signals over greater distances. Many gaps are to the east of the I-684 corridor because the sites are spaced too far apart.





# Northern Westchester County Inventory by: **North Salem**

## **Cataloged PWSF Antenna Type**

- Macrocell Facility (9)
- Small Wireless Facility (0)
- Public Safety (0)
- Macrocell Facility and Public Safety (3)
- Draft Green Field Options (0)
- Other (0)
- Approved but Not Yet Built (0)
- Proposed and Under Review (0)
- Inquiry (0)
- City Boundary
- 1 Mile Buffer

## **Mid-band Frequency PWSF Sites**

Approximate Coverage

- Indoor (-75)
- In Vehicle (-95)
- Outdoor (-105)

Sources: US Census Bureau,  
Cityscape Consultants, Inc, USGS

Map Created by Cityscape  
Consultants, Inc. on

Date: 10/12/2022



0 0.5 1 2 Miles

Figure N6: Simulated Coverage Map from PWSF Sites

# POPULATION DENSITY AND LAND CLASSIFICATION

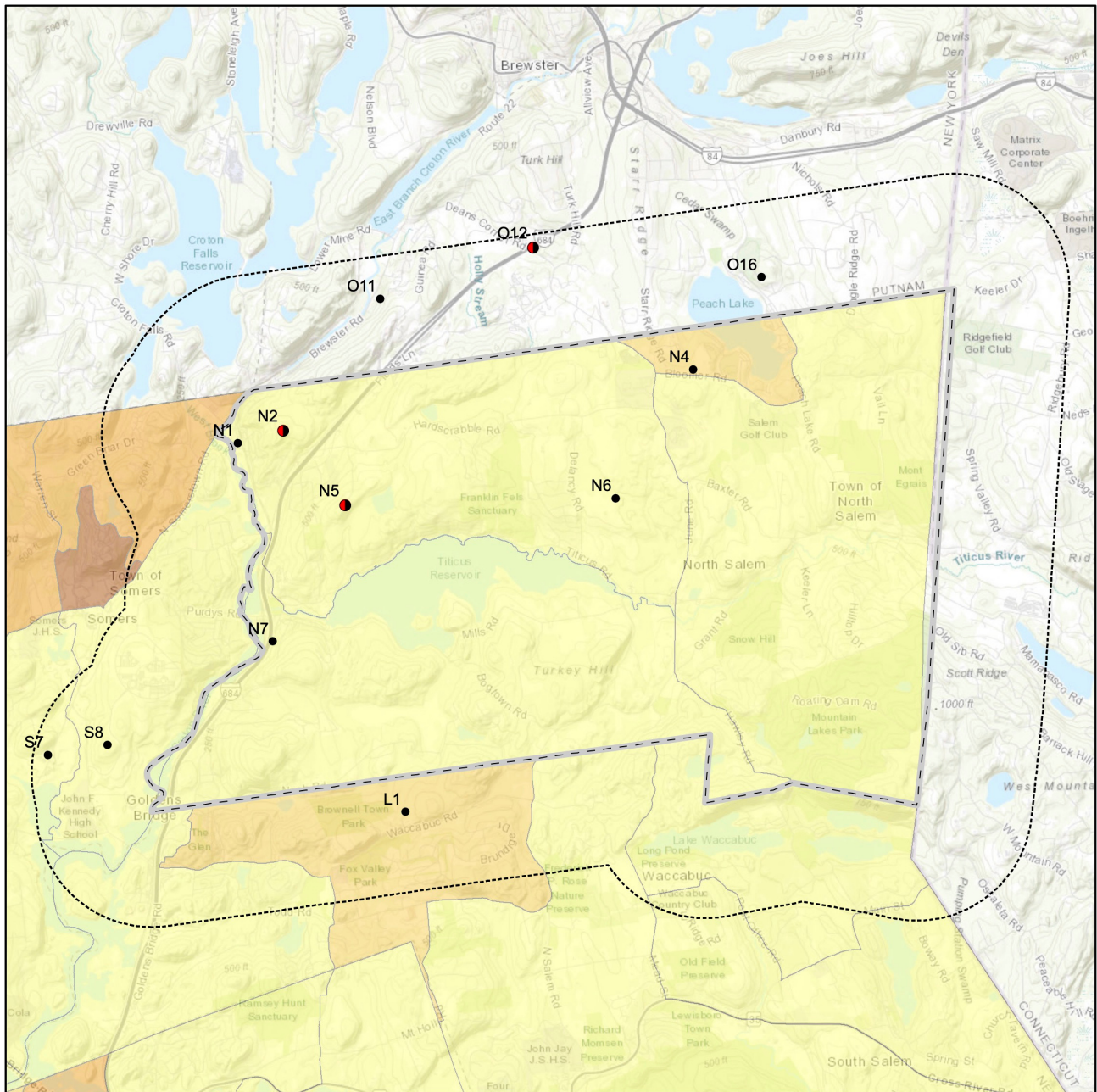
Population density is a variable affecting wireless networks. Wireless service providers want to deploy as close to their subscriber base as possible which is why residential areas, employment centers, recreational facilities and along major highways/thoroughfares are ideal locations for infrastructure. Examining population density is a key component in determining where there is likely to be the greater demand of wireless networks.

*Figure N7* is a map of population density by US Census Block Group with an existing and approved but not built macro wireless facilities overlay. North Salem is a rural town with the majority of Town having less than 500 people per square mile. The light shade of tan represents US Census Block Groups with 500 to 1,000 people per square mile which is the highest population density Census Block in the Town.

*Figure N8* is the Town's Land Classification map also with the existing and approved but not built wireless facilities as an overlay.

When comparing *Figure N6* (propagation map) to *Figure N7* (population density map) and *Figure N8* (land classification map) the wireless facility deployment pattern shows three existing macro cell facilities, Sites N2, N5 and N7 parallel the I-684 corridor. There is one facility Site N1 in a small business district in Croton Falls, one Site N4 on the outskirts of the most densely populated areas of the Town and one Site N6 on property approximately in the middle of the Town.





# Northern Westchester County Inventory by: **North Salem**

## **Cataloged PWSF Antenna Type**

- Macrocell Facility (9)
- Small Wireless Facility (0)
- Public Safety (0)
- Macrocell Facility and Public Safety (3)
- Draft Green Field Options (0)
- Other (0)
- Approved but Not Yet Built (0)
- Proposed and Under Review (0)
- Inquiry (0)
- City Boundary
- 1 Mile Buffer

## **People Per Square Mile**

- 0 - 500
- 501 - 1000
- 1001 - 2000
- 2001 - 3000
- 3001 - 10000

Sources: US Census Bureau, Cityscape Consultants, Inc, USGS

Map Created by Cityscape Consultants, Inc. on

Date: 10/12/2022



0 0.5 1 2 Miles



Figure N7: Population Density with PWSF Overlay



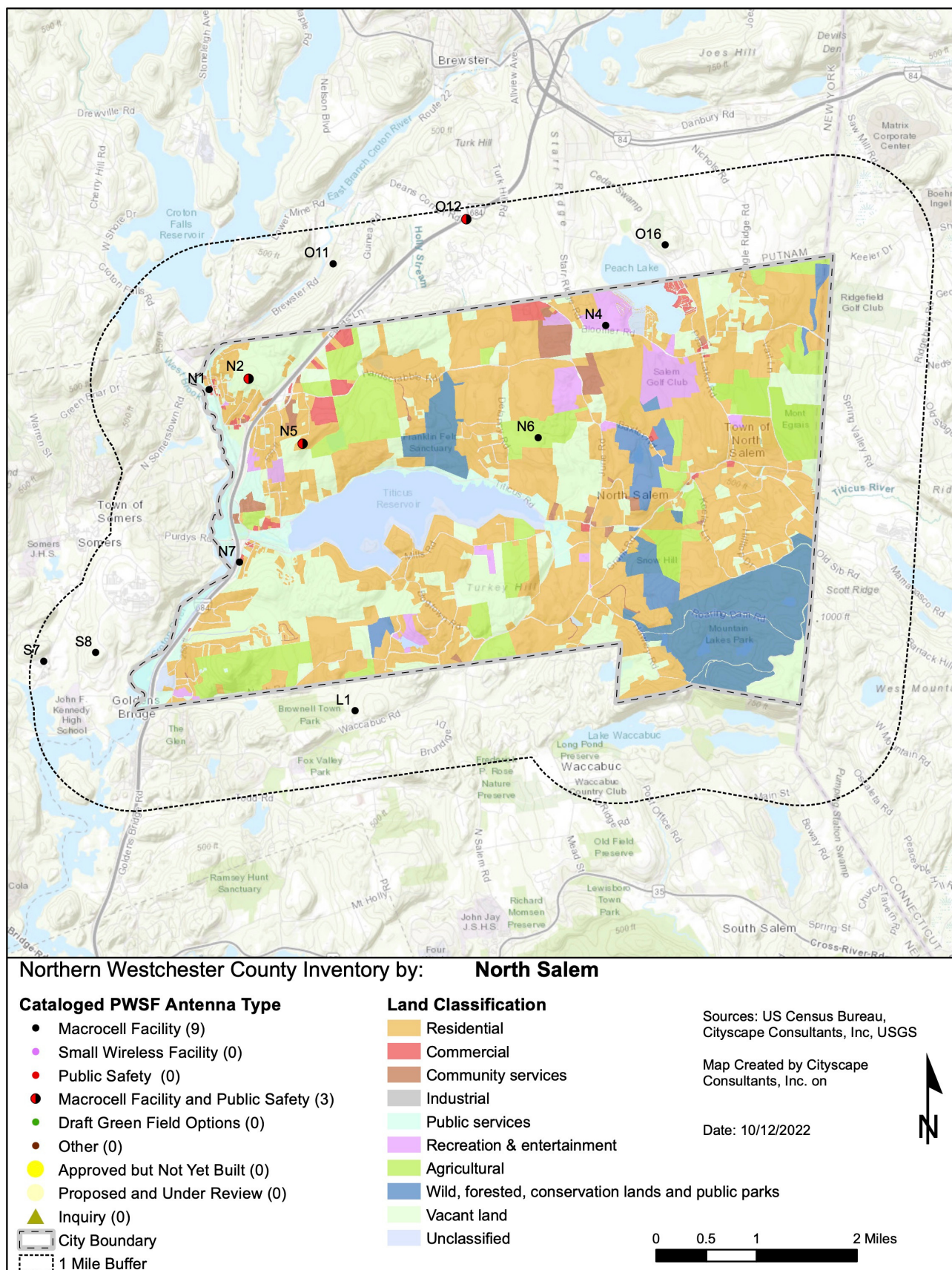


Figure N8: Land Classification Map

# WIRELESS NETWORK DENSIFICATION

Modern and advancing technologies continue to transform how the wireless industry builds out their networks. Each wireless service provider is in a different stage of fifth generation (5G) deployment and use different technologies and spectrum to compete in the 5G race. In the evolution of wireless communications, some smartphones still use 4G technologies but they are rapidly transitioning to 5G wireless networks. Both platforms incorporate broadband technology enabling all the Smartphone applications like global positioning services (i.e. Google Maps, Waze Navigation); public safety, medical and banking services; weather, educational, music, games, on-line reading and countless other on demand services. These applications require significant amounts of information to be sent and received within the same radio signal boundary. Network densification is often needed within the coverage area to improve network capacity.

Network capacity is the amount of wireless traffic that a service provider's network can handle at any given time within a specific location. Capacity takes into account the amount of bandwidth being used simultaneously by way of voice calls, and data usage. In order to estimate network capacity, consideration and analysis of the distinct characteristics of the community is studied and portrayed.

Network densification means wireless service providers need to add more capacity to their networks to handle all the usage and network speeds subscribers expect. There are several ways to add capacity to a network. One is providers buying more spectrum, two is making spectrum more efficient and third adding more wireless facilities to areas in need. Commercial wireless providers are pursuing all three methodologies to prepare for and meet network speeds and improvements.

The following *Figure N9* theorizes geographic areas needing network coverage and capacity densification. Red and orange shaded areas are vicinities where the existing number of towers and base stations are proportionally insufficient to the number of existing households. Yellow and green shaded areas do not need immediate densification, provided existing PWSFs inside these colorings can accommodate collocations for other service providers. If collocation options are not available at the existing sites in the yellow and green shaded areas, then a new PWSF will be necessary to accommodate additional antennas. Any area void of yellow, green, orange or red colorings represents places in the Town with immediate need of personal wireless service facilities.



Coverage and capacity will be greatly improved with additional sites in the northeast and southeast sections of the Town and in-between existing sites N2, N5 and N7 along the western jurisdictional boundary and Sites N4 and N6 in the mid-section of the Town.

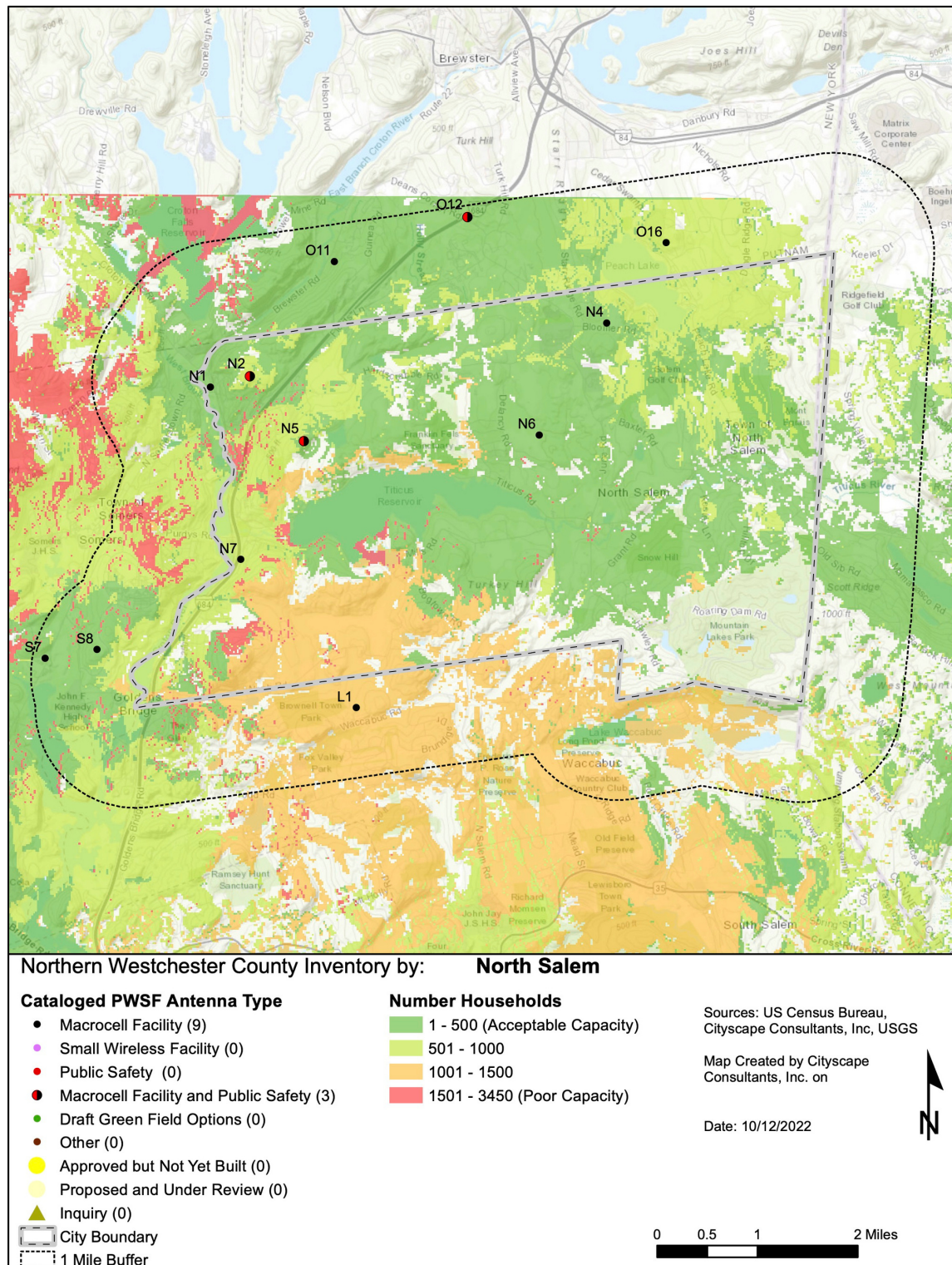


Figure N9: Heat Map Approximating Network Capacity Areas of Concern



# POTENTIAL SOLUTIONS

Long Term Evolution (LTE) is a 4G wireless communication standard used by commercial wireless service providers offering high-volume data and faster internet speeds with minimal delay or latency. Transitioning to LTE modeling requires a slight change in the propagation model. Residential indoor service tends to require a minimum of -95 dBm RSRP (LTE Reference Signal Received Power) which contains a 5 dB margin added to ensure reliable indoor services. The typical minimum service level for in vehicle is -90 to -105 dBm, which makes for reliable text, call and data sessions, and the minimum usable outdoor LTE coverage level is -115 dBm.

The following figures are representations of simulated LTE coverage assuming all service providers are on each facility since this is the best possible collocation scenario. Each figure uses the following RSRP signal level shown in *Table N3*.

SIGNAL STRENGTH COLOR	dBm	SIGNAL STRENGTH DESCRIPTION
Yellow	> -90	In Building
Green	-90 to -105	In Vehicle
Blue	-105 to -115	Outdoor

Table N3: LTE Signal Strength Description



Site N2



Site N4



Site N6

## NORTH SALEM OVERVIEW

The following *Figure N10* provides a closer look at the LTE coverage predictions from all the existing personal wireless facilities in the North Salem Study Area. The areas outlined in blue illustrate very poor to non-existent wireless coverage and the areas in greatest need of wireless infrastructure.

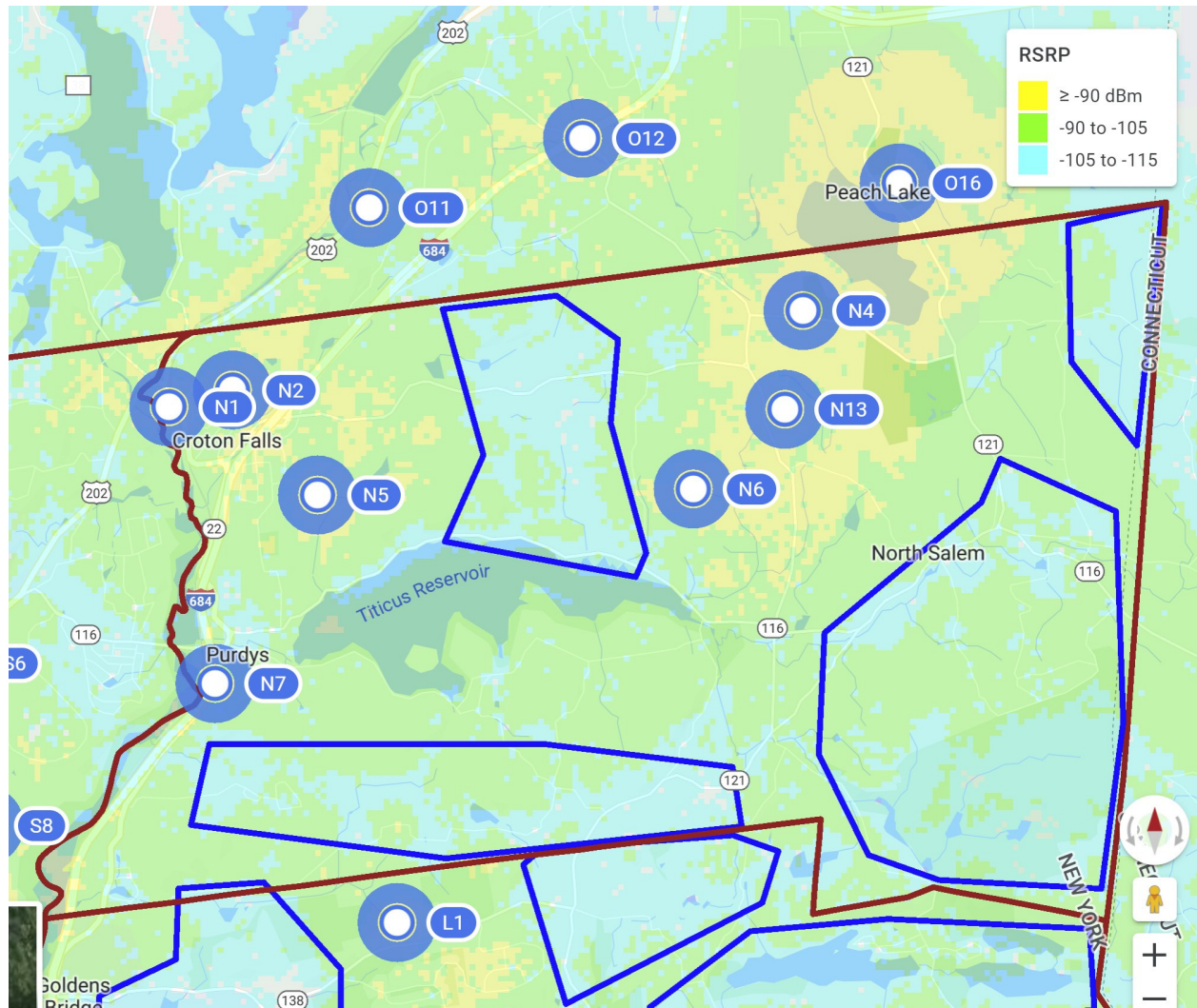


Figure N10: LTE Coverage Predictions Existing or Approved PWSF Sites

The following maps provide an in depth look at specific underserved areas and offer potential solutions to fill-in these gaps. Suggested new macro cell towers or base stations are represented as new tower (NT) followed by a number. Small wireless facilities may provide a feasible solution closer to residential areas of those areas with viewshed concerns. Small wireless facilities on New York State Electric and Gas (NYSEG) poles or new poles (NP) in the ROW are identified as NP followed by a number.



To improve the poor or no wireless coverage areas in the underserved areas of North Salem it is anticipated to take a minimum of one macro cell facility, either tower or base station at approximately 100' in height. Also suggested are approximately 6 small cell wireless facilities on 50' poles.

*Figure N11* shows predicted coverages utilizing existing macro cell Sites N1, N2, N4, N5, N6 and N7 as well as the adding macro cell antennas on existing public safety towers at Sites N9 and N13 as well as an 80' proposed and under review facility at N8. Adding macro cell antennas are recommended for the proposed new public safety tower at Site N10 should the existing tower at Site N9 be removed upon completion of the new tower.

The macro cell antennas on the rooftop at Site N7 occupy the majority of the roof and side walls of the existing building so another facility in the vicinity of Site N7 is needed to provide equal market access to the other wireless service providers. One 100' macro facility near N-NT1 is suggested for better hand off between existing Sites N5 and N4. Six small wireless facilities are suggested, N-NP1, N-NP2, N-NP3, N-NP4, N-NP5, N-NP6 on existing NYSEG utility poles or a new 50' utility pole in the same vicinity.

Potential new Sites N-NP1 and N-NP2 would improve coverage along Delancy Road the north south connector between Hardscrabble Road and Highway 116/Titcus Road. Sites N-NP4 and N-NP5 will improve network access in the southwest corner of the Town along Highway 22. Sites N-NP3 and N-NP6 will help coverage along Nash Road and expand the signal into North Salem from existing Site L1 located in the Town of Lewisboro just south of the North Salem boundary.



Site N1



Site N7



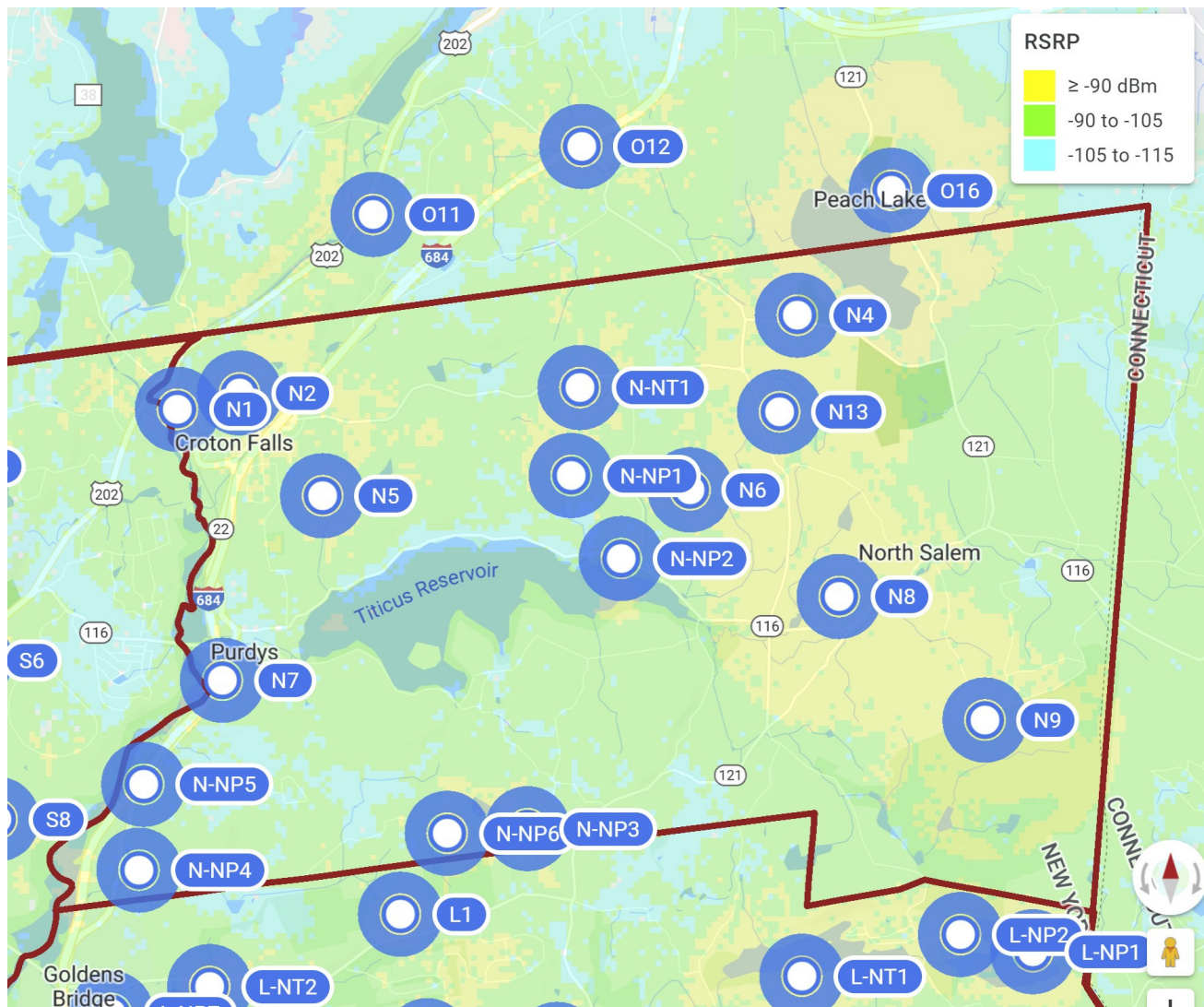


Figure N11: Predicted LTE Coverage North Salem

The following *Table N4* provides a summary of all the suggested macro fill in sites for the Town and *Table N5* is a summary of suggested small wireless facilities on existing Con Ed utility poles or on new poles in the same vicinity.

MACRO CELL SUGGESTED SITE	
SITE NAME	FACILITY HEIGHT (FEET)
N-NT1	100'

Table N4: Suggested Macro Fill-In Sites

SMALL CELL SUGGESTED SITES			
SITE NAME	LATITUDE	LONGITUDE	HEIGHT
N-NP1	41.34216	-73.6147	50'
N-NP2	41.33451	-73.6085	50'
N-NP3	41.30959	-73.6200	50'
N-NP4	41.30577	-73.6677	50'
N-NP5	41.31369	-73.6671	50'
N-NP6	41.30917	-73.6299	50'

Table N5: Suggested Small Wireless Fill-In Sites



Site N5



Site N9 and N10



# COMMUNITY SURVEY AND ZONING

In order to facilitate effective regulations that takes community input into consideration, the Town promoted a Wireless Telecommunications Infrastructure Survey (Survey) to engage the townspeople. The main objective was to solicit information regarding thoughts, concerns and preferences as it relates to wireless infrastructure facilities.

The Survey solicited opinions and experiences regarding the importance of the current state of wireless connectivity and aesthetics of the infrastructure in the Town. The North Salem survey opened on October 29, 2021 and closed on November 16, 2021 and during that time 307 people participated in the poll. The responses are very similar to those collected for the larger study area.

Those who participated in the survey indicated that wireless connectivity and quality of service is very important to them and coverage at home, work and while traveling around the Town is generally excellent or acceptable. The majority support the use of public property for future sites and prefer concealed base stations, towers, and small wireless facilities over non-concealed and semi-concealed infrastructure.

The most notable observations from the survey and compared to the entire NWC study area are shown in *Table N5* with the entire collection of responses and comments provided in *Appendix F2*.



RESPONSES	North Salem	NWC
<b>PARTICIPANTS</b>	307	4002
<b>Average Number of Devices</b>	6	6
<b>Use of Devices</b>		
○ Personal Recreation/Leisure	76.10%	85.84%
○ Employment Related	54.90%	63.33%
<b>Wireless Coverage at Residence</b>		
○ Excellent or Acceptable	48.50%	43.03%
○ Poor or Inconsistent	49.90%	55.91%
<b>Wireless Coverage at Work</b>		
○ Excellent or Acceptable	43.60%	35.37%
○ Poor or Inconsistent	29.70%	32.60%
<b>Wireless Coverage Traveling Around Town</b>		
○ Excellent or Acceptable	40.10%	37.18%
○ Poor or Inconsistent	59.00%	61.88%
<b>Would Rely More on Device if Network was Better</b>		
○ Entirely Agree	56.40%	61.90%
<b>Quality of Wireless Service Is Important to Me</b>		
○ Entirely Agree	84.00%	87.64%
<b>What is Most Important to You</b>		
○ Excellent Connectivity	53.90%	56.24%
○ Good Connectivity and Minimal Visual Impact	38.60%	38.71%
<b>Prefer Taller Tower Supporting Multiple Collocations</b>	44.00%	44.64%
<b>Non-Concealed Tower Preference - Monopole</b>	56.70%	62.09%
<b>Concealed Tower Preference - Flag Pole (Faux Silo 92%)</b>	65.70%	70.11%
<b>Rooftop Preference - Concealed</b>	78.70%	78.65%
<b>Small Wireless Facility Preference - Concealed</b>	91.00%	89.99%
<b>Locational Preference in Town - Anywhere</b>	54.00%	60.88%
<b>Support Use of Public Property for Revenue and Aesthetics - Yes</b>	52.50%	52.18%

Table N5: Summary of Notable Survey Responses

Macro cell and small wireless facilities are needed throughout the Town to provide initial coverage in gaps where no service is currently available and in areas where the ratio of subscribers exceeds the number of wireless facilities. Based on the survey responses, the community supports and desires additional wireless infrastructure to improve the wireless network.

The Town's Code § 250-77.5 Communication towers and Facilities was added to the Town Code in 1998 and while it is thorough, promotes collocation and has criteria addressing the visual appearance of the new sites, it is outdated and should be revised to add development standards for small wireless facilities and compliant requirements for macro cells that align with the Code of Federal Regulation.

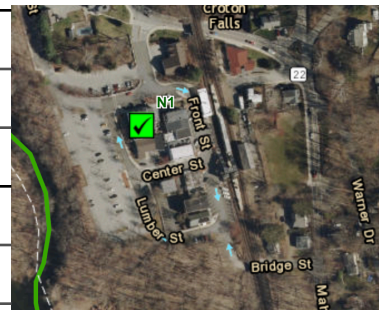




## APPENDIX F1

# WIRELESS INFRASTRUCTURE INVENTORY




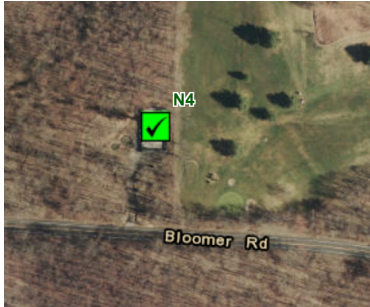
Site N1		4 West Cross Street	North Salem
STRUCTURE TYPE:	Base Station		
FACILITY TYPE:	Roof		
ANTENNA TYPE:	Macro Cell		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Sprint/Nextel - NY54XC542		
FACILITY SITE NAME:	Fomaby		
SERVICE PROVIDERS:	Sprint		
FCC ASR:			
HEIGHT:	40'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.348256 N, -73.663007 W		
PARCEL ID:	1.1-1717-5		
ZONING:	GB - General Business		
NOTES:			



Site N2		40 Sun Valley Drive	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Monopole		
ANTENNA TYPE:	Macro and Public Safety		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Crown Castle International - 806897		
FACILITY SITE NAME:	Sun Valley Drive - CFFD		
SERVICE PROVIDERS:	AT&T, T-Mobile, Verizon, MTA		
FCC ASR:			
HEIGHT:	112'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.349766 N, -73.655375 W		
PARCEL ID:	1.-1734-68		
ZONING:	R-1 Medium Density Residential		
NOTES:			





Site N3		40 Sun Valley Drive	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Lattice		
ANTENNA TYPE:	Public Safety		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Westchester County		
FACILITY SITE NAME:			
SERVICE PROVIDERS:			
FCC ASR:			
HEIGHT:	150'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.349683 N, -73.655293 W		
PARCEL ID:	1.-1734-68		
ZONING:	R-1 Medium Density Residential		
NOTES:	Inquiry		
			
			
Site N4		101 Bloomer Rd	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Monopine		
ANTENNA TYPE:	Macro Cell		
DESIGN TYPE:	Concealed		
FACILITY OWNER/ID:	InSite Wireless Group, LLC - NY121		
FACILITY SITE NAME:	North Salem - Bloomerside		
SERVICE PROVIDERS:	AT&T, Verizon		
FCC ASR:			
HEIGHT:	120'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.356934 N, -73.586899 W		
PARCEL ID:	6.-1748-3		
ZONING:	R-4 Rural Density Residential		
NOTES:	Formerly Homeland Towers. LLC		
			
			

Site N5		73 Cosby Road	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Guyed		
ANTENNA TYPE:	Macro and Public Safety		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	American Tower Corporation - 277416		
FACILITY SITE NAME:	Gjushi NY		
SERVICE PROVIDERS:	AT&T, T-Mobile, Verizon, NSVAC		
FCC ASR:			
HEIGHT:	155'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.340290 N, -73.645171 W		
PARCEL ID:	11.-1689-77		
ZONING:	R-2 Low Density Residential		
NOTES:			



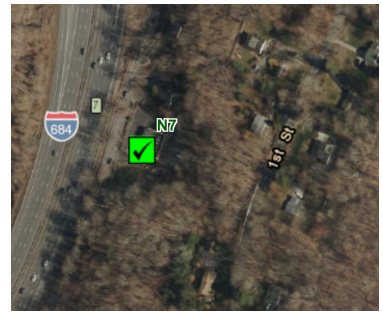
Site N6		39 Delancey Road	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Unipole		
ANTENNA TYPE:	Macro Cell		
DESIGN TYPE:	Concealed		
FACILITY OWNER/ID:	American Tower Corporation - 413115		
FACILITY SITE NAME:	NY North Salem CAC 802806 NY - New Vineyard		
SERVICE PROVIDERS:	AT&T, Verizon		
FCC ASR:	1311060		
HEIGHT:	100'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.340836 N, -73.600075 W		
PARCEL ID:	17.-1697-31		
ZONING:	R-4 Rural Density Residential		
NOTES:			



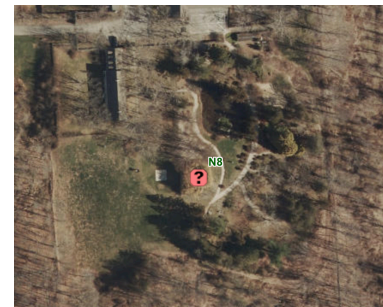
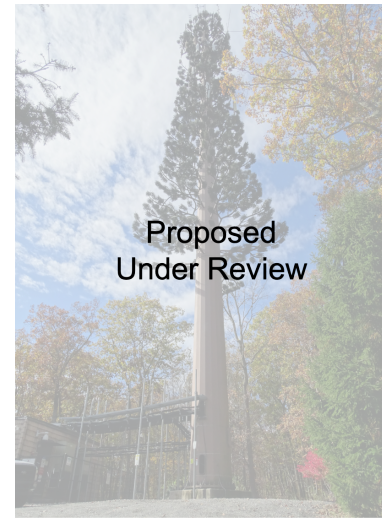


**Site N7****509 Route 22****North Salem**

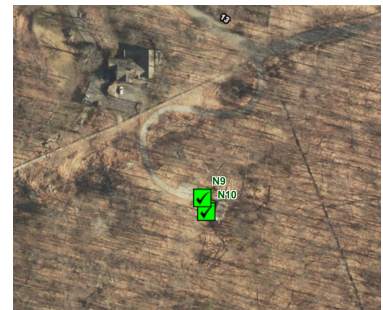
<b>STRUCTURE TYPE:</b>	Base Station
<b>FACILITY TYPE:</b>	Roof
<b>ANTENNA TYPE:</b>	Macro Cell
<b>DESIGN TYPE:</b>	Non-Concealed
<b>FACILITY OWNER/ID:</b>	Sprint Spectrum LP - NY54XC593
<b>FACILITY SITE NAME:</b>	Carrozza and First Prudys Building, LLC
<b>SERVICE PROVIDERS:</b>	Sprint
<b>FCC ASR:</b>	
<b>HEIGHT:</b>	33'
<b>LOCATION:</b>	Private Property
<b>LATITUDE/LONGITUDE:</b>	41.323280 N, -73.657476 W
<b>PARCEL ID:</b>	28.-1679-20
<b>ZONING:</b>	PO Professional Office District
<b>NOTES:</b>	

**Site N8****28 Deveau Road****North Salem**

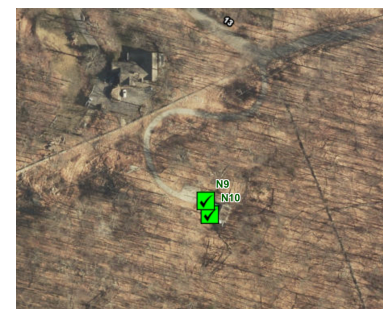
<b>STRUCTURE TYPE:</b>	Tower
<b>FACILITY TYPE:</b>	Monopine
<b>ANTENNA TYPE:</b>	Macro Cell
<b>DESIGN TYPE:</b>	Concealed
<b>FACILITY OWNER/ID:</b>	Homeland Towers -NY122
<b>FACILITY SITE NAME:</b>	North Salem - Hammond Museum
<b>SERVICE PROVIDERS:</b>	
<b>FCC ASR:</b>	
<b>HEIGHT:</b>	80'
<b>LOCATION:</b>	Private Property
<b>LATITUDE/LONGITUDE:</b>	41.331004 N, -73.581766 W
<b>PARCEL ID:</b>	
<b>ZONING:</b>	R-4 Rural Density Residential
<b>NOTES:</b>	Proposed Under Review



Site N9		Access of Keeler Lane	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Guyed		
ANTENNA TYPE:	Public Safety		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Westchester County		
FACILITY SITE NAME:	Westchester County - Mt. Lakes Park		
SERVICE PROVIDERS:			
FCC ASR:			
HEIGHT:	198'		
LOCATION:	Public Property		
LATITUDE/LONGITUDE:	41.319612 N, -73.563867 W		
PARCEL ID:			
ZONING:	R-4 Rural Density Residential		
NOTES:			



Site N10		Access off Keeler Lane	North Salem
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Lattice		
ANTENNA TYPE:	Public Safety		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Westchester County		
FACILITY SITE NAME:	Westchester County - Mt. Lakes Park		
SERVICE PROVIDERS:			
FCC ASR:			
HEIGHT:	140'		
LOCATION:	Public Property		
LATITUDE/LONGITUDE:	41.3195444 N, -73.563837 W		
PARCEL ID:	49.2-1370-20		
ZONING:	R-4 Rural Density Residential		
NOTES:			



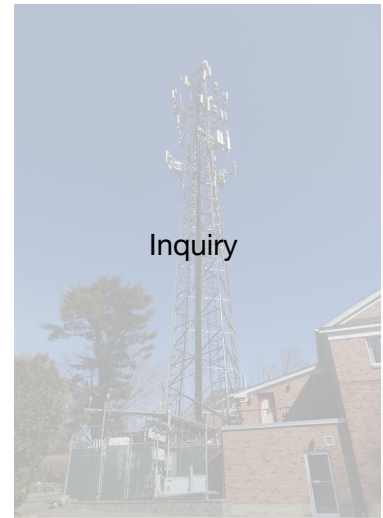


**Site N11****North Salem**

STRUCTURE TYPE:	Tower
FACILITY TYPE:	Lattice
ANTENNA TYPE:	Macro Cell
DESIGN TYPE:	Non-Concealed
FACILITY OWNER/ID:	MTA
FACILITY SITE NAME:	
SERVICE PROVIDERS:	
FCC ASR:	
HEIGHT:	150'
LOCATION:	Inside Right-of-Way
LATITUDE/LONGITUDE:	41.324923 N, -73.659370 W
PARCEL ID:	
ZONING:	
NOTES:	

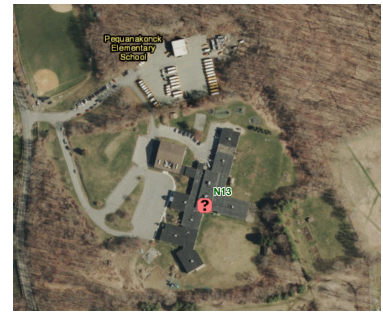
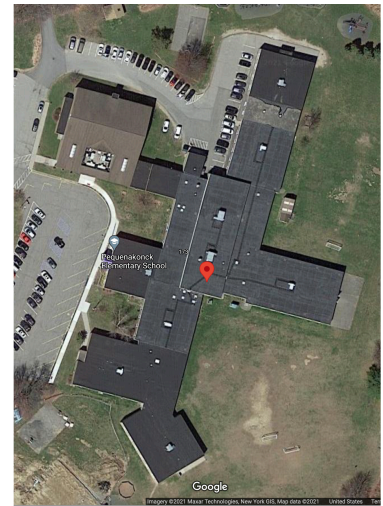
**Site N12****North Salem**

STRUCTURE TYPE:	Tower
FACILITY TYPE:	Monopole
ANTENNA TYPE:	Macro Cell
DESIGN TYPE:	Non-Concealed
FACILITY OWNER/ID:	Crown Castle International
FACILITY SITE NAME:	
SERVICE PROVIDERS:	
FCC ASR:	
HEIGHT:	
LOCATION:	Private Property
LATITUDE/LONGITUDE:	41.326354 N, -73.656789 W
PARCEL ID:	
ZONING:	
NOTES:	

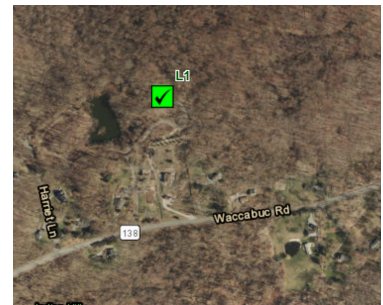


**Site N13****North Salem**

<b>STRUCTURE TYPE:</b>	Base Station
<b>FACILITY TYPE:</b>	Roof
<b>ANTENNA TYPE:</b>	Public Safety
<b>DESIGN TYPE:</b>	Non-Concealed
<b>FACILITY OWNER/ID:</b>	
<b>FACILITY SITE NAME:</b>	
<b>SERVICE PROVIDERS:</b>	
<b>FCC ASR:</b>	
<b>HEIGHT:</b>	40'
<b>LOCATION:</b>	Public Property
<b>LATITUDE/LONGITUDE:</b>	41.348026 N, 73.589080 W
<b>PARCEL ID:</b>	
<b>ZONING:</b>	
<b>NOTES:</b>	

**Site L1****117 Waccabuc Road****Lewisboro**

<b>STRUCTURE TYPE:</b>	Tower
<b>FACILITY TYPE:</b>	Monopole
<b>ANTENNA TYPE:</b>	Macro Cell
<b>DESIGN TYPE:</b>	Non-Concealed
<b>FACILITY OWNER/ID:</b>	Homeland Towers/Insite - NY486
<b>FACILITY SITE NAME:</b>	Goldens Bridge - Waccabuc-L
<b>SERVICE PROVIDERS:</b>	AT&T, Verizon, T-Mobile
<b>FCC ASR:</b>	
<b>HEIGHT:</b>	150'
<b>LOCATION:</b>	Private Property
<b>LATITUDE/LONGITUDE:</b>	41.301707 N, -73.635624 W
<b>PARCEL ID:</b>	3100400010140000000
<b>ZONING:</b>	R-2A
<b>NOTES:</b>	





## Site S4

## Somers

<b>STRUCTURE TYPE:</b>	Base Station
<b>FACILITY TYPE:</b>	Utility Pole
<b>ANTENNA TYPE:</b>	Other
<b>DESIGN TYPE:</b>	Non-Concealed
<b>FACILITY OWNER/ID:</b>	
<b>FACILITY SITE NAME:</b>	
<b>SERVICE PROVIDERS:</b>	Unknown
<b>FCC ASR:</b>	
<b>HEIGHT:</b>	35'
<b>LOCATION:</b>	Inside Right-of-Way
<b>LATITUDE/LONGITUDE:</b>	41.331824 N, -73.728388 W
<b>PARCEL ID:</b>	17.11-2-18
<b>ZONING:</b>	BHP - Business Historic Preservation District
<b>NOTES:</b>	



## Site S7



## 245 Route 100

## Somers

<b>STRUCTURE TYPE:</b>	Tower
<b>FACILITY TYPE:</b>	Unipole
<b>ANTENNA TYPE:</b>	Macro Cell
<b>DESIGN TYPE:</b>	Concealed
<b>FACILITY OWNER/ID:</b>	Crown Castle International - 857113
<b>FACILITY SITE NAME:</b>	Somers-Plumbrook Shade - SAMAJ Investors
<b>SERVICE PROVIDERS:</b>	AT&T
<b>FCC ASR:</b>	
<b>HEIGHT:</b>	100'
<b>LOCATION:</b>	Private Property
<b>LATITUDE/LONGITUDE:</b>	41.309271 N, -73.695143 W
<b>PARCEL ID:</b>	28.10-1-6.1
<b>ZONING:</b>	OLI Office Light Industry District; Groundwater Protection Overlay District
<b>NOTES:</b>	



Site S8		84 Route 100	Somers
STRUCTURE TYPE:	Tower		 
FACILITY TYPE:	Monopole		
ANTENNA TYPE:	Macro Cell		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Crown Castle International - 806949		
FACILITY SITE NAME:	NY Somers 958150 - IBM		
SERVICE PROVIDERS:	Sprint, T-Mobile, Verizon		
FCC ASR:			
HEIGHT:	104'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.310467 N, -73.685155 W		
PARCEL ID:	17.19-1-1		
ZONING:	OB-100 Office Business 100		
NOTES:			

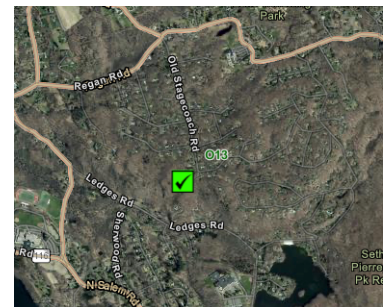
Site O11		300 Route 22	Other
STRUCTURE TYPE:	Tower		 
FACILITY TYPE:	Monopole		
ANTENNA TYPE:	Macro Cell		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	SBA - NY47411-A		
FACILITY SITE NAME:	Nichols Property		
SERVICE PROVIDERS:	AT&T, Sprint, Verizon		
FCC ASR:	1270478		
HEIGHT:	99'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.366211 N, -73.638980 W		
PARCEL ID:			
ZONING:			
NOTES:			



Site O12		Turk Hill Road	Other
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Monopole		
ANTENNA TYPE:	Macro and Public Safety		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	Crown Castle International - 801848		
FACILITY SITE NAME:	Turk Hill Road		
SERVICE PROVIDERS:	AT&T, Sprint, Voicestream, DOT, MTA		
FCC ASR:			
HEIGHT:	162'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.372475 N, -73.613363 W		
PARCEL ID:			
ZONING:			
NOTES:			



Site O13		320 Old Stagecoach Rd	Other
STRUCTURE TYPE:	Tower		
FACILITY TYPE:	Monopole		
ANTENNA TYPE:	Macro Cell		
DESIGN TYPE:	Non-Concealed		
FACILITY OWNER/ID:	American Tower 209115		
FACILITY SITE NAME:	Ridgefield		
SERVICE PROVIDERS:	AT&T, T-Mobile, Verizon		
FCC ASR:			
HEIGHT:	150'		
LOCATION:	Private Property		
LATITUDE/LONGITUDE:	41.372475 N, -73.613363 W		
PARCEL ID:			
ZONING:			
NOTES:			



STRUCTURE TYPE:	Tower
FACILITY TYPE:	Unipole
ANTENNA TYPE:	Macro Cell
DESIGN TYPE:	Concealed
FACILITY OWNER/ID:	AT&T - 47822
FACILITY SITE NAME:	
SERVICE PROVIDERS:	AT&T
FCC ASR:	
HEIGHT:	100'
LOCATION:	Private Property
LATITUDE/LONGITUDE:	41.368438 N, -73.575352 W
PARCEL ID:	
ZONING:	
NOTES:	







## APPENDIX F2

# **WIRELESS INFRASTRUCTURE SURVEY RESULTS**

# Wireless Infrastructure Poll

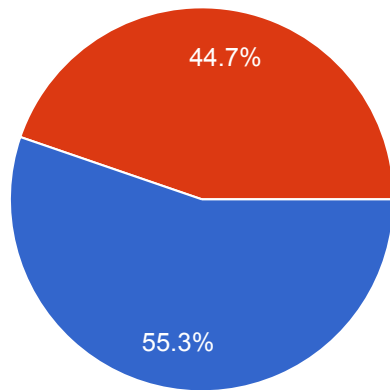
307 responses

[Publish analytics](#)

Thank you for taking the time to complete this poll. Please tell us a little about yourself.

 [Copy](#)

304 responses

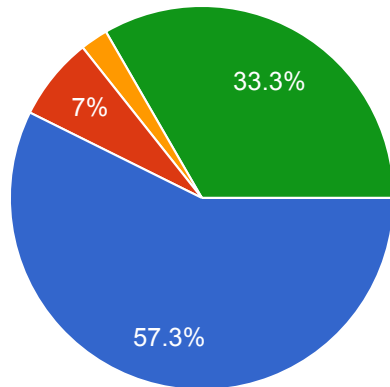


- I am answering these questions on behalf of myself
- I am answering these questions on behalf of my household

Choose which best describes you:

 [Copy](#)

300 responses



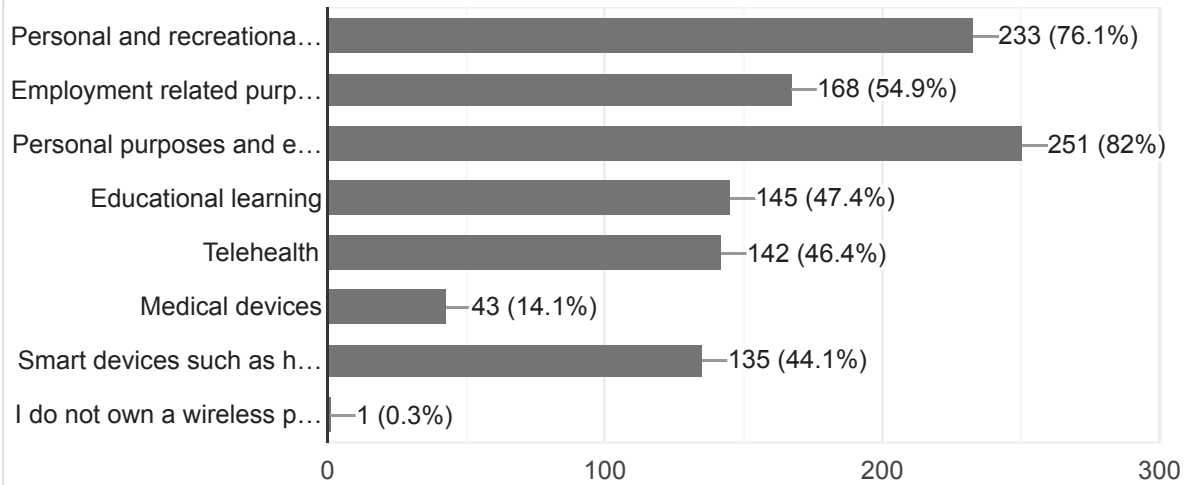
- I live and work in Town year-round
- I live and work in Town seasonally
- I live outside Town but work in the Town
- I live in Town but work outside the Town



## I use personal wireless services for (check all that apply):



306 responses



## Please identify the area where you live by one of the following: Address, Zip Code, Hamlet, Use Area, Lake District, General Area

304 responses

10560

10519

Peach Lake

Croton Falls

10578

Purdys

Lake Hawthorne

Purdys

Lakeview Rd

North Salem Center 10560

North salem

Sugar Hill Rd

10560 - Salem Chase

☒ Lakeview Rd 10560

10510

North Salem/ Croton Falls - JB Park Area

Sunset place

☒ Lakeside Drive, North Salem NY 10560

Cotswold drive north salem 10560

☒ Valeria circle, 10560

Sugar hill rd 10560

☒ Sunset Place

10560-3707

☒ Old Salem Center Rd

☒ McMorrow


☒ Baxter Road North Salem NY 10560

Deveau Road

Peach Lake, 10560

☒☒ Baxter Rd North Salem, NY 10560




 spring hill road north salem ny 10560

Salem chase

Hilltop Dr North Salem 10560

Lake district

 Baxter Rd North Salem NY 10560

07560

General Area

Peach lake.

Near Joe B Park/Sunset Ridge

Bogtown Road North Salem

Peach lake area

Hawthorne ct north salem

10560, Lakeview Rd

Valeria Circle

10530


Finch Rd 10560

Sugar hill rd. 10560

Ridgeway Avenue

Keeler Lane

Sunset Dr 10560

 Whittier Hills Rd. North Salem

Lake Hawthorne srea

10560, Hunt Lane and Titicus Road


Candlewood Park

10560 PEACH LAKE


Peach Lake

 Bonnieview ST 10560

Rodeo Dr., Bloomerside, Peach Lake 10560

 Nash Road, North Salem, NY 10560

10560 - Peach Lake


 Raymond Road, North Salem, NY 10560


10560 - sugar hill road

Hilltop

Peach Lake corner of town

10560 sunset drive

 post road north Salem NY 10560

 Peach Lake Rd.

10560 2603

Finch Road

☒ whittier hills rd

Candlewood Lake District

105093404

Finch Rd x Vail Ln

Peach lake

☒ Valeria Circle, North Salem NY 10560

☒ Route 22

Lake Hawthorne

Spring Hill rd 10560-1700

Sunset Ridge

Purdue

☒ Sun Valley Drive

☒ Titicus Rd., N. Salem, NY 10560

☒ Titicus Road

Whittier Hill


☒ Lakeview Road

Vails Grove

☒ Bogtown Rd North Salem 10560




Hamlet

 Titicus Road North Salem 10560

Purdys Hamlet

Croton Falls

Peach Lake Area, 10560

 David drive, North Salem

Salem Chase

Baxter Road, North Salem NY


Sunset drive 10560

Sunset Drive

Sugar hill rd, north Salem

Starr Ridge rd

10560/

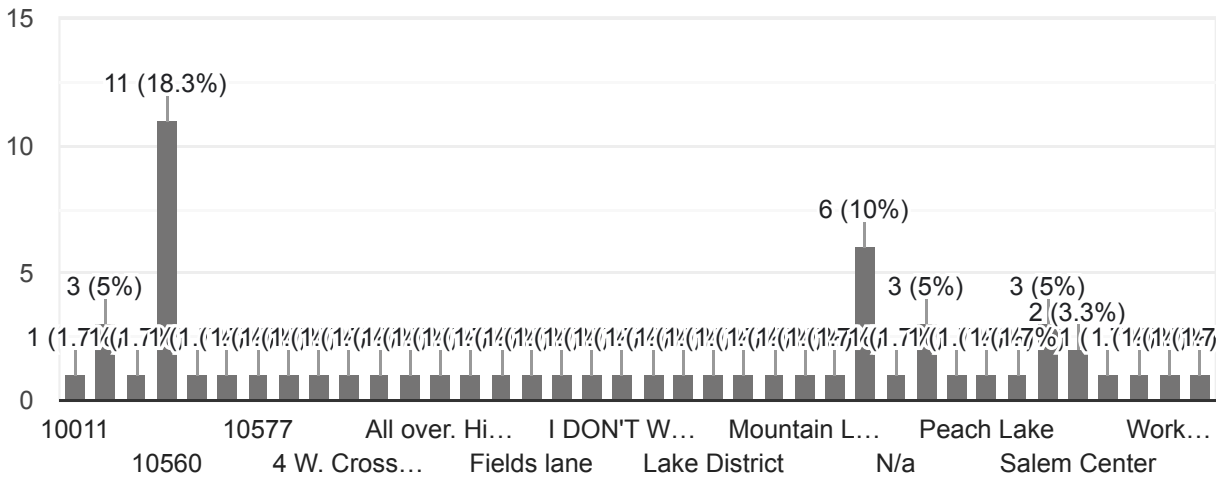
 Sunset Dr 10560

20 more responses are hidden

If you work in Town at a fixed location other than your place of residence then please identify where you work by one of the following: Address, Zip Code, Hamlet, Use Area, Lake District, General Area



60 responses



My Wireless Service Provider is (if you have multiple wireless providers then please mark all that apply):

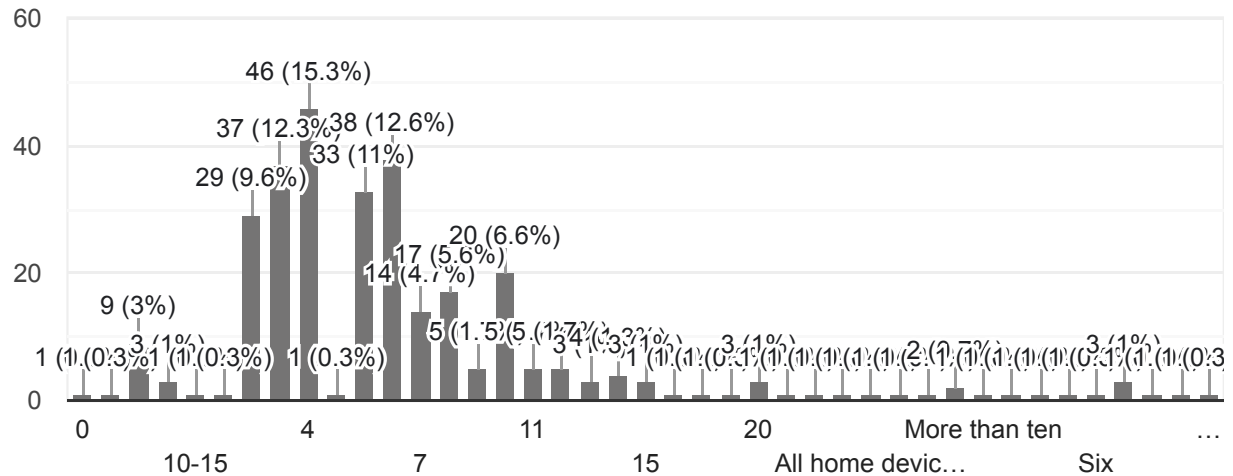


306 responses

How many wireless devices are used in your household? (Devices would include but not be limited to; wireless phones, laptops, tablets, watches, computers NOT using your home internet provider. Do not include items like garage door openers or smart home items.)



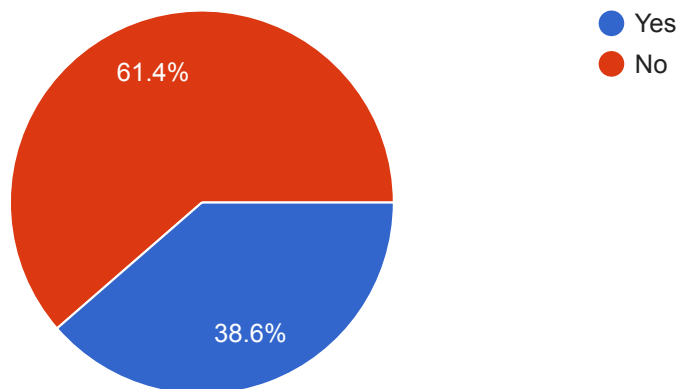
301 responses



Do you have a network extender (booster) to enhance your wireless service from your provider?



303 responses

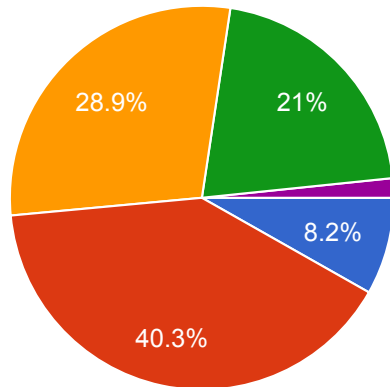




## Wireless network coverage where I reside is:



305 responses

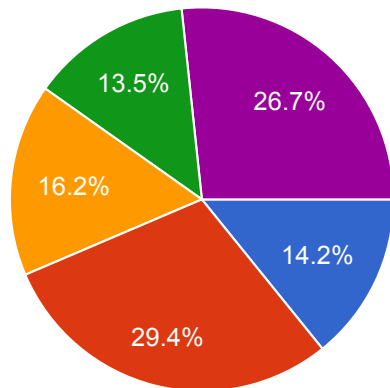


- Excellent (5 bars indoors and service never drops)
- Acceptable (3 bars indoors)
- Poor (1 bar indoors)
- Inconsistent
- N/A

## Wireless Network coverage where I work is:



296 responses

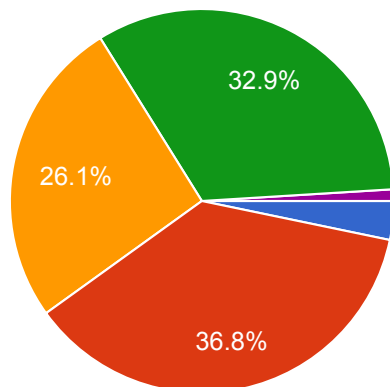


- Excellent (5 bars indoors and service never drops)
- Acceptable (3 bars indoors)
- Poor (1 bar indoors)
- Inconsistent
- N/A

## When I travel in and around the Town my network coverage is:



307 responses

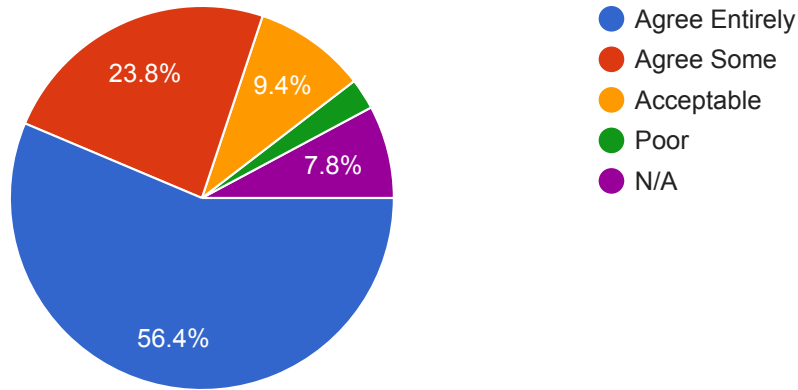


- Excellent (5 bars in vehicle and service never drops)
- Acceptable (3 bars in vehicle)
- Poor (1 bar in vehicle)
- Inconsistent
- N/A

I would rely more on my mobile device(s) if the network service was better.



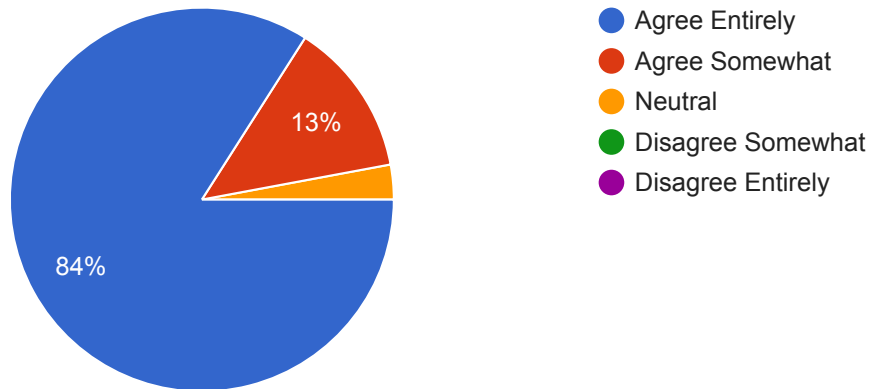
307 responses



The quality of wireless service is important to me.



307 responses



Are there specific areas of Town where your service is poor? If yes, please explain below.

208 responses

Route 121

116

Eastern side

none that I have experienced

Yes. Rt 121 by Bogtown Road and most of Post Rd (between Hawley and Chapel)

The major roads (121, 116). I lose calls when traveling thru town.

everywhere

The Union Hall, rt 121 south of June rd., Sugar Hill rd, various others

The wired Internet/broadband is far worse than the cellular service

Service has gone down almost everywhere. It was very good to good now it's poor to okay

Union hall market

Route 121 cross river to route 138

Route 121 Bogtown road Fox Den Lane

Route 138 to Sullivan road

Route 22 to I-684

Yerkes road

Near Farmer and the Fish

Lake Hawthorne

Titicus Rd and June Rd

Southeastern quadrant of town

121 from 138 to 116 and then the highway, 138, yerks rd, Hawthorne lake area. I can't drive from my house to Goldens Bridge and make a single phone call, it's horrible. Same with 121 and 116

My house. Signal does not get to certain rooms, voice connect (Verizon) has been a big problem.

All around North Salem



North Salem--east side of town

No service on Mountain Lakes Park, Hawley Road, Titicus Road. Inconsistent on parts of June and Hardscrabble Road

Routes 121 and 116

Home and shopping center

121, June Road, Baxter, Hardscrabble

Hawley road post office top of 121 by grants corner

Bloomer rd, 121, June rd

Salem Center

always: 116 just off of 22 going towards the reservoir, intersection of 116 and 121, and iffy 116 from 121 to 684

Titicus Rd, east side of town and Purdys along 22

Rt 121 area, in my residence, inconsistent in numerous other areas of town

Spots on titicus road

Top of hill on Yerkes Road. AT&T <2bars, sometime 0,... Verizon 2 bars

Our wifi is the problem; cellular data has been fine. Great we're looking at county-wide wireless but the problem is, was and always will be Cablevision

Town of Croton Falls

N/A

Yes, around the North Salem post office, all the way where 116 and 121 meet, near Staysail Farm all the way to 138

By swan deli and the damn. Behind 121

near Ridgefield

Vale and 121. Between the post office and union hall on 116/121. The west end of the reservoir at the intersection of oak ridge rd.

Upper Mills road, rt 121 at 116, June Rd

At home and most areas around my home

on 121

along the 121

116/ Titicus, June Road, Route 121, 138 Hardscrabble

Pound Ridge

Baxter Road North Salem

Titicus Road

around intersection of Tititcus Rd and June Rd.

What I am strongly and entirely against is any 5G coming to our town with its horrible health impacts. Please keep it out of North Salem.

Service cuts in and out when driving on 121, June Road, 138, etc. Dropped calls are consistent and poor reception is frequent.

Silo Ridge road, Baxter open land, 121 south of June road

There is a spot at 665 Titicus Rd North Salem where there is no service for 50 yards

Right by the balanced rock, and 116 around the dam

end of nash rd, bogtown rd , not signal at all

Live in Peach Lake area, could be better.

No

Yes, my house.

Near the Farmer and the Fish restaurant in Purdys

Intersection of 116/121, Cross River

Lake area

Along Titicus Rd

As you turn onto June off Hardscrabble near OSF entrance, sections along Titicus Reservoir, along road from North Salem to Ridgefield, area near 121/Hayfields

Route 116 and June Road

Union Hall, 121 Restaurant

June road from Baxter to Titicus, 121 from Grants Corners south, most of the dirt roads in town

June rd by debris, 121 by bogtown, finch rd,

driving on Turkey Hill Road

Grant road, Nash/Yerkes Road

It's always patchy with many dead zones

121 entering Norrh Salem from Ridgefield; Grant Road

Route 121 from route 116 all the way down to cross river. Also in Purdys by farmer and fish.

Around Purdys and almost anywhere east of 684 & even worse east of 121..

116/22 intersection; Hardscrabble Rd; Delancy; most of 121 (especially south of the reservoir);



22 (west of 684)

Valeria Circle

There are points along Cotswold Dr and Mills Rd where service drops out.

Our road Finch rd North Salem

Titicus; North Salem library; everywhere.

Most of the back roads

June Road

Rt 116 between Rt 22 and the dam. The lower portion of Lakeview Rd is very weak.

Peach Lake area and a bit south of there on 121.

It's better on my property with Verizon carrier. I tried several.

Rt 121, Rt 124, Rt 138

Keeler, Hunt, 121, back roads

Finch Rd, Bloomer Rd, Dingle Ridge Rd, Vail Lane

Route 121 north of 116. 116 east of 121

Titicus road by the reservoir

Morris Road, Jessitar Road, Valeria Circle, nash road, titicus road, all over north salem in and out, route 22 from blazer restaurant -bedford, route 35 katonah - south salem, route 138, chapel road, I have no reception on morris road in my own home without a microcell booster, and when the power goes out I have nothing.

Bloomer rd. My residence. 121/bog town. Hawley. 121/116

Yes Peach Lake Area NWCC

Hardscrabble road

Bloomer Road poor

Yes. On Nash Road. along Route 121

There are a lot of dead zones.

All of Route 121 from Keeler Lane to Bogtown Road. Route 116 from the intersection of Route 121 and June Road.

At intersection of 116 and 22 and by St James Church

Somers

Rt 121 & bloomer dead zone (but I don't want 5G towers anywhere in town)

Around Rotes 121 and 35.

121 and 116 intersection

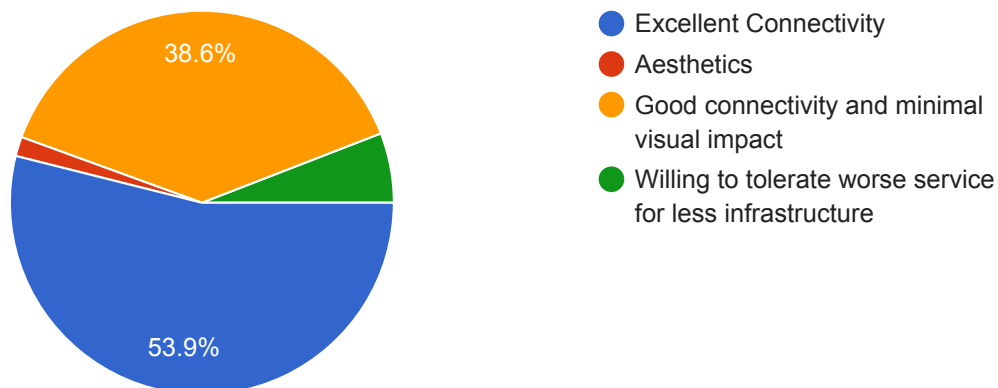
104 more responses are hidden

### Aesthetics and Location

What is most important to you?



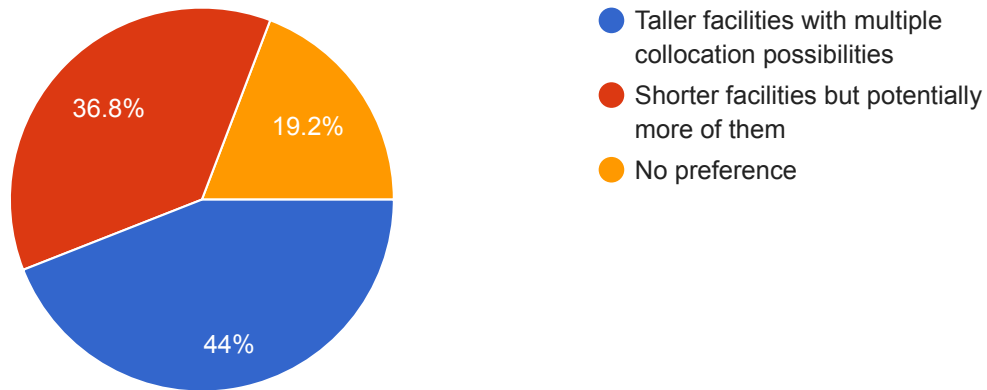
306 responses



Taller traditional macro towers remain the backbone of the wireless network. Taller towers allow for more collocations but are more visible in the landscape. Building shorter tower are less visible in the landscape but limit collocations so more towers are required. Please choose which you prefer.



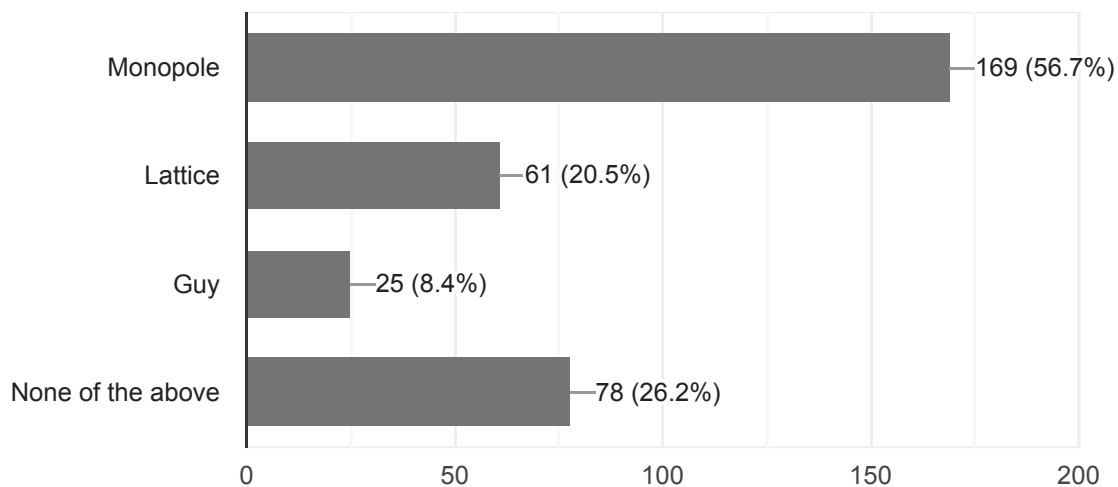
302 responses



Which non-concealed macro tower facility do you prefer? Check all that apply.



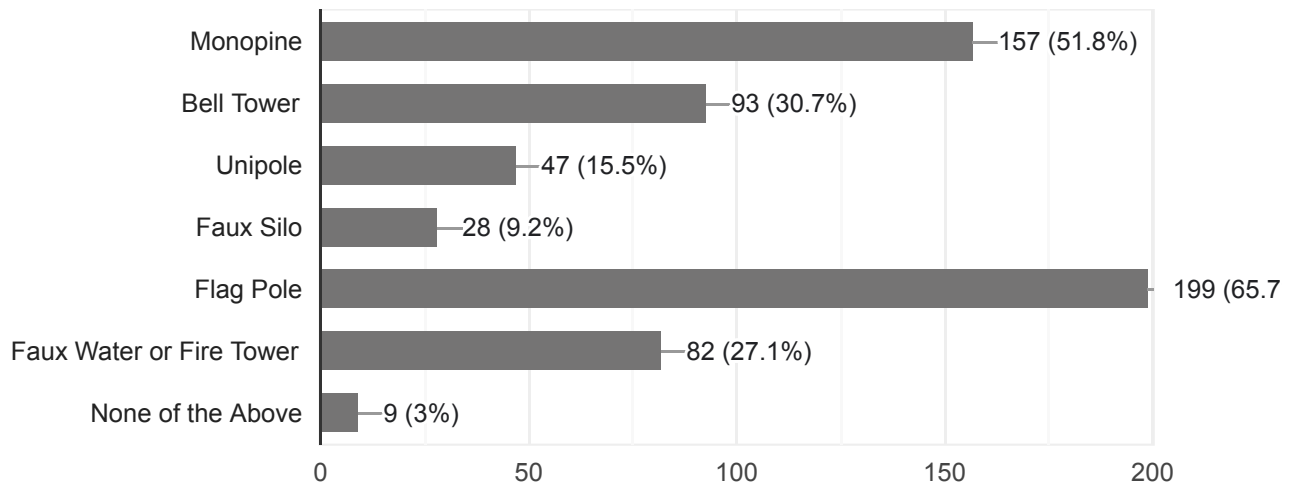
298 responses



Which concealed macro tower do you prefer? Check all that apply.



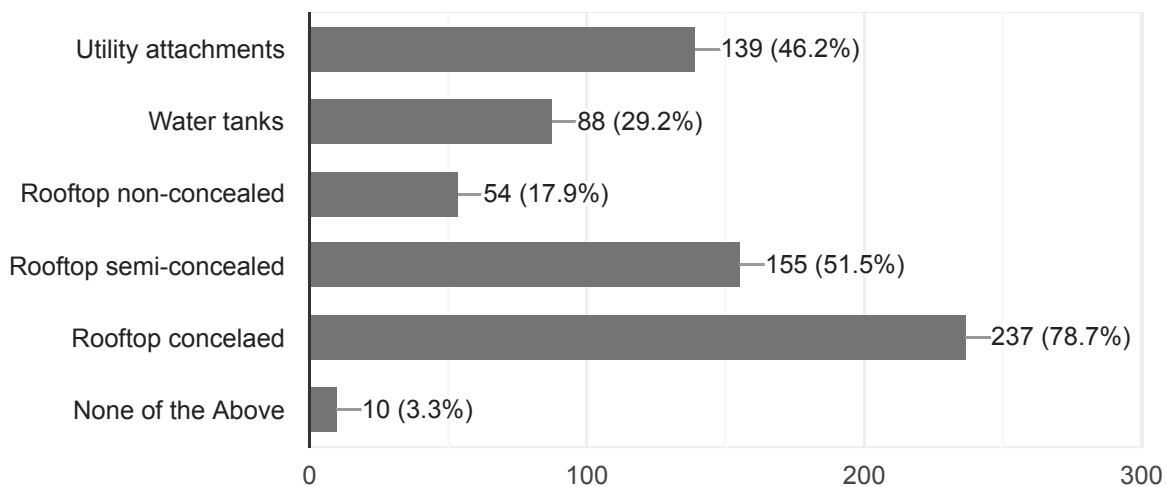
303 responses



A "base station" is any existing structure other than a tower that can accommodate wireless antennas. Examples include rooftops, water tanks, stadium lights, electrical utility poles. Which macro base station do you prefer? Check all that apply.



301 responses

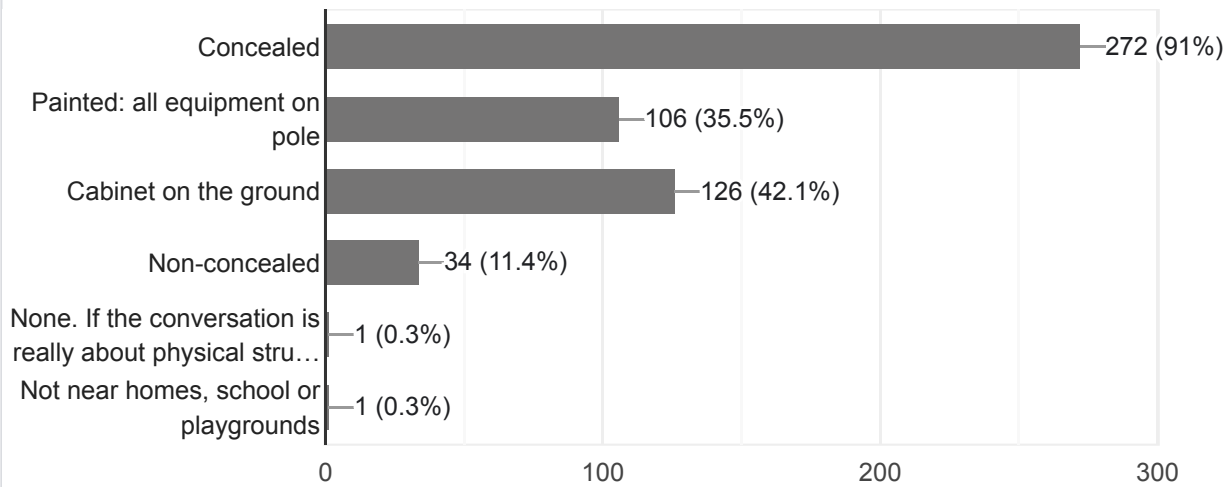




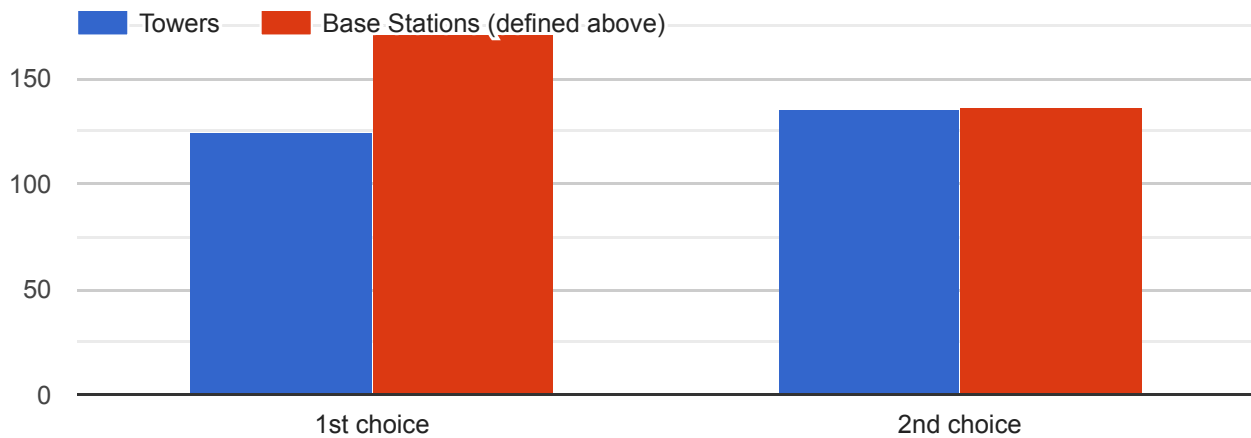
## Which small wireless facilities do you prefer? Check all that apply.



299 responses



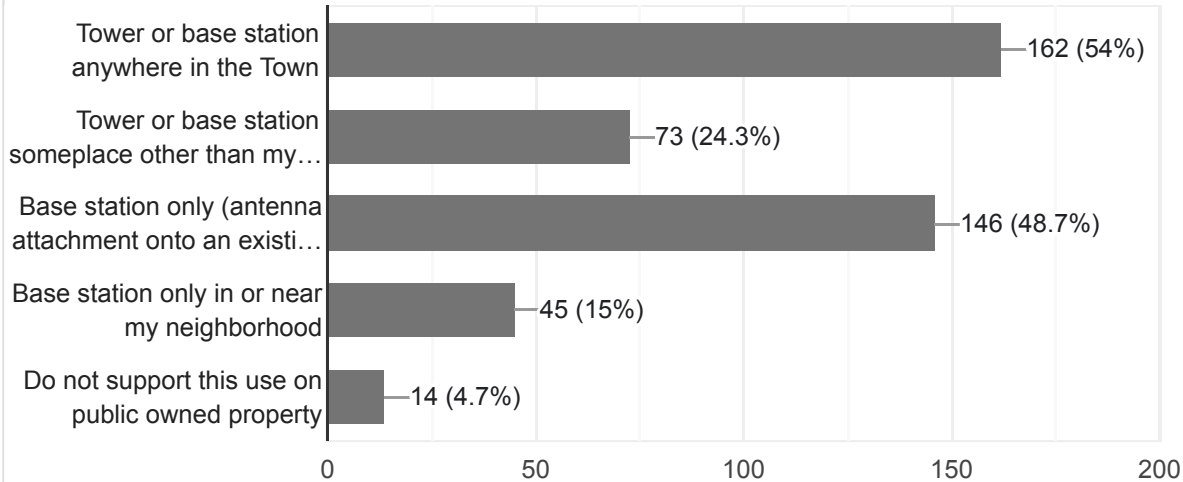
## Which do you prefer?



Town owned, school board or quasi public property (fire, ambulance core etc.) could be used to fill in wireless network coverage and capacity gaps in certain areas. Please check all that you would support.



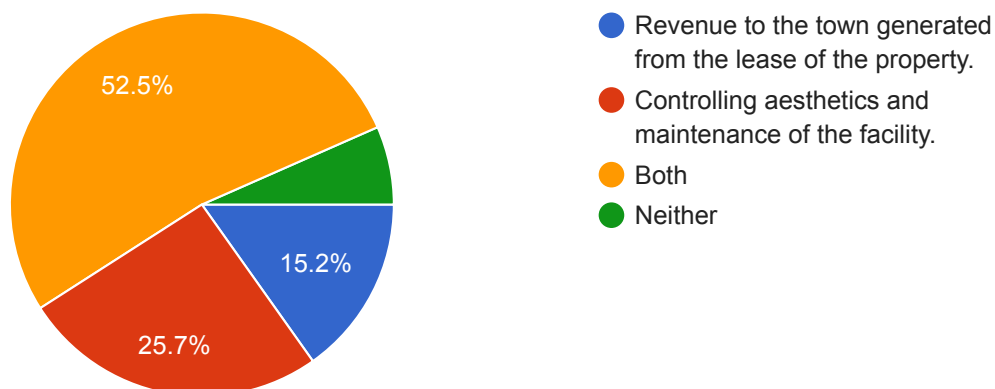
300 responses



If you support using Town owned, school board or quasi public property (fire, ambulance core etc.) property please choose which is more important to you.



303 responses



Name or email address \*email will not be used for anything other than this poll

307 responses






206 more responses are hidden

## Address (optional)

92 responses


 deveau road


Bonnieview St @ Peach Lake

Hilltop dr


Lakeview Road


Grant Rd North Salem

 Crosby Rd, North Salem


 sugar hill rd

 Spur St. Purdys

 Yerkes Road, North Salem, NY 10560

 mcmorrow lane

Peach Lake

 Cat Ride Rd.

 Lakeside Drive North Salem NY 10560

☒ sugar hill rd north salem ny 10560

☒ old Salem center rd

☒ Yerkes Road

☒ Deveau Road

June Road

☒ Baxter Road, Nth Salem NY 10560

☒ JUNE ROAD, NORTH SALEM. NY 10560

☒ Silo Ridge Road

☒ Peach Lake Dr.

☒ Little Mountain Rd

Hilltop Dr North Salem

☒ Yerkes Road

☒ Baxter Rd North Salem NY 10560

☒ lakeside drive.

☒ Lakeview Road

☒ Eastern Way

Bonnieview street

You really shouldn't even ask for names or emails.

☒ Cotswold Dr North Salem



☒ Finch Rd North Salem

☒ Lakeview Rd, North Salem, NY 10560

☒ Keeler Lane

☒ Eastern Way

Titicus Road and Hunt Lane

☒ morris road, north salem, ny

☒ Bonnieview St. NS

☒ Nash Road, North Salem, NY 10560

☒ Raymond Road, North Salem, NY 10560

☒ Russell Rd North Salem

☒ Hilltop Drive

☒ Hardscrabble

Sun Valley Heights Road

☒ peach lake rd


☒ Hawley Rd

☒ Hardscrabble Rd

☒ Finch Road


☒ whittier hills rd

☒ peach lake drive


 David drive, north salem

 Allview Ave., Brewster


Spring hill rd


 Finch Rd


 lake Street

 Valeria Circle, North Salem, NY 10560

June Rd


 nash rd, NS

 David Dr, North Salem, NY 10560

 Sun Valley Drive


 Trotter Dr


 Titicus Road, North Salem, New York


 Lakeview Road

Cotswold Drive

Star Ridge road

 Titicus Road, North Salem

 David Drive, North Salem

 Baxter Road, North Salem NY

sunset dr, north salem ny

☒ west cross street croton falls 10519

Hilltop Dr.

☒ Hawthorne Court, 10560

☒ Titicus Road

☒ Deveau Road

☒ Titicus Road. North Salem NY 10560

☒ Cottage Lane

☒ Main Street, Purdys, NY

☒ Cottage Lane

☒ Bloomer Road, North Salem

Vail lane

☒ Hardscrabble Rd

☒ June Road

☒ W. Cross Street, Croton Falls, NY 10519


☒ Wallace Road North Salem NY 10560

Keeler Lane

Lakeview Rd, North Salem

☒ First Street, Purdys, NY 10578

☒ Lakeview Road, North Salem, NY 10560

 hilltop dr north salem

 Post Road

 Grant Rd

## Comments or suggestions

74 responses

no tower or anything at the Hammond Museum!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

I think the tower installed by Bloomerside is well done. It's not very visible and helps to fill in some of the gaps in the existing coverage. That said, there are still more holes to fill in the current coverage and I'd be ok with giving up some aesthetics in favor of better cell service.

Lack of wireless coverage in town is a health and safety hazard. I have missed and dropped very important personal and family calls while navigating thru town. I shudder to think what would happen if I had an emergency on the road and needed to call for help. I would literally be stranded alone because coverage is that bad.

Thank you!

Need to do a better job explaining rational for placement since no one wants a "poll" in their neighborhood

Since we aren't getting underground fiber as an alternative to cable we NEED to start installing 5G. Once 5G is available short term cell towers may be moot.

I am particularly interested in 5G which requires the smaller more dense base stations or clusters. Verizon has excellent 4G coverage in town, but needs to build out for 5G

Do we really need this build-out of technology?>

Aesthetics are most important.

We need the connectivity for sure. Ideally it is set along the poles on existing roads and not in people's yards or spoiling the wide open views. Right now though the cell reception in North Salem is pretty horrendous overall.



I believe most the above will be obsolete in the near future as more aesthetic options are developed. So the next issue is how quickly will the current options be taken down and replaced?

Vails Grove Golf Course is high ground with an ATT tower already. They might entertain more towers and facilities.

None

Quality of service is important to maintain. Recent degradation of at&t service quality is an unfortunate example of what can happen without consequences if quality is not maintained

Verizon is excellent. Optimum is horrendous.

Pl get better internet and wireless service ASAP

Telephone pole attachments are best in my area

Please consider new technologies and not just more of the same. There is innovation in this industry that removes the need for multiple towers and signal relays. Do this right and ask the right questions. Obviously your consultant is far from independent if all they offer to make this better is to make it bigger. We need more Tesla and less Edison.

We have no cell phone reception at home with TMobile now, have to rely on internet provider

Late on this but let's get going

we need better wireless coverage - it is a must

There are several high elevations locations in town where a high tower could be located ( e.g. Turkey Hill) but for the last 20 years the only area that has been proposed and continue to be rejected are next to the Town Offices on June Rd and Titicus Rd, and around the Hammond Museum which are residential areas with potential high negative impact on property values. Equipment on utility poles around the town seems to be the right solution...and to my understanding that is what is being installed right now .

Keep 5G out of North Salem!!!

Placing a tower or base station at the Hammond Museum in North Salem would not only be of

little service as the coverage there is already excellent, but it would devalue some of the most precious properties in North Salem and destroy our town's greatest asset, the North Salem Open Land preserve along Baxter Rd which many people come to visit from all over NY and CT. It would be a tragedy to place a tower in the midst of this park which is a very popular destination for so many families who have limited access to nature and open space where they can meet friends and enjoy the beauty of the preserve.

How much shorter is a base station? Looks like it's considerable--more than a couple of feet. Also the lattice tower photo background was so different from the others, I found it hard to answer your question. I also found it hard to answer which tower disguise I prefer without knowing the exact location. On the whole, I would choose the most plausible and beautiful disguise that best blends into its proposed location.

Aesthetics are a good concern but we need to be in the 21st century for 5G.

Placing a tower or base station at the Hammond Museum would not only be redundant as the service in that area is excellent, but a terrible assault to the park which surrounds the museum. The North Salem Open Land Foundation is one of the most valuable assets in town serving families from all over the state and CT who come to enjoy this most spectacular place to come and meet friends and family to enjoy this natural treasure. Furthermore it would greatly impact the value of the surrounding homes which are some of the finest in town.

wireless service has become an essential part of life, and probably will become more so in the future. This project and this poll seem like very good ideas.

Thank you for this survey!

You really shouldn't even ask for names or emails. It's invasive and chilling.

I was previously a Verizon customer. Service in town was only marginally better than my current service with T-Mobile.

Stop arguing about the inevitable and get started. Many years ago people argued about telephone poles. See how far that got them. I have not heard any argument about telephones lately. Every house and business needs wireless internet. School children need wireless internet. Down with NIMBY.

Need improved Wifi & LTE asap

Display diagrams with suggested models and information about functionality so a group

decision can be made by members of the town. We need good connectivity, but we also want to preserve the natural setting in town which contributes to property values.

In addition to expanding cellular coverage, please expand the number of Optimum wi-fi access points.

The world has changed. We are all now dependent upon wireless service. All town residents deserve dependable connectivity.

I think the monopole in the wooded areas could work or a cabinet at a public park.

Please keep macro towers out of North Salem. Occasionally spotty connectivity seems a tiny price to pay to live in one of the few places in Westchester that remains unspoiled. Like many other people, we moved here because of the singular beauty of the area. These towers would significantly diminish that beauty; they would mar the rural character that makes North Salem special.

We need better improved cell phone connectivity. It is almost useless once I leave my house and travel around town. I am on business calls that get dropped and schedule does not afford me the ability to remain stationary while using my mobile device.

I concerned about health ramifications related to 5g technologies and think more research in terms of cancer and other issues should be foremost in this conversation and have seen NO indication it has been discussed.

We need more cell towers - especially in the Purdy's area near the Farmer and the Fish. Please!

We need better service. It's dangerous not to have it

We must include backup generators in the planning for towers.

Im sure youll do the right thing by residents

Obviously the towns included in this survey have different needs. Most people when indoors are using wifi and not wireless. When walking in North Salem a beautiful and bucolic area, there are some places that I may have to wait until I get home to make a call. That is a sacrifice that outweighs the convenience that comes with ugly towers all over town. The master plan should differentiate the needs not the preferences of each town as those needs may be different.

Connectivity is important part of life today and necessary.

This survey does not differentiate between the use of WiFi and wireless cell service from a tower, which is a significant flaw. For example, I live in North Salem and drive everywhere. I use WiFi in my home for cell phones and do not use or need wireless cell service. The Master Plan MUST make this distinction between the different areas and accept that areas with more density and more foot traffic need wireless cell more than rural areas where people drive everywhere.

Ideally any tower or station should be not visible and not close to a residential homes for health reasons, thank you

It probably has nothing to do with or the fault of the town itself, but it is not acceptable that cell service goes down all the time when we have a power failure. These towers and base stations need auxiliary backup power. Otherwise, what's the point of having cell phones in an emergency?

Just put the towers in, for pete's sake! Between having to deal with NYSEG's spotty record for delivering power, and inconsistent to terrible internet/phone connectivity, I'd like to, for once in my life, feel like I'm living somewhere other than Nairobi - which probably has better service than here.

My wife, two daughters, and I love living in North Salem. Upgrading/expanding the wireless infrastructure would be an incredible benefit to the town. I'm 31 and work from home and on the go, and we want to live in North Salem for the rest of our lives, so upgrading the infrastructure of the wireless connectivity here would allow us to live in this beautiful town while still having high-level modern day conveniences. Thanks for doing this survey!

We need to increase access to fiber internet and improve overall telecom infrastructure.

Maintaining Aesthetics is extremely important in this town.

I'm happy with my service. My calls/internet do not drop in North Salem, only in Lewisboro. My service generally works well in my house except on occasion, or when there is an extended power outage, and everyone seems to be using the system. I tend to use my home wifi in the house, in any case. Phone calls do drop in parts of the house, but I'm not willing to live near a cell tower to fix that.

Only Verizon works in my house, however.

When will we have a survey about Optimum's monopoly on my street???



Anybody opposed to cell towers, should be asked if they like telephone, cable and electric lines.

Rt 121 has no connectivity, have to improve for at least emergency situations.

I'm more upset about my terrible optimum internet service, I'm working remotely from home and CONSTANTLY having to go to my Verizon hot spot. Any chance you can rattle Optimum?

All these options and questions are manipulative.

Please hurry!

Coverage in North Salem is fair, but is awful in neighboring communities that we pass through regularly. If they (whoever They are) could provide coverage for all of Route 121, and all of Route 35 East of 684, this would be a big improvement.

As we become more dependent on wireless service, it needs to be hardened better - especially during prolonged power outages. Cellular carriers' backup batteries and generators seem to do better than Optimum's backup power, but we should be able to go at least a week.

Altice and Verizon consider themselves 5G companies. They view their Optimum and FIOS service as legacy baggage that they would prefer to get rid of. We don't have much chance of bucking this trend. Any plan for upgrading wireless service should include bringing 5G Home Internet to every residence in town.

Glad this survey is being done. This is an important safety issue above all else! Poor cell service, esp. near PQ and Middle/HS is an issue in an emergency (both personal and district wide). In our beautiful town, we should strive to maintain our natural surroundings, but not at the expense of residents safety.

Cell service= safety

By the time we figure this out, technology will have changed.

Lack of connectivity is dangerous, especially in the 21st century. We need to do better for the health and safety of our town.

thanks for asking!

umm, why can't I find out from North SAlem who the low income internet providers are?

Is "North Salem News" the local newspaper or Warren Lucas'???

Thank you for doing this so thoughtfully.

I have dropped more calls in the last month then in the last 5yrs I'm here. It would be nice for the infrastructure to be hidden if possible.

Thank you for researching

Utilizing town space question should be separated out more by school vs non-school. I do not like the idea of any wireless devices that close to where children (especially young children - elementary) are playing and learning.

Love the faux water tower. Give it an antique look and paint job. Boosts the service but town aesthetic doesn't look overrun by antennas and towers.

I think a base station would be great if we could find something existing that could be used. Maybe the high-tension power lines that run across Bloomer into the NSOLF property? I think that one tower somewhere would solve the issues and prevent us from having to install multiple towers. Would it be possible to speak with Westchester County about putting something on their Mountain Lakes Radio Tower (185 Keeler Lane)?

Get it done to improve cell service

This content is neither created nor endorsed by Google. [Report Abuse](#) - [Terms of Service](#) - [Privacy Policy](#)

Google Forms

