BEFORE THE MONTGOMERY COUNTY BOARD OF APPEALS

Office of Zoning and Administrative Hearings
Stella B. Werner Council Office Building
Rockville, Maryland 20850
(240) 777-6660

IN THE MATTER OF:	*	
	*	
BIRACH BROADCASTING CORP.,	*	
and SIMA BIRACH, JR.,	*	
	*	
Petitioners.	*	Board of Appeals No. S-2677
	*	(OZAH Referral No. 06-33)
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	*	
DAMASCUS RESIDENTS FOR	*	
RESPONSIBLE TOWER SITING,	*	
	*	
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	*	
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CAROL JONES SNOW,	*	
CHUCK HARRIS,	*	
TIM TREVAN,	*	
	*	
Respondents.	*	
	*	

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BEFORE: LUTZ ALEXANDER PRAGER, *Hearing Examiner*

HEARING EXAMINER'S REPORT AND RECOMMENDATION

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I. INTRODUCTION.

Petitioners Birach Broadcasting Corp. and Sima Birach, Jr., petitioned for a special exception for four 411-foot high radio transmission towers on two wooded properties 800 to 1600 feet north of Bethesda Church Road about one mile west of downtown Damascus. The four towers will be about three-quarters of the height of the 555-foot tall Washington Monument in Washington. The towers will require ground arrays of 455-foot long wires – 80% of the length of the monument – that will extend into a type I conservation easement, wetland and stream buffers, and good-quality forests.

Birach Broadcasting has a Federal Communications Commission construction permit for the towers. Ex. 5. The permit authorizes the company to change cities of service and to increase power. *Id.* The towers will provide amplitude modulation (AM) radio service at 540 kHz to Damascus and beyond. The FCC construction permit was issued November 26, 2003, was extended at Birach Broadcasting's request, and now expires on November 26, 2007.

The properties are zoned RDT (rural density transfer). Radio towers are permitted in RDT districts by special exception. Zoning Ordinance, §§ 59-C-9.3, 59-G-2.44. Sima Birach, Jr., who serves as president of Birach Broadcasting, is the record owner of both properties. Ex. 1(c); T. (10/19) 109. Birach Broadcasting will operate the radio towers as lessee. Ex. 1(a).

II. SUMMARY OF CONCLUSIONS.

I recommend denial of the petition for four principal reasons. Each of those reasons, standing alone, is sufficient for denial. One is procedural, the absence of a valid preliminary forest conservation plan. One, concerning the height of the towers, is based on petitioners' failure of proof that the tower heights are the minimum acceptable under FCC standards. The remaining two are site-specific, based on the project's environmental impact at the site and the prominence of the towers on the highest hills in the County.

First, the record contains no valid preliminary forest conservation plan as required by the Zoning Ordinance, M.C. Code § 59-A-4.22(a)(8). A 2003 plan, prepared in connection with a preliminary plan for subdivision that included parts of the Birach property, is inadequate. The 2003 preliminary forest conservation plan, predicated on the assumption that no development (or only residential development) will occur on the present Birach property, does not comply with forest conservation law or implementing regulations. It provides no meaningful information by which the Planning Board and this Board can evaluate the project's impact on existing forests.

Second, even absent a preliminary forest conservation plan, the evidence suggests it is likely that the 455-foot long ground arrays would severely damage forests and erodible soils near wetland and stream buffers; petitioners did not present sufficient evidence that they would not. The arrays will also significantly intrude into an existing conservation easement. Arrays normally require clear-cutting a full circle around each tower – here, a radius of 455 feet –to bury the array wires. Until a week before the Planning Board meeting (and a week after issuance of the staff report), that is what petitioners proposed. That plan required a total forest disturbance of a minimum of 22 and as much as 39 acres. Petitioners' current plan is to clear-cut only 100 feet around each tower. Although this plan would significantly diminish the amount of forest to be destroyed, petitioners did not carry their burden of showing that their plan is workable. Surface arrays of this magnitude are untested and opponent's expert doubted that they would function reliably. If they do not, it is probable that petitioners would need to revert to their original plan to bury the arrays for all or most of their length.

Third, petitioners failed to carry their burden of proof that four 411-foot towers, which exceed the presumptive limit of 275 feet in § 59-G-2.44(a)(4), are at the minimum height required by

the FCC. Birach Broadcasting never considered "top loading" the towers, an option that Residents' expert testified was feasible and would reduce tower heights by 70 feet. In addition, although the evidence in the record is inconclusive, it appears that reducing transmission power to the FCC minimum could permit Birach Broadcasting to reduce both tower height and the numbers of towers needed to serve Damascus. By failing to explore either option and by failing to present evidence to refute opponents' expert's testimony, petitioners did not establish their need for four 411-foot towers to meet FCC minimum standards.

Fourth, the towers will be exceptionally visible at this location, one of the highest elevations in the County. AM towers do not need elevation to function. As proposed, the four towers are the tallest structures in a six-mile vicinity. The combination of altitude and height will make them singularly prominent and jarring, a site-specific "non-inherent" adverse effect within the meaning of § 59-G-1.2. My conclusion is reinforced by "vista protection" language in the 2006 Damascus master plan but is independent of the Damascus plan.

On the merits, I reject Residents' argument that the towers do not meet the setback requirements of § 59-G-2.44(a)(1)a. Under the doctrine of "zoning merger," which merges contiguous properties under common ownership for zoning purposes, the towers will be situated far enough from the perimeter of the Birach property.

Before examining the project on its merits, this report addresses two threshold issues in addition to the one involving the lack of a current preliminary forest conservation plan. I conclude that federal law and regulations do not preempt any relevant provision of County law in this case and do not foreclose denial of the petition. I also find that there is insufficient basis for questioning opponents' expert's veracity or for establishing his personal animus against Birach. Although there

is a clear conflict of testimony about whether the expert was hired and fired by Birach in 2001-2002, petitioners presented no documentary evidence to support Birach's version despite ample opportunity and motive to do so.

III. STATEMENT OF THE CASE.

A. OTHER AGENCY ACTIONS.

The Transmission Facility Coordinating Group (TFCG) recommended approval but hedged its recommendation with conditions that significantly vitiated the approval. Ex. 32(b). The TFCG set as prerequisites that petitioners "provide evidence that [they have] explored other options to address the community concerns regarding the height and/or number of towers" and that petitioners submit evidence that the tower height is the minimum height necessary. *Id*. TFCG also recommended that approval be conditioned on FCC acquiescence to changes to the antenna array design. *Id*., ¶ 5.

The Montgomery County Planning Board recommended dismissal of the petition for failure to file a valid preliminary forest conservation plan for the property. Ex. 27. Alternatively, the Board recommended denial of the petition on six grounds (*id.*):

1. The petition is inconsistent with the recommendation of the [2006] Damascus Master Plan * * *.

2. The petition does not meet Forest Conservation requirements, and impacts existing recorded Forest Conservation easements.

3. The proposed use does not adhere to the Environmental Guidelines for development, and includes a significant stream valley buffer encroachment.

4. The petition is not in conformance with chapter 50, Subdivision Regulations.

5. The petition has significant unaddressed non-inherent adverse impacts.

6. The petition does not comply with certain outlined general requirements for special exception use * * *.

The Planning Board adopted the reasoning of the planning staff of the Maryland-National Capital Park and Planning Commission ("planning staff") which had reached the same conclusions in a 17-page analysis. Ex. 22.

B. PRE-HEARING PROCEEDINGS.

On June 22, 2006, this Board scheduled a hearing for October 6, 2006, to be conducted by a hearing examiner with the Office of Zoning and Administrative Hearings ("OZAH"). A week before the scheduled hearing, respondent Damascus Residents for Responsible Tower Siting ("Residents") moved to postpone the hearing indefinitely until petitioners submitted a valid preliminary forest conservation plan to the Planning Board. Ex. 24, citing § 59-A-4.22(a)(8) and M.C. Code §§ 22A-11(a)(1), 11(c)(2). Petitioners responded four days before the hearing date, contending that a 2003 conservation plan approved by the Planning Board qualified as the "functional and applicable plan" for the current special exception. Ex. 28 at 1. Petitioners also contended that issuance of the FCC construction permit had the effect of vesting existing land planning approvals. *Id.* at 1-2. I believed that the conflicting contentions raised serious factual and legal issues that should be developed through testimony and briefing. Accordingly, I denied Residents' motion without prejudice. Ex. 33.

C. HEARING PROCEEDINGS.

The hearing began as scheduled and consumed three days, October 6, 19, and 20. Petitioners presented four witnesses: Mr. Birach, as property owner and as principal for the lessee; Wayne Reese, a fact witness to explain FCC processes and procedures as well as petitioners' reasons for structuring the tower and ground arrays as they did; Grace E. Fielder, a land planner, accepted as an

expert; and Robert Newman, a civil engineer whose firm drew up the construction plans. Residents called its president, Pamela Bussard, and Rhea Morgan Burrow, a telecommunications consulting engineer who qualified as an expert. Four citizens who live within a mile or so of the site also testified and examined or cross-examined other witnesses: Susan Simonet, Carol Jones Snow, Chuck Harris, and Tim Trevan. In addition, Pamela Rowe, a planning staff member, testified in response to my request that staff clarify and expand its reasons for recommending denial of the petition. Aside from evidence presented by participants in the hearing, six letters were filed in opposition. Ex. 19, 20, 21, 29, 30, 80. No letters were filed in support of the petition.

All parties filed post-hearing briefs and statements. Ex. 64-71. Exhibits filed with the Planning Board and a transcript of hearing that Board's 2003 subdivision hearings involving the Birach properties. Ex. 62-63. The record closed on December 19, 2006. On January 17, 2007, I extended the time for filing this report until February 20. Ex. 72. The record was reopened after this Board's staff transmitted to OZAH a copy of a Birach Broadcasting filing with the FCC. Ex. 74. Mistakenly believing that Birach Broadcasting had lodged the FCC filing with the Board, I reopened the record for a ten-day comment period. Ex. 73.[1] The record closed again on February 23. On

[1] The FCC issued Birach Broadcasting's construction permit on November 26, 2003. The permit was scheduled to expire 36 months later, on November 26, 2006, unless construction was complete. Ex. 5(d). The imminence of permit expiration threatened to moot this special exception petition but on November 16, 2006, the FCC extended the permit until November 26, 2007. Ex. 64, att. 1. Residents filed an opposition with the FCC and Birach Broadcasting filed a reply. Birach Broadcasting's reply found its way to this Board's offices in January 2006 and was forwarded to OZAH in February. The record was reopened for a comment period. During that time, Residents asked that their own FCC filing, which requested the FCC to withdraw the permit extension, be filed in this record. Ex. 75. Counsel for Birach Broadcasting responded by letter that his firm had *not* lodged exhibit 74 with this Board. Ex. 76.

As of the submission of this report, the FCC extension of the construction permit remains in effect. Consequently, Birach Broadcasting's special exception petition is not moot. The parties'

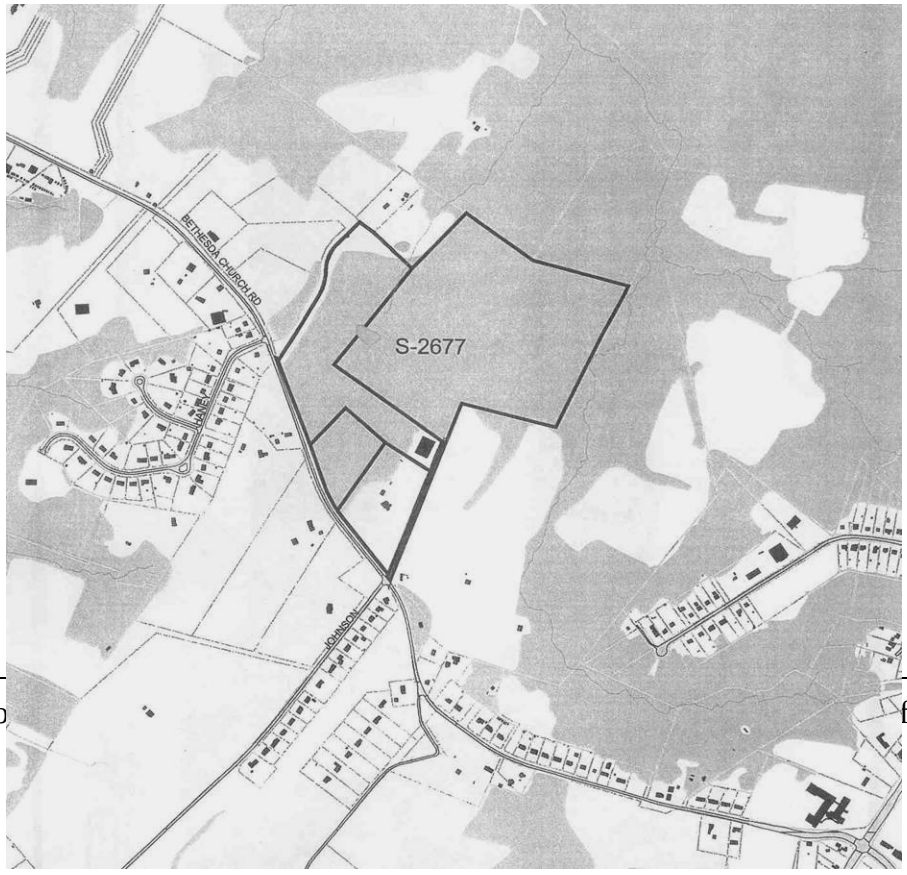
April 9, 2007, I extended the time for filing this report, *nunc pro tunc* as of March 26, 2007, until April 9, 2007.

IV. STATEMENT OF FACTS.

A. THE PROPERTY AND NEIGHBORHOOD.

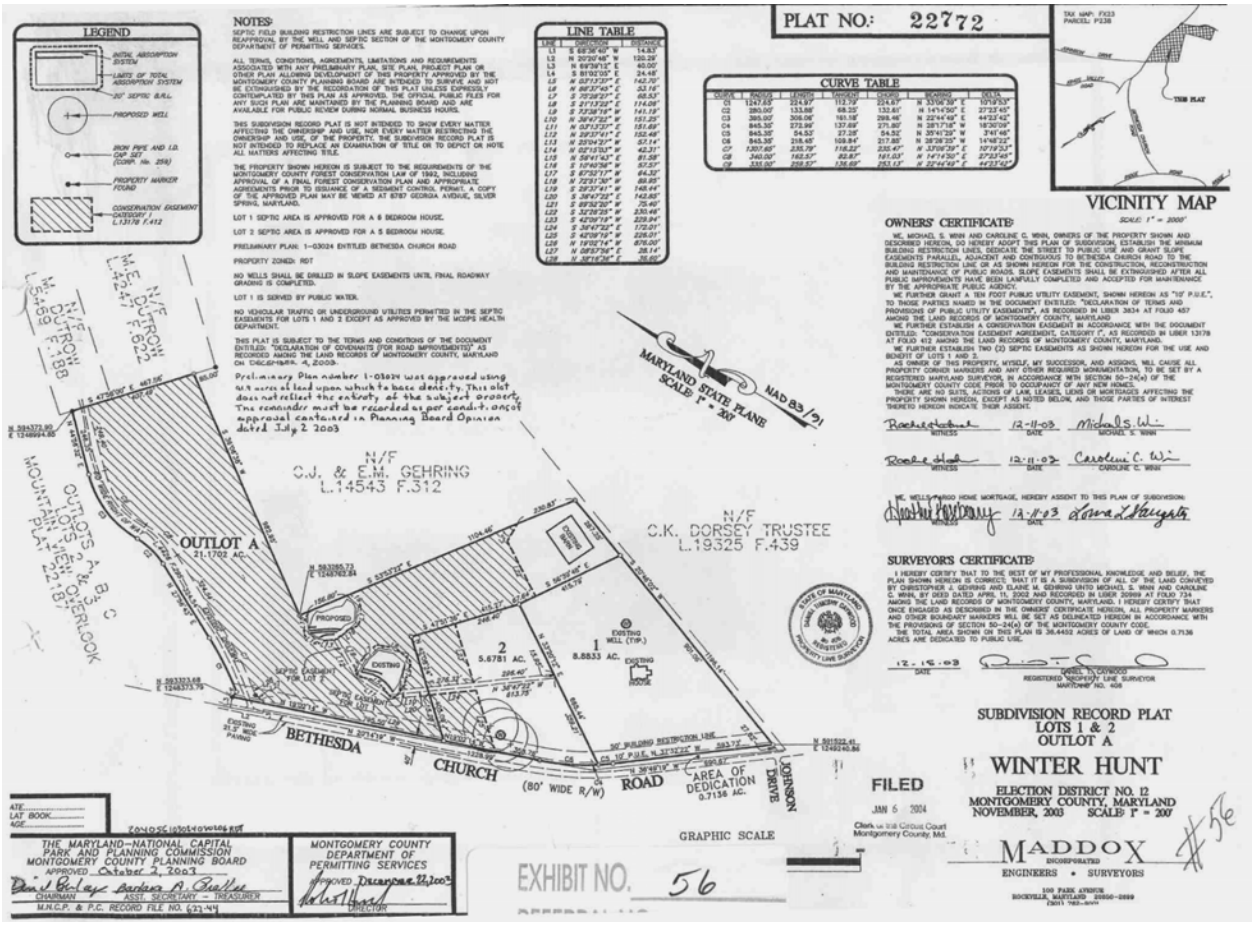
1. *General.*

The staff report (ex. 22 at 2) describes the neighborhood as rural and residential in character. The general neighborhood includes adjoining and confronting properties, including a few homes in the immediate vicinity north of Bethesda Church Road, as well as several neighborhoods nearby on the south side of Bethesda Church Road and along nearby Johnson Drive and Haney Avenue. The Damascus town center is located less than a mile east of this site. The two nearest residences are 850-900 feet from a proposed tower. T. (10/19) 90-91; ex. 4(b). The general neighborhood may be seen in the vicinity map below, excerpted from the staff report, ex. 22, attachment 1; *see* ex. 12.



arguments to fore the Board.

The property involved consists of two tracts, both owned by Birach. The smaller one is a 21.17-acre outlot. Ex. 4(d); 56. As shown on the subdivision plat excerpted below, it is roughly L-shaped with frontage on Bethesda Church Road. The outlot is unimproved except for an existing barn near its eastern-most boundary. *Id.*



With the exception of two small septic easements and a small area around the barn, the outlot is entirely subject to a conservation easement, category I. *Id.*, ("owner's certificate"); ex. 46.[2] The

[2] An outlot is defined by the Zoning Ordinance in § 59-A-2.12 as

> [a] parcel of land which is shown on a record plat but which is not to be occupied by

easement was recorded as part of subdivision approval on October 2, 2003. Ex. 4(d); 47 (reproducing the easement as recorded in liber 13178 at folio 412); 56. A "type I" easement precludes any tree or shrub "of any size from being cut, removed, or destroyed" without Planning Board approval. Ex. 47; T. (10/19) at 9.

The second and larger tract is where the four towers are to be erected. It is listed as parcel 303 on tax map FX 123 and comprises 55.21 acres. Ex. 3. When the Planning Board subdivided the property in October 2003, it directed that the parcel "be recorded as per condition of approval as contained in Planning Board Opinion dated July 2, 2003." Ex. 4(d), 55, 56. The Planning Board also directed the recorded plat to "reflect a Category I easement over all areas of stream valley buffers and forest conservation." As of the hearing of this petition, these conditions had not been satisfied. Subdivision approval expired on August 2, 2006. Ex. 55, ¶8.

2. *Topography.*

The two properties are undulating and are among the highest elevations in Montgomery County. Ex. 22 at 4. Tower 1 will rise to 1137 feet above sea level (726.7' ground elevation + 410.8'); tower 2 to 1121 feet (709.8' + 410.8'); tower 3 to 1165 feet (754.6' + 410.75'); and tower 4 to 1077.5 feet (666.7' +410.8). Ex. 4(a). (The altitudes in petitioner's filing (ex. 4(a)) may slightly understate actual height by about twenty feet. *See* legend on ex. 35).

The eastern and western sides of parcel 303 (the larger property) are marked by extensive 25% sloping gradients. Ex. 7(c)[3]. Adjacent to the steeper slopes are slopes with 15% gradients. *Id.*

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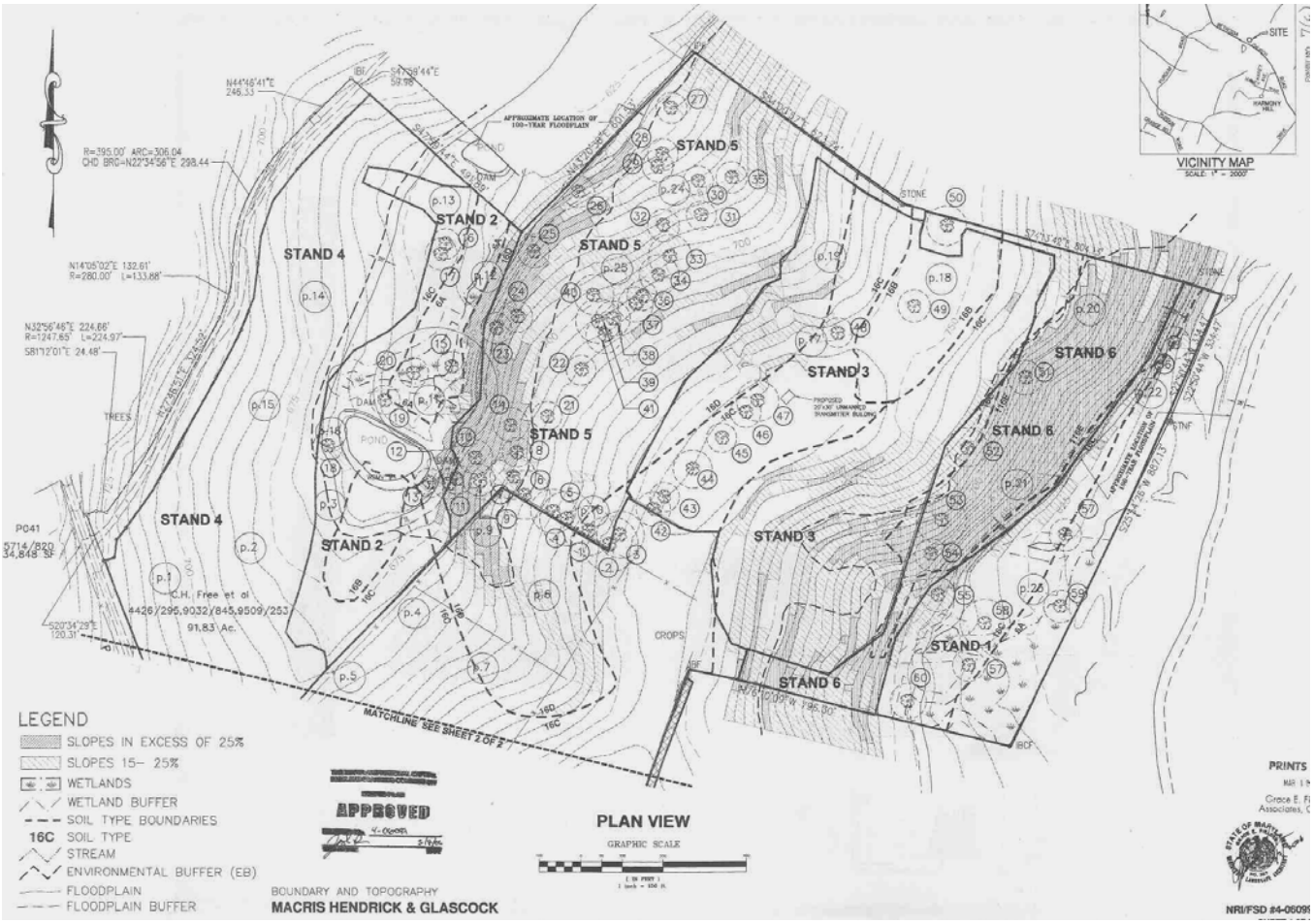
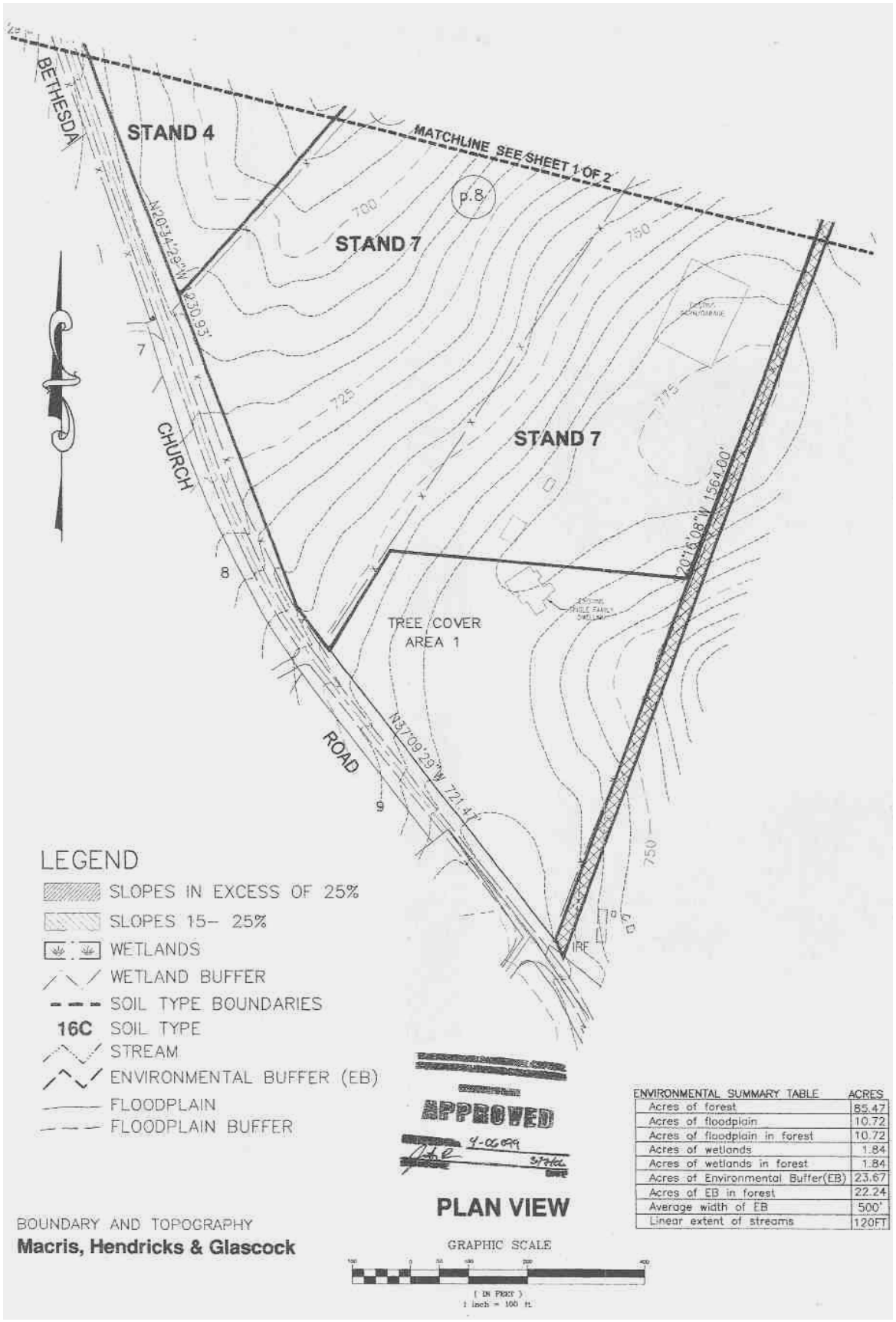
a building or otherwise considered as a buildable lot within the meaning of this chapter. A building permit must not be issued on any land so designated. An outlot may be converted to a lot in accordance with the procedures contained in Chapter 50 of the Montgomery County Code.

[3] The Montgomery County Planning Board *Environmental Guidelines* (Jan. 2000), at 7, define

The current natural resources inventory identifies the soil as "116D, Blocktown channery silt loam." Ex. 7(c)-7(d) (reproduced below). The Montgomery County Planning Board *Environmental Guidelines* (Jan. 2000) regard that type of soil as "having a *severe hazard* of erosion" and as "severely erodible." *Id*. at 67; italics in original. Roughly the western third of parcel 303 is also covered by soil that is severely erodible, 16D – Brinklow Blocktown channery silt loam. *See* ex. 7(c)-(d); *Environmental Guidelines* at 67.



"percent slope" as the "vertical rise in feet divided by horizontal run in feet in the *steepest* 100 foot segment multiplied by 100 percent." Italics in original.



ENVIRONMENTAL SUMMARY TABLE	ACRES
Acres of forest	85.47
Acres of floodplain	10.72
Acres of floodplain in forest	10.72
Acres of wetlands	1.84
Acres of wetlands in forest	1.84
Acres of Environmental Buffer(EB)	23.67
Acres of EB in forest	22.24
Average width of EB	500'
Linear extent of streams	120FT

Valleys along the eastern and western edges of parcel 303 contain federal wetlands, including two perennial stream channels. Ex. 4(a), 41, 42. Pursuant to long-established Planning Board policy, wetlands and streams adjacent to 15% and 25% slopes with severely erodible soils must be protected by 100- to 150-foot buffers. *Environmental Guidelines* at 5; 8, table 1; 12, table 2, nn. ** and ***. The property is considered to be in the Bennett Creek watershed. Ex. 42.

3. *Forests*.

Both outlot A and parcel P303 are extensively forested, according to a forest stand delineation conducted in 2005-2006. Ex. 7(c)-(d).

Stands marked 3, 5, and 6 on the forest stand delineation are most relevant to the proposed project. Stand 3, where one tower and the transmitter building are to be located, has the least forestation. It is described as having 55% canopy coverage with invasive species accounting for 2% of canopy and understory and 20% of shrubs and herbs. Ex. 7(d). Stand 5 contains the oldest stand of trees with canopy coverage of 60%, no invasive species in the canopy and understory, and virtually none among shrubs and herbs. *Id*. Stand 6 has canopy coverage of about 65%. There, too, invasive species are non-existent in the canopy and under-story and constitute less than 10% in the shrub and herb layers. *Id*. An adjacent stand (stand 1) which contains the "most native forests on the property," has no invasive species in its canopy and understory, and less than 10% in the shrub and herb layers."

The planning staff characterized the tree stands as "prime forest." Ex. 22 at 7. Considerations involve the quality of the forest and its location in relation to other environmental features, such as streams, erodible soil, and contiguous off-site tree canopies. *Id*. Here, the forest stand delineation identified several stands that the planning staff regarded as high-quality timber and

connected to stream valleys and to off-site timber stands. *Id*. Prime forests can include successional growths so long as trees are healthy and good canopy coverage exists. *Id*. Rowe testified that the forest stands had small degrees of invasive growth, not uncommon for Montgomery County. T. (10/20) at 58. Taken as a whole, the site contained large areas of good-quality growth. *Id*.

Fielder, petitioners' land planning expert, disagreed as to the quality of the forest because, while it has "pockets of nice forest" and areas of early succession, it also has areas of "problematic, exotic and invasive species." T. (10/6) at 158. She stated, however, that the forest stand delineation that she had prepared constituted the best evidence of existing forestation in the record. T. (10/19) at 76.

For reasons discussed in detail later in this report, no current preliminary forest conservation plan has been filed in this case. A 2003 preliminary plan placed extensive portions of parcel 303 in forest retention areas that were to become type I conservation easements. As previously noted, compliance with the preliminary forest conservation plan and platting the conservation easements were conditions in the subdivision approval granted by the Planning Board in 2003. Ex. 55 ¶¶ 1, 3.

B. PROPOSED USE.

1. Selection of location.

Petitioners plan to move an existing radio station, currently broadcasting at 540 kHz, from the eastern shore of Maryland, at Pocomoke City, to Damascus. When a station is moved, it must serve an urbanized area with no existing station. T. (10/6) at 82. An application to the FCC to change locations "must specify a definite site and include full details of the antenna system design and expected performance." 47 C.F.R. § 73.45.

The FCC required neither relocation of the Pocomoke City station nor transfer to Damascus. T. (10/6) at 47, 85, 109. Birach Broadcasting filed its FCC application in 1996. It was not approved until November 26, 2003. T. (10/6) at 17, 85. The delay was prolonged because of a dispute about whether the move serves the public interest. T. (10/6) at 85.

FCC regulations require that service at the new location not interfere with signals from existing stations. T. (10/6) at 83; T. (10/19) at 197. In order to avoid such interference, petitioners needed to construct multiple towers to direct the signal. A single tower is multidirectional and therefore would interfere with one or more stations. T. (10/6) at 119.

Based on the city to be served and the requirements of non-interference with existing stations, an engineering consulting firm advising petitioners, represented at the hearing by Wayne Reese, developed parameters for the type and location of the property necessary to hold the antenna system. Reese's firm suggested locating within about a five- to six-mile arc north and west of downtown Damascus in order to direct the signal to Damascus and to avoid interference with other stations on the same wavelength. T. (10/6) at 96; ex. 25(b).

The number of towers is partially dictated by the transmission power selected by the FCC licensee. The firm never considered the lowest power permissible by FCC rules, 250 watts at 540 kHz. T. (10/6) 103, 108 (Reese). That option was not considered because "you're always trying to maximize coverage." *Id*. at 111. The firm also rejected transmissions at the highest permissible power because that would have required six to ten towers and a "humongous"-sized property. *Id*. at 101, 111.

For the power selected by Birach Broadcasting operating at 540 kHz, Reese's firm estimated that a site of approximately 76 acres would be necessary for four antenna towers and related ground

arrays and equipment, roughly 2100 feet east to west and 1600 feet north to south. T. (10/6) at 86. Reese did not recommend a particular site. T. (10/6) at 95.

According to Mr. Birach, after he received the specifications for the suitable size and general location of property, he began a search to match the specifications. He testified that he "talked to everybody he could" to find property that satisfied his engineering firm's specifications. T. (10/6) at 18, 25. The search included looking for property for "sale by owner" or for lease. *Id*.; also *id*. at 59. He began prospecting for property shortly after Birach Broadcasting bought the Pocomoke City station in 1991. T. (10/6) at 58. The exploration lasted 12 to 18 months. *Id*. Only one other site was available that satisfied the size, shape, and location specifications needed. *Id.* The seller of that property "reneged" on the sale by demanding a higher price. *Id*. Mr. Birach provided no substantiating documentation and no longer has a list of real estate agents he used to search for property. T. (10/19) at 3-4.

At the time, Birach was prospecting for a site for seven antenna towers. T. (10/6) at 62-63. Seemingly contradicting Reese, he testified that the acreage requirements for four towers instead of seven are not materially different. *Id.* at 63-64.

2. Antenna towers.

Towers constitute the antennae for AM radio transmissions; they are not simply support structures for other apparatus. The towers are held in place by guy wires attached to the ground. At the base they are also attached to a ground array of radiating copper wires (discussed below). Because the towers constitute the antennae, structural height, not altitude, matters. T. (10/6) at 120-122.

a. Height.[4] According to Reese, the FCC has guidelines on the minimum size of the transmission pattern that dictate the height of AM towers, at least to some extent. T. (10/6) at 90; *see*. ex. 25(a) (efficiency of FCC-dictated transmitting pattern "is controlled by the electrical height of the towers and the individual antenna design," citing 47 C.F.R §§ 73.45, 73.189). In this case, the FCC approved the only option presented by petitioners – the four 411-foot towers. According to Reese, Birach Broadcasting would have examined other options if the Federal Aviation Administration had objected to the height. T. (10/6) at 88; *but see* ex. 25(a) (Reese letter: if tower height were reduced, the transmission pattern would not meet the FCC's minimum efficiency standard).

The only expert testimony in the record disputes the need for four towers and the height that Birach Broadcasting proposed to the FCC. Burrow, Residents' expert, testified that minimum FCC standards could have been met through "top-loading," a technique that would allow the towers to be reduced by about 70 feet without compromising transmissions. T. (10/19) at 199. Under "top-loading," guy-wires holding the towers in place are electrified and insulated to act as amplifying antennae so as to permit reductions in tower height while achieving FCC standards. T (10/19) at 200-201. Top-loading would give Birach Broadcasting the same signal strength as 411-foot towers, which is still more than the FCC minimum. T. (10/20) 146. Burrow stated that he had never heard of top-loading not working. T. (10/19) at 203. An average listener would not be able to tell the difference. T. (10/19) at 202.

[4] Section 59-G-2.44(a)(3) places a presumptive height limit on radio towers of 275 feet. That height can be exceeded when necessary to meet FCC minimum height standards.

Height is related to station power. T. (10/6) 90 (Reese). The FCC requires a station to have a minimum effective field strength of 282 mV (micro-volts) for each 1000 watts of power. 47 C.F.R. § 73.189(b)(2)(ii); T. (10/6) 90 (Reese). The heights of the Birach Broadcasting towers were calibrated to meet FCC standards for a station operating at 1000 watts. T. (10/6) 90 (Reese). As noted, Birach Broadcasting never considered reducing power to 250 watts, the minimum acceptable to the F.C.C. T. (10/6) 103, 108, 111 (Reese). According to Burrow, by lowering power, the station could operate with lower and fewer towers. T. (10/19) 199-200.

b. Location and visibility. Three of the towers (nos. 1, 2, and 4) and their associated arrays will be located on severely erodible soil. *Compare* ex. 46 *with* ex. 7(c)-(d). The three towers will also be located in areas designated as suitable for type I forest conservation easements in the 2003 preliminary forest conservation plan. *Compare* ex. 46 *with* ex. 25(e).

The towers will be sited in an area with an elevation that the staff report, without contradiction in the record, calls the "highest in the county." Ex. 22 at 7. At full height, one or more towers will be visible in large sections of the Damascus master plan area and beyond. Respondent Bussard testified that, because the Damascus area consists of a series of ridges, "a typical person in Damascus sees a really long way away. * * * You can see high up and you can see all the way around." T. (10/19) 143. Respondents provided anecdotal testimony and photographs of places where the towers will be both prominent and the only structures scarring scenic views. T. (10/19) 168-169, 170-171 (Snow) & ex. 50; *id.* at 182-184, 187 (Trevan) & ex. 58(a)-(b); *id.* at 147 (Bussard).[5]

[5] The staff report discloses that the towers will be visible in almost 40% of the master plan area if vegetation, atmospheric conditions, and (implicitly) man-made structures are ignored. Ex. 35. I consider the exhibit's methodology and that of petitioners' exhibits 43-45, based on the same

The towers will be lit in accordance with Federal Aviation Administration requirements. These requirements consist of beacon lighting at the top and middle of each tower, and side lighting one-quarter and three-quarters up. T. (10/19) at 91-92; *see* ex. 5(c). The lighting will not create ground glare. T. (10/6) 28 (Birach) ("It doesn't light up the area * * *"). No strobe lighting will be used. T. (10/19) at 91-92. For daytime visibility from the air, the towers will have alternating stripes of white and "aviation red." T. (10/19) at 92.

Petitioners' towers are not the only radio, television, and telecommunications antenna visible at places in the Damascus area. Nine towers already exist within a six-mile radius of the Birach site. Ex. 43. All are substantially shorter than the proposed towers. One is 129 feet tall. All but two are shorter than 275 feet. Ex. 43; T. 10/6) at 181-184. The tallest (375 feet) is located in Frederick County, about 5.5 miles from the Damascus town center; the next tallest (325 feet) belongs to the United States Army. The nine towers are spread over a 30-square mile area. T. (10/6) at 184. If vegetation and man-made structures are ignored, one or more of those nine would be visible somewhere within the six-mile radius except in a few small valleys. Ex. 44; T. (145-147) (Fielder). With existing vegetation, however, they are obscured from view in many more areas. Ex. 53; *see also*, ex 50(a)-(b). Bussard testified that, while the tops of other towers are visible from her home, they are shorter and farther away and do not "loom[] over you." *Id*. at 150, 152, 153-154.

c. Setbacks. The distance between tower 2 and the property line between parcel 303 and outlot A is less than 411 feet. T. (10/19) at 99; *see* ex 5(b). Towers ordinarily must be set back from the "property line" by a distance equal to their height. Sec. 59-G-2.44(a)(1)(a). Petitioners correctly

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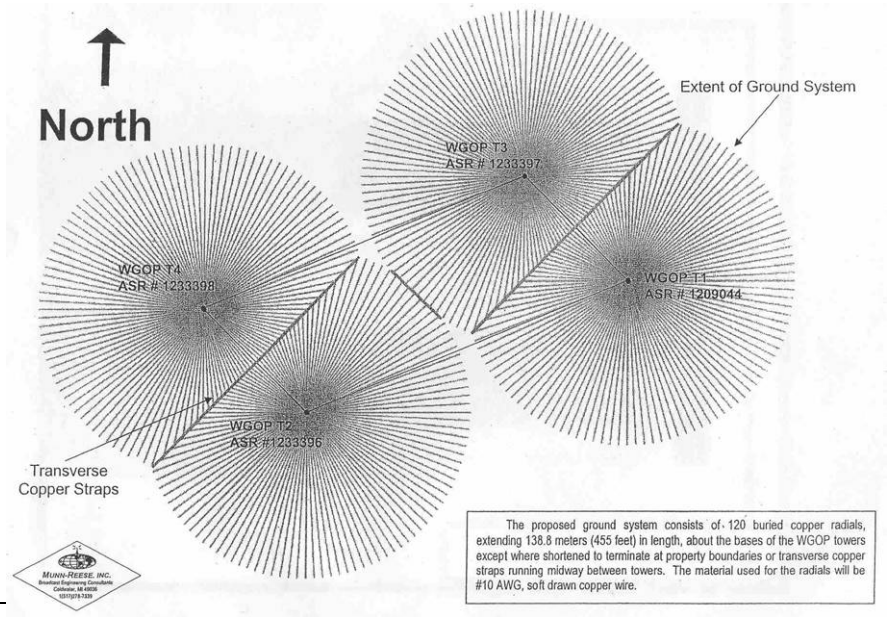
methodology, to be flawed and not probative because they ignore actual conditions.

argue that the setback is adequate because parcel 303 and outlot A have common ownership. The issue is discussed below.

3. *Ground arrays.*

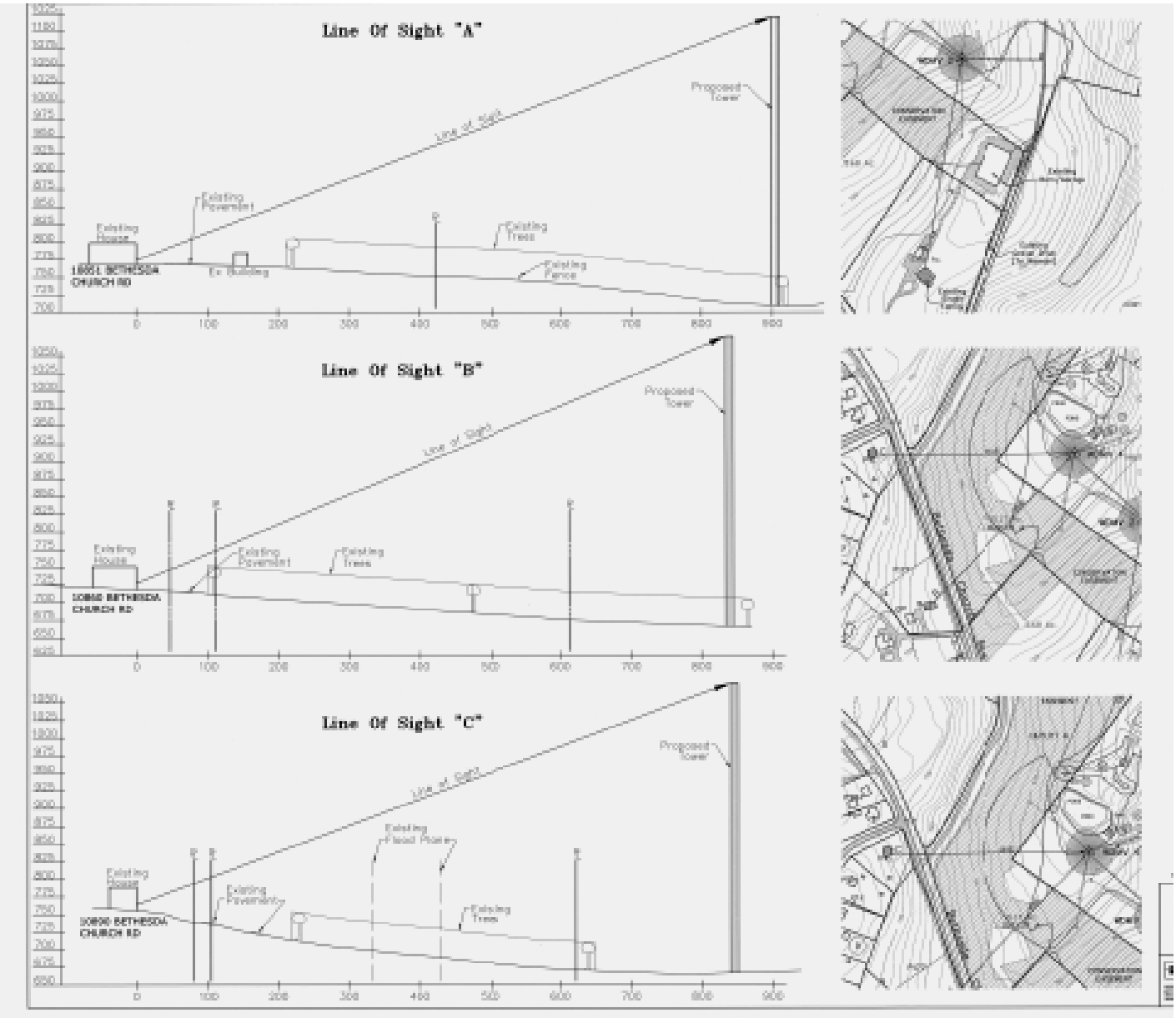
Aside from the towers and their guy-wires, AM antennae use ground wires radiating from the tower base. The FCC anticipates that ground arrays will consist of "buried radial wires." 47 C.F.R. § 73.189(b)(4).[6] Normally (as here) there are 120 wires, each 3 degrees apart. *Id.*; T. (10/20) at 61). The length of each wire is a factor of the broadcast wave length. *Id*. For 540 kHz., the wires must extend about 455 feet. T. (10/19) at 87; ex 5(b). The wires are attached to copper straps that, in turn, are attached to the towers as shown in the following schematic drawing.

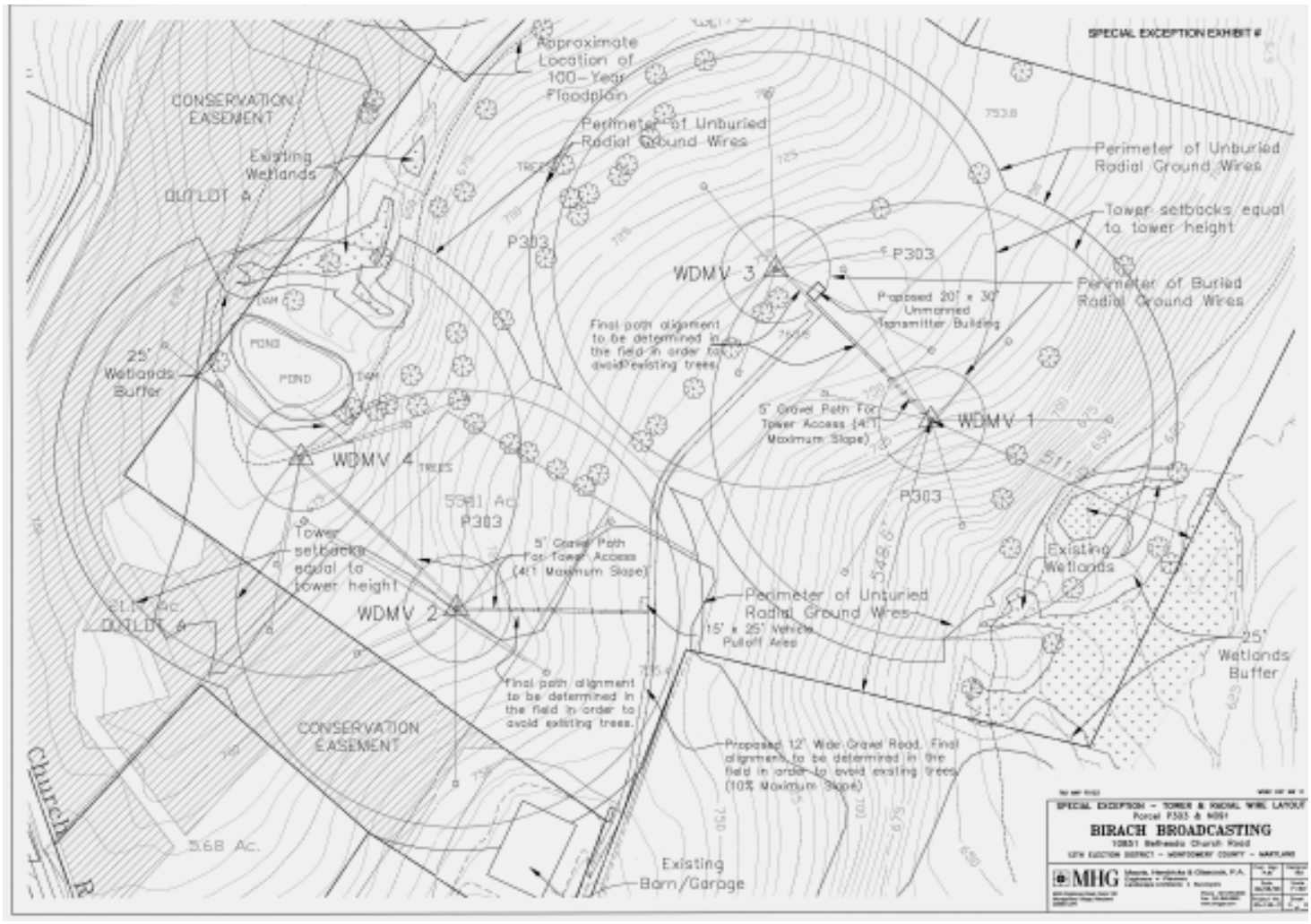


[6] 47 C.F.R. § 73.189(b)(4) provides (italics added):

> At the present development of the art, it is considered that where a vertical radiator is employed with its base on the ground, *the ground system should consist of buried radial wires* at least one-fourth wave length long. There should be as many of these radials evenly spaced as practicable and in no event less than 90. (120 radials of 0.35 to 0.4 of a wave length and spaced 3° is considered an excellent ground system and in case of high base voltage, a base screen of suitable dimensions should be employed).

Until a few days before the Planning Board meeting on this petition, petitioners envisioned clear-cutting 455 feet around each tower to bury the array. Ex. 4(a); 4(c); 5(b); 22 at 4-5; T. (10/19) at 74. Circles on exhibit 5(b), reproduced below, show the "limits of disturbance" then intended for the radial ground wires.





Some wires are cropped to prevent intrusion into wetlands, wetland buffers, and neighboring property. T. (10/19) at 87, 95-96.

It is normal to clear-cut all vegetation in order to bury ground radials. T. (10/6) at 90-91 (Reese). Reese testified that it is not good engineering practice to allow vegetation to return, although it is sometimes done. *Id.* The staff report contains examples of radio tower sites in the County where all vegetation (or almost all) has been cleared and the arrays buried. Ex. 22, att. 8-9.

The limits of disturbance depicted on exhibits 4(c) and 5(b) will intrude extensively into existing forests, wetland and stream buffers, and outlot A's conservation easement. *Compare* ex. 4(c) & 5(b) *with* ex 7(c). The staff report calculated that 39 acres of forest currently exists within the limits of disturbance. Ex. 22 at 4. Fielder estimated that it was less, but still about 22 acres. T. (10/19) at 17.

The staff report also calculated that the ground disturbance would encroach on about 12 acres of stream buffers, constituting half of the stream buffers on site, including highly erodible soil on steep slopes. Ex. 22 at 5. Neither the report nor Rowe's testimony reveals how the calculations were carried out, except that Rowe used 100-foot stream and wetland buffers in the calculations. Fielder attempted to minimize the magnitude of the disturbance by relying on a 2006 Army Corps of Engineers wetlands jurisdictional determination. Ex. 42. The jurisdictional determination was based on a wetlands delineation Fielder had prepared in 2003. Ex. 41. Fielder conceded, however, that the federal jurisdictional determination does not preempt County regulation and does not address stream (or wetland) buffers. T. (10/19) at 59-60.[7]

After the staff report was issued and a week before the Planning Board meeting, petitioners changed their proposal to clear-cut only a 100-foot radius around the base of each tower, enough to bury the first 100 feet of the copper wires, leaving the remaining 355 feet of wire exposed on the soil surface. Ex. 25(c), 46.

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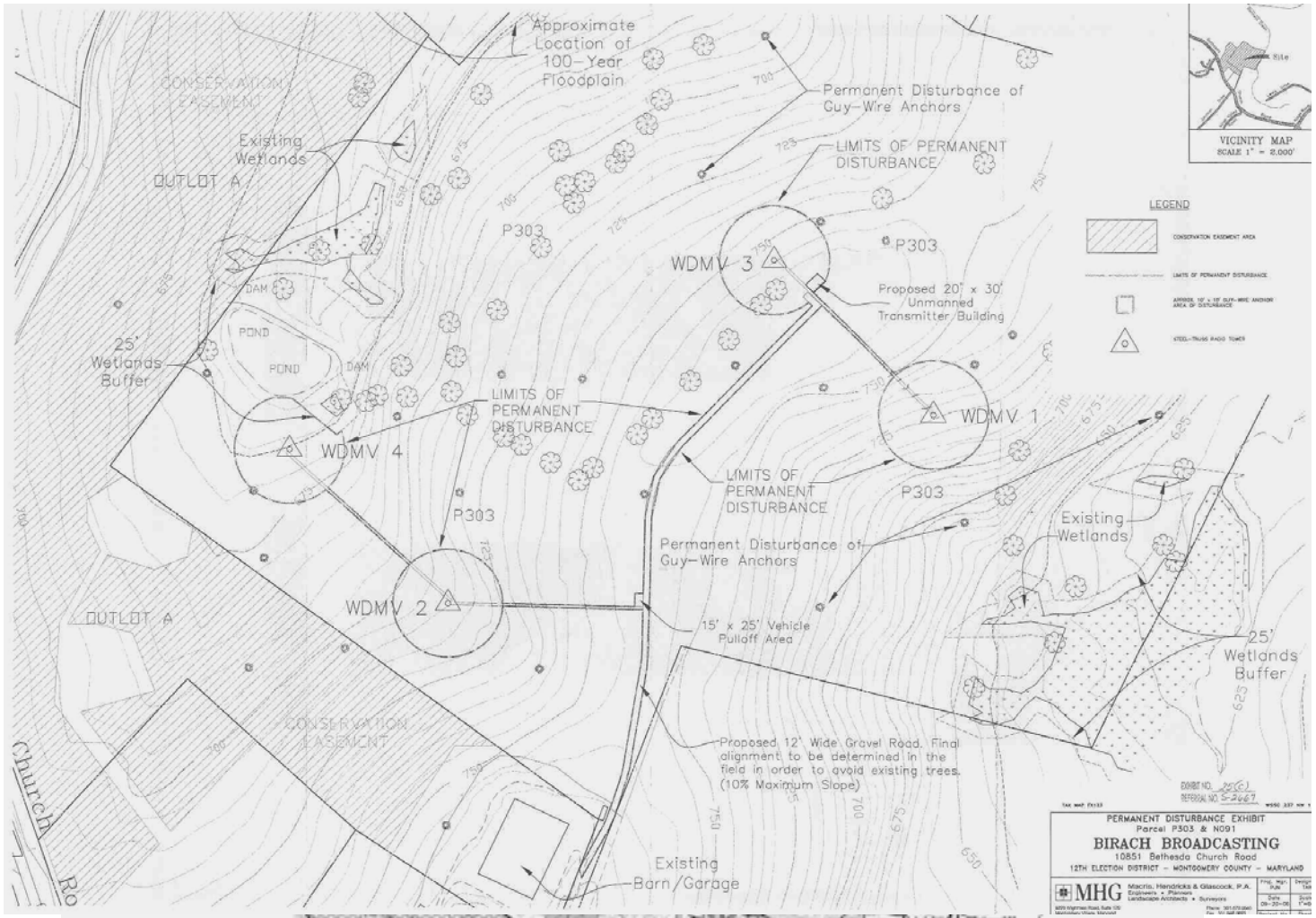
[7] There is no support for petitioners' contention, based on Fielder's testimony, that the County's definition of stream and wetland buffers has become more expansive since the FCC issued the building permit to Birach in 2003. The current *Environmental Guidelines* are dated January 2000. They establish that, since 2000, the minimum stream and wetlands buffers in or adjacent to erodible soils have been at least 100 feet. *Id*. Tables 1, 2 & nn. ** & * * *.

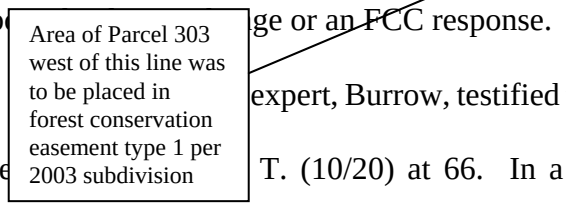


Hatched area is covered by forest conservation easement type 1 per 2003 subdivision

Area of Parcel 303 east of this line was to be placed in forest conservation easement type 1 per 2003 subdivision

Partially buried arrays are unusual and their ability to transmit radio signals properly is untested and uncertain, especially in a forested area. In its only previous tower development in a forested area, Birach Broadcasting had clear-cut the entire area. T. (10/6) 24. Its site engineer for this project, Newman, had never prepared plans to install antenna towers in forested areas. T. (10/19) 102.

The TFCG recommended that changes to the array design "must be reviewed and approved by the FCC." Ex.32(b) (condition 5). There is no evidence in the record of a request to the FCC about the change or an FCC response.



Birach's expert, Burrow, testified that he had seen surface arrays but, for the most part, the T. (10/20) at 66. In a forested setting, fallen leaves could cause signal instability, depending on whether they were wet or dry. *Id.* at 67. In addition, unlike the schematic drawing above, many wires would no longer be straight because they would need to skirt boulders, trees, and other surface impediments. Burrow testified that having straight arrays is such a necessity that surveyors are normally used to ensure that the wires are buried without deviation. T. (10/20) 65-66.

Problems with the surface arrays would not be noticeable until after the station starts operating. *Id*. at 67. At that point, Birach would have to obtain special temporary operating authority from the FCC while it attempts cures. *Id*. at 68. If the signal is unstable, the ground system might well have to be fully buried after all. *Id.*

4. *Other property improvements.*

Transmitters and related equipment will be housed in a 20- by 30-foot shed in a cleared area fifty feet from tower 3. Ex. 3, 4(a); T. (10/19) at 89. It will be shielded from view outside the property. Ex. 3.

The towers will be surrounded by six-foot high fences. T. (10/19) 105. There are no plans to fence off the ground arrays. *Id.*

Access to the shed and tower 3 will be along a new 12-foot wide gravel extension to an existing driveway from Bethesda Church Road, which currently terminates at the parcel 303 lot line. T. (10/19) at 89-90. There will also be 5-foot wide graveled pedestrian paths to towers 1, 2, and 4. *Id.* at 90.

C. DAMASCUS MASTER PLAN, 2006.

A new Damascus Master Plan was approved by the County Council on May 25, 2006, six days after the present petition was filed. Resolution No. 15-1485, reproduced as ex. 25(f). The resolution adopted an August 2005 Planning Board draft ("*2005 draft*") with amendments. (Those two documents, together, constitute the approved master plan until the plan is published in final form. Citations in this report to the *2005 draft* refer to language that was not amended by the Council).

a. Vistas. The 2006 master plan expressly addresses the protection of landscape views in a "Special Exception Guideline for Rural Vista Protection" (ex. 25(f) at 5):

> To ensure careful consideration of the long rural vistas that are a unique aspect of this community, this Plan strongly encourages the protection of the rural vistas that are intrinsic to the character of the Damascus vicinity. This is a town set on a hill, and the long vistas outside the Town Center provide the most distinctive visual element of the community. Land uses that impede those vistas should be discouraged. Because of the uniqueness of the rural areas surrounding Damascus that are at the highest elevations in the County, this Plan recommends language in the

> Implementation Chapter to guide review of special exception uses proposed in the Transition and Rural Areas.

A paragraph in the implementation chapter under "Special Exception Guidelines" essentially paraphrases the land use chapter language (ex. 25(f) at 43):

> Guideline for Rural Vista Protection – The visual character of the Rural Areas surrounding Damascus are [*sic*] unique as they are the highest elevations in the County. When special exceptions are proposed in the Transition and Rural Areas within the Damascus Master Plan area, their review should take into consideration the preservation of these long vistas that are a part of the unique character of this community. Any proposed land use that would impede those vistas should be discouraged unless it serves an important public purpose.

The staff report cited these two paragraphs to conclude that the special exception use would not be consistent with the master plan. Ex. 22 at 4. The report states that the staff had been given insufficient information why the antennae could not be located farther from Damascus, on land not heavily forested. *Id.*

The plan ratified by the County Council had been under consideration for about four years. The vista paragraph in the land use section, minus the final sentence, appeared in the *2005 draft* at 34. A similar earlier version, minus the last sentence, also appeared in a September 2004 staff draft. Ex. 49 at 38. The Council-approved plan added the final sentence and the conforming paragraph in the implementation chapter.

The planning process began in mid-2002. Ex. 48 (staff Purpose and Outreach Strategy Report, Jan. 2003) at 3. In November 2002, planning staff conducted two public meetings designed, in part, to "listen to the concerns of the community." Ex. 48 at 17. Those meetings raised what the staff called "Master Plan Process Related Issues" and "Regulatory Process Issues *Not* Related to the Master Plan Process." Ex. 48 at 21; italics added. Among the latter were public expressions of concern that broadcast towers "will decimate the views and vistas of Damascus." Ex. 48 at 23.

Because these concerns were unrelated to the master plan, staff concluded that the impact of a future project should await special exception review. Ex. 48 at 23.[8]

Fielder, petitioners' planning expert, testified that she considered the 2006 plan to be targeting special exception use for radio towers in the area in general, and petitioners' project in particular. T. (10/6) at 140, 148; T. (10/19) at 19-20. Based on her understanding of the language in the 2003 staff outreach report, Fielder called the 2006 provisions the most explicit targeting in a master plan in her experience. T. (10/19) at 22, 61.

b. Legacy Open Space. The 2006 plan designates the "Bennett Creek Headwaters Area" for the "legacy open space program." Ex. 25(f) at 32; *2005 draft* at 74-75. A map of the area depicts land northwest of Damascus, apparently including the Birach property, as being in the Bennett Creek headwaters area. *2005 draft* at 76.

The legacy open space program uses public funds and planning tools to "protect * * * valuable open space resources." *Id.* at 32. Easements are the preferred tool for protecting Bennett Creek headwaters. *Id.* at 74-75. The area is described as having a large area of contiguous forest with stands of "high quality" upland forests. *Id.* at 75. It is also described as containing numerous wetlands and springs. *Id.*

c. Staff master plan analysis. The staff report concluded that the radio tower project was inconsistent with the 2006 master plan guideline for rural vista protection: The report accepted the proposition that "[w]hile there is a public purpose inherent in the FCC approval for the radio towers

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[8] The January 2003 report stated (ex. 48 at 23): "The staff is aware that a special exception application is likely to be submitted for AM Radio Towers on the west side of Damascus. However, no application has yet been made. However, the visual impact of any tower application will be part of the review criteria."

the applicant has not submitted information indicating why this location is the best location for this intrusive use * * *." Ex. 22 at 13; *see*, similarly, *id.* at 4.

The report also concluded that the tower project is inconsistent with legacy open space because the "extent of forest disturbance and stream valley encroachment * * * would have a significant negative impact on adjacent streams * * *." *Id.* at 6.

d. Prior plans. Before 2006, the Birach property was covered by a predecessor Damascus master plan (adopted in 1982 and amended in 1985) and by a 1980 *Preservation of Agricultural and Rural Open Space Plan*.[9] The latter stated that the area northwest of Damascus "is the pivotal point" for the County's agriculture and rural open space program. *Preservation of Agricultural and Rural Open Space* (Oct. 1980) at 52-53. The plan recommended that the area, including the Bennett Creek watershed, be the focus of an "aggressive preservation program." *Id.* at 53. The 1980 plan included towers among the uses that are permitted by special exception in RDT zones. *Id.* at 83.

D. TRANSPORTATION ISSUES.

When completed, the towers and transmission equipment will be unmanned, except for weekly inspections by a single technician. Ex. 3 at 1. There will be no daily trips to the site. *Id*. No traffic study was done.

E. DEVELOPMENT STANDARDS.

[9] Fielder testified that much of the Birach property was not within the pre-2006 Damascus master plan area. She is mistaken. *See Damascus Master Plan Approved and Adopted June 1982, Amended July 1985* at 10-11. While part of the Birach property was not within the "Damascus Planning Area" that was the main focus of the 1982 master plan, the entire property was within the area covered by the master plan.

The property meets the relevant development standards for the RDT zone. Several are not relevant because antenna towers have no roofs or stories and therefore are not "buildings." *See* 59-A-2.1. The only building on site is the storage shed.

Minimum lot size (§ 59-G-9.42)

Required	40,000 sq. ft.
Actual	76+ acres

Minimum lot width measured along building line (§ 59-G-9.43)

Required	125 ft
Actual (for shed)	>1000 feet (estimate)[10]

Maximum lot coverage (§ 59-G-9.44)

Required	10%
Actual	<1% (estimate)

Maximum building height (§ 59-G-9.48)

Required	50 feet
Actual (shed)	Unspecified (but undoubtedly <50 feet)

As an internal lot, the property does not meet the minimum street frontage width requirement (§ 59-C-9.43(b)) but is eligible for a waiver under § 59-G-1.23(c)(5).

V. TESTIMONY.

This report contains the testimony most relevant to the issues before the Board. Appended to the report is a summary of testimony by each witness in order of appearance. It is incorporated herein by reference.

VI. CONCLUSIONS.

A. THRESHOLD ISSUES.

1. Federal Preemption.

[10] Estimates are based on cursory examinations of ex. 4(a).

Petitioners assert that the FCC construction permit preempts County laws and regulations that stand in the way of this use at the location petitioners chose. This Board does not normally address issues outside the Zoning Ordinance. Nevertheless, the Board must be aware of the implications of its interpretation and application of the Zoning Ordinance and related local laws. When there is a choice, it is prudent to choose interpretations that avoid conflicts with federal law and regulations. I conclude that no preemption problem exists under reasonable interpretations of County law.

Article VI, cl. 2, of the United States Constitution provides that the laws of the United States "shall be the supreme Law of the Land;* * * any Thing in the Constitution or Laws of any State to the Contrary notwithstanding." State regulation is preempted when (1) Congress expressly declares its intent to occupy the field; (2) federal law so thoroughly occupies the field that there is no room for state regulation; or (3) state regulation actually conflicts with federal law, or frustrates its execution. *See Hill v. Knapp*, 396 Md. 700, 712-713, 914 A.2d 1193, __ (2007) (citing Supreme Court precedent); *Pinney v. Nokia, Inc.*, 402 F.3d 430, 453 (4th Cir. 2005) (same). Still, unless Congress is explicit, the "basic assumption" is that Congress did not intend to displace state law. *Pinney, id.* The presumption against preemption is especially strong when the field is one that has traditionally been occupied by state (and local) regulation. *Id.* at 454. Zoning is a field traditionally reserved to states and their subdivisions. *See Evans v. Board of County Commissioners*, 994 F.2d 755, 761 (10th Cir. 1993) (zoning "customarily has been considered a feature of local government and an area in which the tenets of federalism are particularly strong").

FCC regulation can preempt state law under certain circumstances. *Olsen v. Mayor and City Council of Baltimore*, 321 Md. 324, 329, 582 A.2d 1225, ___ (1990), *citing City of New York v.*

FCC, 486 U.S. 57, 65-66 (1988); *Louisiana Public Service Commission v. FCC*, 476 U.S. 355, 368-69 (1986). Federal agency regulations, such as the FCC's, have "the same preemptive force as federal statutes." *Freeman v. Burlington Broadcasters, Inc.*, 204 F.3d 311, 321 (2d Cir.) *cert. denied*, 531U.S. 917 (2000).

Congress has not expressly foreclosed states from regulating the placement of radio and television towers. Neither has the FCC.[11] In response to inquiry by Residents' counsel, the FCC's chief of media wrote: "* * * to date, the Commission has not adopted any rules or regulations that preempt local zoning rules affecting construction of broadcast towers." Letter from Donna C. Gregg, FCC, Sept. 26, 2006, to B.A. Friedman, att. to ex. 68.[12] In short, Congressional and FCC regulation is not so pervasive that it can reasonably be said that there is no room for state and local regulation of where antenna towers may be sited.

Zoning regulation can, however, so frustrate federal objectives that it must give way to federal preemption. Petitioners rely heavily on *Koor Communication Inc. v. City of Lebanon*, 148 N.H. 618, 813 A.2d 48 (2002). There, the court found preemption when compliance with both state and federal regulations would have been physically impossible. The municipal zoning ordinance permitted radio towers only in rural zones but restricted their height to 42 feet. Koor Communications had received an FCC permit for the construction of four 266-foot towers. The court noted that the FCC has established minimum antenna heights, none of which were lower than 44 meters

[11] The FCC considered preemption rules for broadcast towers in 1997 but failed to adopt them. *See* Preemption of State and Local Zoning and Land Use Restrictions on the Siting, Placement and Construction of Broadcast Facilities, 62 Fed. Reg. 46241 (Aug. 19, 1997).

[12] As respondent Harris notes, in some cases, the FCC explicitly expects applicants for radio broadcast construction permits to call local zoning and environmental controls to the FCC's attention. Ex. 67 at 3, citing FCC form 301, available at http://www.fcc.gov/forms/form301/301.pdf.

(144.36 feet). *Id*. 813 A.2d at 421, citing 47 C.F.R. § 73.190. In the absence of evidence that minimum field strength could be achieved by shorter antennas, the city ordinance was preempted by the FCC regulation. The court cautioned that its holding did not mean that FCC permits authorize licensees to erect antenna towers wherever they wish irrespective of zoning: "* * * we merely hold that where it is impossible to comply with federal law and the zoning ordinance at any location in the city, an actual conflict exists and the local law is preempted." *Id*. at 422.

The Montgomery County Zoning Ordinance permits broadcast towers, including towers greater than 275 feet, to be erected throughout most of the County, including in RDT zones by special exception. The Zoning Ordinance requires, in § 59-G-2.44 (a)(3), that special exception applicants establish by a preponderance of the evidence that the height of a proposed tower is the minimum height permitted by the FCC. The Ordinance thereby accommodates itself to FCC height standards. Under the terms of the Ordinance, conflict with federal law concerning heights is foreclosed *provided* a special exception petitioner meets its burden of proof.

Here, Birach Broadcasting did not carry its burden. Despite numerous opportunities and specific requests by the TFCG to present evidence to this Board that Birach Broadcasting considered alternatives to the 411-foot towers and that no such alternative would satisfy FCC standards, the evidence of record is that Birach Broadcasting considered a single plan and never investigated alternatives. Instead, the only engineering testimony in the record, from Burrow, is that the towers could be reduced in height by as much as 70 feet to provide the same power, coverage, and interference protection. Unlike in *Koor*, therefore, petitioners here have not shown that the Zoning Ordinance height restriction, as applied, is incompatible with FCC standards. The height issue is discussed further below.

In a number of decisions, courts have held that federal law and regulations do not preempt zoning decisions preventing the placement of antennas at specific locations, absent a showing that the zoning authorities would deny authorization irrespective of location. The antennas at issue in those cases were wireless communications antennas. Those are governed by federal law that preserves state and local authority to regulate such antennas so long as it does not "have the effect of prohibiting the provisions of personal wireless services." Telecommunications Act of 1996, § 704(a)(7)(b)(i)(II), 47 U.S.C. § 332(c)(7)(B)(1)(II).

In *360° Communications Co. v. Board of Supervisors*, 211 F.3d 79 (4th Cir. 2000), the court upheld a county's denial of a special use permit for a 100-foot wireless communications tower. The tower would have risen approximately 40-50 feet above the tree canopy. The local board denied the permit , among other reasons, because the access road would disturb steep, critical slopes, and the project would change the rural character of the area as a result of its visibility on a wooded mountain ridge line. *Id.* at 82-83. The board also concluded that the project would conflict with the comprehensive plan that discouraged activities that would disrupt the natural balance of the soils, slope, and vegetation of mountainous areas. *Id*. at 82. The Fourth Circuit held that the denial of a permit for a single location does not ordinarily amount to a denial of wireless services because the services could be provided from other locations. *Id.* at 86. Only if a location would be uniquely suited to provide wireless service would the denial of a zoning permit be preempted by federal law. *Id*. Such a hypothetical was unlikely in fact, "although gradations of the hypothetical are conceivable." *Id.*

In a similar vein, the appellate court in *Town of Amherst v. Omnipoint Communications Enterprises, Inc.,* 173 F.3d 9 (1st Cir. 1999), held that a town's one-time denial of permits to erect

wireless communications antennas did not amount to a ban on wireless services. Under the Telecommunications Act, a carrier's burden of proof that local zoning is preempted "is a heavy one: to show from language or circumstances that *this* application has been rejected but that further efforts are so likely to be fruitless that it is a waste of time even to try." *Id.* at 14; italics in original. Absent a substantial showing that the carrier's proposal is the only feasible one, or that the local authorities have a fixed hostility that would make further applications useless, the burden is not met. *Id.* at 14-16. *See also, Williams v. City of Columbia*, 906 F.2d 994 (4th Cir. 1990) (local height restriction of amateur radio antennas not preempted: federal "law only requires that the City balance the federally recognized interests * * * with local zoning concerns").

Neither Congress nor the FCC has thus far chosen to address zoning regulation of AM radio towers. That suggests that the scope for local zoning with respect to them remains broader than with respect to wireless telecommunications and amateur radio antennae.

Here, the reasons for denial are site specific, based on the effects the project will have on environmental features peculiar to the site – the existing easement, extensive forests, stream and wetland buffers – and on scenic views. They do not preclude situating the antenna towers elsewhere in the County near Damascus. Reese testified that there was about a six-mile arc northwest of Damascus where towers could be sited to provide radio service to Damascus. Burrow testified that the area in which the towers could be located was substantially wider. In either event, the Birach property is far from being the only place in the County where the towers can be located and still provide radio services to the Damascus area. Absent a showing that all other properties in the area

will have the same environmental impediments, it cannot be said that no other site is feasible and that further application is useless.[13]

Commercial, non-regulatory, difficulties are insufficient to meet petitioners' burden of proof. Accepting Birach's testimony concerning his search for suitable sites in the 1990s as true, his testimony establishes only that he was thwarted by obstacles of the sort routinely encountered in the real estate market. No property owner may have been willing to sell or lease at the time. The price demanded may have been too high. Property on the market may have been too small and too difficult to assemble in the months Birach was willing to devote to his search. Such practical problems, arising from economic and commercial conditions, are insufficient to show that property suitable for Birach Broadcasting's use would not have become available in the fullness of time.

Petitioners' major preemption challenge is to the scenic vista language in the 2006 Damascus master plan. Vista protection is a relevant planning and zoning consideration. *See 360° Communications,* 211 F.3d at 84 (citing local government master plan discouraging activities on ridge lines that could "modify the visual character of an entire area").

I reject Fielder's claim that the master plan targeted the Birach project. She based her views on a misreading of the planning staff's 2003 "purpose and outreach" report. As explained above, that report explicitly states that community concerns about broadcast towers were *un*related to the master plan process and must await special exception review. Imminence of the Birach project may well have been a catalyst for the inclusion of the 2006 "Special Exception Guideline for Rural Vista

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[13] That is not to say that petitioners can be forced to locate their project in an adjacent county as the staff report and Burrow suggest. A jurisdiction cannot export objectionable land uses to neighboring jurisdictions. *Cf. 360° Communications,* 211 F.3d at 86 (local policies and general bans prohibiting wireless antennas are preempted).

Protection," but the guideline encompasses far more than radio towers, much less this project. Any special exception use that intrudes into the rural views is affected. There is no evidence in the record that the County Council, the legislative body that amended and then adopted the plan, was especially concerned about broadcast towers or petitioners' project. Indeed, the guideline language in substantial part preceded the filing of the special exception petition by almost a year.

Insofar as the master plan guidelines affect FCC-authorized tower permits, they should be read as admonishments, not prohibitions. Their language is flexible. It can reasonably be read to discourage towers in the Damascus area only where they will be unusually conspicuous. So long as there remain places in the County where they would be less conspicuous, the master plan guidelines are not preempted.

Birach Broadcasting has the "heavy burden" (*Amherst v. Omnipoint Communications Enterprises,* 173 F.3d at 14) of demonstrating that denial of its application for the particular site it acquired means that it cannot locate its towers elsewhere in the County at a location that is lower, flatter, less forested, and less environmentally fragile. Without a showing that no other sites are feasible, the FCC permit does not preempt County planning and zoning regulation.

2. *Absence of a Valid Preliminary Forest Conservation Plan.*

Among the material that must accompany a petition for special exception are a current, valid, natural resources inventory/forest stand delineation and preliminary forest conservation plan. Sec. 59-A-4.22(a)(8). This Board must "consider the preliminary forest conservation plan" and "must not approve a special exception that conflicts with the preliminary forest conservation plan." Sec. 59-G-1.23(d); *see* § 22A-11(d) (substituting "is in conflict" for "conflicts").

The Planning Board (ex. 27 at 2) recommended dismissal or denial of the petition for failure to provide a valid preliminary forest conservation plan for this Board to consider; the planning staff also recommended denial of the petition as incomplete. Ex. 22 at 5, 16 n.1, 17. As noted, I agree that no valid preliminary forest conservation plan is in the record.

a. Party and staff positions.

Petitioners did not present any preliminary forest conservation plan until a few days before the Planning Board meeting and a week after the staff report. They then filed the 2003 plan prepared in support of a subdivision application for this property and two residential lots. Ex. 55, 56.

Petitioners argue that the 2003 preliminary forest conservation plan is properly before this Board. Ex. 64 at 7-11. They emphasize that no section of M.C. Code Chap. 22A expressly limits the viability of a preliminary forest conservation plan. Preliminary plans, they argue, have perpetual existence, lapsing only when replaced by a final forest conservation plan. A final plan "is contemplated to occur at a future time," after all County approvals have been given. *Id*. at 11. Enabling special exception petitioners to revise plans is consistent with the multi-stage planning process.

Petitioners disagree with the contention that the 2003 plan did not survive the expiration of the subdivision approval. Subdivision and forest conservation are governed by separate chapters of the Code and are the responsibility of different county agencies: the Planning Board for subdivisions; the planning director (or designee) for forest conservation plans. Thus, even though the subdivision approval expired in August 2006, they argue, the preliminary forest conservation plan did not.

Because the staff had not had an opportunity to consider the 2003 preliminary forest conservation plan, I requested that a staff member testify about its pertinence to this project. Pamela Rowe, then on environmental planning staff, testified that petitioners had not previously contested the staff report's conclusion that no valid plan existed. T. (10/20) 46-47. "In fact we were * * * surprised that at the Planning Board hearing there was no real presentation of the arguments that are coming out in the course of this hearing." *Id*. at 47.[14]

Rowe gave two reasons why the 2003 preliminary forest conservation plan was no longer available for this Board to review. First, the 2003 plan had been submitted for an entirely different kind of project, residential use. T. (10/20) 7.[15] When there is a change in use, an existing plan is no

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[14] Residents suggest that this Board should hold that petitioners waived their arguments concerning the validity of the 2003 plan by not raising them before the Planning Board. Had petitioners done so, that Board would have had an opportunity to examine the question and to provide this Board with its expertise. Courts generally decline to hear arguments not first presented to the administrative agency whose decisions are being reviewed. *Schwartz v. Md. Dept. of Natural Resources*, 385 Md. 534, 553-555, 870 A.2d 168, 179-181 (2005); *Cicala v. Disability Review Board*, 288 Md. 254, 260, 418 A.2d 205, 209 (1980). The reason for this doctrine is that courts should not enable litigants to circumvent agencies so as to prevent them from deciding issues within their jurisdiction and expertise. *Colao v. Maryland-National Capital Park and Planning Division*, 167 Md. App. 194, 200-203, 892 A.2d 579, 583-584 (2005), *cert. denied*, 393 Md. 243, 900 A.2d 749 (2006). Here, however, this Board is the deciding body and the Planning Board a recommending body. *See* 59-A-4.48(a). Proceedings before the Planning Board are informal, not quasi-judicial. And the issue was thoroughly aired in the present hearing, with all parties having the opportunity to present evidence, examine and cross-examine, and make legal arguments. It is not clear that the waiver doctrine should apply under those circumstances. Since I reach "the same bottom line that a holding of non-preservation would reach, the result will probably be more satisfying and have more finality if it is one reached on the merits." *Colao*, 167 Md. App. at 203, 892 A.2d at 584.

[15] The transcript of the 2003 Planning Board subdivision proceeding confirms Rowe's testimony. It shows that the purpose of the subdivision was to create two residential lots and a 76.3-acre outlot (comprising both parcel 303 and what would become outlot A). Ex. 63 at 1. Although Board staff had been made aware of the possibility that the land might be used for radio towers, "that is not what we're reviewing tonight." *Id*. A representative appearing for the applicants assured the Board that the bulk of the property would either be residential (*id*. at 25) or "* * * will stay as it is. It's forested property, primarily." *Id*. at 26. It is unclear whether the representative spoke for the Birach interests

longer valid. *Id*. at 38. Second, outlot A and two residential lots (*see* n. 15) had been carved out of the tract platted in 2003 and were therefore now subject to a final forest conservation plan. *Id*. at 9. After subdivision approval expired in August 2006, parcel 303, the remainder of the original tract that had been severed by the subdivision, needed a new preliminary forest conservation plan focused solely on the unplatted remnant. *Id*.

Residents, supporting Rowe's analysis, argue that use of the 2003 plan is incompatible with the language of M.C. Code § 22A-11(c), which establishes procedures for projects requiring special exception approval. Ex. 68 at 12-17. Residents also argue that the 2003 preliminary plan of subdivision became the final forest conservation plan for the land platted in 2003, but cannot be used to plat parcel 303 because the preliminary subdivision plan for which it was created has expired.

b. Analysis. Forest conservation for projects requiring special exception approval are governed by § 22A-11. A forest stand delineation and forest conservation plan "must be submitted and reviewed in conjunction with the review process" for land-use permits, including special exceptions. Sec. 22A-11(a)(1).

The planning staff conclusion that the 2003 preliminary forest conservation plan cannot be used in support of the special exception petition is a reasonable construction of the language and

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(*see id.* 22), but a Sima Birach (*père* or *fils*) is explicitly listed as an owner of the property on the 2003 preliminary forest conservation plan. Ex. 25(e).

purpose of chapter 22. To the extent that the forest conservation law and its implementing regulations are ambiguous, the Board must defer to the expertise of the director of the Montgomery County Park and Planning Department, the agency primarily responsible for their interpretation and enforcement. *Cf. Comptroller of the Treasury v. Citicorp International Communications*, 389 Md. 156, 163, 884 A.2d 112, 116 (2005) (Court defers to agency's interpretation of statutes that it administers except for clear legal error); *Watkins v. Department of Public Safety and Correctional Services*, 377 Md. 34, 45-46, 831 A.2d 1079, 1086 (2003) (same); *Marzullo v. Kahl*, 366 Md. 158, 171-173, 783 A.2d 169, 176-178 (2001) (same, zoning). This Board does not have primary responsibility to interpret or enforce the forest conservation ordinance except to the extent that it must not authorize a special exception that conflicts with a preliminary forest conservation plan. It is the planning director and her agents who are authorized to determine whether a plan satisfies chapter 22 and its associated regulations. Here, staff member Rowe was chosen as the planning director's designee to explain her agency's position. Her testimony must be given substantial weight.

The initial prerequisite for obtaining forest conservation approval, "before the Board of Appeals may consider the application for a special exception," is the submission of a forest stand delineation to the planning director. Sec. 22A-11(c)(1).[16] A forest stand delineation, essentially an

[16] Sec. 22A-11(c) provides:

> (1) Forest stand delineation. If a special exception proposal is subject to the requirements of this Chapter, the applicant must submit a forest stand delineation to the Planning Director before the Board of Appeals may consider the application for the special exception. The deadlines for reviewing a forest stand delineation are the same as in paragraph (b)(1) of this Section.
>
> (2) Forest conservation plan. Upon notification that the forest stand delineation is

inventory of existing vegetation on site (§ 22A-3), "must be used * * * to find the most suitable and practical areas for tree and forest conservation." Sec. 22A-10(b)(1). Unless superseded by a final forest conservation plan or timely re-certified, a forest stand delineation expires after two years. Sec. 22A-10(b)(4). In the present case, the only currently approved delineation is the one prepared for this case in March 2006. Ex. 7(c)-(d).

Under § 22A-11(c)(2), only after notification that the "forest stand delineation is complete and correct" is the petitioner to submit a preliminary forest conservation plan to the planning director. The plan must contain various information, notably including "information on the extent and characteristics of the trees and forested area to be retained or planted," per § 22A-10(c)(1), as well as "conceptual locations of proposed structures and improvements" and designations of "preliminary limits of disturbance of the natural terrain, and location of forest and tree retention areas, including acreage." COMCOR § 22A.00.01.09A(2)(d)-(e).[17]

The 2003 preliminary forest conservation plan plainly does not satisfy the statutory and regulatory requirements. The current forest stand delineation was approved in 2006, almost three

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> complete and correct, the applicant must submit a preliminary forest conservation plan to the Planning Director. The Board of Appeals must consider the preliminary forest conservation plan when approving the special exception application and must not approve a special exception application that is in conflict with the preliminary forest conservation plan. A final forest conservation plan must be submitted before obtaining a sediment control permit, or at the time of preliminary plan of subdivision or site plan application, if required. * * *

[17] "'Limits of disturbance' means a clearly designated area within which disturbance is slated to occur." COMCOR § 22A.00.01.04B(29).

COMCOR refers to the Code of Montgomery County Regulations. The Forest Conservation Regulations are also published at http://mcparkandplanning.org/environment/forest/index.shtm using a different (superseded) numbering system.

years *after* the 2003 plan. That is the direct reverse of the statutory scheme, which requires that the delineation precede the plan that accompanies the special exception petition. This is not a mere technical failing. The evident purpose of the statutorily-prescribed order is to ensure that the preliminary plan will be based on present conditions on site. A plan that does not reflect current conditions is, almost by definition, incapable of taking those conditions into account. The information that it conveys to the Board is both incomplete and misleading.

Aside from the order of filing, the 2003 plan is defective because it bears no relationship to the project before the Board. The 2003 plan was prepared for Planning Board subdivision approval to create two residential lots and a 76.1-acre outlot. The 2003 plan contemplated that the outlot (including parcel 303) would have no development, absent further Planning Board subdivision approval.[18] Necessarily, a plan that contemplated *no* disturbances is devoid of information about the location of structures, roads, driveways, ground arrays, and other disturbances. The plan cannot remotely satisfy statutory or regulatory standards for a project that *does* create substantial disturbance. It omits relevant information demanded by M.C. Code § 22A-10(c)(1) and COMCOR § 22A.00.01.09. As such, the 2003 plan is clearly incomplete. And, as Residents note, any plan that fails to disclose "how the applicant intended to comply with [chapter 22] requirements for that project[] cannot possibly fulfill the 'in conjunction with' requirement of 22A-11(a)(1)." Ex. 68 at 15.

To be sure, as petitioners argue, the planning process is dynamic and the proposals in a preliminary plan may be modified in due course until acceptance of a final conservation plan. But

[18] To guard against non-agricultural use of any part of the 76.3-acre outlot, the Planning Board insisted that it be recorded and that proposals for non-agricultural use be submitted to the Board for additional Board subdivision review. Ex. 63 at 36-37; *see* ex. 56, 57.

there must be a suitable plan to begin with, one that provides sufficient information to this Board to evaluate the impact of the project under consideration. In that sense, the 2003 plan is little more than a blank paper. Providing the details of forest impact only at the time of filing a final forest conservation plan, as petitioners seemingly propose, defeats the purpose of requiring a preliminary plan that gives planning and zoning officials a far earlier opportunity to review the probable effects of a project on wooded areas.

Rowe could also plausibly conclude that the 2003 preliminary forest conservation plan prepared for the entire 91.8-acre tract expired when the subdivision occurred in part and approval expired in August 2006. Outlot A and two residential lots were created, platted, and recorded. Those properties, as Rowe testified, are subject to final forest conservation plans. The remaining 55 acres (parcel 303) remained in limbo until the preliminary plan for subdivision expired. *See* § 50-35(h)(3)(E)(i).[19]

Once the preliminary approval for subdivision expired, parcel 303 became a "new" property for all purposes, including forest conservation. Under forest conservation regulations, preliminary forest conservation plans are individualized, keyed to the property then under review. A preliminary plan must provide a table giving tract acreage, forest retention acreage, and the like. COMCOR § 22A.00.01.09.A(2)(9)(g). It must also contain a worksheet "showing calculation of forest conservation requirements." COMCOR § 22A.00.01.09.A(2)(9)(h).

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[19] That subsection provides in part:

> (i) If a preliminary plan is not timely implemented in whole or in part prior to the expiration of the validity period, the remaining portion of such plan not then validated also expires. * * *

The 2003 preliminary plan's information is relevant only to the original 91.8-acre tract, a property configuration that no longer exists; it provides no information in the form required by the forest conservation regulations for the truncated acreage in parcel 303. As a result, neither the necessary statistics nor the likely impact of the proposed special exception has been made available to the Board. In order to satisfy the requirements of §§ 22A-11(c)(2) and 59-A-4.22(a)(8), a *new* preliminary forest conservation plan limited to parcel 303 and so much of outlot A as will be affected by the special exception project is necessary. None exists in the record of this case.

In short, petitioners have not complied with § 59-A-4.22(a)(8). The Department of Planning (seconded by the Planning Board) could plausibly conclude that the 2003 preliminary forest conservation plan does not satisfy Chapter 22 and associated regulations because of the timing of filing, the lack of information about how the special exception use will affect existing forests, and the failure to relate the plan specifically to the post-subdivision configuration of the property.

3. Petitioners' challenge to Burrow's veracity and his personal animus.

Petitioners never moved to disqualify Burrow, but Birach challenged his veracity and implied that Burrow's testimony was motivated by personal bias. I find insufficient evidence to impugn Burrow's credibility.

During *voir dire* Burrow testified that he had never been employed by either petitioner. T. (10/19) 195; *see also* T. (10/20) 121. He answered "no" to the question whether he had ever had "any relationship whatsoever" with Birach. T. (10/19) 195.

On cross-examination, Burrow was confronted with an August 27, 2001, letter he had sent Birach after a dinner with Birach and two others in Washington "the other week," during which the

Damascus project was discussed. Ex. 60. In one paragraph, the page-and-a-half long letter suggests a way for Birach to deflect criticism that the project will disturb an "environmentally sensitive area." In another, it recommends Birach consider contacting a law firm that handles difficult County zoning cases, a jurisdiction "notorious for zoning issues." In two more paragraphs, Burrow suggests that Birach consider commissioning "field intensity measurements" for another Birach Broadcasting station operating on the same wavelength (540 kHz) as one of Burrow's clients.

On rebuttal, Birach called Burrow a liar. T. (10/20) 169 ("I never expected him to lie under oath"). Birach testified that he had hired Burrow to do preliminary site plans for the Damascus project and had fired him six to eight months later. *Id*. at 159, 163, 164, 167, 169. In between, Birach claims to have paid Burrow "in the thousands of dollars." *Id*. at 161-162.

The two stories are in obvious conflict but Birach, the one who was in a position to substantiate his own version, provided no documentary support – no contracts, no canceled checks, no site plans, no letters. An employment relationship that involved "in the thousands of dollars" and that ended six months later in discharge should have generated a substantial paper trail accessible to Birach from personal or corporate files. Birach's explanation for having no more evidence than Burrow's August 2001 letter to support his accusations is not credible. He claimed to have been surprised by Burrow's statement the previous day that he never worked for Birach. But Burrow was the opponents' star witness, the *only* broadcast engineer to testify for either side. He had already appeared for Residents at the July 26, 2006, TFCG meeting and had written a July 5 report filed with the TFCG. It is not believable that Birach would not earlier have assembled information in his possession that could be used to undermine Burrow's testimony.

Petitioners not only failed to introduce substantiating evidence at the hearing, they made no proffer to do so, despite Birach's declaration that telephone and pay records are "all records I'm sure we can get." T. (10/20) 160. Burrow's August 2001 letter is insufficient for the purpose. At most, it's a coy solicitation for work. That is not enough to discredit Burrow and his testimony on the merits.

B. APPLICATION OF FACTS TO ZONING STANDARDS.

A special exception is a zoning device that authorizes certain uses, provided that pre-set legislative standards are met. Pre-set legislative standards are both general and specific. The special exception is also evaluated in a site-specific context because there may be locations where it is not appropriate. Weighing all the testimony and evidence of record under a "preponderance of the evidence" standard (see Code § 59-G-1.21(a)), I conclude that the proposed special exception should be denied.

1. Inherent and Non-inherent Adverse Effects.

§ 59-G-1.2 Conditions for Granting a Special Exception.

> *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.*

Analysis of inherent and non-inherent adverse effects must first establish what physical and operational characteristics are necessarily associated with radio broadcast towers. Characteristics that are generic to all radio broadcast towers are *inherent* adverse effects. Physical and operational characteristics that are idiosyncratic, including adverse effects created by unusual site conditions, are *non-inherent* adverse effects. Inherent and non-inherent effects must be analyzed in the context of the particular property at issue and of the general neighborhood, to determine whether those effects are acceptable or would create adverse impacts sufficient to result in denial.

Seven characteristics are generally used to analyze inherent and non-inherent effects of a use of property: size, scale, scope, light, noise, traffic, and environment.

Physical and operational characteristics associated with AM radio broadcast towers include structures of sizable and conspicuous height, arrays of ground wires, warning lights for aircraft, equipment storage, and occasional service visits by employees. (An additional operational characteristic of radio broadcasting is radio frequency interference. This characteristic is regulated exclusively by the FCC).

Scope, noise, and traffic are not inherent adverse effects of radio towers.

The most notable *inherent* adverse effect of broadcast towers stems from their size, which causes them to mar the skyline for long distances. As Bussard put it, they "loom." They are both unsightly and visually unavoidable. Associated with their height are warning lights that add to light pollution in the night sky, also visible for great distances.

Scale is also an *inherent* adverse effect, but only in part. Stations are sometimes forced to construct more than one tower in order to direct their signals so that they do not interfere with transmissions from other stations operating at the same wave length. Scale, however, is partially

determined by the station's transmitting power. Reese noted that Birach Broadcasting would have needed six to ten towers had it chosen to operate at the highest power permitted by the FCC. T. (10/6) 101, 111. Burrow testified that, in his professional opinion, Birach Broadcasting could have "gotten away with two or three towers" if it reduced power to the FCC minimum. T. (10/19) 199. Here, then, the business decision to operate at more than the minimum dictated that four towers would be needed. That choice of scale produced partially avoidable *non-inherent* adverse effects involving the towers' visual impact and their placement (along with the associated ground arrays) in forests and in stream and wetland buffers. With fewer towers, the adverse effects could be reduced.

This project produces other *non-inherent* adverse effects. One stems from the towers' location on the highest ground in the County. Their elevation exacerbates the inherent adverse effect of height, especially in a rural setting. Higher elevations do not enhance performance of radio antenna towers; AM transmissions are affected by tower height, not altitude. In fact, positioning towers on different levels on hilly terrain, as in this case, can adversely affect performance. T. (10/20) 131-132 (Burrow). Good engineering standards counsel having antennas at the same elevation. *Id.* Tower visibility is discussed at greater length below in connection with consistency with the master plan, under § 59-G-1.21(a)(3)).

The use of this site also will have severe *non-inherent* adverse effects on prime woodlands protected by conservation easement or designated for protection. These non-inherent adverse effects are discussed in detail below in connection with § 59-G-1.23(d).

To the extent ground arrays at this location are buried, they can have significant *non-inherent* adverse effects on highly erodible soils located on 15% and 25% slopes, including slopes within 100 feet of wetlands and streams. The County *Environmental Guidelines* explicitly call for protective

buffers for streams and wetlands of 100 to 150 feet, depending on slope and soil. *Id.*, at 5-14 & tables 1 & 2.[20] Steep-slope erodible soils and wetland and stream buffers adjacent to them have been protected by environmental regulation since at least 2000, when the current *Guidelines* were published. I credit Rowe's testimony that staff interpretations of the *Guidelines* have not changed since Birach Broadcasting received the FCC construction permit in 2003. T. (10/20) 26.

The staff report states that the project will encroach into stream buffers on twelve of 24 acres with stream buffers, including on steep slopes with erodible soil. Ex. 1, 5. The calculation was based on petitioners' initial plans, showing ground disturbances of 455 feet around each tower. Ex. 4(c), 5(b).

Although petitioners now propose burying only 100 feet of each ground array wire, it is impossible to determine the effect of the new proposal on stream and wetland buffers from petitioner's exhibits. *See, e.g.*, ex. 5(c), 25(c), and 41, showing 25-foot wetland buffers. None shows the 100-150 stream buffers or the 100-foot wetland buffers protected by the *Environmental Guidelines*; *see* T. (10/20) 15-16 (Rowe: describing the difficulty of mapping adverse effects "without the benefit of a plan showing them all"). Rowe testified that several of petitioners' drawings, including the 2003 preliminary forest conservation plan, err by omitting erodible soils identifications and 100- to 150-foot stream and wetland buffers. T. (10/20) 26-28. Under the

[20] The Birach property is located among the headwaters of Bennett Creek. The entirety of Bennett Creek is classified by the Maryland Department of the Environment as "Use I-P." *Environmental Guidelines* at 59. Stream buffer widths for class I-P streams are listed in the first column of table 1. Under the *Guidelines*, wetland buffers are incorporated into stream buffers by virtue of state law. *Id.* at 8; *see* COMAR § 26.23.01.01. The state mandates 100-foot wetland buffers "where adjacent areas contain steep slopes or highly erodible soil." *Guidelines* at 8.

circumstances, all inferences must be drawn against petitioners, the parties with the burden of proof that the soil and buffers will not be adversely affected.

There is no support for Fielder's testimony that petitioners' more recent proposal is acceptable because the disturbances caused to soils and buffers are not "permanent." T. (10/19) 66. The *Guidelines* make no distinctions between "temporary" and "permanent" disturbances. *See id*. at 17, ¶ V.A.1.b (stream buffers: "* * * no activities requiring clearing or grading will be permitted in stream buffers [with exceptions not relevant to this use]"; at 22 ¶ V.B.1.d (wetland buffers: "Wetlands and their associated buffer areas must be maintained in their natural condition unless the proposed disturbance is for a project determined to be necessary and unavoidable for the public good"); *cf.* T. (10/20) (Rowe: "* * * we don't consider the removal of forest in terms of being a permanent or a temporary impact"). In any event, however, for reasons stated below in the discussion of forest conservation, § 59-G-1.23(d), petitioners have presented inadequate evidence that the 100-foot design is feasible.

The non-inherent adverse effects on the visual character of the area and on forests, soils, and wetland and stream buffers at this site are each a sufficient ground to deny the petition.

2. *§ 59-G-1.21. General conditions.*

(a) A special exception may be granted when the Board, the Hearing Examiner, or the District Council, as the case may be, finds from a preponderance of the evidence of record that the proposed use:

(1) Is a permissible special exception in the zone.

Radio towers are permitted in RDT districts by special exception under §§ 59-C-9.3, 59-G-2.44.

(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 special exception does not comply with the specific standard § 59-G-2.44(a)(3), requiring a petitioner to establish that tower heights over 275 feet are necessary to meet minimum FCC standards. It also does not comply with § 59-G-2.44(a)(4), which requires broadcast towers to be sited to minimize their visual impact. Although petitioners complied with § 59-G-2.44(a)(11), requiring the filing of recommendations from the TFCG, they followed none of TFCG's recommendations. For detailed a discussion, see 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.

This subsection of the Zoning Ordinance allows this Board, using independent judgment, to find consistency with a master plan even when the Planning Board and staff do not. There is no need to do so here. The staff report finds the proposed use to be inconsistent with the rural vista guidelines in the 2006 Damascus master plan and adds: "The applicant has not submitted information explaining why this location is the best and only location where the towers can be relocated." Ex. 22 at 4.

Before reaching the merits of the master plan issue, it is necessary to address petitioner's argument that the 2006 master plan cannot affect rights they say vested when the FCC issued Birach Broadcasting's construction permit in 2003. Under Maryland law, courts apply the law in effect at

the time of decision. *See e.g., Sycamore Realty Co. v. People's Counsel*, 344 Md. 57, 684 A.2d 1331 (1996); *Powell v. Calvert County*, 368 Md. 400, 416, 795 A.2d 96, 103 (2002); *Steuart Petroleum Co. v. Commissioners of St. Mary's County*, 276 Md. 435, 347 A.2d 854, 859; *Ross v. Montgomery County*, 252 Md. 497, 502, 250 A.2d 635, 638 (1969).

No zoning rights vest in Maryland until a local building permit has been issued and substantial construction begun:

> "In Maryland it is established that in order to obtain a `vested right' in the existing zoning use which will be constitutionally protected against a subsequent change in the zoning ordinance prohibiting or limiting that use, the owner must (1) obtain a permit or occupancy certificate where required by the applicable ordinance and (2) must proceed under that permit or certificate to exercise it on the land involved * * *."

Sycamore Realty, 344 Md. at 67, 684 A.2d at 1336, quoting *Richmond Corp. v. Board of Commissioners*, 254 Md. 244, 255-256, 255 A.2d 398, 404 (1969). Preliminary expenditures do not cause rights to vest. *Sycamore Realty*, 344 Md. at 67, 684 A.2d at 1336, citing *Prince George's County v. Sunrise Dev.*, 330 Md. 297, 623 A.2d 1296 (1993), and *Ross*, 252 Md. 497, 250 A.2d 635; *see*, similarly, *Steuart Petroleum Co.*, 276 Md. at ___, 347 A.2d at 860. Here, the FCC permit is a necessary but not sufficient condition for construction. Zoning approval is also necessary, a step independent of, and not preempted by, FCC approval. Since zoning proceedings remain at a nascent stage, no rights have vested and the intervening 2006 master plan became applicable to this project.[21]

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[21] Federal courts also follow the proposition that courts must generally apply the law in effect when they make their decisions. *See In re Schooner Peggy*, 1 Cranch (5 U.S. 103, 110 (1801) (Marshall, C.J.) (when the law has changed while a case is on appeal, "the [new] law must be obeyed"); *Bradley v. School Board*, 416 U.S. 696, 711 (1974) (a court should "apply the law in effect at the time it renders its decision, unless doing so would result in manifest injustice").

a. *Vistas*. For reasons stated in the discussion on preemption, the 2006 Damascus master plan is flexible enough to permit radio towers to be constructed in the Damascus area when necessary to provide services that can be provided nowhere else in the County. The plan states that land uses that spoil scenic landscapes should be "discouraged." This is language softer than "prohibit." It permits this Board to allow radio towers in the Damascus area when necessary to permit an FCC licensee to broadcast.

Rather than prohibiting radio towers altogether, the plan provides guidance for evaluating petitions to place towers at given sites. Essentially, it augments provisions of the Zoning Ordinance requiring each special exception use to be scrutinized in relation to its unique adverse effects at a particular site or on a particular neighborhood. See §§ 59-G-1.2 ("unusual characteristics of the site"); -1.21(a)(4) ("general character of the neighborhood"); -1.21(a)(5) ("surrounding properties"); -1.21(a)(8) ("in the area at the subject site"). The Ordinance already provides that a radio and television antenna "must be sited to minimize its visual impact." Sec. 59-G-2.44(a)(4). The master plan ensures that rural vista protection must be an element of a "visual impact" analysis and that all structures, not just broadcast antennas, be subject to visual impact review.

From the perspective of visual impact on rural vistas alone, the Birach property is singularly unsuitable for four 411-foot towers, for reasons already stated. The towers will be positioned in the highest elevations in the County. They will be, by far, the tallest structures in the County within a six-mile radius. The four towers will increase the number of antennas in the radius by 44%.

The combination of height and altitude makes them especially prominent and visible for long distances. Although one or more existing antennas may also be visible in the Damascus area, depending on the location of the observer, there is no evidence that the shorter existing towers are as

omnipresent. And, as respondent Bussard noted, trees mask smaller, lower structures more than taller, higher ones. T. (10/19) 145-146.[22]

b. *Legacy Open Space*. The staff report states that the proposed project's clearing of forest and stream valley encroachments are inconsistent with the legacy open space goals of the master plan.

In the present case, the plan goals simply duplicate existing restrictions on incursions on forests and stream and wetland buffers. Those restrictions, which are discussed elsewhere in the report, already require denial of the petition. The master plan legacy open space objectives add nothing to the analysis.[23]

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[22] By their failure to take vegetation into account, neither the staff's nor Fielder's terrain-only exhibits (ex. 35 and 43-45) are particularly helpful. The staff exhibit, at least, is focused on the project before the Board. While there are other towers nearby, the issue in this case is whether this project, at this site, should be allowed to exacerbate existing visual pollution.

[23] I do not read the staff report as implying that no productive use can be made of the Birach property under the legacy open space language of the master plan. Rather, to the extent required by the County Forest Conservation Ordinance and Environmental Guidelines, certain natural resources are to be protected from exploitation. That is not a constitutional taking under the Fifth Amendment of the United States Constitution and Article III, § 40, of the Maryland Constitution, as petitioners suggest. Restrictions that place limits on the use of property, or on parts of a piece of property, but still permit economic or productive uses are not considered takings. *Compare, e.g., Palazollo v. Rhode Island*, 533 U.S. 606, 631 (2001) (no taking where parcel could be used for $ 200,000 residence but not for 74-lot residential subdivision or for private beach club); *Penn Central Transportation Co. v. City of New York*, 438 U.S. 104, 124-125 (1978) (land-use regulations that partially restrict the use of property do not normally constitute a taking), *with Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1022-30 (1992) (property owner denied all economically beneficial or productive use of his land by government regulation has likely suffered a taking). The Maryland constitutional provision is regarded as having the same meaning and effect as the federal Takings Clause. *Neifert v. Department of Environment*, 395 Md. 486, 517, 910 A.2d 1100, 1118 (2006).

There is nothing in the record to establish that Birach will be denied all economic or productive use of his property if the special exception petition before this Board is denied.

(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.

Broadcast towers are inherently out of harmony with the general character of a rural neighborhood because of their scale, an inherent characteristic. That cannot alone be disqualifying. Otherwise, it would be impossible ever to implement the Zoning Ordinance's authorization to locate them in RDT zones by special exception.

The project will not affect the general character of the neighborhood by the intensity and character of activity, increased traffic, or parking needs. It has no impact on population density.

As noted, although nine antenna towers of various sorts are visible within a six mile radius of downtown Damascus, these four will be the tallest and most visible, and will create the densest agglomeration. The non-inherent impact of the site's location at the highest point in the County and the extreme height of the towers make the proposal dramatically inharmonious with the general character of the neighborhood.

(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 peaceful enjoyment of surrounding properties and the general neighborhood will be adversely affected by the aesthetic degradation the towers cause. In part, that is an inherent factor of broadcast towers. Here, however, the effect is aggravated by the extreme height of the towers and their location at the highest elevations in the County.

The record contains no evidence directly addressing the effect of the project on economic value or development. Fielder conceded that she could not speak to property values. T. (10/19) at 48. No other witness testified about them. The staff report states (ex. 22 at 13): "The proposed use

* * * may be detrimental to the economic value of any nearby properties in the surrounding rural neighborhood, although this is perhaps an inherent element of the proposed use." Absent more specific evidence, I make no additional findings on the point.

It is a fair inference that the project is likely to deter residential development in the vicinity. If so, the effect may not be harmful in an agricultural RDT zone if it results in more land remaining in agricultural use.

> *(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.*

There is no evidence that the towers and transmission facility, once completed, will cause objectionable noise, vibrations, fumes, odors, dust, or physical activity at the site. The towers will have rotating beacons at their tops and warning lights at mid-height in compliance with FAA air safety regulations, an inherent effect. Visibility will be more pronounced than if the towers were located at lower altitudes. There is no evidence that the lighting will produce objectionable glare; Birach testified to the contrary without contradiction. *See* T. (10/6) 28.

> *(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 or sector plan do not alter the nature of an area.*

The towers will not be situated in or near a one-family residential area. Ex. 22 at 14.

> *(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.*

The towers will not adversely affect the health, safety, security, morals, or the general welfare of residents or others.

The towers will be adequately fenced against trespassers, but no fencing is planned for the extensive ground arrays, most of which will be exposed under the current plan, which involves burying only the first 100 feet of the ground arrays. Were the special exception to be granted, fencing for the arrays should be a necessary condition.

> *(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.*

The staff report states that public facilities in the area can adequately serve the proposed use. Ex. 22 at 14. I accept this finding.

> *(i) If the special exception use requires approval of a preliminary plan of subdivision the adequacy of public facilities must be determined by the Planning Board at the time of subdivision review. In that case, subdivision approval must be included as a condition of the special exception. If the special exception does not require approval of a preliminary plan of subdivision, the adequacy of public facilities must be determined by the Board of Appeals when the special exception is considered. The adequacy of public facilities review must include the Local Area Transportation Review and the Policy Area Transportation Review, as required in the applicable Annual Growth Policy.*

The proposed use is not exempt from subdivision review. *See* M.C. Code § 50-9; staff report, ex. 22 at 15. While telecommunications towers (used for telephone and other wireless services) are exempt from subdivision review, radio and television broadcasting towers are not considered telecommunications towers. Chapter 50 adopts the Zoning Ordinance's definitions. Sec. 50-1. The Zoning Ordinance distinguishes telecommunications facilities and antennas from radio and television tower/antennas. *See* definitions in 59-A-2.1.[24]

[24] A telecommunications facility is defined as "[a]ny facility established for the purpose of providing wireless voice, data or image transmission within a designated service area." Sec. 59-A-

The preliminary plan for the property expired in August 2006. *See* above, part VI.A.2. If the special exception were granted, approval of a preliminary plan of subdivision would be a necessary condition.

> *(ii) With regard to findings relating to public roads, the Board, the Hearing Examiner, or the District Council, as the case may be, must further determine that the proposal will not reduce the safety of vehicular or pedestrian traffic.*

The staff report states that this criterion is not relevant to the proposed use. Ex. 22 at 15. This appears to be correct. The Planning Board will make a finding regarding traffic impact at subdivision, if the special exception petition is approved.

> *(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 facts regarding public facilities does not bind any other agency or department which approves or licenses the project.*

Were the special exception to be granted, petitioners would have to obtain all permits required by applicable law.

> *(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. The burden includes the burden of going forward with the evidence, and the burden of persuasion on all questions of fact.*

For reasons stated throughout this report, petitioners have not met their burdens of persuasion that their petition should be granted.

3. *Additional requirements, § 59-G-1.22.*

> *(a) The Board, the Hearing Examiner, or the District Council, as the case may be, may supplement the specific requirements of this Article with any other requirements necessary to protect nearby properties and the general neighborhood.*

2.1. Also *compare* 59-G-2.44 (radio and television antennas) *with* 59-G-2.58 (telecommunication facilities).

I recommend denial of the petition. No other requirements are necessary at this point.

(b) Using guidance by the Planning Board, the Board, the Hearing Examiner, or the District Council, as the case may be, may require a special exception to comply with Division 59-D-3 if:

(1) The property is in a zone requiring site plan approval, or

(2) The property is not in a zone requiring site plan approval, but the Planning Board has indicated that site plan review is necessary to regulate the impact of the special exception on surrounding uses because of disparity in bulk or scale, the nature of the use, or other significant factors.

The staff report does not state that site plan approval is necessary.

4. *General development standards, § 59-G-1.23.*

(a) Development Standards. Special exceptions are subject to the development standards of the applicable zone where the special exception is located, except when the standard is specified in § G-1.23 or in § G-2.

The special exception satisfies all but one development standard, that for street frontage. *See* section IV E of this report. The minimum street frontage requirement should be waived in accordance with § 59-G-1.23(c)(5). The staff report states that street frontage is not a significant issue for this use.

(b) Parking requirements. Special exceptions are subject to all relevant requirements of Article 59-E.

No parking requirements apply to this use. No parking facility is needed or proposed.

(c) Minimum frontage. In the following special exceptions the Board may waive the requirement for a minimum frontage at the street line if the Board finds that the facilities for ingress and egress of vehicular traffic are adequate to meet the requirements of section 59-G-1.21:

* * *

*(5) Public utility buildings and public utility structures, including radio and T.V. broadcasting stations and telecommunication facilities * * *.*

The use will generate no traffic except for one weekly inspection trip. Street frontage is adequate for that purpose from the existing driveway. I recommend waiver.

> *(d) Forest conservation. If a special exception is subject to Chapter 22A, the Board must consider the preliminary forest conservation plan required by that Chapter when approving the special exception application and must not approve a special exception that conflicts with the preliminary forest conservation plan.*

As discussed in detail in Part VI.A.2 above, no current preliminary forest conservation plan exists for this property or this use. The following discussion is therefore academic unless this Board or other reviewing body disagrees with that conclusion.

The proposed project conflicts with outlot A's existing conservation easement and with the forest retention areas outlined on the lapsed 2003 preliminary forest conservation plan. The 2003 plan depicts two forest retention areas on parcel 303, 17+ acres on the east and 35+ acres on the west (including land that was later incorporated into outlot A). The 2003 plan designated those areas to be placed into "type I" conservation easements. Type I easements permit no disturbance whatever. T. (10/6) 166; *see* ex. 47. Fielder and Rowe disputed the quality of the forest, but most relevant facts are not in dispute. Much of the forest is located in sensitive areas, including on steep slopes and near wetlands. *See* COMCOR § 22A.00.01.07 (establishing standards). The 2006 forest stand delineation/natural resources inventory (ex. 7(c)-7(d)) establishes that the forests are growing in highly erodible soil on 15% and 25% slopes.

In the forest stands that matter most, stands 3, 5, and 6, invasive species account for less than 2% of canopy cover and no more than 10% of shrubs and herbs in the most contaminated stand. Ex. 7(c)-(d). While the 2003 plan no longer has legal effect, its designations of areas that warrant the

highest degree of protection remain presumptively accurate. The 2006 forest stand delineation supports, rather than undermines, those designations.

Under petitioners' original plans for their project, in May 2006, major forest disturbance was slated to occur in wide areas covered by easement or designated for type I conservation protection. Petitioners' early exhibits (ex. 4(a), 4(c), 5(b)) show massive "limits of disturbance" ranging from 22 acres (Fielder) to 39 acres (Rowe). However much acreage was to be cut down, the damage would be profound. The plans show that roughly one-fourth of outlot A and half of the forest retention areas on parcel 303 would have been denuded. The Planning Board and staff report could therefore reasonably conclude that the project "does not meet Forest Conservation requirements and impacts recorded Forest Conservation easements." Ex. 27; 22 at 1; *see* ex. 22 at 4 (will cause "significant forest disturbance"); *id*. at 17 ("greatly disturb the forest").

In September 2006, petitioners abandoned their May plan, but, effectively, only in form. The September plan proposed clearing only the closest 100 feet around each tower and leaving the remaining 355 feet of ground wire exposed. The permanent disturbance area of the new plan would not intrude into outlot A. Fielder estimated, without contradiction, that about 4.5 acres would need to be cleared.

If the September 2006 plan were feasible, it would still present forest conservation problems. All of the 100-foot clearings around towers 2 and 4, and 80-85% of the circle around tower 1, are located in parts of the property designated for forest retention. It's possible that the Planning Board and staff might have found the September plan acceptable, leaving aside its feasibility. The new plan, mailed after the staff report was issued and a few days before the Planning Board meeting, was

received too late to be addressed by the Board, much less be encompassed in the staff report. Because of petitioners' late filing, the planning agencies never had an opportunity to comment.

The record in this hearing, however, not only lacks substantial evidence that the September plan is feasible, the preponderance of the evidence indicates that it is not. Surface arrays of this size in forested, steeply sloped hills are untested. Birach Broadcasting had never used surface arrays in forests; its site engineer had never drawn up plans for towers and arrays in forested land.

As a rule, the FCC anticipates that "the ground system should consist of *buried* radial wires * * *." 47 C.F.R. § 73.189(b)(4); italics added. TFCG recommended that changes to the ground array be reviewed by the FCC. Birach Broadcasting introduced no evidence of FCC review. Burrow, the only engineer to testify, said that it is at best conjectural whether a system of crooked and exposed wires in forests could function. He thought it most likely that performance would be degraded, especially at night. Reese conceded that surface arrays are "unusual." Even when arrays are fully buried, he stated that it was "not good engineering practice" to allow vegetation to grow back.

Whether a surface ground array will work will become known only after the station becomes operational. At that point, it is fanciful to think that Birach Broadcasting will dismantle its towers if the system fails. Rather, Burrow testified, the FCC will give Birach Broadcasting temporary operational authority to attempt cures. In the end, however, burial of the entire array may be the only option. If so, petitioners would effectively revert to their May 2006 plans, resulting in the devastation to forests foreseen by the Planning Board and staff.

Given that no evidence exists that surface ground arrays are workable, petitioners have not met their burden of persuasion that the special exception use proposed is consistent with any forest

conservation exhibit in the record. To repeat, however, no valid preliminary forest conservation plan exists.

> *(e) Water quality plan. If a special exception, approved by the Board, is inconsistent with an approved preliminary water quality plan, the applicant, before engaging in any land disturbance activities, must submit and secure approval of a revised water quality plan that the Planning Board and department find is consistent with the approved special exception.*
>
> *Any revised water quality plan must be filed as part of an application for the next development authorization review to be considered by the Planning Board, unless the Planning Department and the department find that the required revisions can be evaluated as part of the final water quality plan review.*

No water quality plan is needed at this site. *See* ex. 22 at 16.

(f) Signs. The display of a sign must comply with Article 59-F.

The only signs will be small ones required by the FCC. They will not be illuminated and will not be visible more than a short distance from the towers and transmission building.

*(g) Building compatibility in residential zones. * * **

Not applicable. The property is located in an agricultural zone.

*(h) Lighting in residential zones. * * **

Not applicable. The property is located in an agricultural zone.

5. *Specific Standards.*

a. Definition, § 59-A-2.1.

Radio and television broadcasting stations and towers. *Any facility used to transmit radio or television communications that are intended to be received by the general public. A television antenna or aerial is not a television station or tower and is exempt from height controls under Division 59-B-1.*

b. Sec. 59-G-2.44. Radio and television broadcasting stations and towers.

(a) Any radio and television broadcasting station or tower 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, * * *.*
>
> *c. The setback from a property line is measured from the base of the support structure to the property line.*
>
> *d. The Board of Appeals may reduce the setback requirement to not less than the building setback of the applicable zone if the applicant requests a reduction and 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.*

The towers meet this setback requirement, even though tower 2 and possibly tower 4 will be fewer than 411 feet from the lot line separating parcel 303 from outlot A. T. 98-100. The staff report states that the support structure will meet the setback requirement without elaborating the reasons for its conclusion. Ex. 22 at 8. Petitioners argue that the setback requirement is satisfied because Mr. Birach owns both pieces of property and therefore the "property line" is the outer boundary of parcel 303 and the outlot. Ex. 64 at 19-20. Residents assert that the lot line between the two pieces must be respected. Ex. 68 at 3-5.

The Zoning Ordinance is ambiguous. "Setback" is a defined term directly related to lot lines: "The minimum distance that a building or parking area is set back from a *lot line*, according to the requirements of the relevant provisions of this chapter." Section 59-A. 2.1; italics added. But § 59-G-2.44(a)(1) measures the distance from the "property line," not the "lot line," implying a distinction between the two phrases. On the other hand, as respondents point out, setback standards recently enacted for telecommunications towers (§ 59-G-2.58(a)(1)(c)) explicitly use the term "perimeter

property line" rather than either "lot line" or "property line." Fortunately, the Board is spared having to decipher the Ordinance's meaning because of the Maryland Court of Appeals' adoption of the doctrine of "zoning merger."

Under the "zoning merger doctrine," contiguous lots with common ownership are merged by operation of law for zoning purposes, even if they remain discrete lots under a subdivision plan. In *Friends of the Ridge v. Baltimore Gas & Electric Co.*, 352 Md. 645, 724 A.2d 34 (1999), the Court held that a utility could ignore existing lot lines to expand a power station when it owned three contiguous lots. The utility had obtained administrative special exception approval to expand the power station into two of its vacant lots. New construction would violate setback requirements if the lots were deemed to be separate. Because of "zoning merger," however, the lots merged into a larger parcel without the need for official action. *Id.*, 724 A. 2d at 38. The utility could expand without obtaining a variance if the power station satisfied the setback standards as measured from the exterior property lines of the merged lots, considered as a whole. Unless the zoning ordinance "specifically and clearly prohibits it," the owner of contiguous lots can combine them "without violating the *zoning* code," irrespective of laws governing subdivision. *Id.*, 724 A. 2d at 35-36; italics in original. When an owner asserts a right to use adjacent lots as a single parcel to meet zoning standards, her intent to merge them is inferred. *Id.*, 724 A. 2d at 40.[25]

Friends of the Ridge remains governing law. In *Remes v. Montgomery County*, 387 Md. 52, 874 A.2d 470 (2005), the Court of Appeals applied the zoning merger doctrine irrespective of

[25] The Baltimore zoning ordinance at issue in *Ridge*, like §59-G-2.44(a)(1), defined setback in terms of distance from the "'property line.'" *Friends of the Ridge*, 352 Md. at 660, 724 A. 2d at 42, quoting the definition of setback in the Baltimore County zoning ordinance. As previously noted, the Montgomery County Zoning Ordinance defines setback generally by measurement to the "lot line," but § 59-G-2.44(a)(1) measures to the "property line."

Montgomery County's subdivision law. There, Duffie, the owner of adjacent lots 11 and 12, sold lot 11 to a developer, Design Tech. Duffie retained ownership of lot 12. That lot contained a residence that encroached on rear and side setback requirements on the lot 11 side of the residence. Duffie's parents, the previous owners of both lots, had treated lot 11 as accessory to lot 12, using it to build a swimming pool and a driveway for access to their lot 12 residence. Both lots had been assessed as one lot for taxation for almost fifty years, but the elder Duffies never initiated the County's re-subdivision procedures to merge the two lots. The Department of Permitting Services issued a building permit to Design Tech, the lot 11 purchaser, to build a new house on that lot. A neighbor appealed to this Board, which upheld issuance of the permit.

The Court reversed this Board based on the zoning merger doctrine. It ruled that the two lots remained separate for subdivision purposes, but "are combined for zoning purposes." *Id.*, 874 A.2d at 478. Zoning merger determines what use can be made of the property under existing zoning regulations. *Id.*, 874 A.2d at 481. Zoning merger is restricted only when a zoning ordinance itself specifically and clearly prohibits it. The Montgomery County Zoning Ordinance does not do so. *Id.*, 387 Md. at 71-72 n.15, 874 A.2d at 481 n. 15. Subdivision ordinance restrictions, even though they provide for formal subdivision and re-subdivision, do not prevent zoning merger. *Id.*, 874 A.2d at 482-483, 485-486.

Zoning merger in *Remes* prevented lot 11 from being separated from lot 12 for zoning purposes; otherwise, lot 12 would have become an "illegal nonconforming lot," given its existing setback encroachments. *Id.*, 874 A.2d at 488. Lot 11 could be subdivided from lot 12 only if both lots met the requirements of both the zoning and subdivision ordinances, perhaps by removing the existing setback encroachments. *Id.*, 874 A.2d at 490.

The *Friends of the Ridge* holding (confirmed and not weakened by *Remes*) means that outlot A and parcel 303 are merged for zoning because of their common ownership. It follows that setbacks must be measured from the external perimeter of the merged property, not from internal subdivision lines. By definition, the outlot cannot be "occupied by a building or otherwise considered as a buildable lot," but it can be used to satisfy § 59-G-2.44(a)(1)'s setback standards. Since all of the towers are more than 411 feet from the property line, they meet those standards.

Zoning merger here does not undermine the ostensible purposes of tower setbacks. These will be sited far more than 411 feet from property used for any other purpose or owned by someone other than Mr. Birach. In the future, *Remes* assures that any proposed subdivision is impossible unless the new lot lines remain farther than 411 feet from all towers.[26]

> *(2) A support structure must be set back from any off-site dwelling as follows:*
>
> *a. In agricultural and residential zones, a distance of 275 feet.*
>
> *b. In all other zones, * * **
>
> *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 * * *.*

The towers will be located substantially more than 275 feet from any residence.

> *(3) The structure supporting the antenna used for radio and television broadcasting must not exceed 275 feet in height, unless it can be demonstrated that the additional height is necessary to comply with the minimum requirements established by the Federal Communications Commission. At*

[26] The Planning Board's 2003 approval of the preliminary subdivision provided that the outlot (comprising parcel 303 and outlot A) could not be converted to a lot under M.C. Code § 50-35A. Ex. 55, ¶ 9. That condition was unaffected by the *zoning* merger doctrine. The 2003 subdivision approval has lapsed and it is uncertain what effect ¶ 9 will have on future *subdivision* applications, if any.

> *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.*

Petitioners did not establish by a preponderance of the evidence that the height of the proposed towers is the minimum necessary to comply with FCC requirements. The record contains substantial evidence that the towers must exceed 275 feet for an AM station transmitting at 540 kHz. Implicit in subsection (a)(3), however, is the proposition that towers that are taller than 275 feet are justified only to the extent that the additional height is essential to meet FCC requirements. The exception to the 275-foot limit effectively restricts taller structures to the FCC minima.

Petitioners did not establish by a preponderance of the evidence that their project requires towers rising 411 feet. Reese testified that the FCC authorized that height, not that the height was essential to provide service to Damascus. Burrow testified convincingly that the heights of the towers could be reduced substantially using top-loading. That technique has been used elsewhere with FCC approval and without perceptible signal distortion. To be sure, Burrow told the TFCG he had not performed an allocation study for the Damascus site (ex. 32(a) Jul. 26, 2006, minutes excerpts at 7), but Burrow testified in this proceeding that he had "never had any difficulty in making the top loaded towers work" during his professional career. T. (10/19) 203. Birach also has the option of reducing power. From all that appears in the record, a reduction in power will permit a reduction in height as well. Burrow testified (albeit in summary fashion) that it was his professional opinion that the height could be lowered by operating at lower power. Petitioners presented no evidence that Burrow is mistaken. Indeed, Reese's testimony (T. (10/6) 90) relating the height of

these towers directly to Birach Broadcasting's business decision to operate at 1000 watts tends to support, rather than contradict, Burrow's conclusion.

By failing to present evidence that neither option is workable, petitioners did not meet their evidentiary burden to establish that the proposed tower height is essential to comply with minimum FCC requirements. Petitioners' failure to meet their burden of proof by testimony or other evidence that the tower height is irreducible in order to meet FCC standards is all the more remarkable in light of the TFCG's recommendations that petitioners present evidence to that effect. Ex. 32(b).[27] In short, petitioners have not established compliance with § 59-G-2.44(a)(3).

> *(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.*

As previously stated, the antennas are not sited to minimize their visual impact. Vegetation will screen the bottom of the base of the towers to a height of at least six feet. However, because of their height they will be prominent and visible in large portions of the Damascus master plan area.

> *(5) The property owner must be an applicant for the special exception for each support structure. Any radio or television antenna that is collocated on an existing tower with another radio or television antenna is not required to obtain a special exception. A modification of a radio and television station or tower special exception is not required for a change to any use within the special exception area not directly related to the special exception grant. The equipment compound must*

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[27] TFCG included two conditions explicitly demanding additional evidence (italics added):

> 1. The applicant should provide *evidence* that it has explored other options * * * regarding the height * * *;
> 2. The applicant must submit *evidence* that the tower height is the minimum height necessary[.]

have sufficient area to accommodate equipment sheds or cabinets associated with a station or tower.

Birach testified that he is the owner of the property. He is one of the petitioners. Ex. 1(c). The property is large enough to accommodate the proposed equipment building. The collocation exception does not apply because no pre-existing antenna exists on site.

(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 illumination to be provided is required by the FAA. Signs will comply with FCC and County mandates.

(7) Every freestanding radio and television broadcasting tower must be removed at the cost of the owner when no longer in use for more than 12 months.

According to the staff report, petitioners have agreed to this requirement. Ex. 22 at 11.

(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.

According to the staff report, petitioners have agreed to this requirement. Ex. 22 at 11.

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

The proposal does not envisage outdoor storage. The transmitter and related equipment will be housed in a 20- by 30-foot shed. The surface wires in the ground array system are not "storage" because they would be in use.

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

According to the staff report, petitioners have agreed to this requirement. Ex. 22 at 11.

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

The July 27, 2006 TFCG report, recommending approval with conditions, is in the record. Ex. 32(b).

(12) Prior to the Board granting any special exception for a radio and television broadcasting tower, the proposed facility must be reviewed by the County Transmission Facility Coordinating Group.

TFCG reviewed the May 2006 version of the proposal but not the September version altering the ground array.

Petitioners do not meet four of the five conditions included in TFCG approval. They have not established by a preponderance of the evidence that the proposed height is the minimum necessary to provide AM radio service to Damascus. They have not established that they explored other options regarding tower height. They presented no evidence that they received FCC review and approval of the design change to the antenna arrays. They do not satisfy other special exception requirements as outlined in this report.

Petitioners do meet the fourth TFCG condition, that the equipment structure comply with the Zoning Ordinance.

(b) Any radio and television broadcasting station or tower existing as of December 26, 2005 may continue as a conforming structure. However any structural change, repair, addition, alteration or reconstruction of a tower existing before December 26, 2005 must not result in an increase in the height of the tower above the height of the tower as it existed before December 26, 2005.

Inapplicable; this is a new project.

V. RECOMMENDATIONS AND CONDITIONS.

For the reasons stated, I recommend denial of this petition.

Respectfully submitted.

LUTZ ALEXANDER PRAGER
Hearing Examiner

Dated: April 9, 2007