



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION



MEMORANDUM

DATE: May 13, 2011
TO: Montgomery County Board of Appeals
VIA: Callum Murray, Team Leader, Area 3 (301-495-4733)
FROM: Leslie Saville, Senior Planner (301-495-2194)
SUBJECT: Special Exception No. S-2800
22730 Mount Ephraim Road, Dickerson; RDT zone
T-Mobile Northeast LLC and J. Maurice Carlisle, Jr., applicants,
request special exception approval to permit the establishment of
an unmanned telecommunication facility consisting of three
antennas on a 127-foot high silo and the associated equipment
area
MASTER PLANS: Preservation of Agriculture and Rural Open Space (1980)
Rustic Roads Functional Master Plan (1996)
FILING DATE: December 13, 2010
PUBLIC HEARING: May 20, 2011

STAFF RECOMMENDATION: APPROVAL with the following conditions:

1. All evidence, testimony and exhibits of record shall bind the petitioners;
2. There shall be no illumination placed on the monopole;
3. The facility shall meet all coverage objectives, including those along Barnesville Road at the Little Monocacy River;
4. The proposed plantings shall be removed from the plans and the compound design shall be amended to accommodate the agricultural use of the facility; and
5. The facility shall have the ability to be retrofitted to function as a grain bin.

Approval signatures

				
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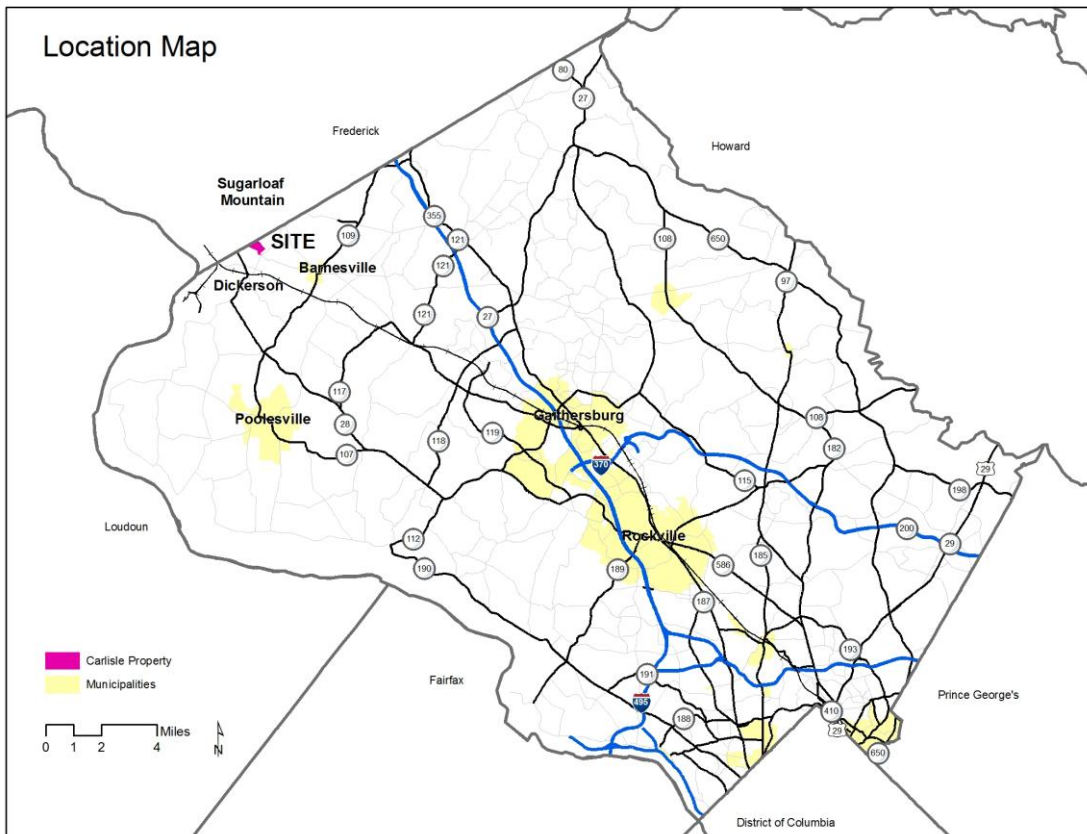
Planning Area 3 Team

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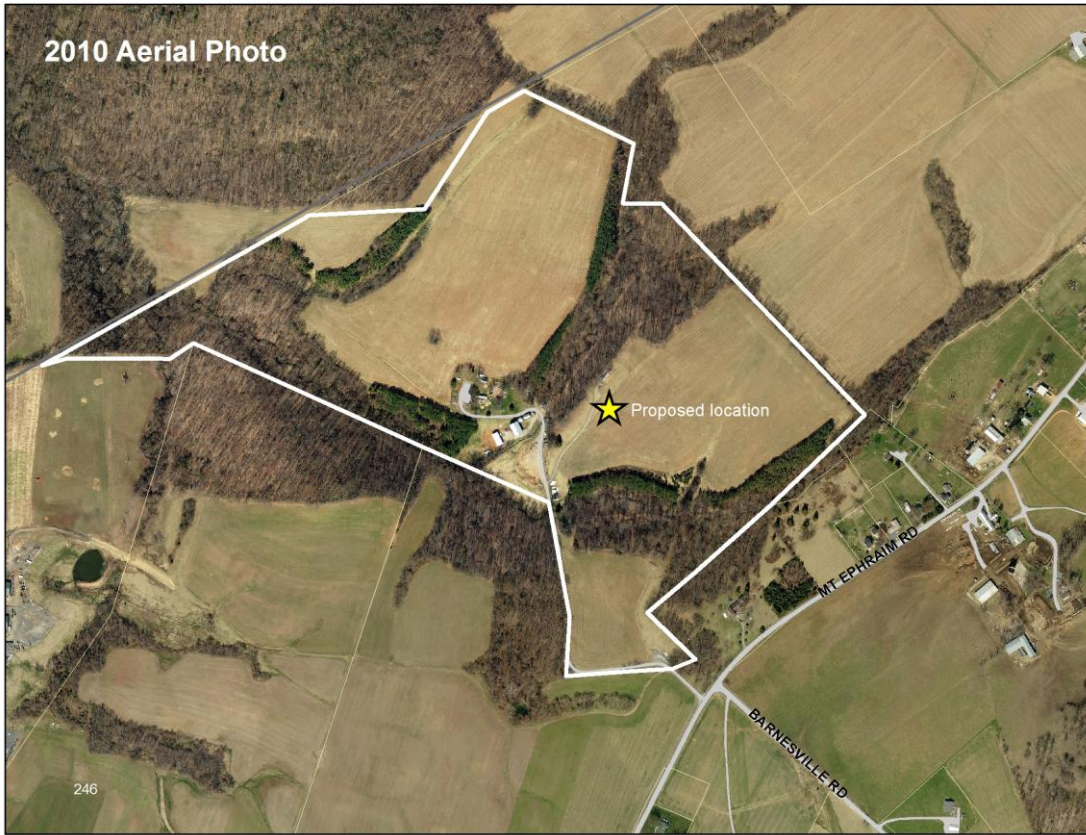
PROJECT SUMMARY

The applicants, J. Maurice and Mary Ann Carlisle and T-Mobile Northeast LLC, are requesting special exception approval to install an unmanned wireless telecommunications facility at 22730 Mount Ephraim Road in Dickerson. The facility will consist of a 127-foot silo with three antennas and an associated 50-foot by 50-foot equipment compound.



This property is a 92.25-acre parcel, P530, owned by J. Maurice Carlisle Jr. and Mary Ann Carlisle, located at the intersection of Mount Ephraim and Barnesville Roads. This is in the western part of the County, north of Poolesville and south of Sugarloaf Mountain—the closest communities are Barnesville (to the east) and Dickerson (to the south). The property straddles the County line and has five additional acres in Frederick County¹; the facility is proposed on the Montgomery County portion.

¹ Property acreages from Liber 9458 Folio 895.

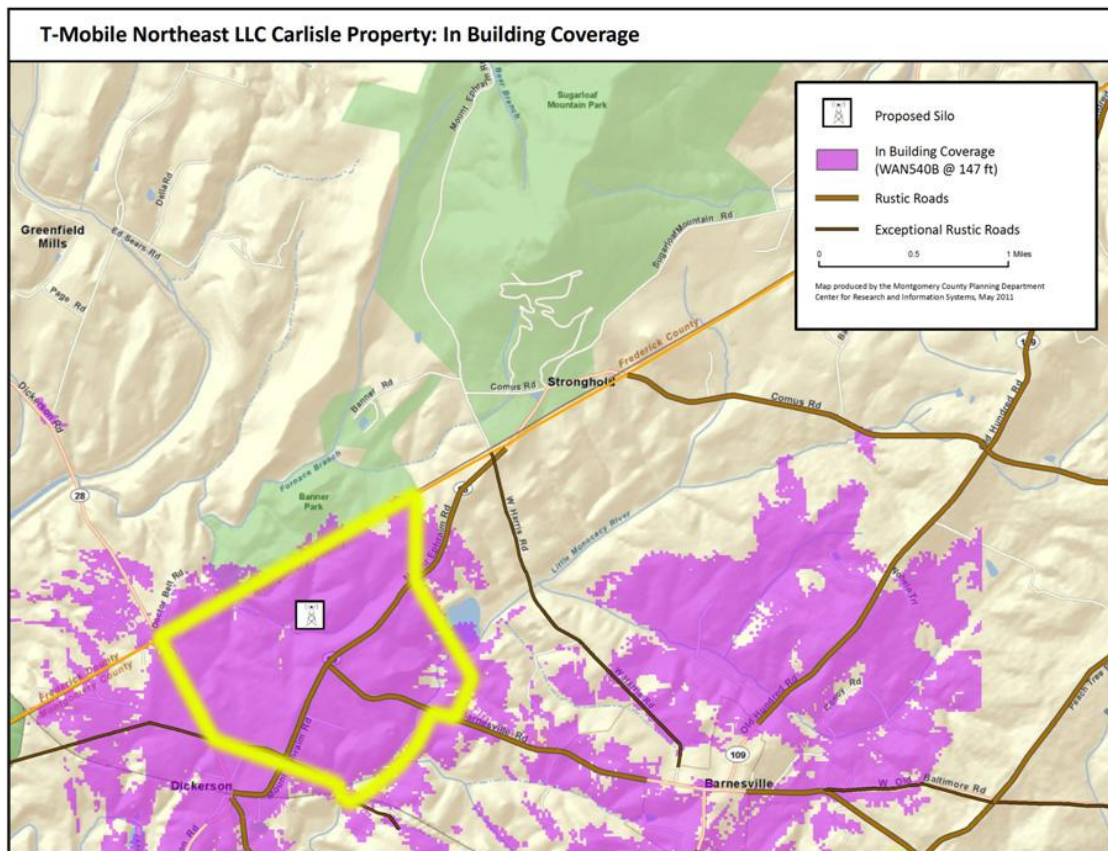


The property is improved with a house, a large bank barn, numerous sheds and outbuildings, and an unoccupied mobile home. A tenant farmer cultivates approximately 50 acres of cropland, and the owner uses an area near the barn complex for his soil conservation and septic testing business (his septic testing service is especially well known in the Ag Reserve). The property is zoned Rural Density Transfer (RDT).



The Neighborhood

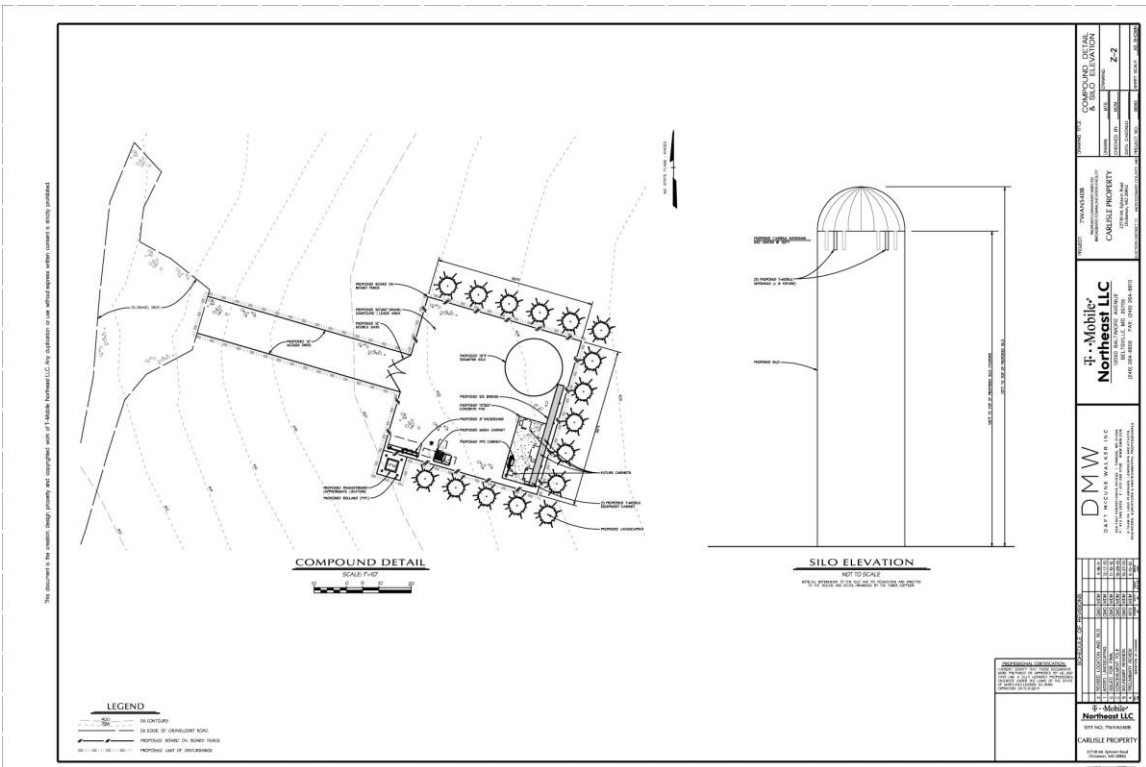
The neighborhood is generally defined by the in-building coverage area as indicated by the applicant and reviewed by the Tower Committee, as this covers the majority of properties that will be affected by the proposed tower. A simplified description of this area shows it being bound on the north and west by Frederick County and Maryland Route 28, on the south by Mouth of Monocacy Road, on the southeast, along property lines running approximately parallel to the Little Monocacy River, on the northeast, following the Savage Farm property line to Mount Ephraim Road, then north to the Frederick County line at Banner Park.



The neighborhood is dominated by large farms, but includes several smaller residential properties along Mount Ephraim Road. The area encompasses about 30 properties with 20 dwellings.

Project Description

T-Mobile Northeast LLC proposes a site lease with J. Maurice Carlisle, Jr. to construct and operate an unmanned telecommunications facility at 22730 Mount Ephraim Road, in Dickerson. The facility will consist of a 127-foot tall by 18-foot diameter silo with three antennas centered at the 120-foot level, and an associated 50-foot by 50-foot graveled equipment compound surrounded by an eight-foot board-on-board fence and evergreen trees. Equipment will include a MESA cabinet, an eight-foot electric backboard, a ppc cabinet, and a 10-foot by twenty-foot concrete pad. Space has been included for future antennas and cabinets. A 12-foot gravel access road will connect the compound and the existing driveway. The facility will operate 24 hours per day, 365 days per year.



ANALYSIS

Master Plans and Community Compatibility

The proposal is covered by two master plans, the Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County and the Rustic Roads Functional Master Plan.

Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County (AROS, 1980)

The AROS Master Plan provides the following guidance:

- “This Plan focuses on the preservation of farmland but it also tries to establish a policy framework that will contribute to the continuation of farming in the County”(Foreword, p. i, emphasis original).
- The Plan confirms that “a critical mass of active farmland exists in an area defined as the Agricultural Preservation Study Area”.... And recommends the “[p]reservation of critical masses of farmland and rural open space” (Summary of Findings and Recommendations, p. iv).
- “The critical land use issue in this Plan is the loss of productive farmland” (General Objectives of the Functional Plan, p. 8).
- “A significant farm ownership trend that should not be overlooked or underestimated in Montgomery County is the number of part-time farmers that depend, in part, upon non-farm sources of income” (The Agricultural Community, p. 24).
- “Montgomery County still has a large amount of highly productive farmland. Overall, the County has a considerable amount of prime soils... These prime soils, Soil Types I and II, are productive with a minimum amount of land management....Soil Types III and IV, which have more agricultural production problems, are well suited to particular types of agriculture.... Farmland and open space are irreplaceable and valuable natural resources, and should be protected” (The Agricultural Community, pp. 24-25).
- “It is in the public interest to preserve farmland” (Farmland Preservation as a Public Purpose, Overview, p. 27).
- “The one important fact concerning agriculture in this area is that, whatever is currently produced and whatever the ownership pattern now is, the land itself still exists; very little of it has been taken over by non-farm residential uses and thus lost forever as farmland. Although the soil is not considered the very best for crop purposes, compared with other parts of the County, it has supported a great amount of farming over the years, proving that non-prime soils can be productive and valuable especially when accompanied by good land management techniques and new methods of land tillage” (Western Sector Justifications, p. 56).

This property is located in the Western Sector of the AROS Plan area, and as the plan notes, the soils are not the very best for growing crops; there are no prime soils on this farm. As the Plan also notes, non-farm sources of income are important in providing

support for farming. This proposal is consistent with that, and the property owner's soil conservation and septic testing company is an ongoing example.

More generally, the provision of reliable cell phone and broadband service supports farming. By definition, farmers spend large amounts of their time outdoors, so the availability of cell service while in the field is a matter of both efficiency and safety. In addition, a recent trend is the selling of farm products online, so making broadband service available in an area not currently served by Comcast or other large providers is desirable for both farmers and others living in the area.

The proposed silo and compound will be located in a field that is currently under cultivation by a tenant farmer, so it will have a small impact on the preservation of farmland and the current farming operation. The application gives the total ground disturbance area as 3,700 square feet, or less than a tenth of an acre out of approximately 50 acres being cultivated. The property owner confirms that it will not significantly interfere with the farming operation.

At the request of the community, the applicant proposes a silo which will support the antennas. (T-Mobile's representatives have given verbal confirmation that the structure would be capable of being retrofitted for farm operations by the farmer; the outer shell is being proposed but not the internal mechanisms.) The use a silo design was suggested by community members during an open meeting held by the applicant in Poolesville on February 17, 2011. There are currently a number of silos on neighboring farms, so another silo would be visually more consistent with the surrounding area than a monopole or unipole, and it could be used in support of farming.

Silos are storage facilities for silage (wet animal foodstuffs), which would be appropriate for a farming operation with livestock, such as a dairy operation. This operation does not include livestock, so a silo would not be used. Grain bins are valuable structures used for on-farm grain storage by crop farmers, allowing the farmer to hold the grain

past the peak harvest season when prices are generally lowest.² A grain bin can be as tall as the proposed silo, allowing the antenna panels to be mounted at the same level as currently proposed. The diameter of grain bins varies, and one on this site would reasonably be determined by the volume needed to accommodate the average yield of the tenant farmer. Thus, on this farm, a grain bin is the preferred support structure rather than a silo as it will be agriculturally functional rather than being only agricultural in appearance.



² Technical information was provided by phone on May 11, 2011, by John Zawitoski of the Agricultural Services Division, Department of Economic Development.

Examples: Silo (top) and three grain bins (above) – © Creative Commons

The proposal includes a 50-foot by 50-foot compound enclosed by a board-on-board fence and screened by evergreen trees. As the lower half of the facility will not be visible from neighboring properties, and the evergreen trees will shade the adjacent cropland and draw moisture and nutrients from the surrounding soil, staff recommends their removal from the plan.

In addition, the enclosing fence will restrict the agricultural use of the proposed silo or the recommended grain bin. Staff with the County's Agricultural Services Division may be consulted on a compound design that would be functional for the farming operation while still protecting sensitive telecommunications equipment.

Last, as will be covered later in this report, in March 2010, the Tower Committee reviewed a proposal for a tower of a different height, style and location than what is being considered here. If a technical review of this proposal finds that a second tower will be needed to meet coverage objectives, including dropped calls on Barnesville Road at the Little Monocacy River, the duplicative disturbance of farming operations may make the proposal inconsistent with the AROS Plan; in such case, a search for a single location should be initiated.

Staff finds that a telecommunications facility on this property can be consistent with the AROS Plan. If it is determined that coverage objectives are met so that a second facility will not be needed, a facility style that serves the existing farming operation, such as a grain bin, is recommended.

Rustic Roads Functional Master Plan (RRFMP, 1996)

This property is located at the intersection of two rustic roads, Mount Ephraim Road and Barnesville Road (excerpts from the Plan are attached). For both roads, scenic views and the proximity to Sugarloaf Mountain are listed as Significant Features:

Mount Ephraim Road:

- Alignment leading towards Sugarloaf Mountain

- Ridge road with expansive views³

Barnesville Road:

- The farm road character of the road as it follows the rolling farm fields; its integration with and views of the surrounding farmland
- Views of Sugarloaf Mountain in the distance⁴



View of Sugarloaf Mountain looking north from Mt. Ephraim Road near Dickerson.

This emphasis on views and Sugarloaf Mountain has not diminished since the Plan was adopted in 1996. Sugarloaf Mountain is located in Frederick County, but Montgomery County residents continue to be highly protective of their views of it; it is visible from multiple vantage points in the County, including some that are more than ten miles away, near Damascus.

³ RRFMP, p. 116

⁴ RRFMP, p. 52

The identification of these views in the Plan is not intended to restrict development within these viewsheds, but is rather intended to be used for guidance for the location of new development:

When the roads go through pastures or open views to distant mountains or even through short views to farm fields and stream valleys, any additional building has the potential to destroy such a view. It also has the potential to create and enhance scenic vistas.⁵

In addition to Master Plan identification, the Significant Features of rustic roads are protected by County Code as follows:

Significant features. When the Council classifies a road as a rustic road or an exceptional rustic road, the Council must identify the significant features of each such road that must be preserved when the road is maintained or improved.⁶

Each rustic road and exceptional rustic road must be maintained and improved in a manner that preserves the road's significant features...⁷

Maps of both roads also indicate scenic views. On Mount Ephraim Road, two scenic views are indicated—one to the west side of the road toward this property and a second on the east side of the road. Views of Sugarloaf Mountain first appear in Dickerson immediately after turning onto Mount Ephraim Road from MD 28, and they continue until crossing into Frederick County, to the north of the property.

Tower location, height and design are the elements that can be used to assure the compatibility of the facility with these very sensitive views, and the applicants have amended this submission twice to address these issues. The original 150-foot monopole design was close to the rustic roads, and would have been in the center of a view for most of the length of Mount Ephraim Road from the MARC Station in Dickerson about three-quarters of a mile away. To address concerns, T-Mobile first changed the design

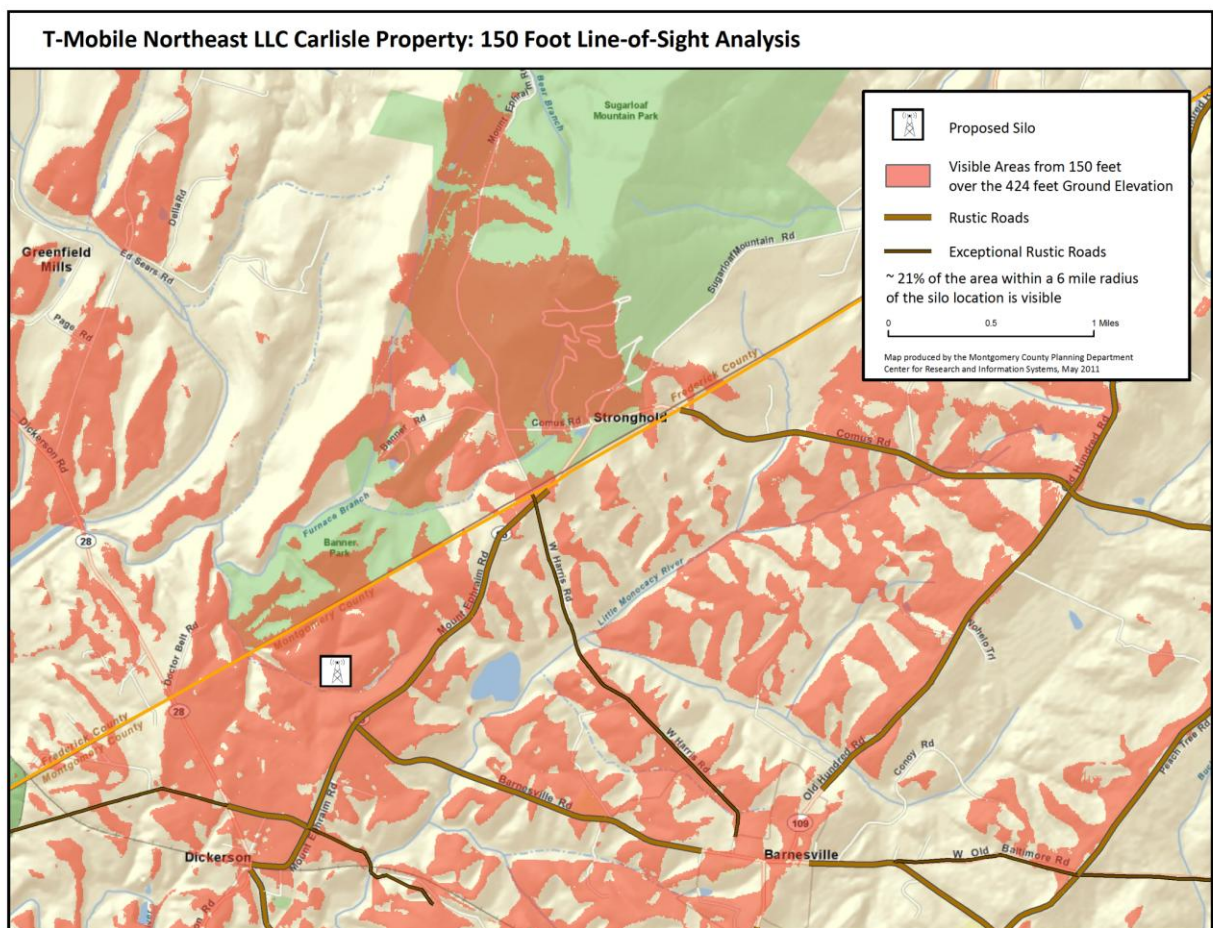
⁵ RRFMP, p. 36

⁶ Section 49-78 (d) Rustic Road Classification and Reclassification

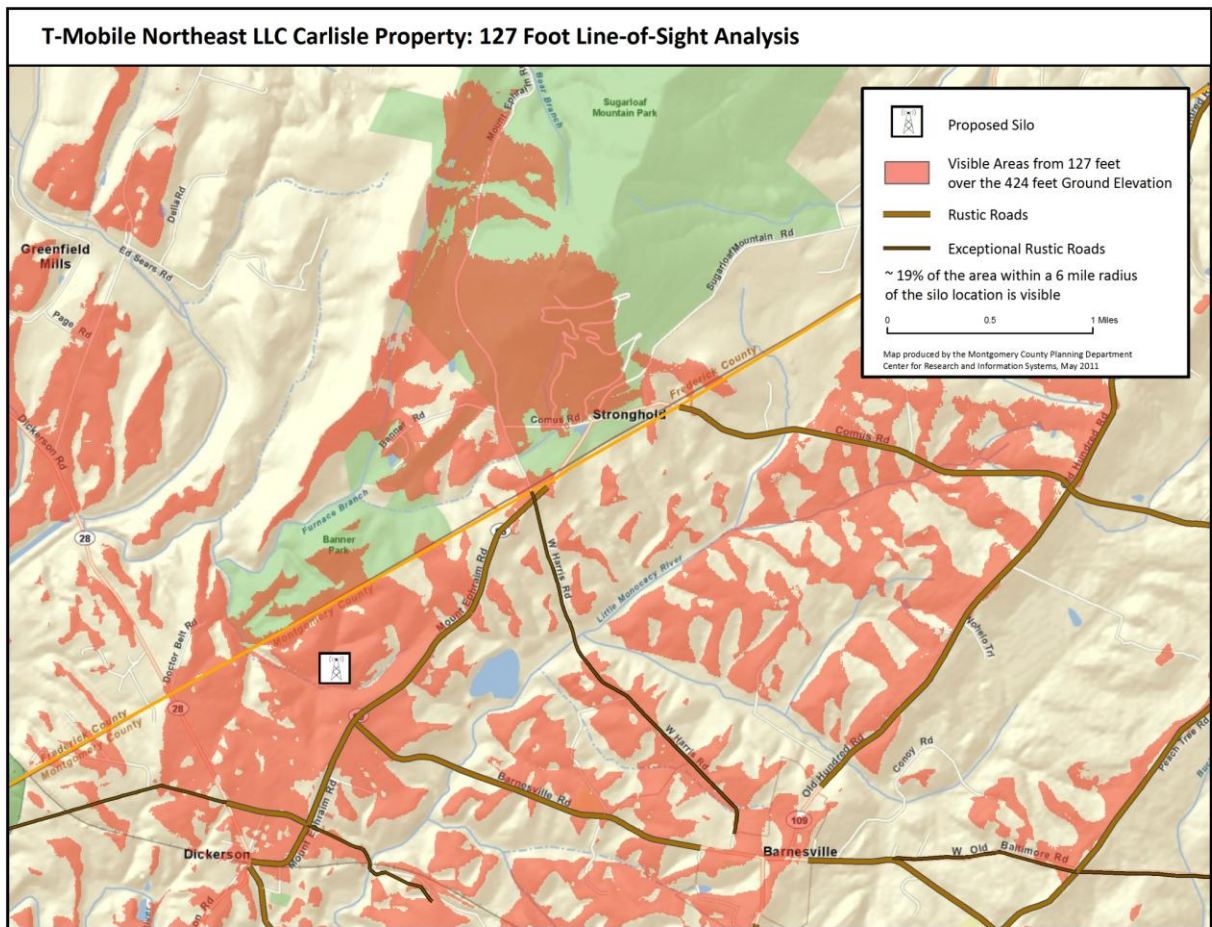
⁷ Section 49-79 (a) Maintenance and Improvements

to use internal antennas, and then moved the tower location about 1,100 feet, lowered the height to 127 feet, and redesigned the facility to be a silo. These changes have moved the tower out of the most sensitive part of one view, and will help to integrate the facility into the landscape.

A viewshed analysis was done to identify the likely areas from which the proposed 150-foot monopole or unipole and the 127-foot silo would be visible. The following maps show that the facility will be visible from long distances, but that the lower silo will clearly have a reduced visual impact. This analysis supports the use of a silo or a grain bin, given the visibility in this location.



At 150 feet, a facility would be visible along both Mount Ephraim and Barnesville Roads, as well as from Dickerson, Barnesville and Sugarloaf Mountain.



At 127 feet, a facility would still be visible from numerous vantage points, though there is a reduction in the area of visibility.

If the proposed 127-foot silo provides sufficient coverage for at least three carriers such that a second tower will not be needed within the viewsheds identified in the Plan, then staff would find this proposal to be consistent with the Rustic Roads Functional Master Plan.

Subdivision

No subdivision plan is required for the proposed telecommunications tower on this parcel, P 530, due to the following provision:

Sec 50-9. Exceptions to platting requirements

Recording of a subdivision plat under this Chapter is not required for:

.... (g) Telecommunications tower/antennas, including associated accessory structures, unless or until development of the land which requires a subdivision plan.

Transportation

The proposed installation of an unmanned wireless telecommunication facility will not increase the number of weekday peak period trips generated by the site. Therefore, no Local Area Transportation Review/Policy Area Mobility Review is required. Staff finds that the proposed installation of the telecommunication facility under the subject special exception application will have no adverse effect on area roadway conditions.

Environment

Environmental Buffers

A simplified Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) 42011178E was approved by Environmental Planning staff on April 29, 2011. There are no existing streams or wetlands within the Limits of Disturbance for the cellular facility. A portion of the existing access road, not to be improved, and small portion of the service drive to the cellular facility is within an unforested portion of the Stream Valley Buffer.

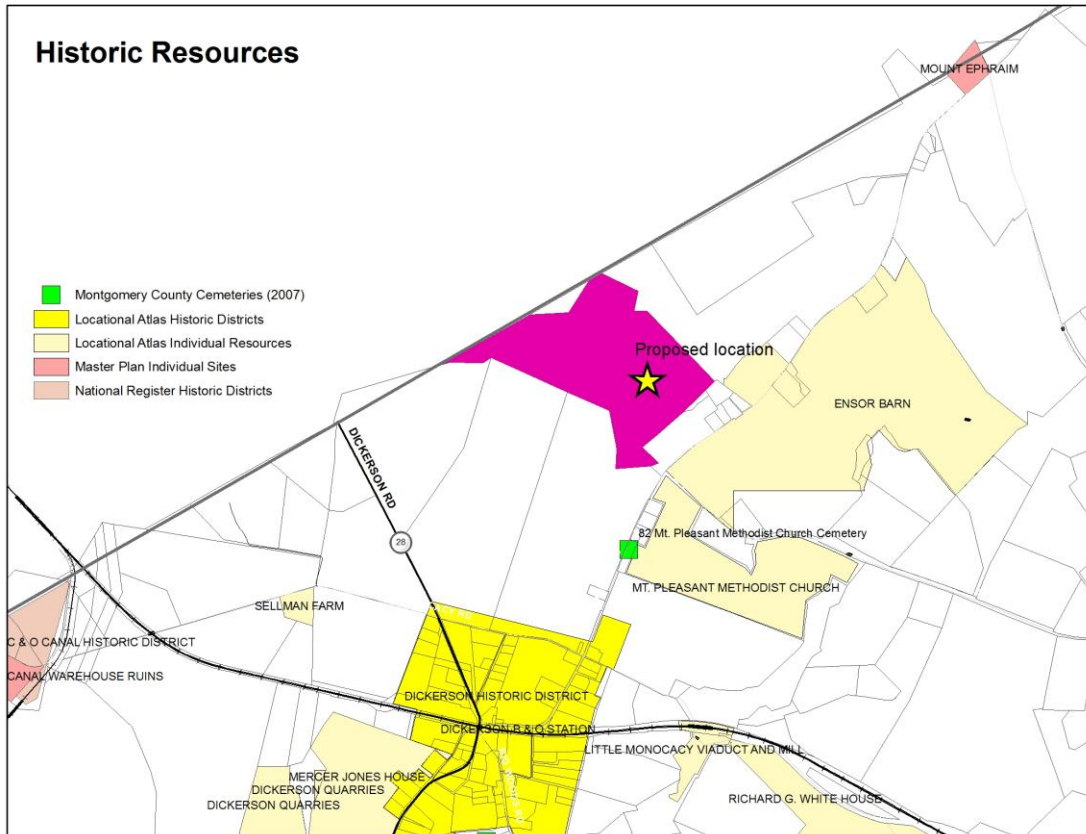
The project site is located within the Little Monocacy watershed which is classified as a Use Class III. The Countywide Stream Protection Strategy (CSPS) rates the tributaries in this watershed as excellent.

Forest Conservation

A forest conservation plan exemption (42011178E) was confirmed for this site by Environmental Planning staff on April 29, 2011 under 22A-5(t) of the County Forest Conservation Law. The application is for a modification to an existing developed property that will not require approval of a new subdivision plan and will not result in the clearing of greater than 5,000 square feet of forest. The approved exemption is only valid for what is shown on the approved plans, any changes will require a new exemption to be approved.

Historic Preservation

The area is rich in history and contains a number of sites and structures identified in the Master Plan for Historic Preservation and the Locational Atlas & Index of Historic Sites in Montgomery County, Maryland. This site is not identified as historic.



Tower Committee

The Telecommunications Transmission Facility Coordinating Group (the TFCG or the Tower Committee) has not reviewed the current proposal. At their March 3, 2010 meeting, members reviewed an earlier proposal for a taller facility of a monopole design, about 1,100 feet away. For that proposal, the Committee recommended approval of a unipole-designed monopole, for three carriers (or less if requested by the applicant), on condition of approval of a Special Exception by the Board of Appeals.

The Tower Coordinator Recommendation report includes the following:

- Coverage objectives changed after the Tower Committee reviewed a proposal to attach antennas to an existing monopole at the Dickerson Auto property in May 2009, necessitating a new facility
- The March 2010 proposal showed a 25-foot by 35-foot compound which had insufficient space to accommodate more than one carrier
- The monopole would be “plainly visible on the horizon from most directions”⁸
- T-Mobile did not believe that the unipole design recommended by the Rustic Roads Advisory Committee would meet their coverage objectives, but they did not provide supporting engineering documentation to allow confirmation
- The coverage objective is to improve service:
 - along Mount Ephraim Road
 - along Barnesville Road
 - along Mouth of Monocacy Road
 - to the areas north of Dickerson, and
 - to the residential areas between those roadways⁹
- Coverage maps with and without the proposed antennas show:
 - current signal levels are sufficient for in-vehicle service along the above roads with the exception of a section along Barnesville Road where it crosses the Little Monocacy River, and points over a mile and a quarter northeast of the site along Mount Ephraim Road¹⁰
 - with the proposed antennas, the in-vehicle signal levels would include the area along Barnesville Road and extend coverage nearly two miles to the northeast, where Mount Ephraim and Comus Roads intersect in Frederick County
 - with the proposed antennas at the 147-foot level, indoor service would be provided within at least three-quarters of a mile of the monopole; this area was reduced for antennas at the 127-foot and 107-foot levels

⁸ Tower Coordinator Recommendation, March 1, 2010, p. 2

⁹ Ibid. p. 3

¹⁰ Ibid. p. 4

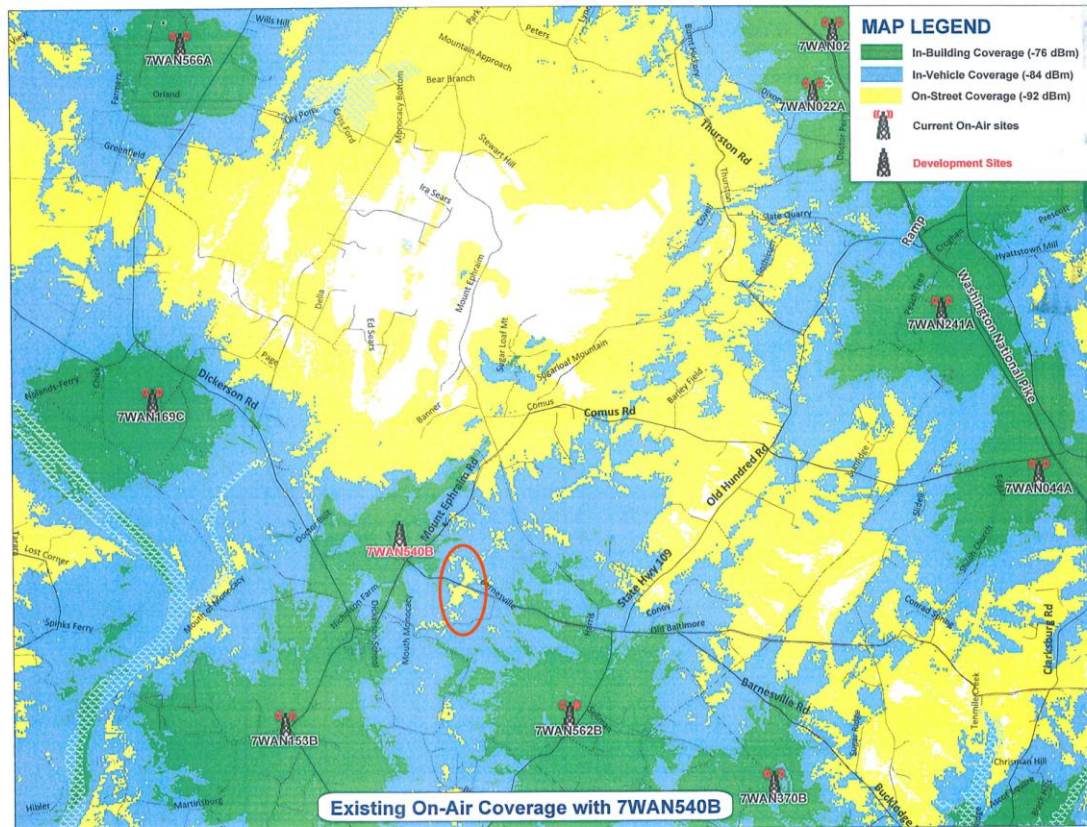
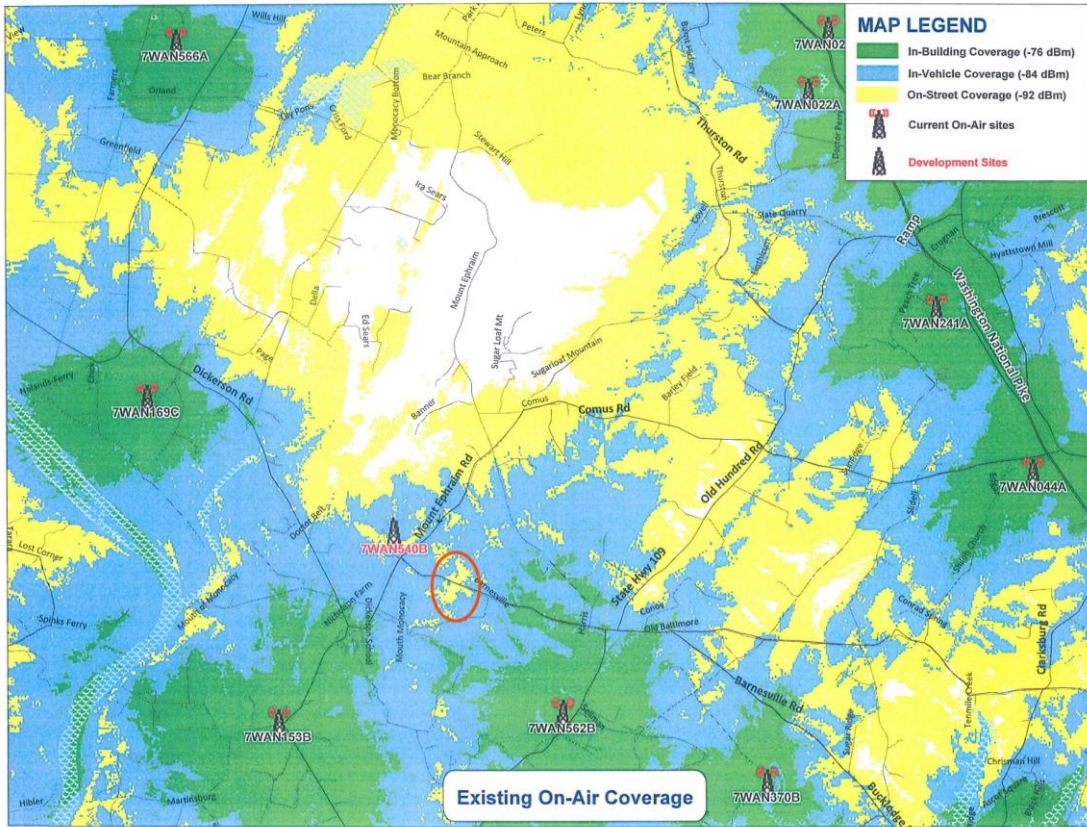
Subsequent notes from the meeting include the following additional information:

- Redirecting the proposed antennas at the Dickerson Auto property might meet the new coverage area, but the technical information needed to review that was not provided
- Attaching antennas to the existing utility poles from Mount Ephraim Road across the farm property would not be sufficiently high to meet coverage objectives; T-Mobile seeks to provide coverage over a very large area with the proposed tower
- T-Mobile will address the space requirement for additional carriers

Following the Tower Committee’s review, the proposal has been changed twice. The table below summarizes the four applications.

Date	Location	Description	Tower Committee	Notes
May 2009	Dickerson Auto	Attach antennas to an existing 199-foot monopole	Recommended	This use is permitted by right in the I-1 zone
March 2010	Carlisle property – front	150-foot monopole in a 25’X35’ compound	Conditionally recommended	Unipole design recommended; possibly room for other carriers
December 2010	Carlisle property – front	150-foot unipole in a 50’X50’ compound	Not reviewed	
April 2011	Carlisle property – middle	127-foot silo in a 50’X50’ compound approximately 1,100’ from previous location	Not reviewed	

The December 2010 application is consistent with the Tower Committee’s recommendation, though the applicant had indicated that the unipole design would not meet their coverage objectives. The April 2011 application is 23 feet lower than the previous one, a silo design rather than a monopole or unipole, moved approximately 1,100 feet away and is now about 900 feet further from the low area on Barnesville Road that was one of the coverage objectives.



Coverage maps, existing and proposed, with area of dropped calls on Barnesville Road

The coverage map for the silo proposal has not been submitted to the Tower Committee, but to the untrained eye, there appears to be a gap in coverage along Barnesville Road near the Little Monocacy River bridge.

Rustic Roads Advisory Committee

In October 2009, Hillorie Morrison, on behalf of T-Mobile, briefed the Rustic Roads Advisory Committee (RRAC) on five proposed facilities, including the 150-foot monopole proposal described by the Tower Committee report above. After members had an opportunity to visit the five sites, they submitted recommendations including the following:

In general, we believe all the sites are located too close to the road and may have a negative impact on the surrounding scenery. In particular, we are concerned with the site on Mt. Ephraim Road (22730) and a potential negative impact to the views towards Sugarloaf Mountain....In all cases we prefer the use of a monopole with internal antennae and an unobtrusive color.¹¹

Ms. Morrison emailed revised drawings on April 21, 2011, which gave the RRAC an opportunity to review the resubmittal at their April 2011 meeting. Their comments were sent to the Hearing Examiner:

We appreciate that T-Mobile has modified the original plans and has moved the tower further back from the road and is disguising it as a silo. However, given the sensitive Sugarloaf viewshed in this area from both Mt. Ephraim Road and Barnesville Road it is critical that this tower provide the total coverage needed in this area, specifically for Barnesville Road where it crossed Little Monocacy River. A second tower in this viewshed must be avoided.¹²

Community Outreach and Comments

Given the highly sensitive nature of this area, locating and designing a facility to provide cell phone coverage and internet access has been far more difficult than in other areas. T-Mobile's team has worked diligently with concerned community residents and groups to design a facility that respects the area. They held a well-attended community meeting

¹¹ RRAC letter, February 3, 2010, attached

¹² RRAC letter, May 10, 2011

in Poolesville on February 17, 2011, and staff understands that they have also met with smaller groups. These ongoing outreach efforts are to be commended.

Comments received include the following:

- A coalition of community groups and individuals concerned about negative impacts to the Sugarloaf Mountain views and the rustic roads wrote to the Tower Committee¹³ asking that a distributed antenna network system (DAS) be considered due to the exceptionally sensitive nature of this location. (Instead of requiring a tall tower, a DAS uses a series of small, visually unobtrusive antennas along roads, usually attached to telephone poles. These systems produce a roughly linear area of coverage, about one-quarter mile wide along each side of the road.) In the event that a DAS is not feasible, they would like the Committee to consider whether the applicant's coverage goals could be met by moving the proposed silo across Mount Ephraim Road to a farm with a dairy operation, where the silo could be functional and in an appropriate context. The Tower Committee Chair asked that those comments be submitted to the Hearing Examiner's office. The coalition subsequently submitted a letter of opposition to the Hearing Examiner which indicated that they are working with T-Mobile to place the facility in a better location.

Based on a review of the coverage maps, a DAS facility might be designed to provide very good coverage to this area as well as to large areas in Frederick County and along Comus, Old Hundred and Peach Tree Roads. Given the large but very sensitive area with limited coverage, staff would welcome a DAS application so that additional towers in this vicinity will be unnecessary in the future.

¹³ Email dated April 27, 2011 from Montgomery Countryside Alliance, Audubon Naturalist Society, Sugarloaf Citizens' Association, Historic Medley District, Sugarloaf Regional Trails, Montgomery County Sierra Club, and six individuals who live in the Agricultural Reserve.

The suggestion that the proposed silo be moved across Mount Ephraim Road to a dairy operation is also viable, in the event that the proposed facility does not meet coverage objectives along Barnesville Road.

- The Carlisle property is partially located in Frederick County.

Frederick County planning staff has no comments on this proposal.

- Mount Ephraim Road is a Maryland Scenic Byway.

Staff with the Maryland Scenic Byways Program reviews proposals within one mile of scenic byways. Due to the very late changes in the application, their comments have not yet been received. They have been asked to submit any comments directly to the Hearing Examiner.

ZONING ORDINANCE

Conditions for Granting

Following is the Standard for Evaluation provided by Sec. 59-G-1.2.1:

A special exception must not be granted without the findings required by this Article. In making these findings, the Board of Appeals, Hearing Examiner, or District Council, as the case may be, must consider the inherent and non-inherent adverse effects of the use on nearby properties and the general neighborhood at the proposed location, irrespective of adverse effects the use might have if established elsewhere in the zone. Inherent adverse effects are the physical and operational characteristics necessarily associated with the particular use, regardless of its physical size or scale of operations. Inherent adverse effects alone are not a sufficient basis for denial of a special exception. Non-inherent adverse effects are physical and operational characteristics not necessarily associated with the particular use, or adverse effects created by unusual characteristics of the site. Non-inherent adverse effects, alone or in conjunction with inherent adverse effects, are a sufficient basis to deny a special exception.

The inherent physical and operational characteristics of a telecommunications facility include:

- Antennas installed on or within a support structure with a significant height;
- A technical equipment area that may or may not be enclosed by a fence;
- Visual impacts associated with the height of the support structure;
- Radio frequency emissions; and
- A small number of monthly vehicular trips for maintenance.

The non-inherent characteristics include the location of the facility along two rustic roads and two Maryland Scenic Byways, the location of the facility in the viewshed of Sugarloaf Mountain, a National Natural Landmark, and the Master Plan's identification of scenic views in this location.

In seeking to reduce the adverse effects of the facility, the applicant proposes to construct a silo which will support the antennas. There are several silos together with barns and other outbuildings in the adjacent stretch of Mount Ephraim Road, so the silo would not be a visual anomaly from the road. From the higher vantage point of Sugarloaf Mountain, the visual comparison of the silos in farm compounds and this silo standing alone would be more noticeable. From that vantage, the absence of livestock and the barn and outbuildings at the bottom of the hill would also be visible.

Recommendation: The earlier recommendation, to use a grain bin rather than a silo to support the antennas, would address the non-inherent adverse effects on views from the scenic overlooks on Sugarloaf Mountain.

Compliance with General Conditions

Following are the General Conditions, Sec. 59-G-1.21.

- (a) A special exception may be granted when the Board or the Hearing Examiner finds from a preponderance of the evidence of record that the proposed use:
 - (1) Is a permissible special exception in the zone.

A telecommunications facility is a permissible special exception use in the RDT zone.¹⁴

- (2) Complies with the standards and requirements set forth for the use in Division 59-G-2. The fact that a proposed use complies with all specific standards and requirements to grant a special exception does not create a presumption that the use is compatible with nearby properties and, in itself, is not sufficient to require a special exception to be granted.

The proposed use complies with the specific regulations set forth in Sec. 59-G-2.58 for a telecommunications facility, as described below.

- (3) Will be consistent with the general plan for the physical development of the District, including any master plan adopted by the Commission. Any decision to grant or deny a special exception must be consistent with any recommendation in a master plan regarding the appropriateness of a special exception at a particular location. If the Planning Board or the Board's technical staff in its report on a special exception concludes that granting a particular special exception at a particular location would be inconsistent with the land use objectives of the applicable master plan, a decision to grant the special exception must include specific findings as to master plan consistency.

The property is subject to the provisions of the 1980 Functional Master Plan for the Preservation of Agriculture and Rural Open Space and the 1996 Rustic Roads Functional Master Plan. Neither Plan addresses telecommunications facilities. The proposal should meet Master Plan recommendations for the preservation of farmland and the significant features along rustic roads. Recommendations to assure both appear above.

- (4) Will be in harmony with the general character of the neighborhood, considering population density, design, scale, and bulk of any proposed new structures, intensity and character of activity, traffic and parking conditions, and number of similar uses.

The neighborhood is characterized by agricultural uses and low population density, with many historic properties and features. Large setback from the roads and the silo design of the proposed new structure are provided to address the matters of design, scale and bulk; as noted above, a grain bin rather than a silo is recommended to be consistent with the farming operation on this property. The intensity and character of activity,

¹⁴ Sec. 59-C-9.3 (f) Land uses

traffic, and parking will be in harmony with the neighborhood. The number of similar uses should be minimized, as noted previously.

- (5) Will not be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

The proposed facility will have a visual impact on the surrounding properties which the applicant has sought to mitigate with the use of a silo design. As stated above, use of a grain bin to support the antennas is preferred. There is no evidence that the facility will otherwise have a detrimental impact on the use, peaceful enjoyment, economic value or development of surrounding properties or the general neighborhood.

- (6) Will cause no objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

As presented, the use will not cause objectionable noise, vibrations, fumes, odors, dust, illumination, glare, or physical activity. No lights are proposed. Any lighting would likely be visible from long distances, so this exclusion is included as a condition of approval.

- (7) Will not, when evaluated in conjunction with existing and approved special exceptions in any neighboring one-family residential area, increase the number, intensity, or scope of special exception uses sufficiently to affect the area adversely or alter the predominantly residential nature of the area. Special exception uses that are consistent with the recommendations of a master plan do not alter the nature of an area.

Neighboring areas are primarily agricultural, but a small number of residential lots exist along Mount Ephraim Road. The proposed use will not affect the area adversely or alter the residential or agricultural nature of the area.

- (8) Will not adversely affect the health, safety, security, morals, or general welfare of residents, visitors, or workers in the area at the subject site, irrespective of any adverse effects the use might have if established elsewhere in the zone.

There is no evidence that the proposed use will adversely affect the health, safety, security, morals or general welfare of the community.

- (9) Will be served by adequate public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public facilities.
 - (A) If the special exception use requires approval of a preliminary plan of subdivision, the Planning Board must determine the adequacy of public facilities in its subdivision review. In that case, approval of a preliminary plan of subdivision must be a condition of granting the special exception.
 - (B) If the special exception:
 - (i) does not require approval of a new preliminary plan of subdivision; and
 - (ii) the determination of adequate public facilities for the site is not currently valid for an impact that is the same as or greater than the special exception's impact; then the Board of Appeals or the Hearing Examiner must determine the adequacy of public facilities when it considers the special exception application. The Board of Appeals or the Hearing Examiner must consider whether the available public facilities and services will be adequate to serve the proposed development under the Growth Policy standards in effect when the application was submitted.
 - (C) With regard to public roads, the Board or the Hearing Examiner must further find that the proposed development will not reduce the safety of vehicular or pedestrian traffic.

This proposal will not require approval of a preliminary plan of subdivision. There will be no increase in the number of weekday peak period trips generated by the site, so no LATR/PAMR is required. The facility will have no impact upon schools, police and fire protection, water and sewer, public roads, storm drainage, or other public facilities.

- (b) Nothing in this Article relieves an applicant from complying with all requirements to obtain a building permit or any other approval required by law. The Board's finding of any facts regarding public facilities does not bind any other agency or department which approves or licenses the project.

No finding is necessary.

- (c) The applicant for a special exception has the burden of proof to show that the proposed use satisfies all applicable general and specific standards under this

Article. This burden includes the burden of going forward with the evidence, and the burden of persuasion on all questions of fact.

The applicants assert that they have or will meet all applicable general and specific standards. The Tower Committee reviewed a facility proposal on this property on March 3, 2010; subsequently, the proposal has been amended twice.

Specific Telecommunications Facility Requirements

Following are the Telecommunications facility findings, Sec. 59-G-2.58:

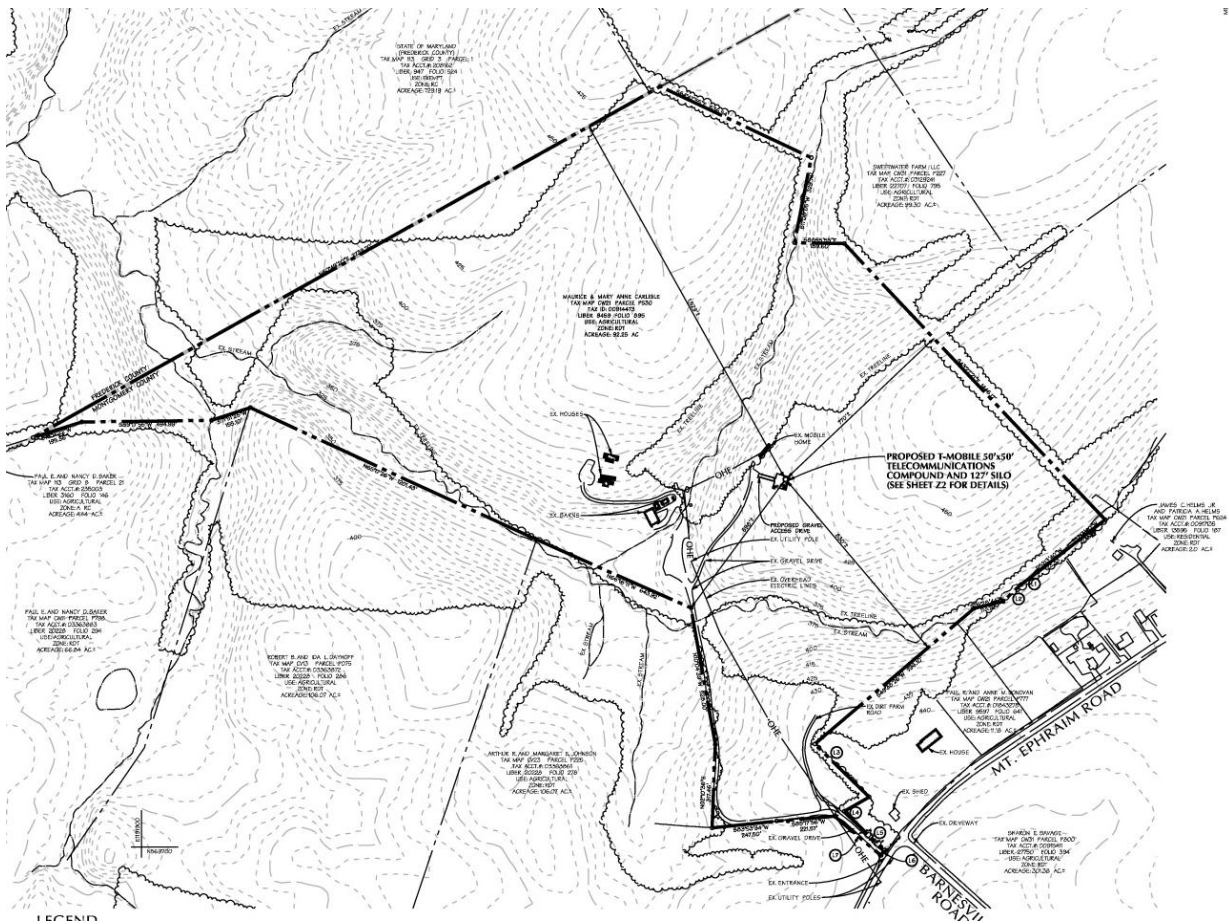
- (a) Any telecommunications facility must satisfy the following standards:
 - (1) A support structure must be set back from the property line as follows:
 - (A) In agricultural and residential zones, a distance of one foot from the property line for every foot of height of the support structure.
 - (B) In commercial and industrial zones, a distance of one-half foot from the property line for every foot of height of the support structure from a property line separating the subject site from commercial or industrial zoned properties, and one foot for every foot of height of the support structure from residential or agricultural zoned properties.
 - (C) The setback from a property line is measured from the base of the support structure to the perimeter property line.
 - (D) The Board of Appeals may reduce the setback requirement to not less than the building setback of the applicable zone if:
 - (i) the applicant requests a reduction; and
 - (ii) evidence indicates that a support structure can be located on the property in a less visually obtrusive location after considering the height of the structure, topography, existing vegetation, adjoining and nearby residential properties, if any, and visibility from the street.

This requirement is met. A 127-foot tower requires a 127-foot setback in the RDT zone. The setbacks shown on the submitted drawings, measured from the base of the support structure, are 830 feet to the front property line, 598 and 770 feet to the side property lines, and 1,529 feet to the rear property line.

- (2) A support structure must be set back from any off-site dwelling as follows:
 - (A) In agricultural and residential zones, a distance of 300 feet.
 - (B) In all other zones, one foot for every foot in height.

- (C) The setback is measured from the base of the support structure to the base of the nearest off-site dwelling.
- (D) The Board of Appeals may reduce the setback requirement in the agricultural and residential zones to a distance of one foot from an off-site residential building for every foot of height of the support structure if:
 - (i) the applicant requests a reduction; and
 - (ii) evidence indicates that a support structure can be located in a less visually obtrusive location after considering the height of the structure, topography, existing vegetation, adjoining and nearby residential properties, and visibility from the street.

A distance of 300 feet from the proposed silo is entirely within the property boundaries. Measurements taken from the submittal, the closest off-site dwelling is approximately 1,100 feet from the base of the structure.



Close-up view of the submission showing setbacks.

- (3) The support structure and antenna must not exceed 155 feet in height, unless it can be demonstrated that additional height up to 199 feet is needed for service, collocation, or public safety communication purposes. At the completion of construction, before the support structure may be used to transmit any signal, and before the final inspection pursuant to the building permit, the applicant must certify to the Department of Permitting Services that the height and location of the support structure is in conformance with the height and location of the support structure as authorized in the building permit.

The proposed silo will be 127 feet in height.

- (4) The support structure must be sited to minimize its visual impact. The Board may require the support structure to be less visually obtrusive by use of screening, coloring, stealth design, or other visual mitigation options, after considering the height of the structure, topography, existing vegetation and environmental features, and adjoining and nearby residential properties. The support structure and any related equipment buildings or cabinets must be surrounded by landscaping or other screening options that provide a screen of at least 6 feet in height.



Photosimulation from the applicant showing the silo to the left of Sugarloaf Mountain.



Staff photo of Sugarloaf Mountain taken from further south than photo above. There are currently no guidelines for applicants on selecting locations for photos or the focal length of the lenses to be used, making photos difficult to compare.

To mitigate the visual impact, a silo is proposed as the support structure. It is approximately 1,300 feet from the nearest road, and the lower part will be screened by existing mature trees on the property. Because of the type of farm operation, a grin bin is preferred to a silo. To reduce impacts to the farming operation, landscaping and other screening should be minimized to the extent that it inhibits farm use of the facility and farming of the adjacent land.

- (5) The property owner must be an applicant for the special exception for each support structure. A modification of a telecommunications facility special exception is not required for a change to any use within the special exception area not directly related to the special exception grant. A support structure must be constructed to hold no less than 3 telecommunications carriers. The Board may approve a support structure holding less than 3 telecommunications carriers if:
 - (A) requested by the applicant and a determination is made that collocation at the site is not essential to the public interest; and
 - (B) the Board decides that construction of a lower support structure with fewer telecommunications carriers will promote community compatibility. The equipment compound must have sufficient area to accommodate equipment sheds or cabinets associated with the telecommunications facility for all the carriers.

The property owners are applicants for the special exception.

The application reviewed by the Tower Committee in March 2010 did not accommodate three carriers; the modified application provides space for T-Mobile and two additional carriers on the structure and in the compound.

- (6) No signs or illumination are permitted on the antennas or support structure unless required by the Federal Communications Commission, the Federal Aviation Administration, or the County.

The structure will be identified with a sign no larger than two square feet as required by item (8) below, and fixed to the support structure or equipment shelter. No illumination is proposed.

- (7) Every freestanding support structure must be removed at the cost of the owner of the telecommunications facility when the telecommunications facility is no longer in use by any telecommunications carrier for more than 12 months.

The applicant agrees to this provision.

- (8) All support structures must be identified by a sign no larger than 2 square feet affixed to the support structure or any equipment building. The sign must identify the owner and the maintenance service provider of the support structure or any attached antenna and provide the telephone number of a person to contact regarding the structure. The sign must be updated and the Board of Appeals notified within 10 days of any change in ownership.

The applicant will supply such a sign and agrees to this provision.

- (9) Outdoor storage of equipment or other items is prohibited.

The applicant agrees to this provision.

- (10) Each owner of the telecommunications facility is responsible for maintaining the telecommunications facility in a safe condition.

The applicant agrees to this provision.

- (11) The applicants for the special exception must file with the Board of Appeals a recommendation from the Transmission Facility Coordinating Group regarding the telecommunications facility. The recommendation must be no more than

90 days old, except that a recommendation issued within one year before June 22, 2010, must be accepted for one year from the date of issuance. The recommendation of the Transmission Facility Coordinating Group must be submitted to the Board at least 5 days before the date set for the public hearing.

The Tower Committee reviewed a facility proposal on this property on March 3, 2010. The proposal has subsequently been amended twice, as described above.

- (12) The Board must make a separate, independent finding as to need and location of the facility. The applicant must submit evidence sufficient to demonstrate the need for the proposed facility.

Propagation maps have been submitted by the applicant and are included above. The stated purpose of the facility is to provide coverage to the "Mullinex Road area and beyond." Staff believes the applicant intends this to read "Mount Ephraim Road area and beyond," and recommends that the applicant confirm this. In-building/home coverage will be added near the facility and in-vehicle coverage is intended to cover Mount Ephraim, Harris and Barnesville Roads. The propagation maps show the new in-building coverage, and continuing but reduced gaps for in-vehicle coverage along all of these roads. Concerns about the need for additional towers to fill these gaps are noted above.

- (b) Any telecommunications facility special exception application for which a public hearing was held before November 18, 2002 must be decided based on the standards in effect when the application was filed.

This provision is not applicable to this application.

- (c) Any telecommunications facility constructed as of November 18, 2002 may continue as a conforming use.

This provision is not applicable to this application.

CONCLUSION

Telecommunication facilities that provide local cell phone and internet service benefit communities and support farming, but the facilities can also disturb a farm operation,

taking farmland out of production. A facility that serves a dual function for the farming operation, such as a grain bin, is recommended. This type of facility design also protects the multiple scenic views along Mount Ephraim and Barnesville Roads which are identified by the Rustic Roads Functional Master Plan.

Minimizing the landscape screening and fencing in this location will minimize the disruption to the farm operation. The facility should not be illuminated.

The Tower Committee indicates that current signal levels are sufficient for in-vehicle service along the roads in this area, with the exception of a section along Barnesville Road where it crosses the Little Monocacy River, and points over a mile and a quarter northeast of the site along Mount Ephraim Road. The proposed facility should provide this coverage, and improve service where possible so as to avoid a second facility in this vicinity.

M:|Potomac & Rural|Cell tower Mt. Ephraim|S-2800 Mt. Ephraim cell to BOA no graphics 051311.doc

Attachments:

- Attachment A: Rustic Roads Functional Master Plan excerpts of Barnesville Road and Mount Ephraim Road (descriptions and maps), pp. 52-53 and 116-117
- Attachment B: Letter from the Rustic Roads Advisory Committee to Ms. Hillorie Morrison dated February 3, 2010
- Attachment C: Email in opposition from Montgomery Countryside Alliance and others