

Village of Tuxedo Park

Verizon Wireless

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Verizon Wireless - Proposed Monopine Telecommunications Facility at 79 Ridge Road/Water Tank Property

- **Proposal is the least intrusive site to improve wireless service within the Village of Tuxedo Park:**
 - Visual Impact is benign and nonexistent for most residents as evidenced by the CPU generated Viewshed Maps, (2) Balloon Fly Analysis's, and subsequent photo simulations.
 - Additional (leaf-off) photo simulations added to pages 30-42 of this presentation.
 - The proposal has little to no environmental impact
 - Access and utilities are already established at this location reducing the need for additional land clearing and associated stormwater prevention measures.
 - Confident this proposal would be approved by SHPO and NEPA.



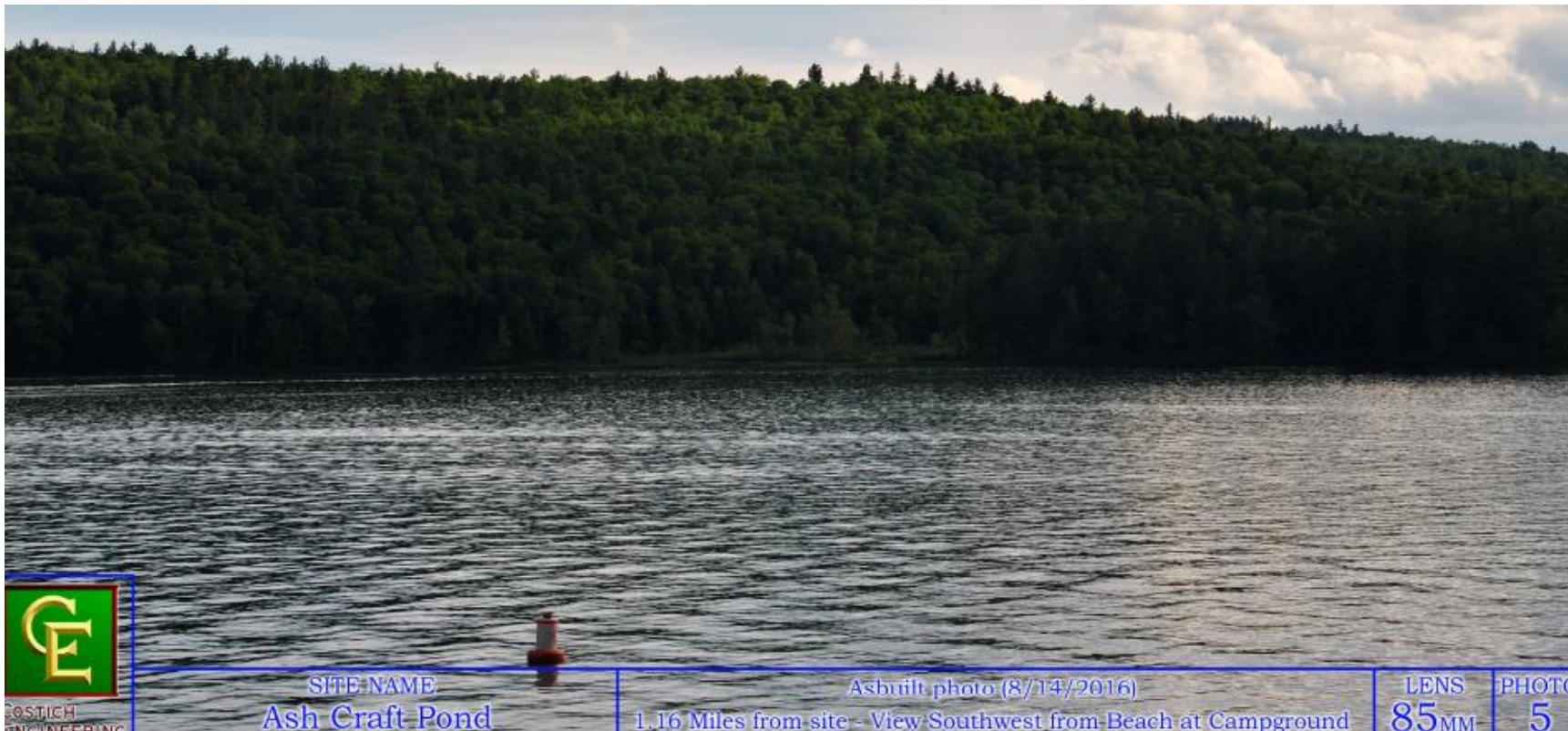
360° Stealth Tree Spin

Click here for video

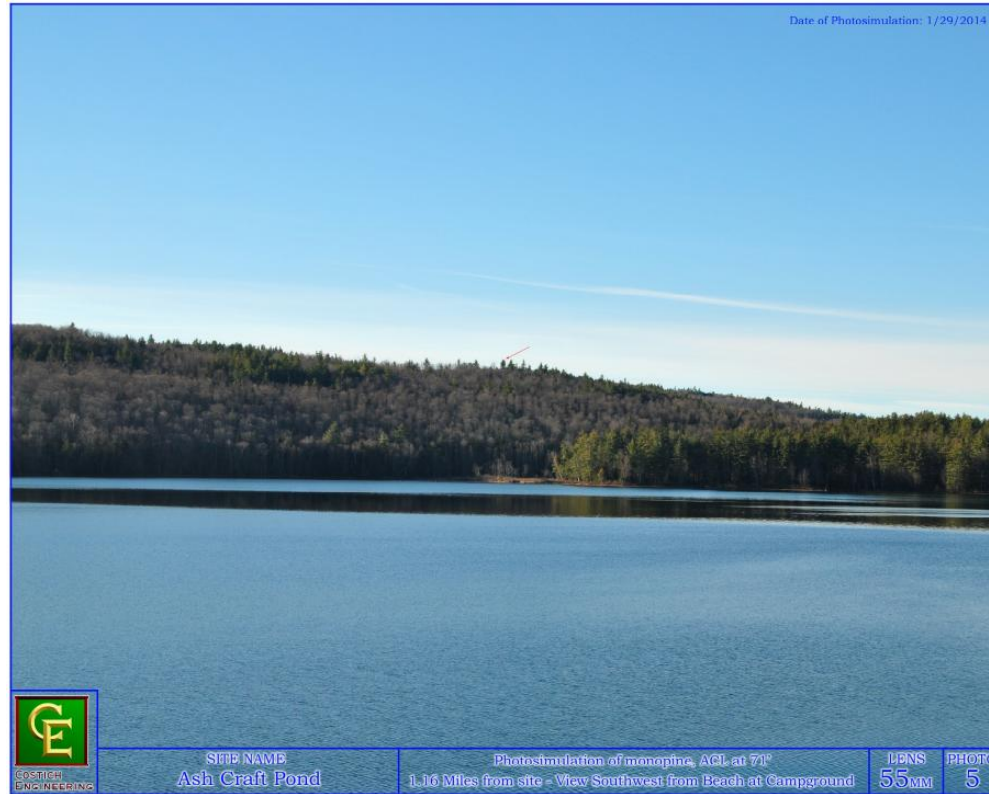
[24-162 3d spin.mp4](#)



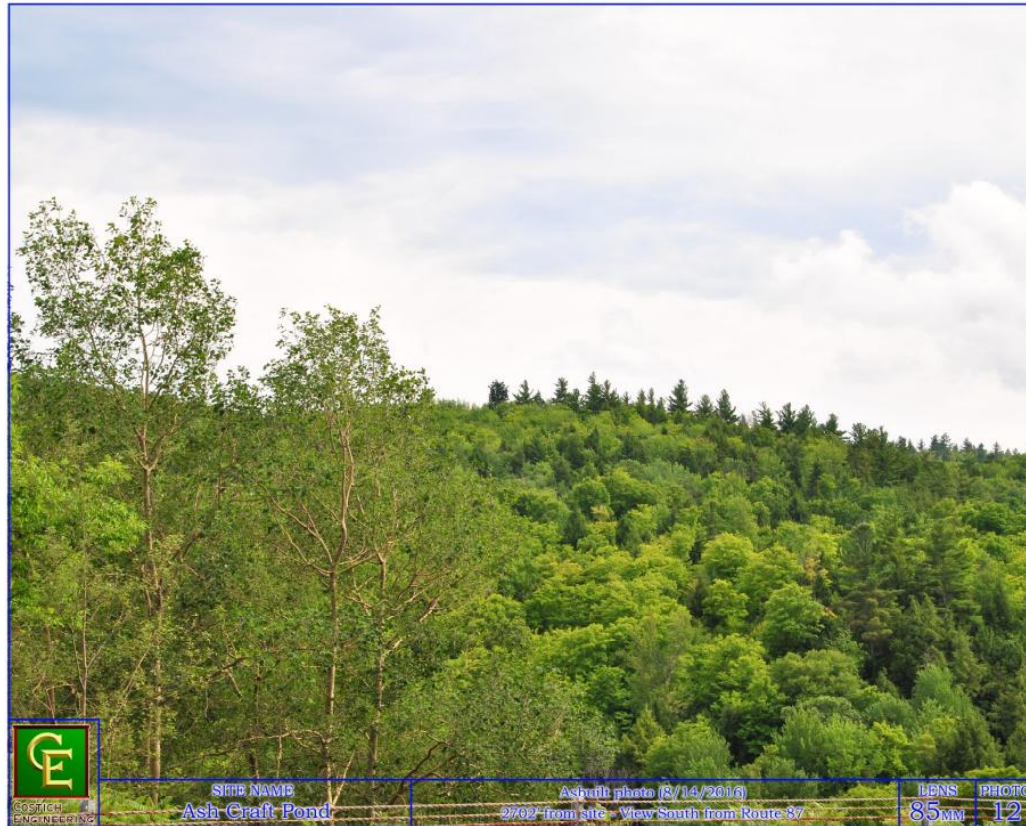
Example Site: Ash Craft Pond - Adirondacks

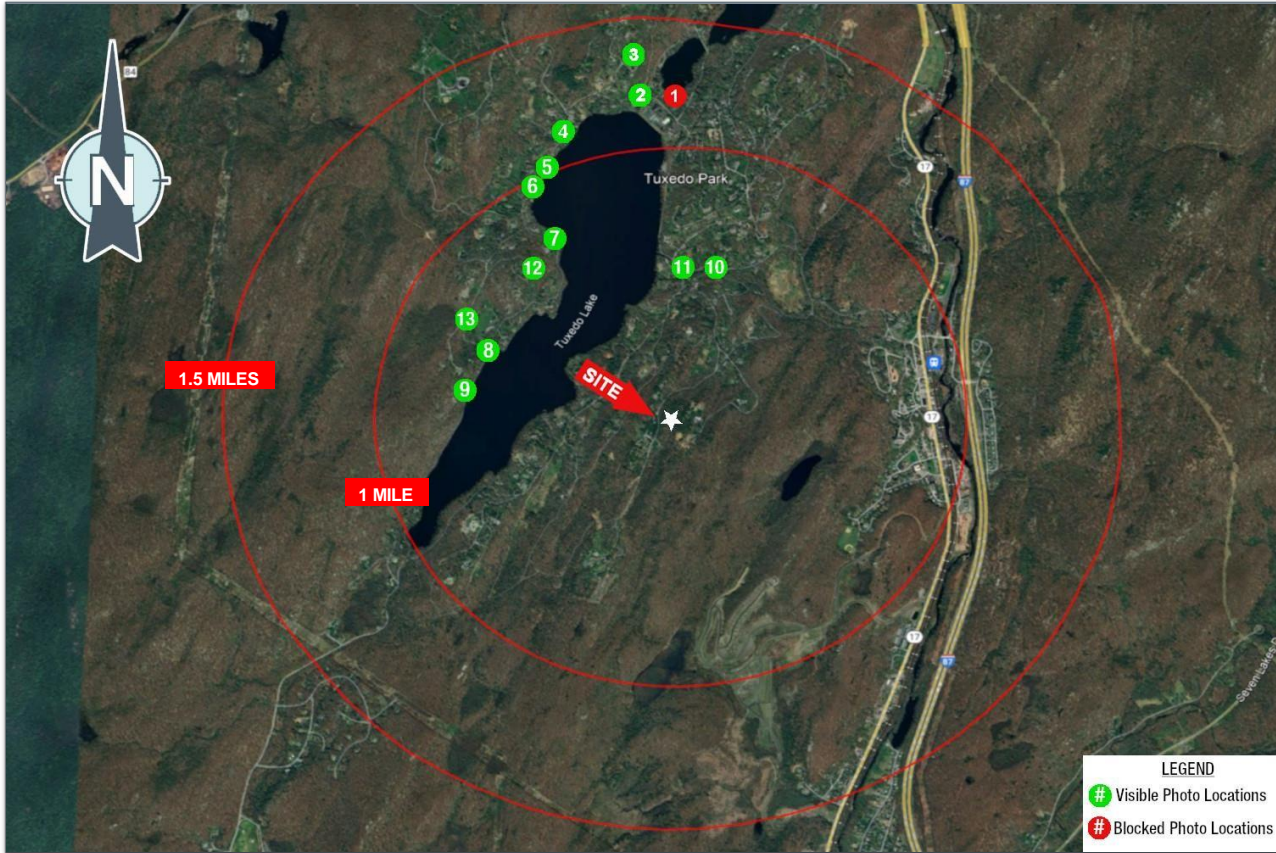


Example Site: Ash Craft Pond - Adirondacks



Example Site: Ash Craft Pond - Adirondacks





**TUXEDO ROAD
RIDGE RD
TUXEDO PARK, NEW YORK**

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**PHOTO
LOG**
12396.053





Looking South from 80 Lorillard Rd (town offices) .
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 1.20 miles
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P-1

12396.053



Looking Southeast from the intersection of Ontario Rd & W Lake Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 1.22 miles±
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P-2

12396.053



Looking Southeast from #27 East Summit Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 1.35 miles±
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P-3

12396.053





Looking Southeast from along W Lake Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 1.13 miles±

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P-4

12396.053





**Looking Southeast from along W Lake Rd.
The proposed monopine will be visible from this location.**

Distance from the photographic location to the proposed site is 1.13 miles±

S-4

12396.053





Looking Southeast from along W Lake Rd.
The proposed monopole will be visible from this location.

Distance from the photographic location to the proposed site is 1.13 miles±
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S-4A

12396.053





Looking Southeast from along W Lake Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 1.0 miles ±
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P-5

12396.053





Looking Southeast from along W Lake Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.98 miles±
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P-6

12396.053





Looking Southeast from #41 Turtle Point Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.75 miles±
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P-7

12396.053





Looking East from the intersection of W Lake Rd & Turtle Point Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.61 miles±

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P-8

12396.053





Looking East from along W Lake Rd (southern End of the lake).
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.61 miles±
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P-9

12396.053





Looking East from along W Lake Rd (southern End of the lake).
The proposed monopine will be visible from this location.

Distance from the photographic location to the proposed site is 0.61 miles±

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S-9

12396.053





Looking East from along W Lake Rd (southern End of the lake).
The proposed monopole will be visible from this location.

Distance from the photographic location to the proposed site is 0.61 miles±
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S-9A

12396.053





Looking South along Tower Hill Loop.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.74 miles±

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P-10

12396.053





Looking South from #64 Tower Hill Loop
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.72 miles±

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P-11

12396.053





Looking South from #64 Tower Hill Loop
The proposed monopine will be visible from this location.

Distance from the photographic location to the proposed site is 0.72 miles±

S-11

12396.053

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Looking South from #64 Tower Hill Loop
The proposed monopole will be visible from this location.

Distance from the photographic location to the proposed site is 0.72 miles±

S-11A

12396.053

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Looking Southeast from along Turtle Mountain Rd.
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.71 miles±

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P-12

12396.053





Looking Southeast from along Turtle Mountain Rd.
The proposed monopine tower will be visible from this location.

Distance from the photographic location to the proposed site is 0.71 miles±
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S-12

12396.053





Looking Southeast from along Turtle Mountain Rd.
The proposed monopole will be visible from this location.

Distance from the photographic location to the proposed site is 0.71 miles±
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S-12A

12396.053





Looking East from the intersection of Eagle Mountain Rd & W Lake Rd.
The proposed structure will be visible from this location.

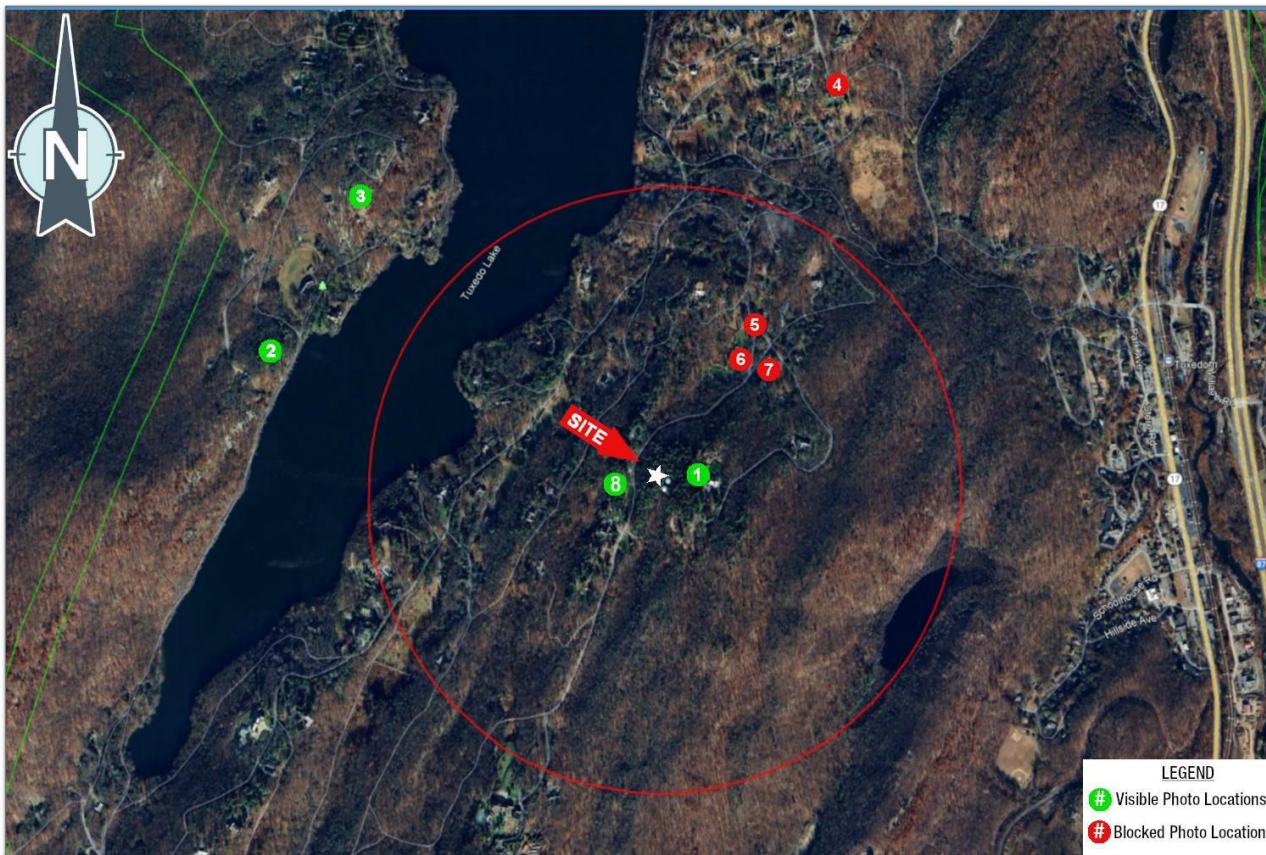
Distance from the photographic location to the proposed site is 0.80 miles±

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P-13

12396.053





**TUXEDO ROAD
RIDGE RD
TUXEDO PARK, NEW YORK**

**PHOTO
LOG**
12396.053



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Looking West from #94 Pine Hill Rd (Tinari property) .

The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 340'

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P-1

12396.053



Looking West from #94 Pine Hill Rd (Tinari property) .

The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 340'
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S-1

12396.053



Looking East from #306 W Lake Rd (Ford property) .
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.76 miles
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P-2

12396.053



Looking East from #306 W Lake Rd (Ford property) .
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.76 miles

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S-2

12396.053



Looking East from #43 Turtle Mountain Rd (Engelbert property) .
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.70 miles

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P-3

12396.053



Looking East from #43 Turtle Mountain Rd (Engelbert property) .
The proposed structure will be visible from this location.

Distance from the photographic location to the proposed site is 0.70 miles
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S-3

12396.053



Looking South from #105 Clubhouse Rd (Turnbull property).
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.73 miles
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P-4

12396.053



Looking South from #15 Ridge Rd (Crawford property).

The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.30 miles

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P-5

12396.053



Looking South from #17 Ridge Rd (Graetzer property).

The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.25 miles
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P-6

12396.053



Looking South from the intersection of Pine Hill Rd and Pine Rd.
The proposed structure will not be visible from this location.

Distance from the photographic location to the proposed site is 0.27 miles
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P-7

12396.053



Looking East from #77 & #81 Ridge Rd (Mahan property).

The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 380'
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P-8

12396.053



Looking East from #77 & #81 Ridge Rd (Mahan property).

The proposed structure will be partially visible from this location.

Distance from the photographic location to the proposed site is 380'
Verizon confidential and proprietary. Unauthorized disclosure, reproduction or other use prohibited.

S-8

12396.053

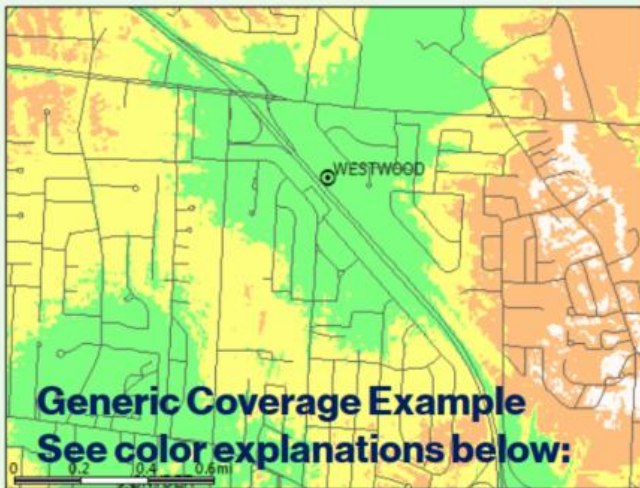
Tuxedo Rd Predicted Coverage

The following slides will show the existing and predicted low-band and mid-band coverage for the Tuxedo Rd project area. The coverage plots labeled as "Proposed" show the predicted existing coverage + the predicted future coverage from the Tuxedo DT and Tuxedo Rd sites.

****Tuxedo DT is already constructed and is awaiting fiber delivery for activation****



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 4G LTE at 700 MHz and 850MHz. As capacity requirements increase, higher frequency (and bandwidth) PCS (1900 MHz) and AWS (2100 MHz) carriers are added. In some mountaintop or long distance situations the mid band (higher frequency) AWS and PCS carriers are not fully effective due to excessive distance (path loss) 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 \geq -75dBm RSRP, typically serves dense urban areas as well as areas of substantial construction (colleges, hospitals, dense multi family etc.)

Green \geq -85dBm RSRP, typically serves suburban single family residential and light commercial buildings

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

Orange \geq -105dBm RSRP, rural highway coverage, subject to variable conditions including fading and seasonality gaps

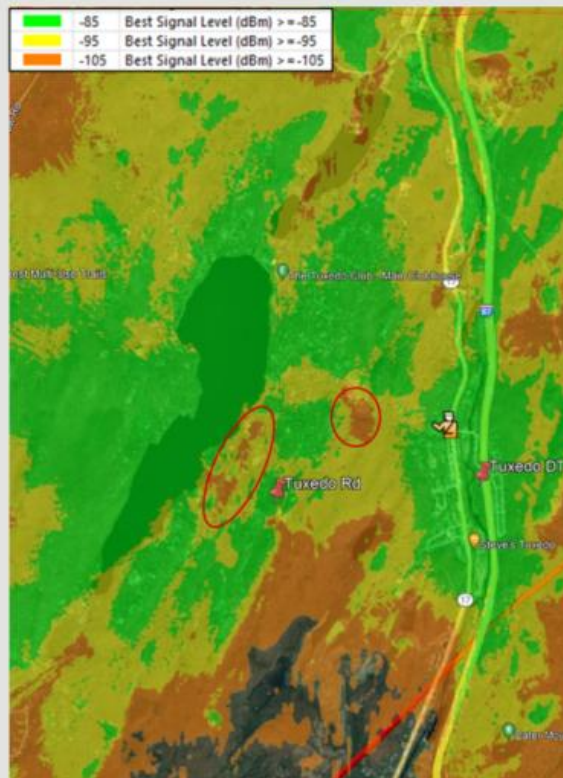
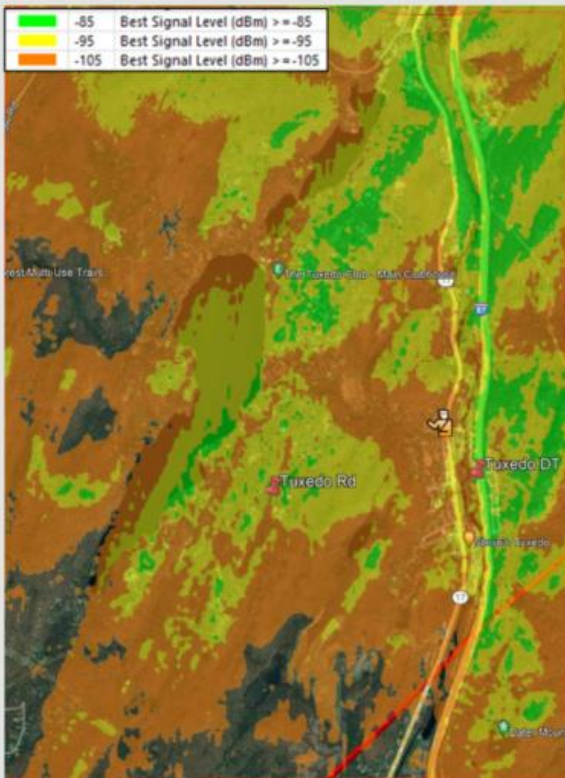
White = $<$ -105dBm RSRP, variable to no reliable coverage gap area

*Signal strength requirements vary as dictated by specific market conditions

** Not displayed in example map, layer not used in all site justifications



Existing vs. Proposed Low-Band Coverage



Guard Booth Area

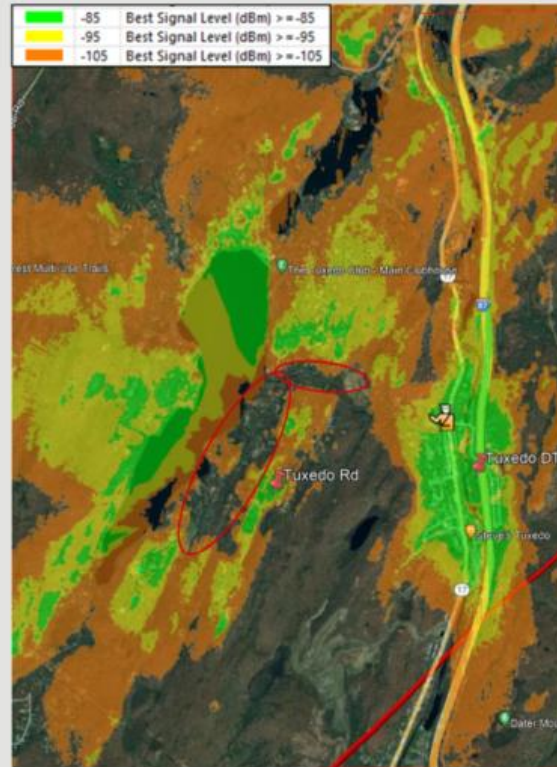


Possible fill-in area

These coverage plots are representative of Verizon's low band frequencies. The plot on the left is the predicted existing RF conditions in the Tuxedo Rd project area, while the plot on the right is the predicted proposed coverage. The proposed coverage includes the existing coverage + the coverage that would be provided from Tuxedo DT and Tuxedo Rd sites. In general, this would be a huge improvement to the level of service that Verizon customers currently have in the area. Areas that may need an additional solution(s) are identified with red circles.



Existing vs. Proposed Mid-Band Coverage



Guard
Booth
Area



Possible
fill-in
area

These coverage plots are representative of Verizon's mid band frequencies. The plot on the left is the predicted existing RF conditions in the Tuxedo Rd project area, while the plot on the right is the predicted proposed coverage. The proposed coverage includes the existing coverage + the coverage that would be provided from Tuxedo DT and Tuxedo Rd sites. In general, this would be a huge improvement to the level of service that Verizon customers currently have in the area. Areas that may need an additional solution(s) are identified with red circles.

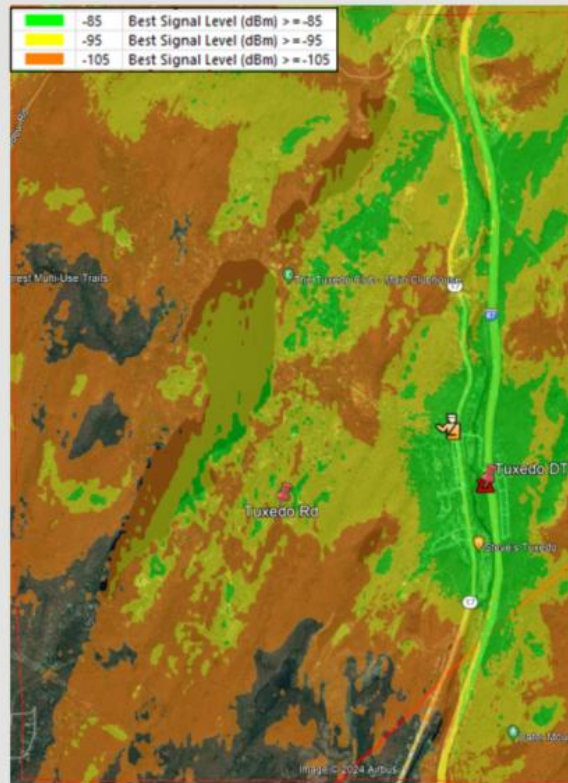
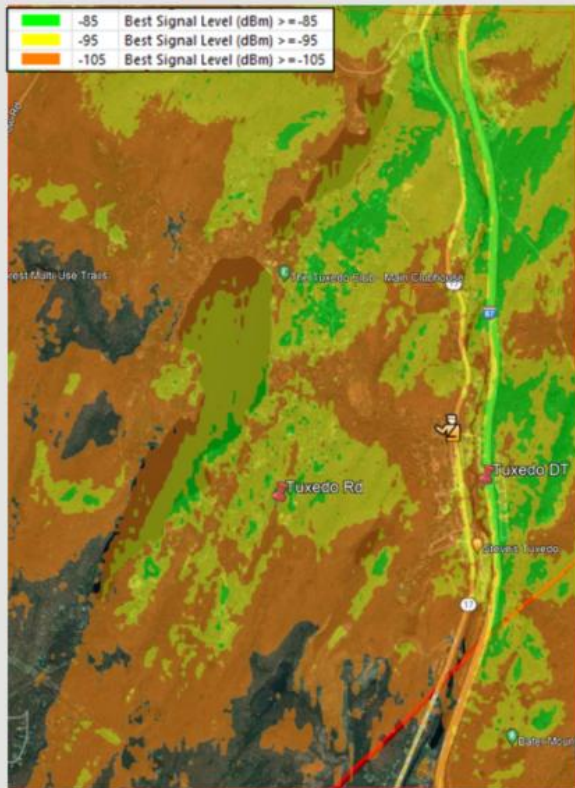


Tuxedo Rd Predicted Coverage Summary

- Tuxedo DT will provide coverage to portions of Tuxedo Rd and the Village of Tuxedo Police.
- Tuxedo Rd will provide generally ubiquitous coverage to the Tuxedo Park community on the low band frequencies
- Tuxedo Rd will provide new mid band coverage to many residences in the Tuxedo Park community
- There is an area just west of the proposed Tuxedo Rd site that may require additional small cell solution(s). This is due to the steep terrain and close proximity to the proposed site.



Existing + Tuxedo DT Low-Band Coverage

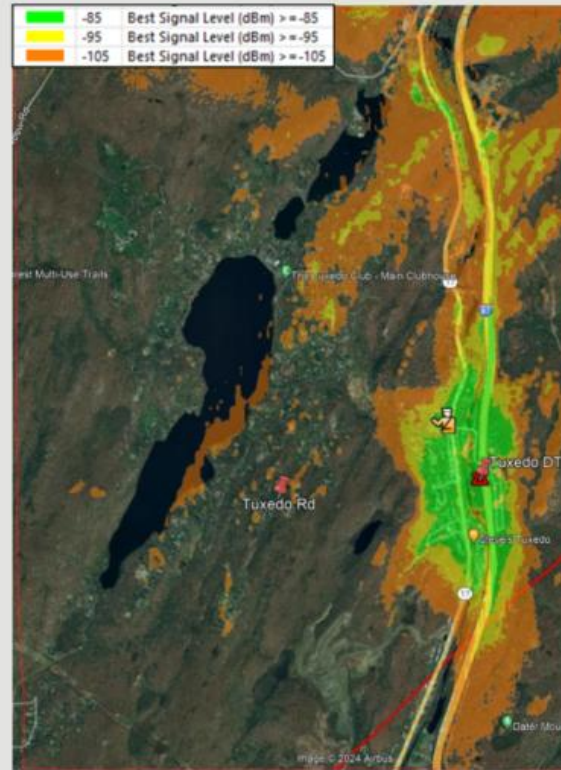


Guard
Booth
Area

These coverage plots are representative of Verizon's low band frequencies. The plot on the left is the predicted existing RF conditions in the Tuxedo Rd project area, while the plot on the right includes the predicted coverage from the Tuxedo DT site. Due to terrain, the Tuxedo DT site is not able to cover Tuxedo Park. It can be seen that the RF conditions in Tuxedo Park remain largely unchanged even with the activation of the Tuxedo DT site and that the Tuxedo Road project is necessary to provide adequate service to Tuxedo Park.



Existing + Tuxedo DT Mid-Band Coverage



Guard
Booth
Area

These coverage plots are representative of Verizon's mid band frequencies. The plot on the left is the predicted existing RF conditions in the Tuxedo Rd project area, while the plot on the right includes the predicted coverage from the Tuxedo DT site. Due to terrain, the Tuxedo DT site is not able to cover Tuxedo Park. It can be seen that the RF conditions in Tuxedo Park remain largely unchanged even with the activation of the Tuxedo DT site and that the Tuxedo Road project is necessary to provide adequate service to Tuxedo Park.



Thank you

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09/30/2024



“Safe Harbor” Statement

In this presentation we have made forward-looking statements. These statements are based on our estimates and assumptions and are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed future results of operations. Forward-looking statements also include those preceded or followed by the words “anticipates,” “assumes,” “believes,” “estimates,” “expects,” “forecasts,” “hopes,” “intends,” “plans,” “targets” or similar expressions. For those statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. The following important factors, along with those discussed in our filings with the Securities and Exchange Commission (the “SEC”), could affect future results and could cause those results to differ materially from those expressed in the forward-looking statements: the effects of competition in the markets in which we operate, including the inability to successfully respond to competitive factors such as prices, promotional incentives and evolving consumer preferences; failure to take advantage of, or respond to competitors' use of, developments in technology and address changes in consumer demand; performance issues or delays in the deployment of our 5G network resulting in significant costs or a reduction in the anticipated benefits of the enhancement to our networks; the inability to implement our business strategy; adverse conditions in the U.S. and international economies, including inflation and changing interest rates in the markets in which we operate; cyber attacks impacting our networks or systems and any resulting financial or reputational impact; damage to our infrastructure or disruption of our operations from natural disasters, extreme weather conditions, acts of war, terrorist attacks or other hostile acts and any resulting financial or reputational impact; disruption of our key suppliers' or vendors' provisioning of products or services, including as a result of geopolitical factors or the potential impacts of global climate change; material adverse changes in labor matters and any resulting financial or operational impact; damage to our reputation or brands; the impact of public health crises on our operations, our employees and the ways in which our customers use our networks and other products and services; changes in the regulatory environment in which we operate, including any increase in restrictions on our ability to operate our networks or businesses; allegations regarding the release of hazardous materials or pollutants into the environment from our, or our predecessors', network assets and any related government investigations, regulatory developments, litigation, penalties and other liability, remediation and compliance costs, operational impacts or reputational damage; our high level of indebtedness; significant litigation and any resulting material expenses incurred in defending against lawsuits or paying awards or settlements; an adverse change in the ratings afforded our debt securities by nationally accredited ratings organizations or adverse conditions in the credit markets affecting the cost, including interest rates, and/or availability of further financing; significant increases in benefit plan costs or lower investment returns on plan assets; changes in tax laws or regulations, or in their interpretation, or challenges to our tax positions, resulting in additional tax expense or liabilities; and changes in accounting assumptions that regulatory agencies, including the SEC, may require or that result from changes in the accounting rules or their application, which could result in an impact on earnings.

As required by SEC rules, we have provided a reconciliation of the non-GAAP financial measures included in this presentation to the most directly comparable GAAP measures in materials on our website at www.verizon.com/about/investors.



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