

ZBA Meeting
November 2, 2020

Ulster County Public Safety Radio Tower

35 Quarry Road
Saugerties, NY





Approval Process

NEED

ENVIRONMENT

DESIGN

BUILD

Project Need

Problem

Existing radio system is analog (rebroadcast)
Not suited for county-wide communication

Solution

Move to simulcast system
covers a wider geographic area with broadcasts
from multiple transmitter sites and is frequency
efficient

Problem

Critical Coverage Gaps

Solution

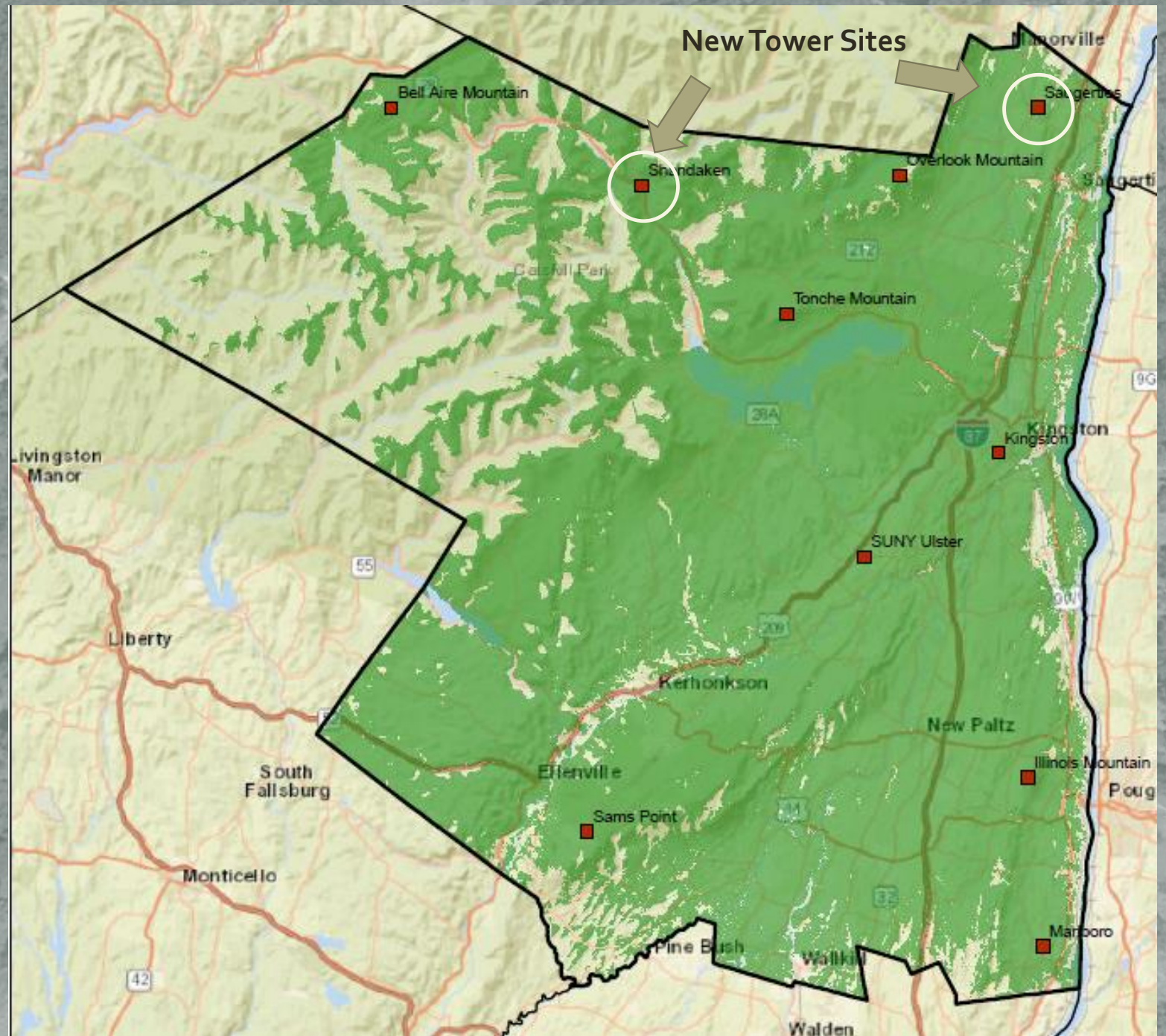
Close Coverage gaps with additional towers and
create backhaul redundancy



Project Need Coverage Analysis

VHF Simulcast
Portable
Outbound
95% Coverage

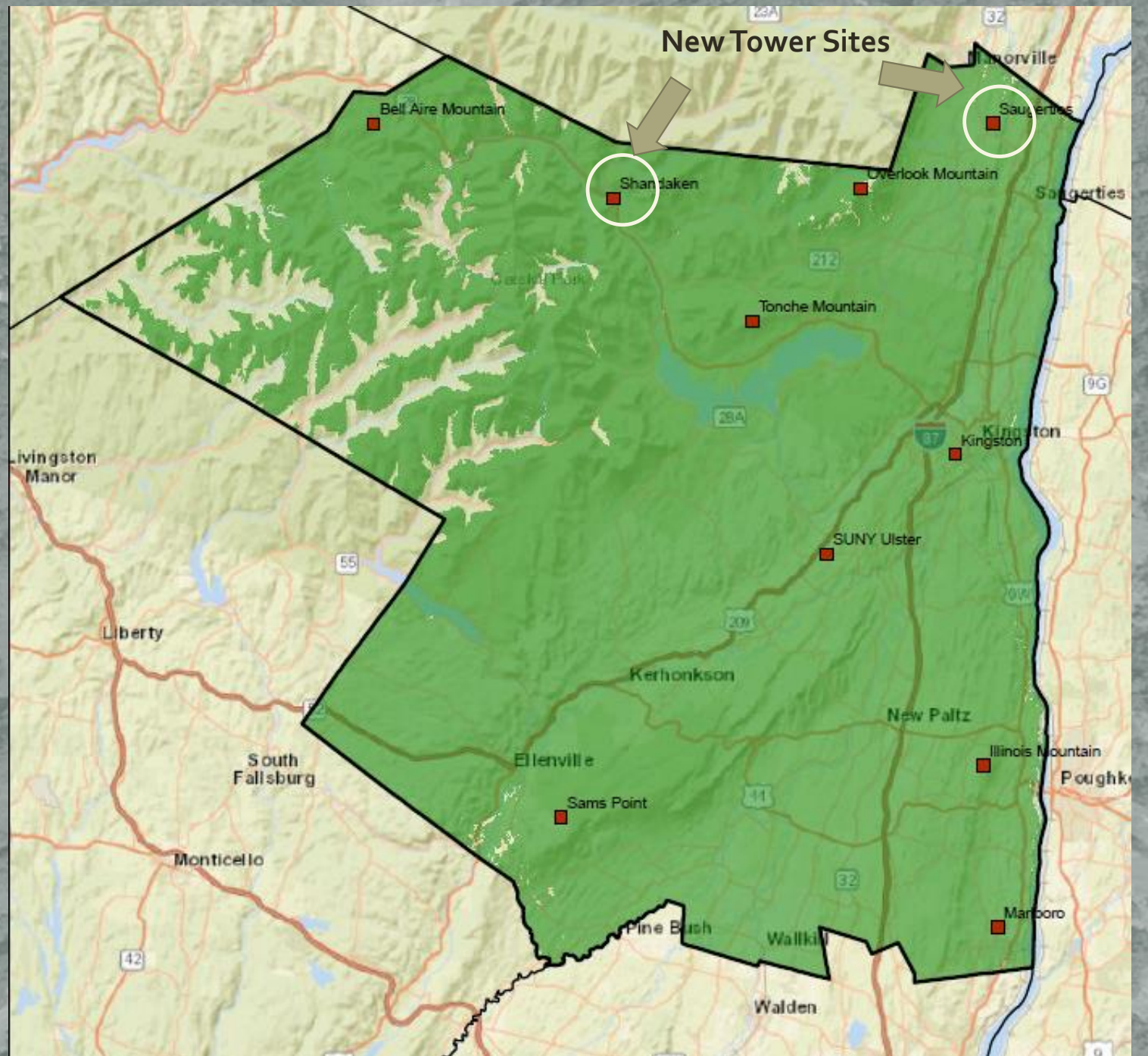
With new tower sites



Project Need Coverage Analysis

VHF Simulcast
Mobile
Outbound
95% Coverage

With new tower sites

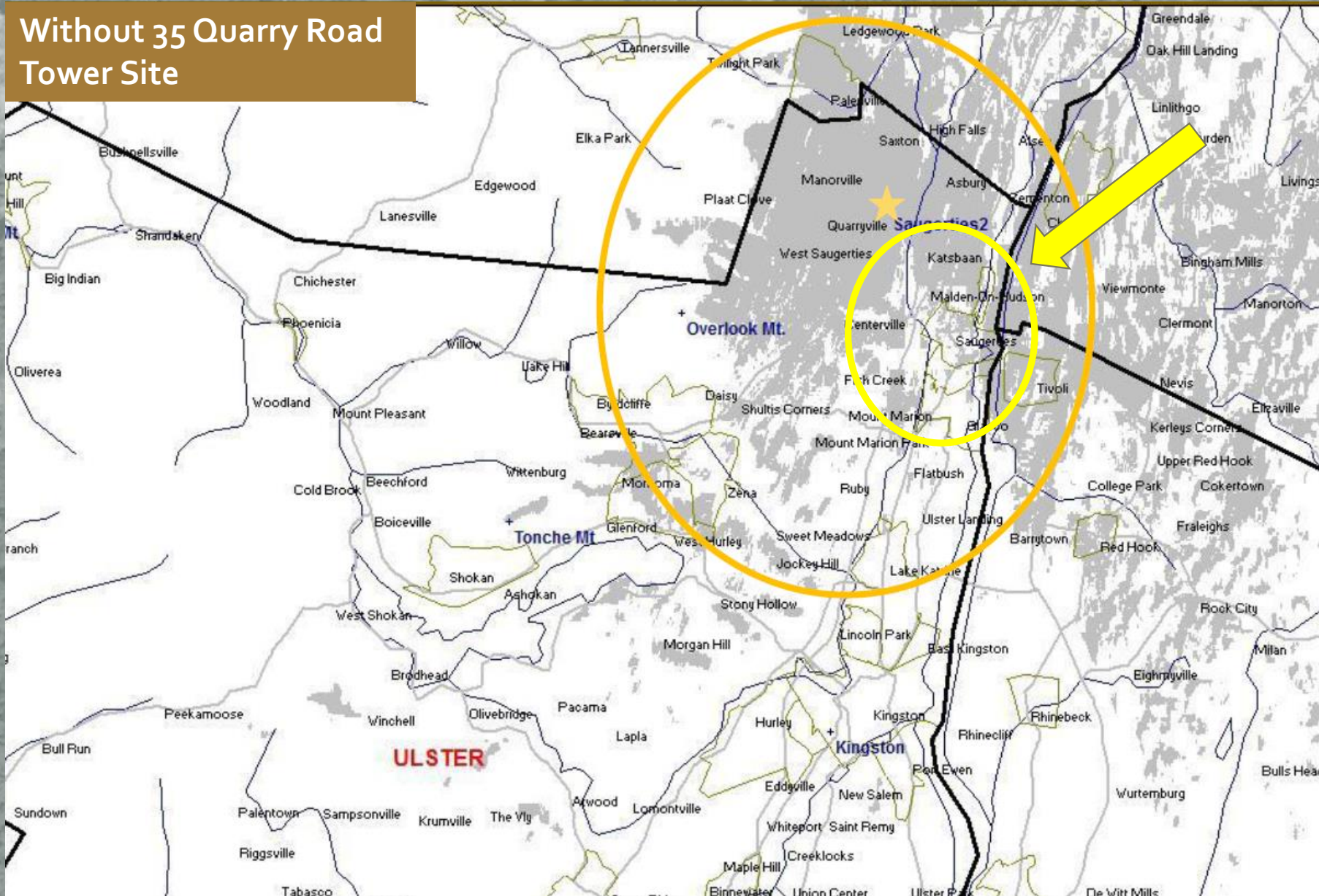


Project Need Coverage Analysis

Problem

Critical coverage gap with VHF simulcast in the Saugerties area without a new tower (note Village)

Without 35 Quarry Road Tower Site



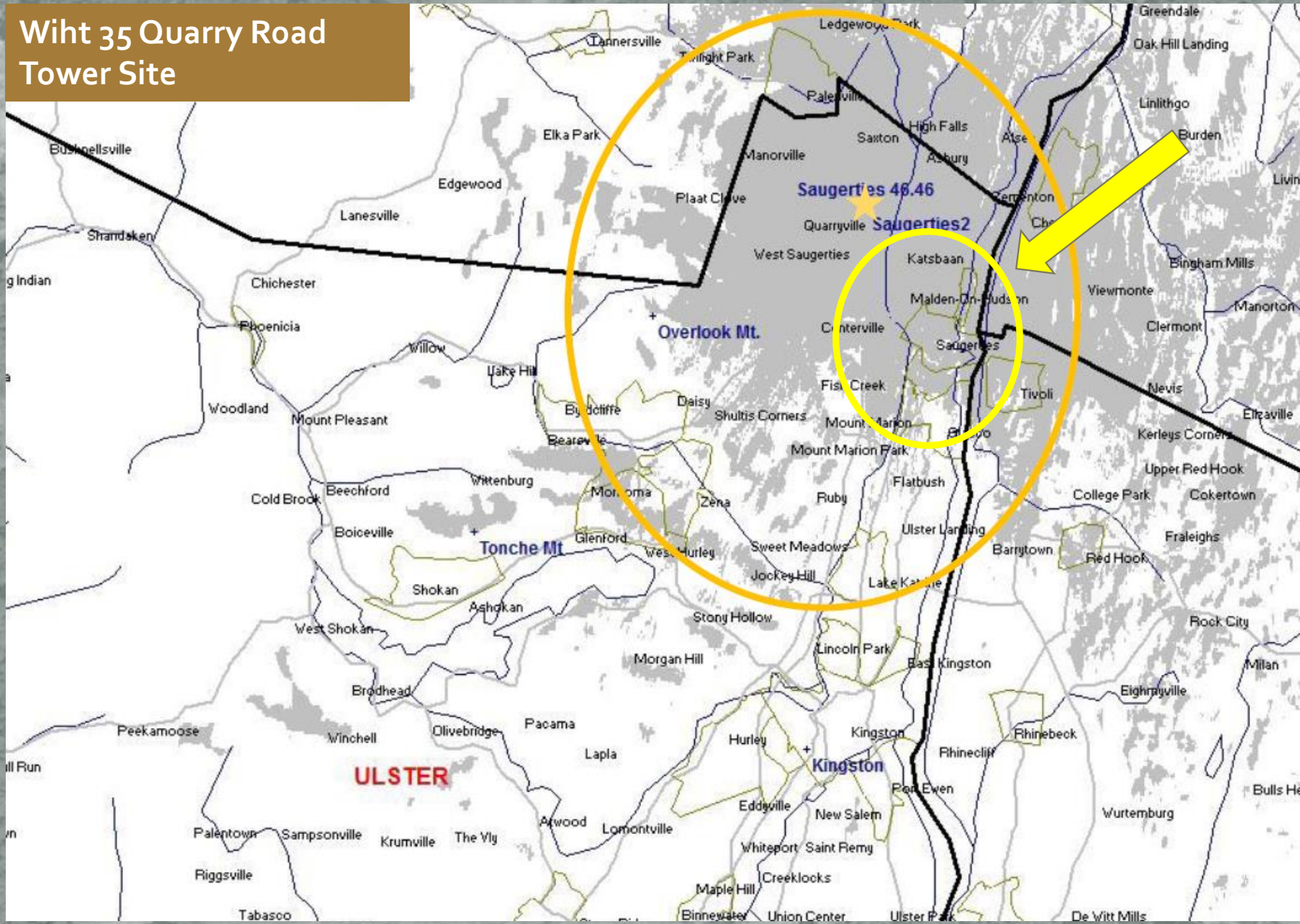
With 35 Quarry Road
Tower Site

Project Need Coverage Analysis

Solution

Close gap with additional tower in the Saugerties Area (note improved coverage in Village and Rt. 32 Corridor)

With 35 Quarry Road



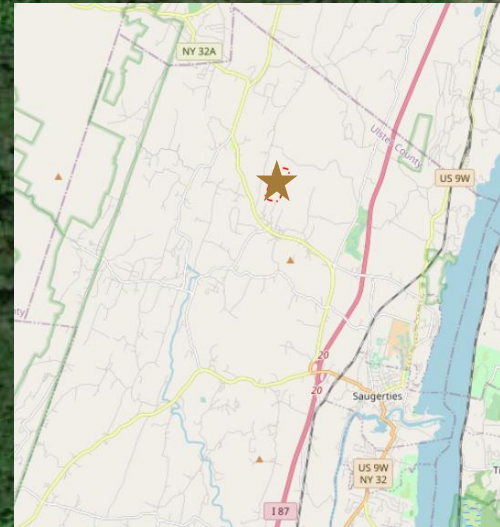
Proposed Saugerties Tower Site

35 Quarry Road
proposed 180 ft. tall

Existing County owned
site

Former tire dump

New Tower Site



Environment

SEQRA Short EAF
Viewshed Analysis
Photo Simulations
Historic and Archeological
Report

Design

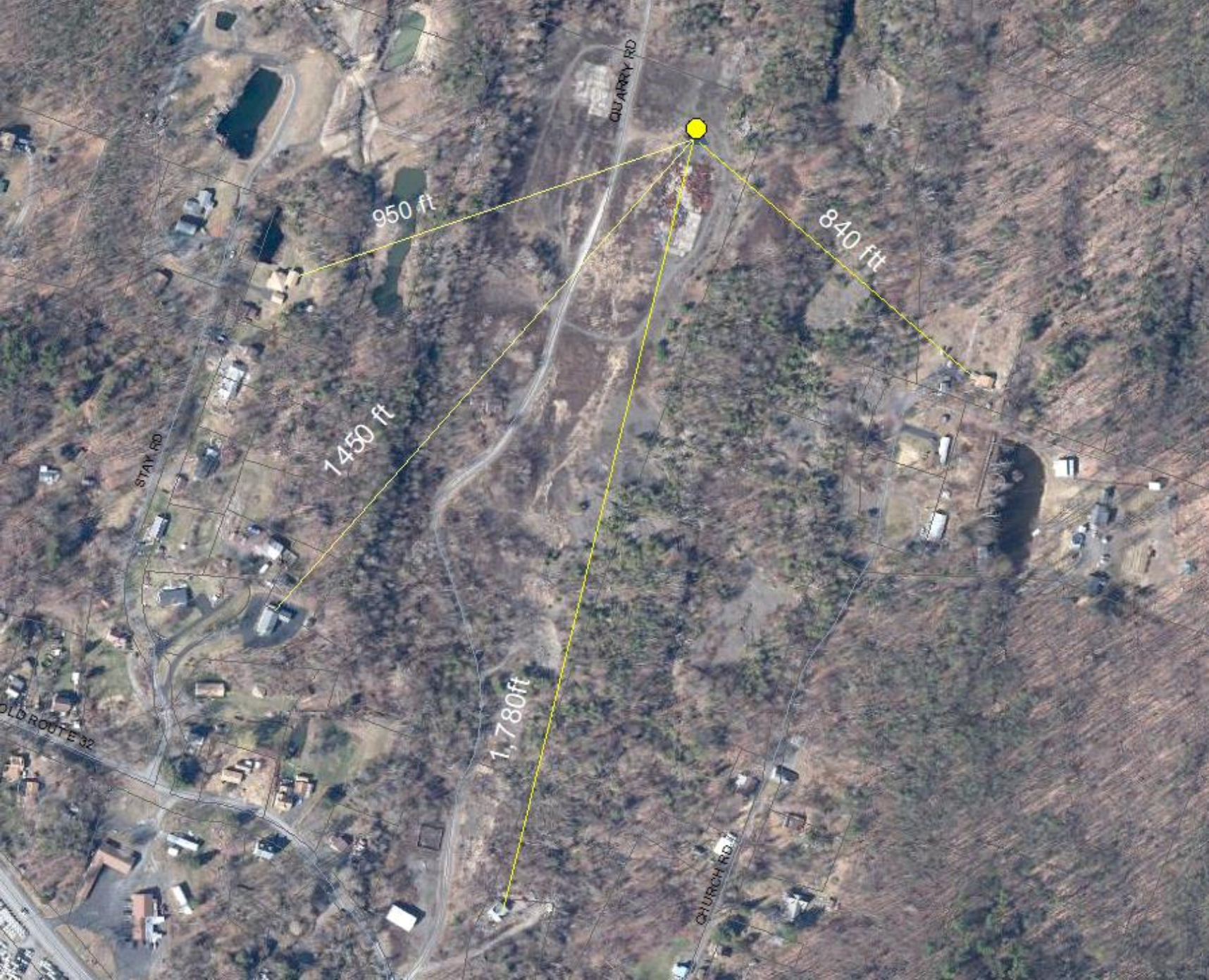
Site Plan
Geotechnical Analysis
Structural Tower Needs

Proposed
Tower Site
35 Quarry Road

Current
Studies

Viewshed Analysis

- Site Context – Distances to adjoining structures



Viewshed Analysis

- Site Context –

The tower site sits in a bowl surrounded by higher elevations on all sides except to the south. These ridges and vegetation provide effective screening for the tower's lower sections and in many instances will block views completely during leaf on

The site surrounding site character is low density residential with mixed commercial and highway businesses

Site Character

Leaf off
Existing Ridge Lines



Tower Site

View Direction
South at 180'

Note:
Area of visibility at
entrance to the site
Photo simulations
done at these
locations



View Direction
Southwest at 180'



View Direction
West at 180'

Note: Resident Rooftop



View Direction
Northwest at 180'



View Direction
North at 180'



View Direction
Northeast at 180'



View Direction
East at 180'



View Direction
Southeast at 180'



View Direction
Southeast at 180'



View Direction
Southeast at 180'

Zoom of Visible
Residences



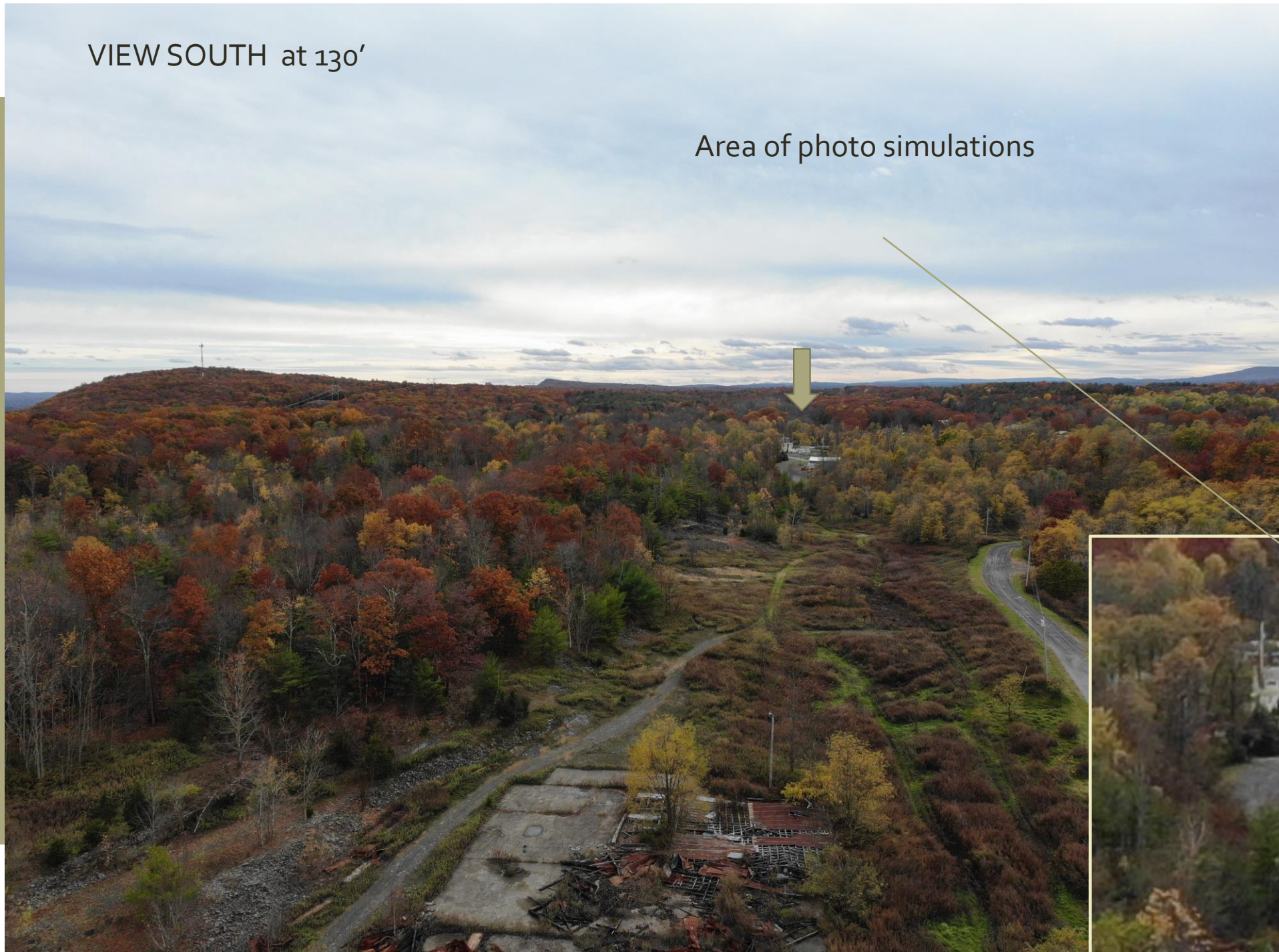
View Direction
Southeast at 130'

Zoom of Visible
Residences



VIEW SOUTH at 130'

Area of photo simulations



Viewshed Analysis

- Identified locations in coordination with Planning Board and in accordance with **NYSDEC guidelines** includes sensitive sites and road views
- Balloon test conducted on July 18, 2020
- Only 2 locations of potential visibility of the sites chosen both close to the access road to the site

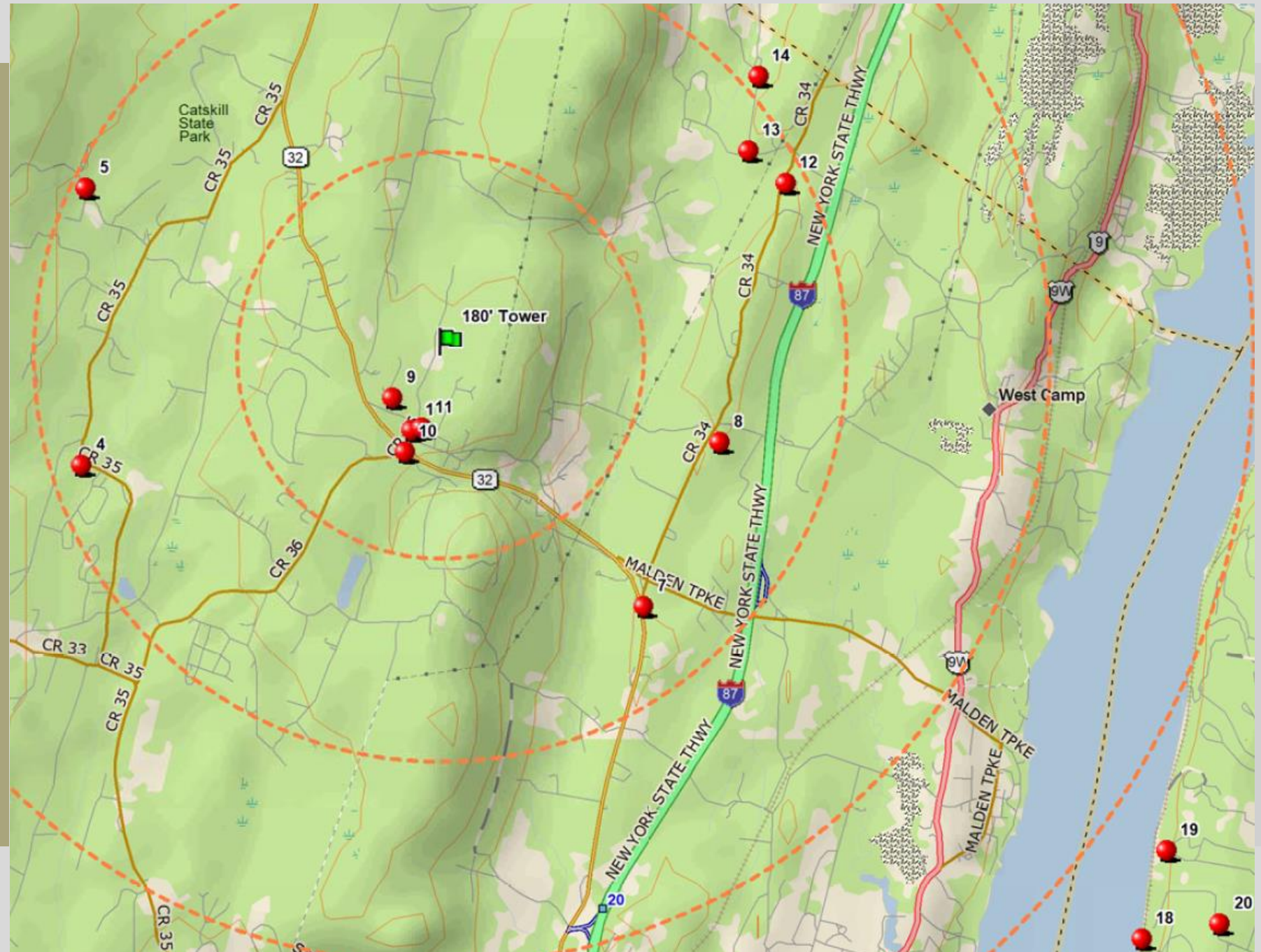


Photo Simulation

- Photo # 10 located at the north intersection of Harry Well Road and NYS Rt. 32
- This is a 4 way offset intersection
- The Tower site is approximately 2,600 ft. from the location of the photo



Photo Simulation

- Approx. 2/3 of the Tower is visible from this location
- Visibility from NYS Rt 32 is limited to quick passing views given the angle of the views.
- The approach views are blocked by vegetation.
- The view from the intersection of Harry Wells Road west side intersection with Rt 32 is similar to the one shown..

Tower @180' with
EMS antennae



Photo Simulation

- Photo # 1 located at the entrance to Quarry Road.
- This is also the site entrance and serves the
- County owned property, a sports mans club, a single family residence, and a vacant property
- Photo taken on July 18th
- The tower site is approximately 1,900 ft. From the location of the photo



Photo Simulation

- Approximately ½ of the tower is visible from this location
- The visibility from old Rt. 32 is similar with more of the tower blocked by buildings and vegetation
- In each case visibility is brief for road users given the angle of the views.

Tower @180' with
EMS antennae



2020.07.18

Viewshed Analysis

Site Context

- Quarryville United Methodist Church
- 1,450 ft. away



Approximate tower location

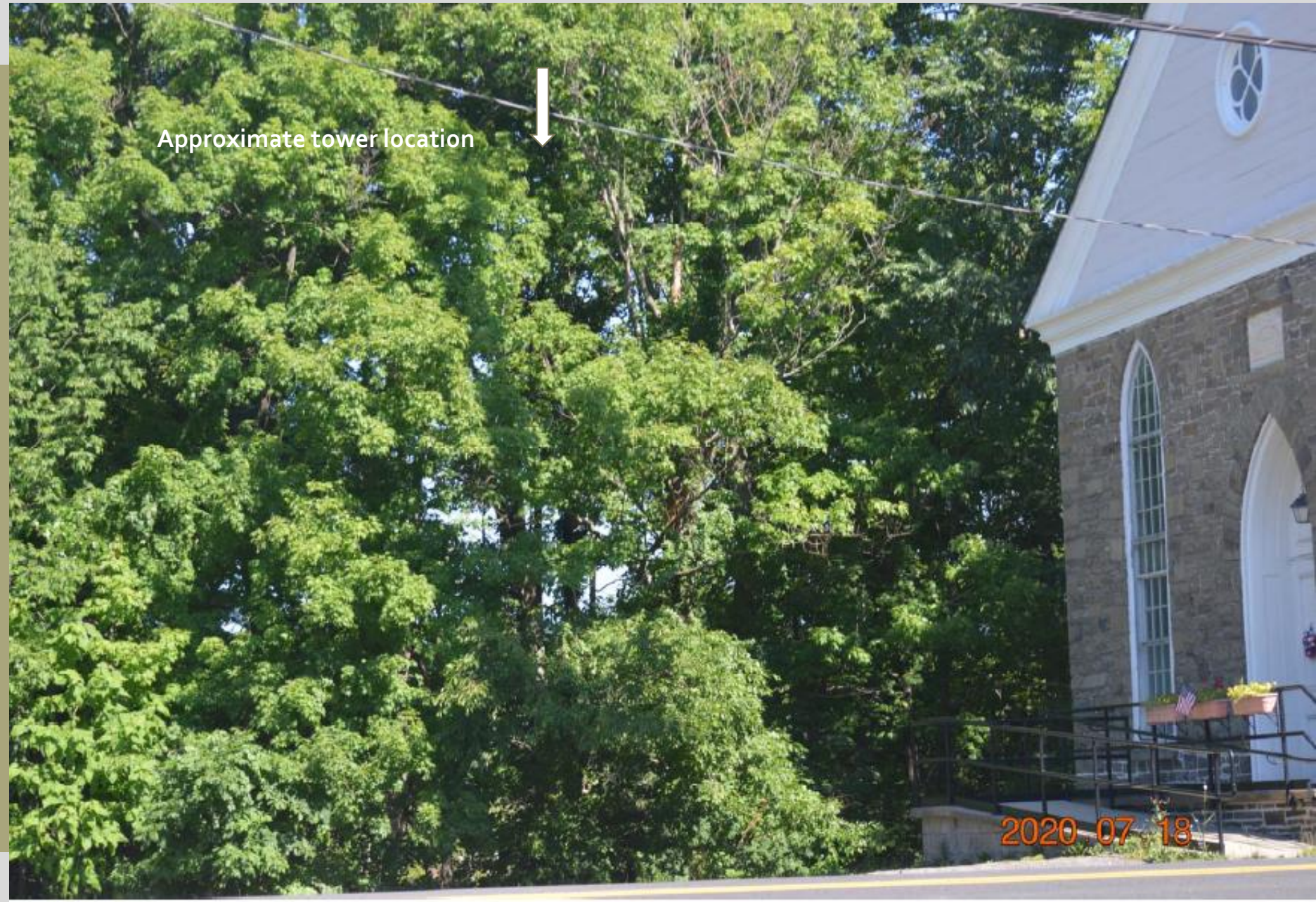


2020 07 18

Viewshed Analysis

Site Context

- Katsbaan Reformed Church
- 1.3 miles away



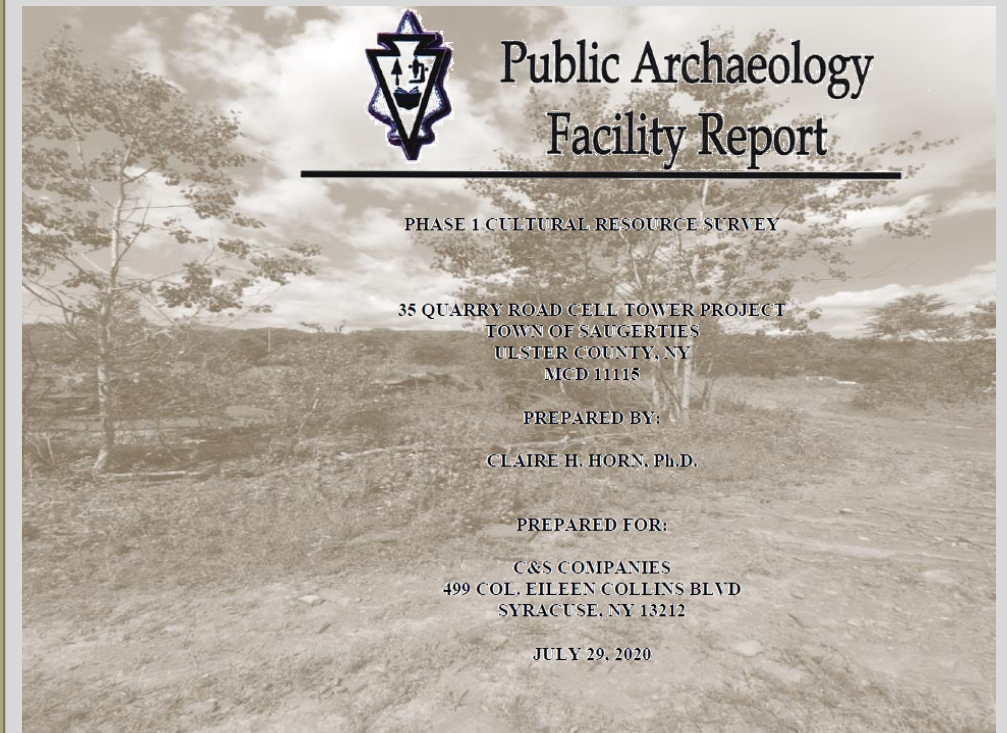
SEQRA & NEPA

Historic and Cultural Resources

- No evidence of archeological sites or standing historic structures
- No National Register Listed or Eligible properties within 0.05 miles
- Recommendation
- The proposed project will not have a significant impact.
- SHPO has concurred.
- THPO coordination on going

Other State and Federal

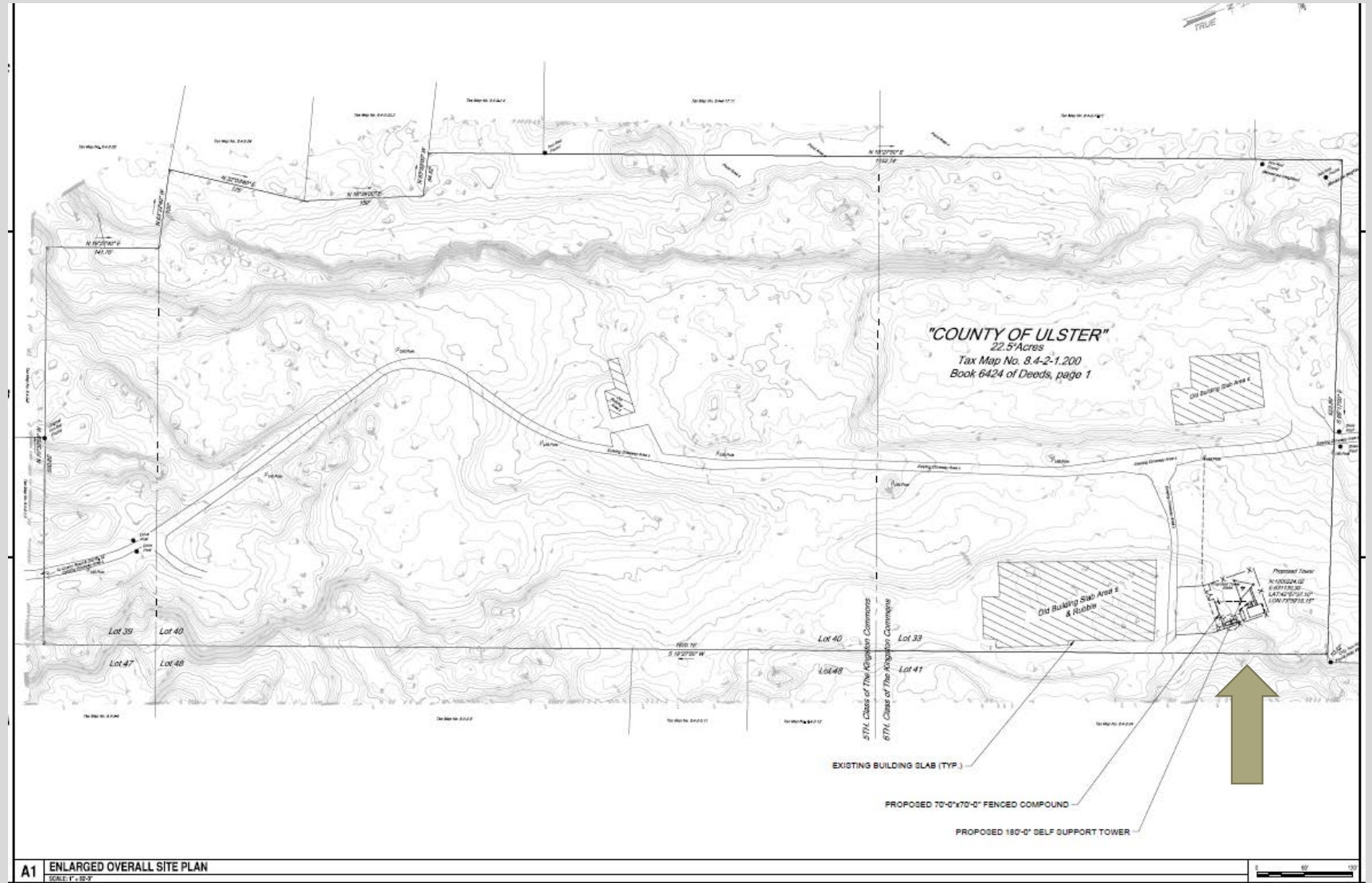
- No endangered species on-site
- No federal or state designated wetlands
- A SWPPP for disturbance over 1 ac will not be required



DESIGN

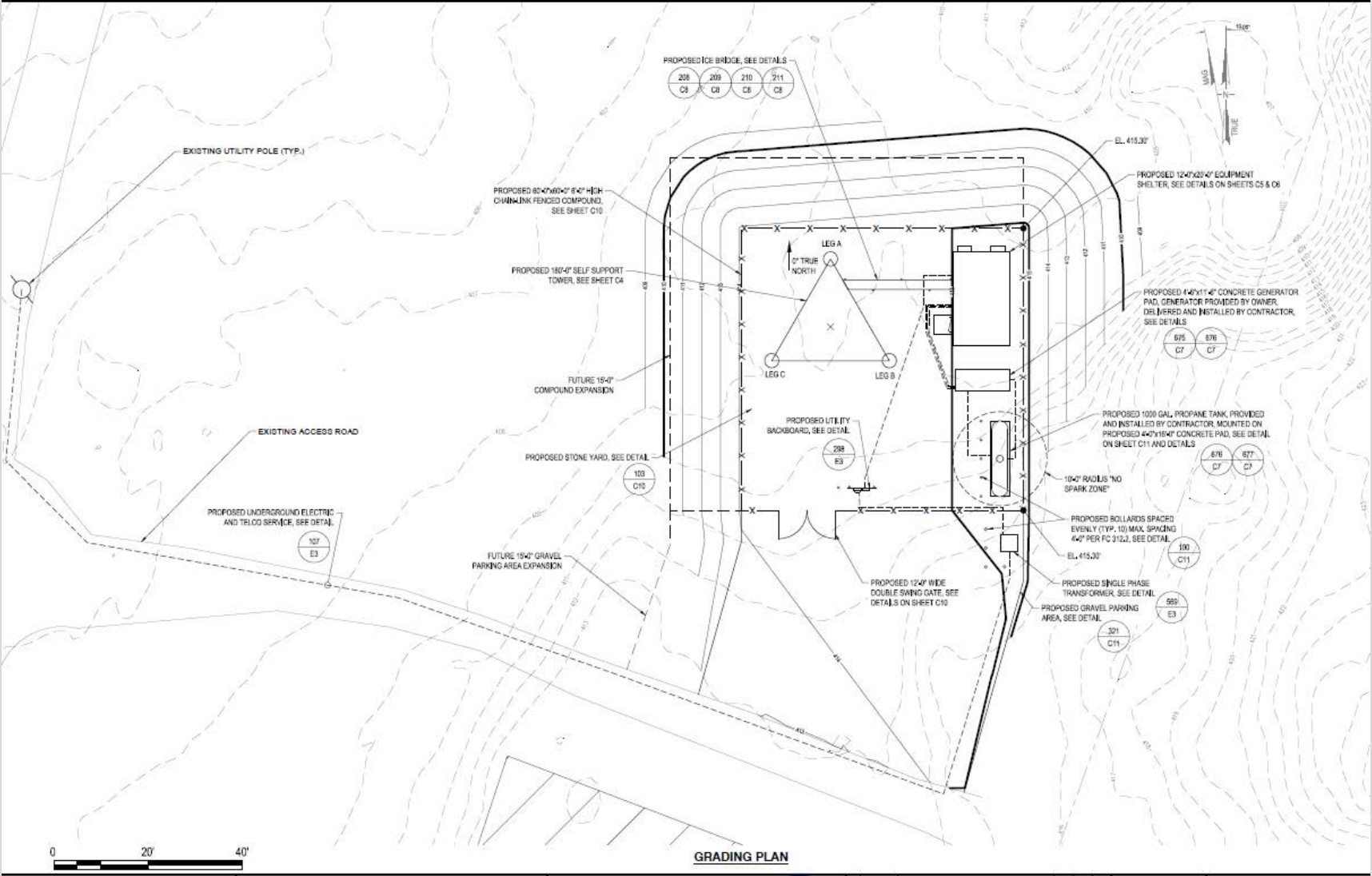
Overall Site Plan

- ✓ Facility located in the northeast corner of the site on existing disturbed area
- ✓ Utilize existing access road
- ✓ Utilize existing electric poles into the site
- ✓ No clearing necessary
- ✓ Site disturbance less the 1acre



DESIGN

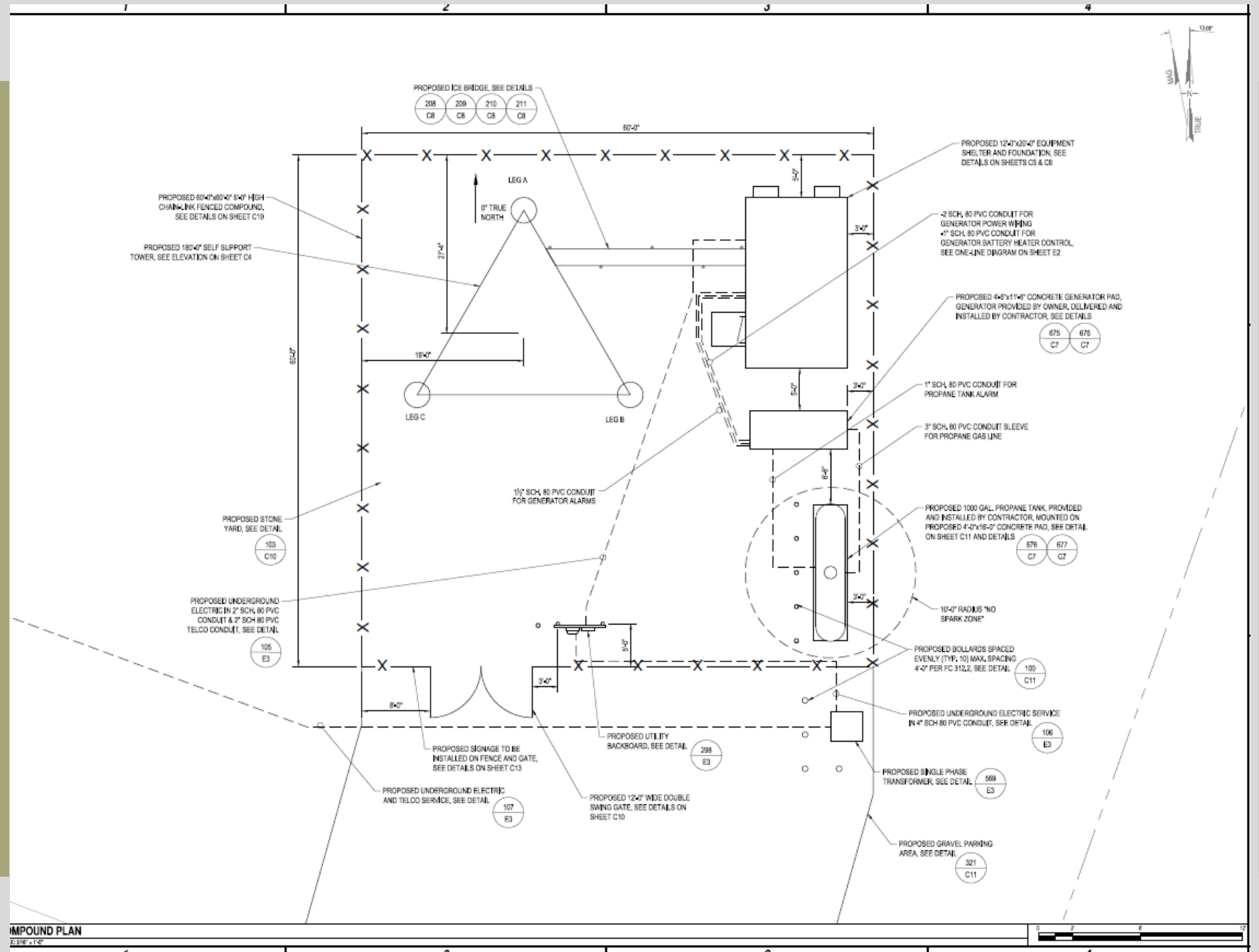
- ✓ Site Grading Plan
 < 1 acre of disturbed area



DESIGN

✓ Enclosed Area Plan includes:

- Tower
- Equipment shelter
- Generator
- Propane tank



County & Local Zoning

Balance of Public Interest Test

1. The nature and scope of the instrumentality seeking immunity
2. The encroaching government's legislative grant of authority;
3. The kind of function or land use involved;
4. The effect local land use regulation would have upon the enterprise concerned;
5. Alternative locations for the facility in less restrictive zoning areas;
6. The impact upon legitimate local interests;
7. Alternative methods of providing the proposed improvement;
8. The extent of the public interest to be served by the improvements; and
9. Intergovernmental participation in the project development process and an opportunity to be heard.

BUILD

Project Schedule

December 2020: Complete Environmental and Design

Spring of 2021: Begin Construction

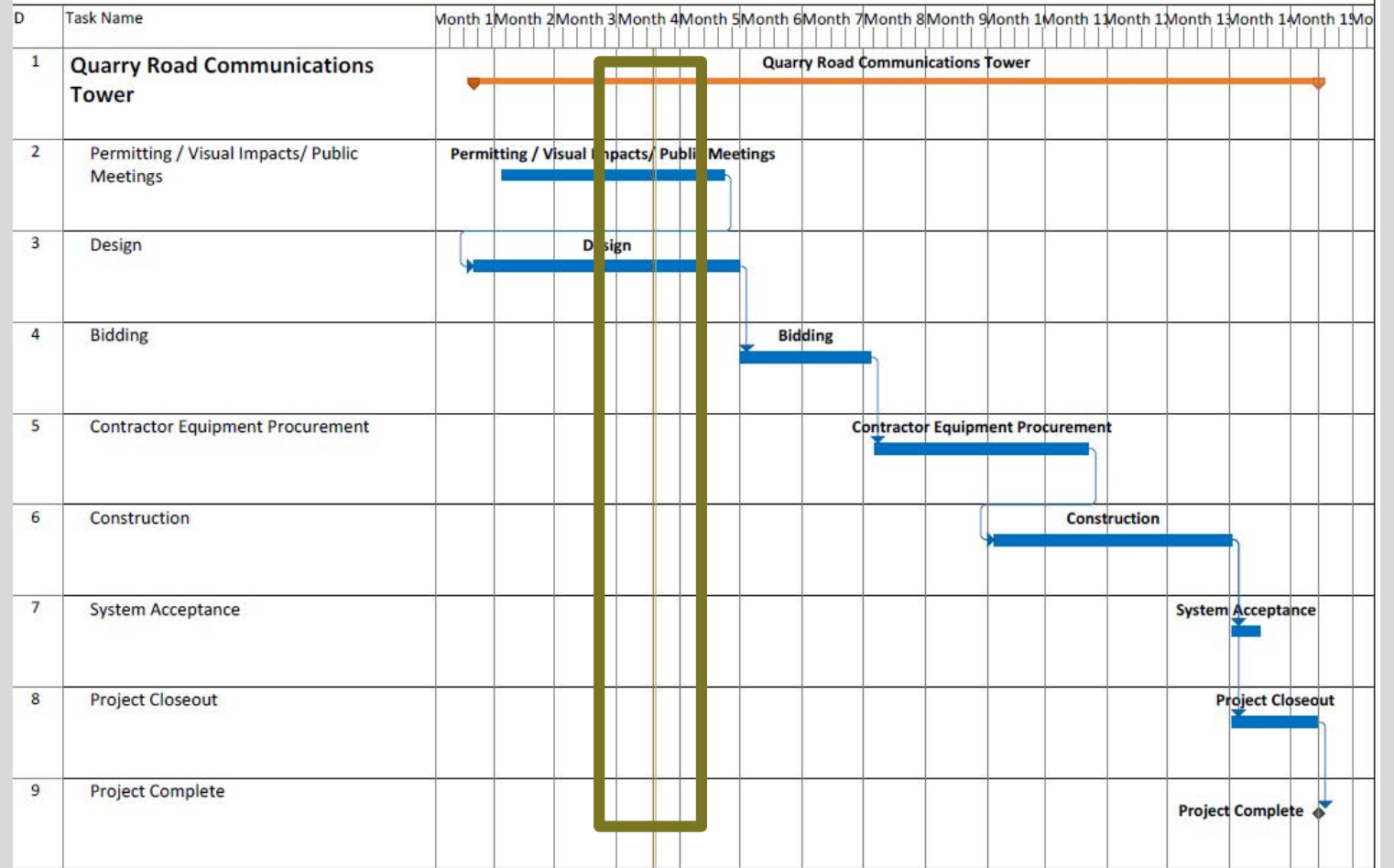
Fall of 2121: Operational



Ulster County Quarry Road Communications Tower



Status Date: 8/18/2020





ULSTER COUNTY PUBLIC SAFETY
RADIO TOWER

Thank you

Project Web Page : <https://ulstercountyny.gov/pstower>

Comments/Questions?

Submit Comments to:

Steven Peterson: spet@co.ulster.ny.us

or

Dennis Doyle: ddoy@co.ulster.ny.us

By mail:

Ulster County Planning Department
Box 1800
Kingston NY 12402

To view Project Documents visit the
Project Web Page : <https://ulstercountyny.gov/pstower>