

PETITION FOR  
*Special exception/ variance*  
BEFORE THE ZONING HEARING BOARD  
OF  
*Millcreek Township*  
LEBANON COUNTY, PENNSYLVANIA

CASE #

DATE: *01/31/2024*

APPELLANT/PETITIONER(S) Lebanon County Commissioners

ADDRESS: 400 S. Eighth St., Room 207, Lebanon, PA 17042 (717) 274-4444

PROPERTY LOCATION: 66 Cocalico Rd, Robesonia, PA 19551

OWNER(S): Comcast Cablevision of South Inc.

ADDRESS: One Comcast Center, Philadelphia, PA 19103

Reasons for Appeal/Petition:

Parcel GIS ID: 24-2402157-365614-0000. Zoned: E-1, Ecologically Sensitive.

Request: Special Exception Approval - Section 13.03.A Uses permitted by Special Exception,  
Communication Towers, subject to requirements in Section 21.02.

Dimensional Variance - Sections 21.02.F.9, 21.02.F.10, and 21.02.F.11.

See Attached for additional supplemental information.

Fee of \$~~400~~ received on *1/21/24* Check # *453532*  
*300* *1/31/24* *453684*

  
Signature of Appellant/Petitioner

Lebanon County Commissioners Department of Emergency Services – Cell Tower

Millcreek Township, Lebanon County

The applicant seeks to be allowed as a permitted use by Special Exception, in accordance with Section 13.03.A, Ecologically Sensitive Zoning District, of the Millcreek Township Zoning Ordinance. The purpose of the applicant's request for a special exception use is to obtain permission to erect a 180-foot-tall communications tower, complete with antennas and an equipment cabinet within a property located in the Ecologically Sensitive District. The site is situated at 66 Cocalico Rd., Millcreek Township, Lebanon County. This initiative is part of the federal public safety radio system standard, specifically P25, governing the technology and interoperability of public safety communications. The communications tower at this location is a crucial component of a multi-tower system covering Lebanon County and is vital for enhancing public safety across the county.

The request for use by Special Exception for this site, arises from the intersection of radio frequency technology, and the topographical constraints necessary for a suitable communications tower location, in both the zoning district and its surroundings, which significantly limit available locations for the proposed tower. The Lebanon County Commissioners commissioned a consulting firm to conduct a comprehensive analysis to identify public safety communications requirements and create a strategic plan for Lebanon County's outdated public safety radio system. Thirteen tower sites were strategically chosen to ensure 95 percent countywide coverage, encompassing all areas of the county. The specific and unique circumstances surrounding the selection of communication tower sites, including the Cocalico Rd. location, are critical for determining site placement. The Cocalico Rd location is approximately 1389 feet in elevation, currently vacant and surrounded by existing wooded vegetation, that act as natural screening for the base of the communications tower and equipment cabinet. Based on the needs assessment, which defines specific requirements for communication tower sites, the Cocalico Rd. location in Millcreek Township is ideally suited for this purpose.

Importantly, the request for use by Special Exception for the Cocalico Rd. location is not a result of actions taken by the applicant but is necessitated by the obsolescence of the existing public safety radio system, which is at the "end of life" and no longer supported. The communications tower sites were determined by the needs assessment in order to provide 95 percent coverage of the county for regionalization of the emergency call system and enhanced public safety.

In accordance with Section 21.02.E, the applicant submits the following provisions have been made applicable to this specific request.

1. Vehicular ingress and egress to the proposed communications tower and equipment shed have been provided via a twelve-foot-wide stone access drive.
2. A 10'x20' off-street parking space has been provided inside a fenced in area for the communications tower. There is not any economic, noise, or glare effect to the adjoining properties generally in the district, as a result.
3. The communications tower and equipment shed will not be occupied structures, therefore a refuse and service area are not necessary.

4. Due to the structures being unoccupied, sewer and water utilities are not necessary. Electricity is the only utility required and will be provided by the local electric supplier.
5. The communication tower and equipment shed are located within a densely wooded lot, approximately 500 feet from the nearest residence, and over 100 feet higher in elevation and therefore additional screening and buffering are not necessary.
6. No signage is necessary for the communications tower and equipment shed, minimal exterior lighting will be located on the equipment shed and will not have any effect on glare, traffic safety, or economic effect with the surrounding properties, due to the equipment shed location on the site. The communications tower will have the required regulatory agency requirements for lighting.
7. Due to topographic requirements and the recommendation for location of the communications tower, as identified in the comprehensive analysis, the applicant requests a variance to the minimum required yards, as detailed later in this narrative.
8. The property remains largely undisturbed with less than 10,000 sf. of disturbance, allowing the property to remain compatible with existing adjacent properties.

In accordance with Section 21.02.F, the applicant submits the following provisions have been made applicable to this specific request.

1. The applicant will be licensed by the Federal Communications Commission to operate a communications tower.
2. The applicant intends to comply with all applicable standards established by the Federal Communications Commission.
3. The applicant intends to comply with all applicable Federal Aviation Administration and Commonwealth Bureau of Aviation regulations as they apply to communications towers.
4. The applicant is constructing it's own communication tower as recommended to ensure 95 percent countywide coverage, encompassing all areas of the county. There is an existing cell tower/communication tower within approximately one-half mile, however the existing tower would not be able to accommodate the proposed communications tower, as it would exceed the structural capacity of the existing structure and its reinforcement cannot be accomplished at a reasonable cost, the proposed communications tower would cause radio frequency interference with other existing equipment for that existing structure and the interference cannot be prevented at a reasonable cost, and the existing structure does not have adequate location, space, access, or height to accommodate the proposed communications tower to allow it to perform its intended function.
5. Access from a public street has been provided to the communications tower and equipment shed via a twenty-foot-wide access easement and a twelve-foot-wide stone access drive.
6. The communications tower is located on a 65.83 acre parcel and meets the minimum lot size requirements for the zoning district.
7. The applicant intends to comply with the Land Development and Subdivision Regulations of the County of Lebanon, Pennsylvania as is applicable to the site.
8. The proposed height of the communications tower is the minimum height necessary to perform its intended function as supported in the P25 Phase 2 System Upgrade report included herein.
9. The applicant requests a dimensional variance of Section 21.02.F.9

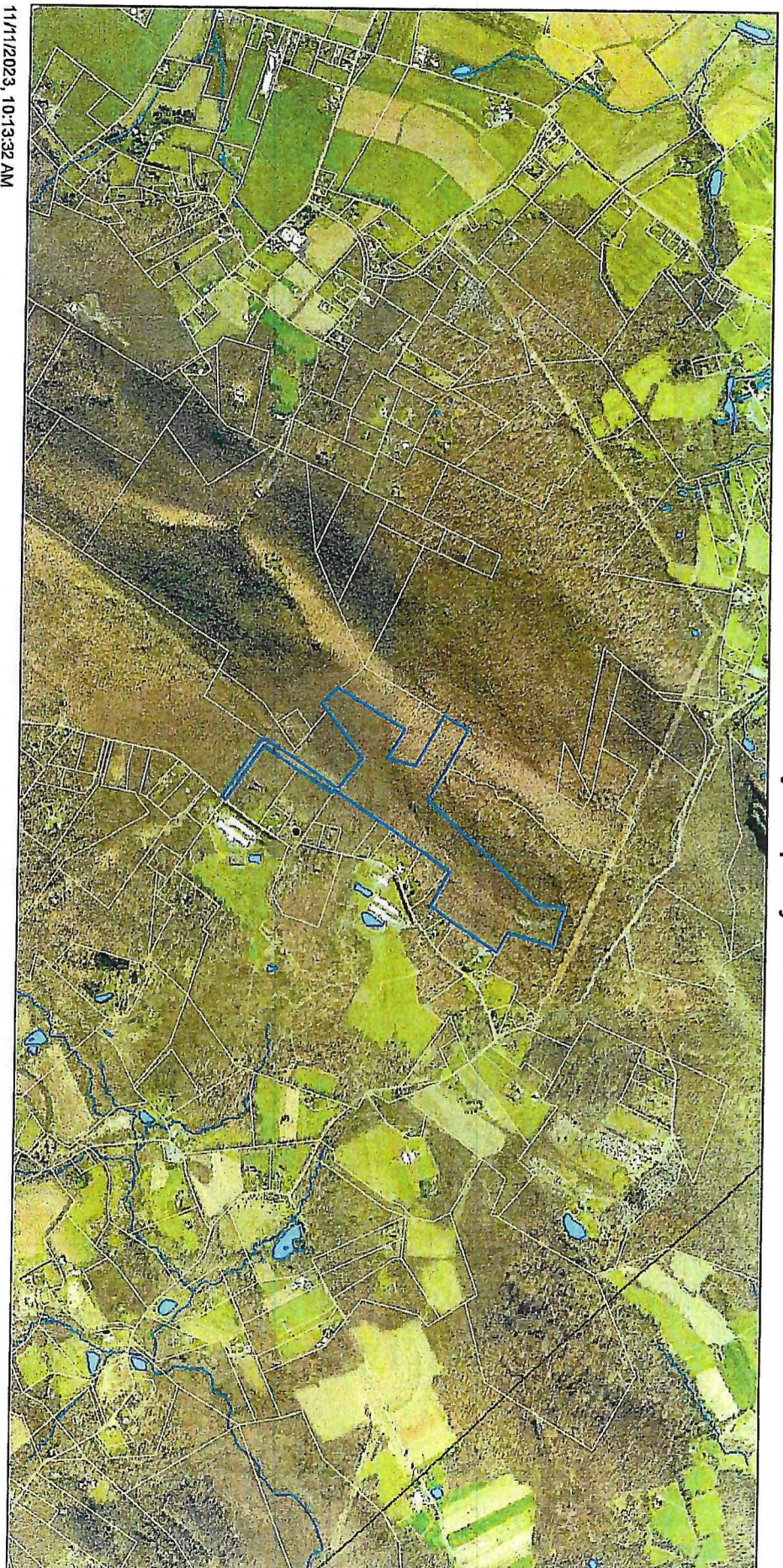
10. The applicant requests a dimensional variance of Section 21.02.F.10.
11. The applicant requests a dimensional variance of Section 21.02.F.11.
12. The communications equipment building complies with the required yard and height requirements of the Ecologically Sensitive Zoning District, for an accessory structure.
13. The applicant has engaged a professional consultant for the design and construction of the communications towers to be in accordance with the current applicable regulations and building codes.
14. Upon completion of construction of the communications tower, the applicant will provide a copy of its current FCC license, contact information for the communications tower operator, certificate of insurance for general liability coverage as required.
15. The proposed communications tower will not be guyed and is a standalone structure.
16. The communications tower and equipment shed will be securely enclosed by an eight-foot fence and eight-foot gate, including barbed wire at the top. The gate will be locked to prevent access by the public.
17. No signs or lights will be mounted on the communications tower, except as required by the governmental agencies with jurisdiction.
18. The communication tower will be maintained in accordance with the applicable building code requirements.
19. The applicant will provide prior to operation of communication tower.
20. One off-street parking space has been provided within the fenced area.

Additionally, the applicant seeks a variance to Sections 21.02.F.9, 21.02.F.10, and 21.02.F.11. Due to the special conditions and requirements for communications tower placement, as described in the comprehensive analysis, (P25 Phase 2 System Upgrade report, included herein), regarding specific topographic tower locations and the availability of land for purchase. These special circumstances are not applicable to other lands, structures or buildings in the same district. These special conditions and circumstances are not a result of action by the applicant. The granting of the requested variances will not confer on the applicant any special privilege that is denied by this ordinance to other lands, structures, or buildings, in the same district.

Granting the Special Exception use and dimensional variance for the Cocalico Rd., Millcreek Township location, will not have adverse effects on public health, safety, or welfare. On the contrary, the installation of the communication tower will enhance public safety by improving communication for emergency services throughout Lebanon County. The requested variances represent the minimum relief required and will not change the essential character of the neighborhood or zoning district.



# Lebanon County Property Viewer



Disclaimer: Tax maps show the approximate boundaries of taxable and non-taxable property. The property boundaries depicted should not be interpreted as the legal boundary description. The legal boundary description can be obtained from the property's deed.

Lebanon County





COMCAST COCALICO ROAD

LOCATION:  
40.324868 -76.195197

ELEVATION:  
1389'

MCM CONSULTING GROUP, INC.  
STATE COLLEGE, PA

COMCAST COCALICO ROAD

SEAN STRATHEIMER

PROJECT:

1/32"=1'-0"

DATE

07/28/2023







**COMCAST COCALICO ROAD**

**LOCATION:**


**40.324868 -76.195197**

**ELEVATION:**

**1389'**

**MCM CONSULTING GROUP, INC.**  
STATE COLLEGE, PA

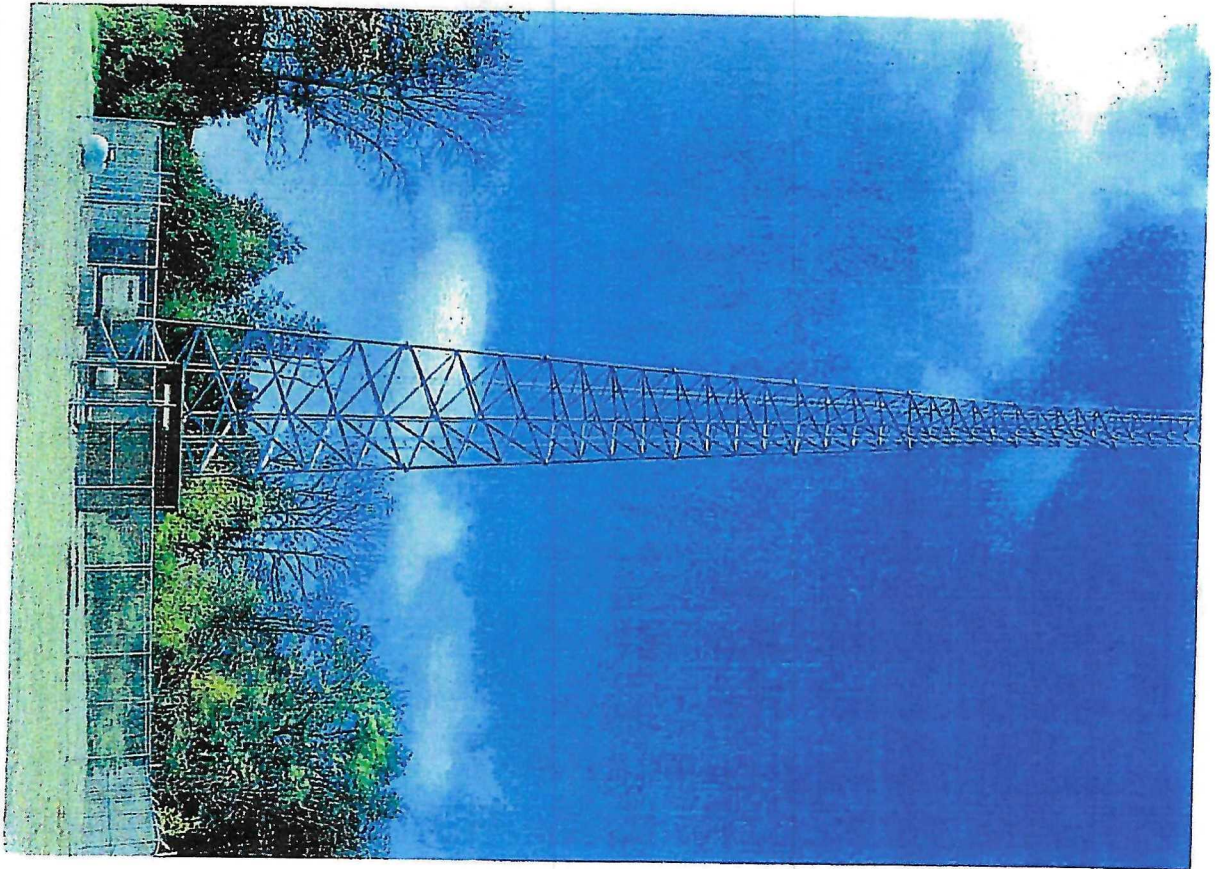
**COMCAST COCALICO ROAD**

DRAWN BY: SEAN STRATEMEIER		PROJECT: LEBANON COUNTY	
DATE: 07/28/2023	SCALE: N.T.S.		

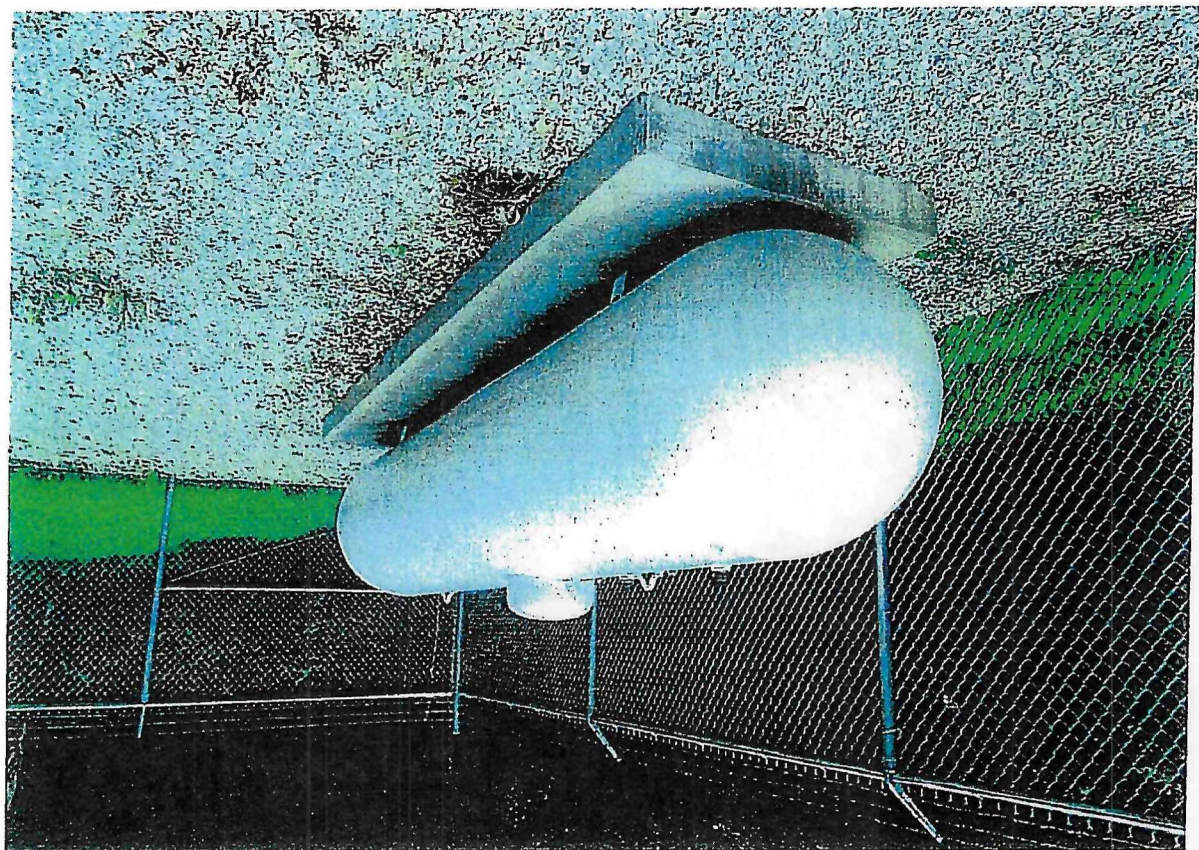
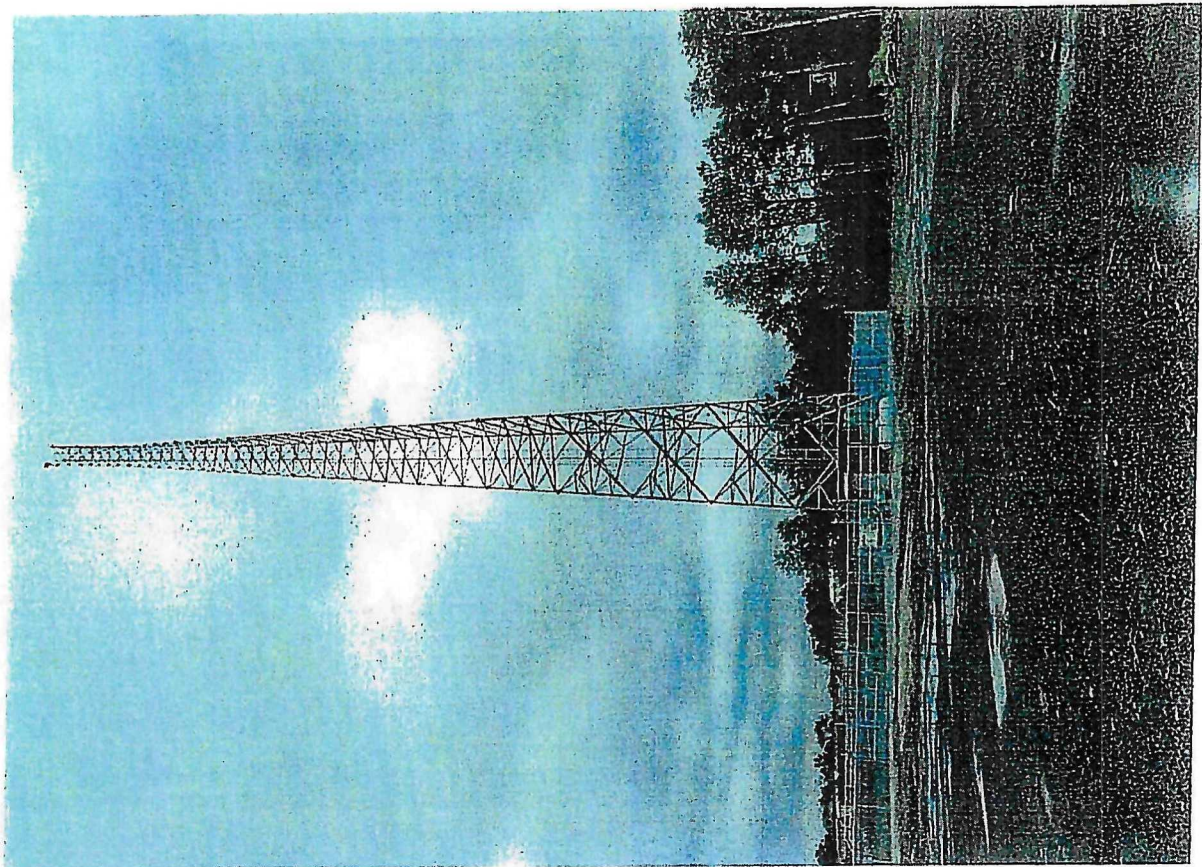
**P25 PHASE 2 SYSTEM UPGRADE REPORT  
FOR  
LEBANON COUNTY DEPARTMENT OF EMERGENCY SERVICES  
LEBANON, PENNSYLVANIA**

**PROVIDED BY L3HARRIS**

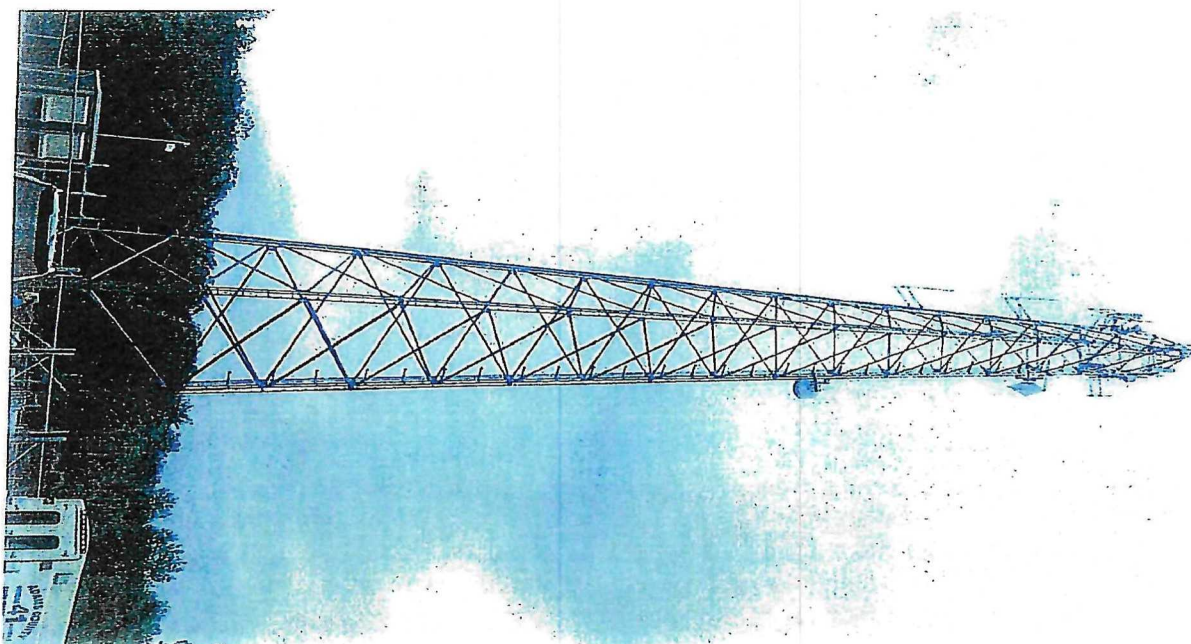














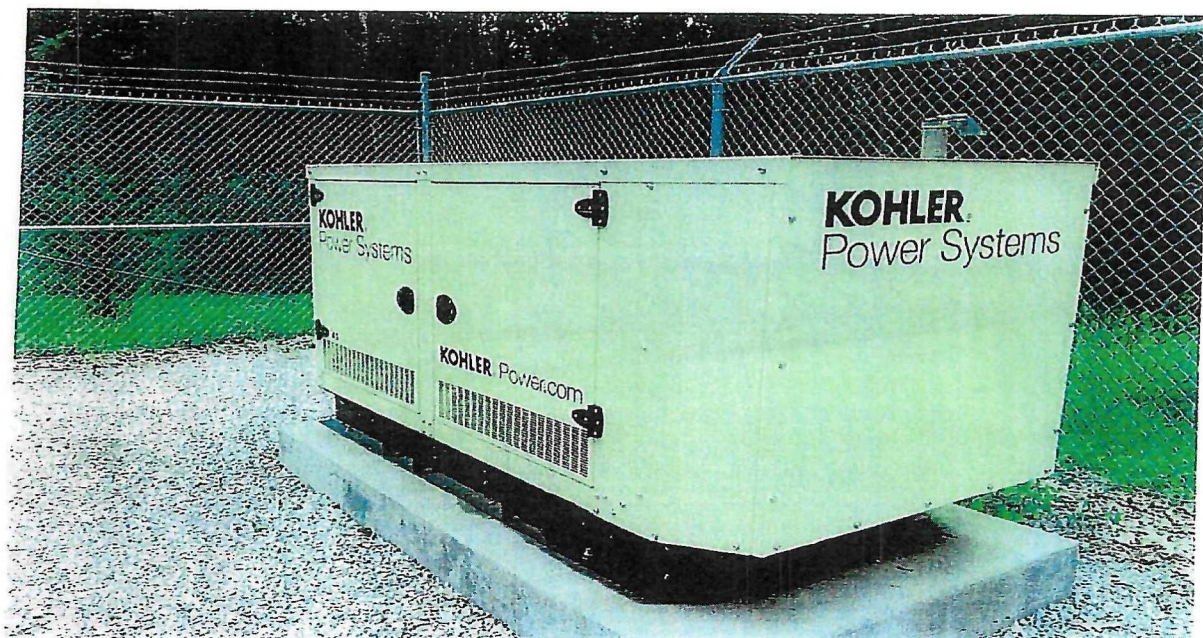
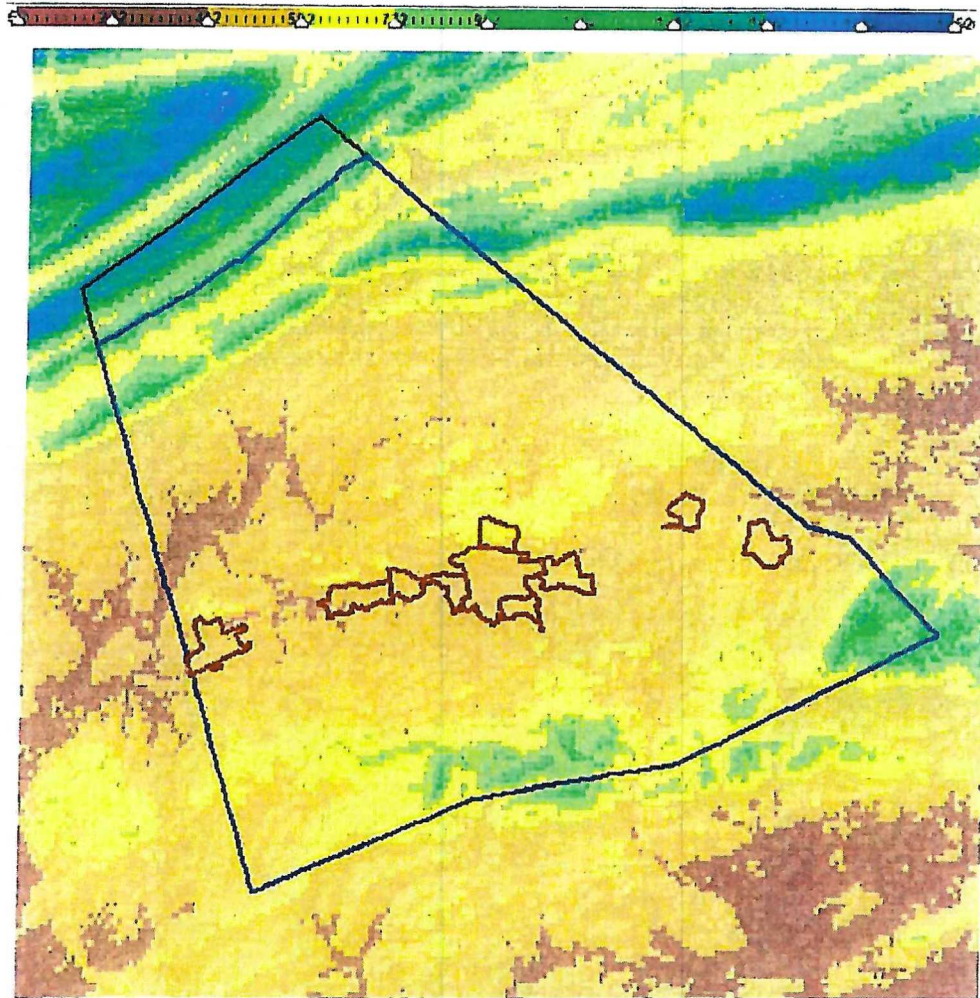


Figure 5. Lebanon County Terrain Data with Elevation





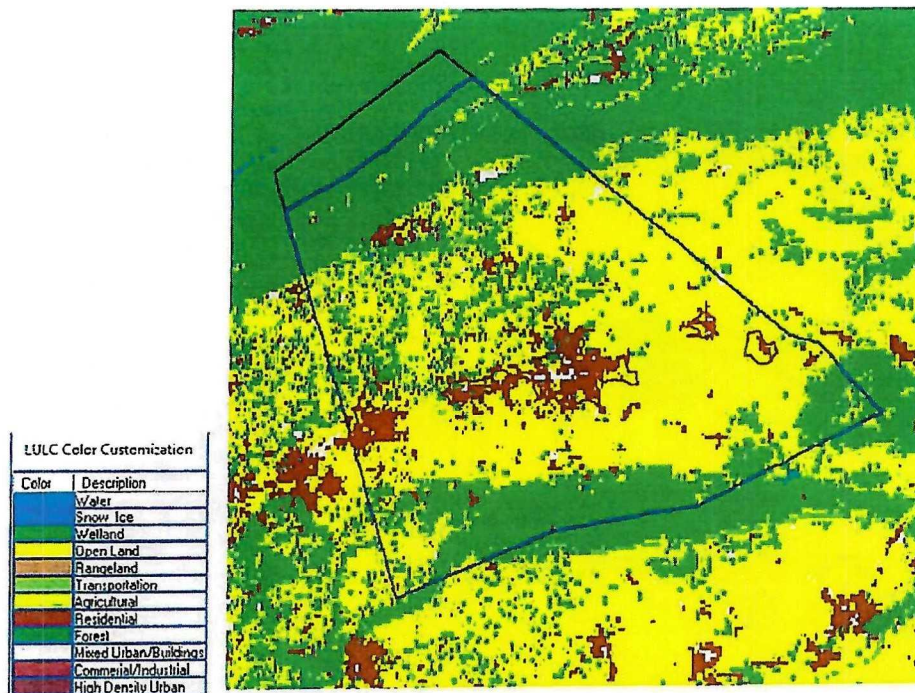
## ENVIRONMENT DATABASE

Using an environment database further enhances the coverage prediction accuracy. This database describes the ground structures contained in an area such as urban, residential, forest, water, etc. It increases the coverage design accuracy by allowing the propagation model to account for the type of local clutter present.

RAPTR's main database is derived from the National Land Cover Database (NLCD) data set.

The Lebanon County environment database information is shown in Figure 6.

Figure 6. Lebanon County Environment Data



RAPTR employs sophisticated analysis techniques when evaluating coverage. Instead of only considering what the environment type is at the location, or tile, being evaluated, it also considers the environment surrounding the location. This further increases the accuracy of coverage predictions by detecting transitions in the environment—for instance, when transitioning from agricultural to forest, or urban to suburban. In addition, an RF coverage engineer can select from a category of environment. For example, the engineer can select from the forest environment class categories of pine, hardwood, mixed, etc. Also, RAPTR can perform an analysis of the environment and classify it based on density. This increases the accuracy of coverage predictions by being able to account for both dense and sparse forests. All these factors combine to allow RAPTR to incorporate a very detailed model of the environment into coverage designs.

## PERFORMANCE STANDARDS

Coverage analysis and subsequent coverage testing agrees with the principles set forth in the Telecommunications Industry Association (TIA) Telecommunications Systems Bulletin TSB88, titled "Wireless Communications Systems – Performance in Noise and Interference-Limited Situations – Recommended Methods for Technology-Independent Modeling, Simulation, and Verification." TSB88 has defined Channel Performance Criterion (CPC) as the specified minimum design performance level in a faded channel. Figure 5 shows the different performance standards with the DAQ3.4 definition highlighted in green as that is what we are using for Lebanon.

Figure 7. Performance Standards

DELIVERED AUDIO QUALITY	SUBJECTIVE PERFORMANCE DESCRIPTION
DAQ 5	Speech easily understood.
DAQ 4.5	Speech easily understood. Infrequent noise/distortion.
DAQ 4	Speech easily understood. Occasional noise/distortion.
DAQ 3.4	Speech understandable with repetition only rarely required. Some noise/distortion.
DAQ 3	Speech understandable with slight effort. Occasional repetition required due to noise/distortion.
DAQ 2	Understandable with considerable effort. Frequent repetition due to noise/distortion.
DAQ 1	Unusable: speech present but unreadable.

## BOUNDARIES

The service area boundaries for Lebanon County are shown in Figures. 6 and 7.

- > The Lebanon county boundary has been trimmed to exclude the state gamelands. The Mobile, Portable Outdoor and Portable 9 dB guarantee will be offered within this trimmed boundary.
- > The Portable 22 dB guarantee will be offered in the combined boundary consisting of Palmyra, Annville CDP, Cleona, Pleasant Hill CDP, Avon CDP, Lebanon City, Lebanon South CDP, Sand Hill CDP, Myerstown, and Richland

Figure 86 shows the Trimmed County boundary in blue and the portion of the boundary with the state gamelands that has been removed in black. Figure 7 shows the population centers boundary for Portable 22 dB guarantee.

Figure 8. Modified County Boundary

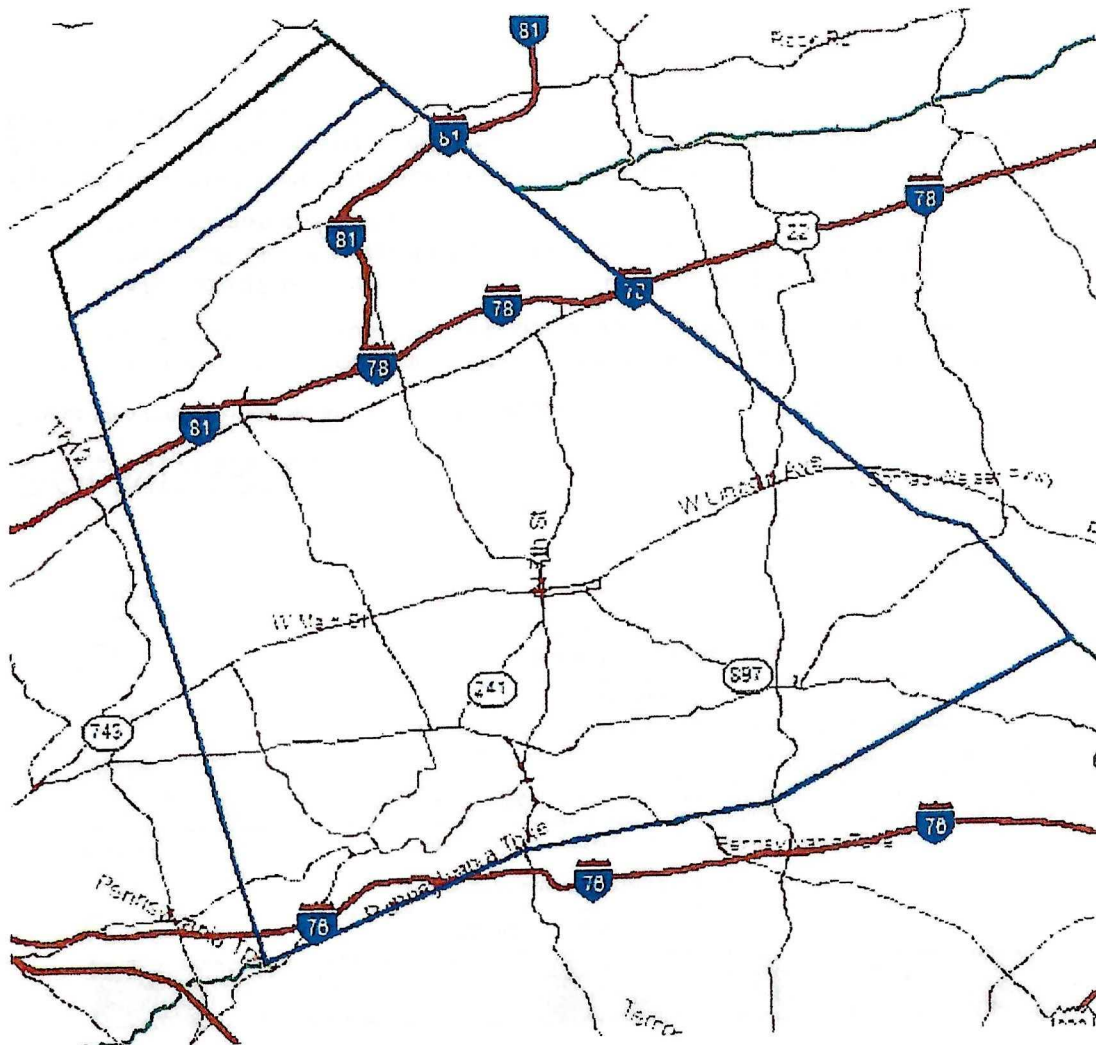
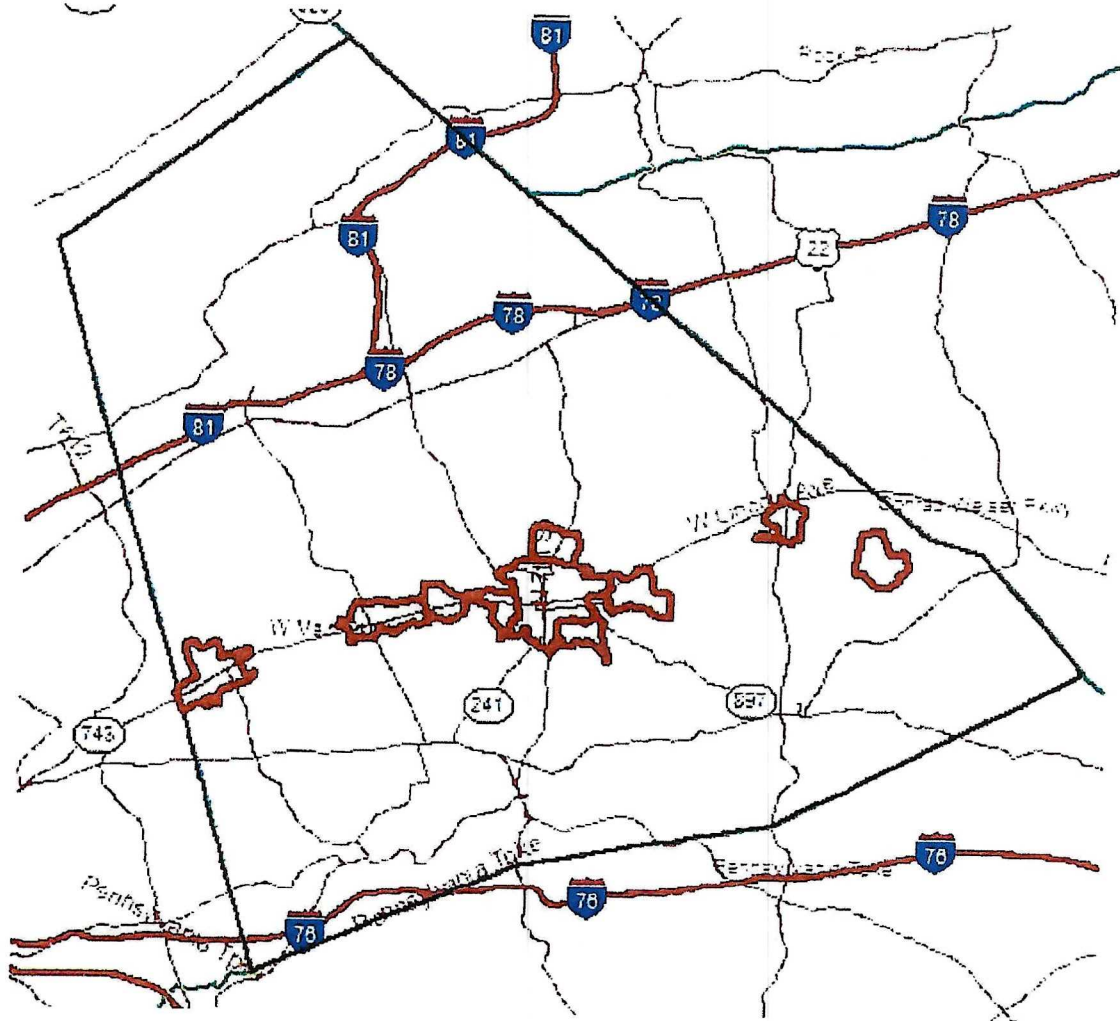




Figure 9. Population Centers Boundary



# UHF P25 SYSTEM COVERAGE

In several discussions with personnel familiar with the existing Lebanon County communications system L3Harris was provided the following coverage goals for the P25 UHF system:

- > Public safety levels of mobile coverage, County-wide
- > Public safety levels of portable outdoor coverage, County-wide
- > Increased ability to penetrate typical residential homes (9 dB)
- > Greater in-building coverage in urban, industrial, and high population centers
- > Coverage at DAQ 3.4 Voice Quality

The L3Harris two cell, 13-Site P25 Phase 2 coverage design provides enhanced coverage throughout the county. The final site locations are shown in Figure 10.

Figure 10. Final Site Locations

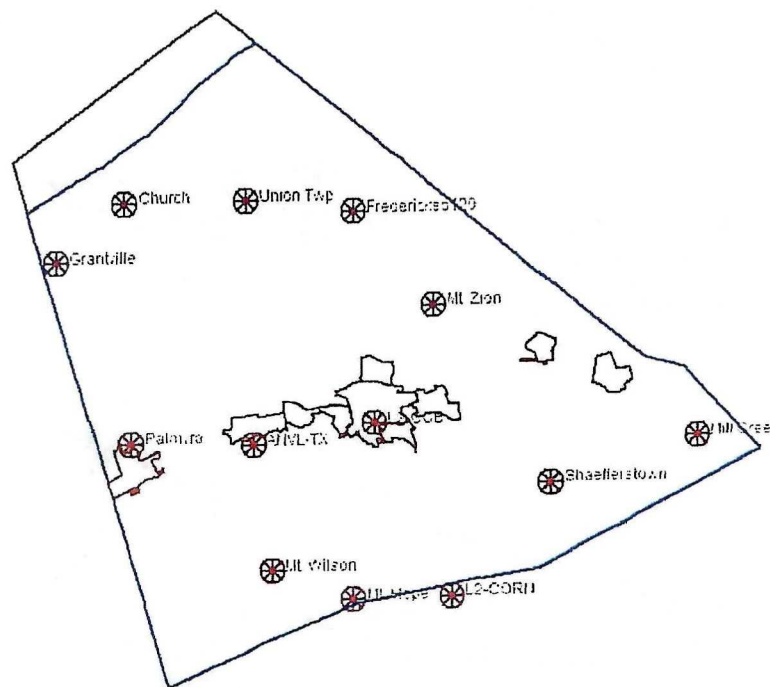


Figure 14. L3Harris 13-Site Portable Talk-out Coverage Indoor at 9 dB

DAQ 3.4 – 95% Guarantee Bounded Area, 95 % Reliability within the BLUE boundary area

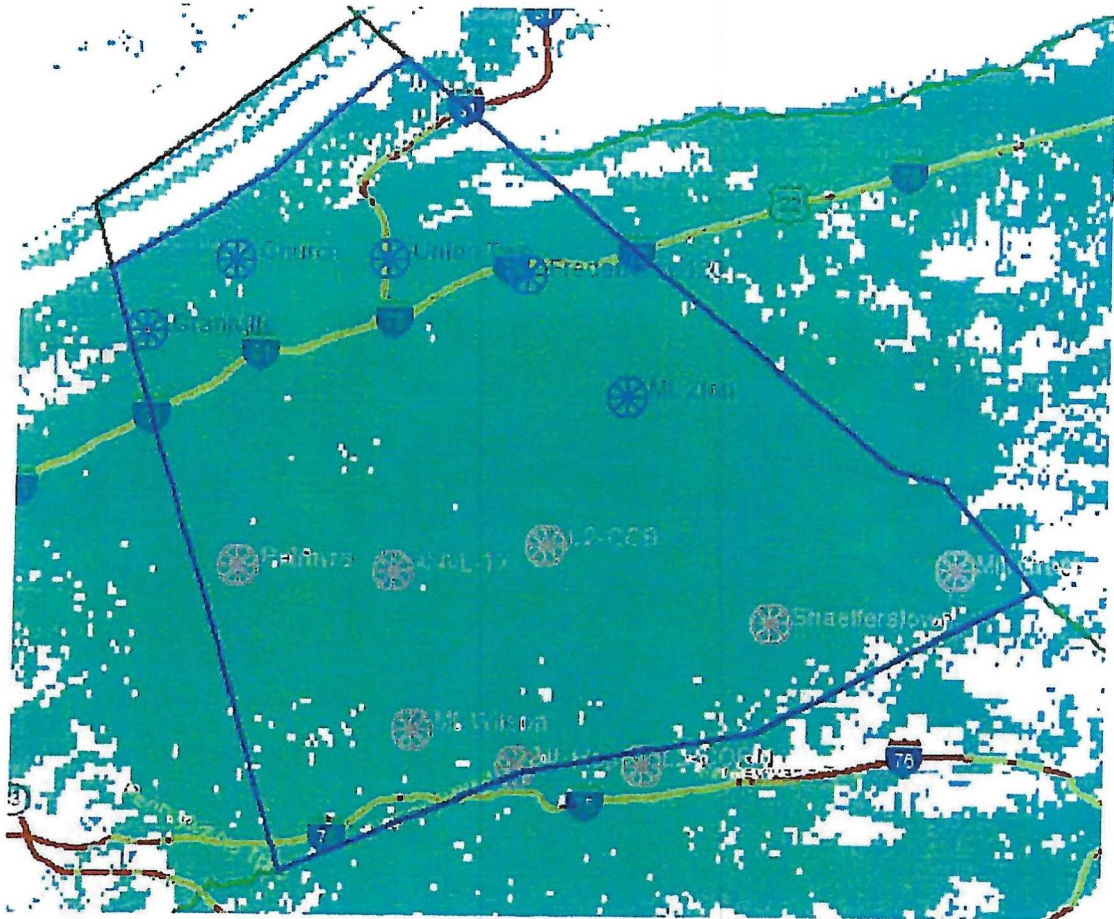




Figure 15. L3Harris 13-Site Portable Talk-out Coverage Indoor at 22 dB

DAQ 3.4 – 95% Guarantee Bounded Area, 95 % Reliability within RED boundary area

