



FAIRFAX COUNTY PLANNING COMMISSION

October 15, 2014

PUBLIC HEARING FOR PLANNING DETERMINATION

Pursuant to
Va. Code Sec. 15.2 - 2232

Public Hearing Date: Wednesday, October 29, 2014 at 8:15 p.m.

Application Number: 2232-P14-6

Applicant: Verizon Wireless and Milestone Communications, Inc.

Proposed Use: Telecommunications Facility – 108' tree pole

Subject Property: Tax Map 39-2 ((8)) 2A
8100 Wolftrap Road, Vienna, VA 22182
Kilmer Middle School

Supervisor District: Providence District

Application Received: April 16, 2014
Application Accepted: June 9, 2014
Application Amended: June 10, 2014 through October 9, 2014

Recommendation: In accordance with Va. Code Sec. 15.2-2232, staff recommends that the Planning Commission find the proposal by Verizon Wireless and Milestone Communications, Inc., to construct a 108 foot tall tree pole at 8100 Wolftrap Road, to be substantially in accord with provisions of the adopted Comprehensive Plan.

PLANNING DETERMINATION

Section 15.2 -2232 of the Code of Virginia



Number: 2232-P14-6

Acreage: 23.176 Ac.

District: Providence

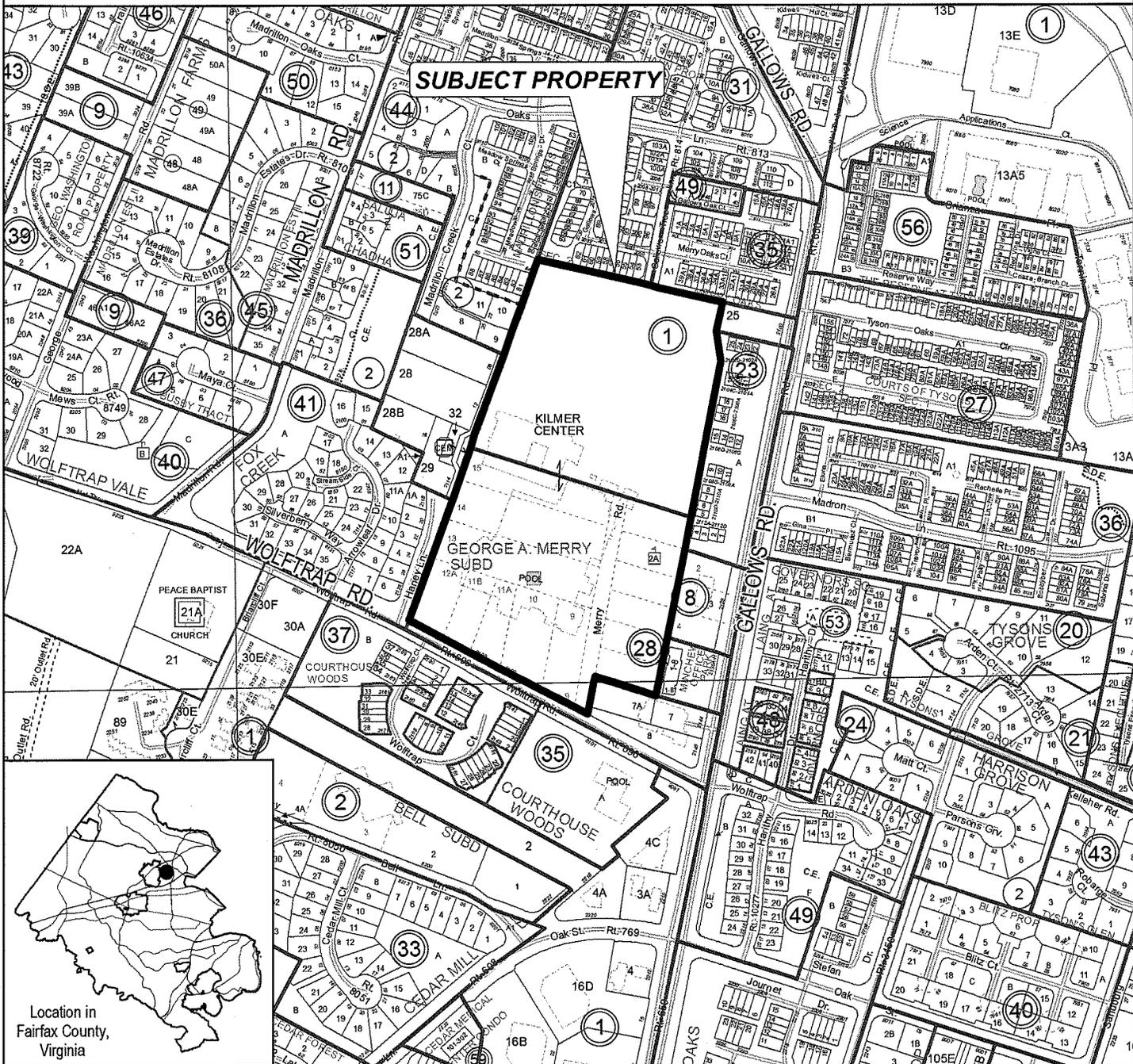
Tax Map ID Number: 39-2 ((8)) 2A

Address: 8100 Wolfrap Road
(Kilmer Middle School) Vienna, VA 22182

Planned Use: Public Facilities, Govt. & Inst.

Applicant: Verizon Wireless and Milestone Communications

Proposed Use: Telecommunications



500 FEET

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING
USING FAIRFAX COUNTY GIS



APPLICATION*Attachment A***Proposal:**

Construct a 108 foot tall tree pole at Kilmer Middle School. The tree pole supports 12 telecommunications panel antennas for Verizon Wireless (Verizon), and telecommunications antennas for 3 future carriers. An associated 2,133 square foot (SF) equipment cabinet compound adjacent to the monopole contains an equipment shelter for Verizon, a natural gas generator for emergency back-up power for Verizon's operations, and equipment pads for 3 future carriers. The equipment compound is screened by an 8 foot tall chain link fence with black concealment slats, in addition to adjacent tree cover and additional landscaping.

Applicant:

Verizon Wireless and Milestone Communications, Inc.

Subject Property:

Tax Map: 39-2 ((8)) 2A

Location: 8100 Wolftrap Road, Vienna, VA 22182

Site Size: 23.176 acres (including the adjacent Kilmer Center at 8102 Wolftrap Road)

Owner: School Board of Fairfax County

Zoning District: R-3

Existing Site Conditions:

The site is developed with the Kilmer Middle School and Kilmer Center for special education. Open space to the north of these complexes consists of two athletic fields.

STATEMENT OF JUSTIFICATION*(Included in Attachment A)***Project Justification:**

The applicant states that it is necessary to construct a 108 foot tall tree pole at Kilmer Middle School (KMS) and install new telecommunications equipment, in order to rectify existing coverage gaps and provide enhanced service to residences and commuters along the corridors of I-495, Gallows Road, and Leesburg Pike (Route 7). Enhanced service is also provided to adjoining neighborhoods, particularly to the west and south of the site in the Providence District. The proposed site not only fills gaps but enhances 4G-LTE data services to all users in the surrounding area. Since the primary benefit of a wireless telecommunications system is the ability to transfer calls seamlessly from location to location, a network of facilities is essential. Without a facility at or near this location, Verizon will be unable to provide reliable coverage. Also, in order to avoid the construction of a separate structure in the immediate vicinity for other telecommunications providers, the proposed tree pole is designed to accommodate up to 3 future carriers.

Proposed Facility:

- Structure: 108 foot tall tree pole, with a brown painted finish. Antennas are painted brown. Green artificial pine foliage is attached to the tree pole.

- Antennas: 12 antennas for Verizon, with additional antennas for up to 3 future carriers.
- Equipment Compound: 2,133 SF.
- Location: Southeast corner of the property.
- Operations: Unmanned, 24 hours/day, 7 days/week; periodic site visits by maintenance personnel for repairs or modifications

Impacts:

- Visual: The proposed telecommunications facility is placed next to an existing grouping of deciduous trees in the southeast corner of the property, which helps mitigate the visual impact to adjacent residences across Wolftrap Road to the southwest and east/northeast along Gallows Road. The size of the property helps lessen the impact for residences to the north and west of the site. However, the upper portion of tree pole (pine tree) cannot be completely hidden from view, and also would be more prominent during fall and winter due to the absence of leaves from the deciduous trees.
- Health: The applicant states that there will be no negative health impacts by placement of the proposed facility.
- Environmental: The telecommunications facility will not interfere with telephone, television, or radio communications. The proposed use does not impact any environmentally sensitive areas. Infrequent noise would be produced by the back-up generator during testing and power outages.
- Traffic: The volume of traffic generated will be minimal, with only an occasional service vehicle traveling to the site for periodic maintenance.

Alternative Sites:

The applicant states that co-location on existing buildings or structures in the immediate area do not fulfill the technical requirements. Taller buildings to the north along Gallows Road and Gallows Branch Road are outside the applicant's search area. Other non-residential properties in the search area include the Dunn Loring Fire Station immediately adjacent to the KMS property, Peace Baptist Church near Wolftrap Road/Briarcliff Court to the west, Fairfax County and Fairfax County Park Authority (FCPA) property to the west along Wolftrap Road, and a Fairfax County water tank to the south on McGregor Court near Electric Avenue. The fire station property is small, and may need room for future expansion. The Peace Baptist Church and the FCPA property are surrounded by residential areas and provide little advantage for concealing the facility. The water tank lacks the height and design features to successfully accommodate the telecommunications need of the applicant.

SUBJECT PROPERTY AND ADJACENT LAND USES

- Subject Property: Zoned residential R-3 developed with the KMS and Kilmer Center.
- North of Property: Zoned residential R-12 developed with single family attached dwellings.

- East of Property: Zoned predominantly commercial C-2 office.
- South of Property: Zoned R-4 (Fairfax County Fire and Rescue Station), and PDH-3 with attached single family attached houses and a pool house across Wolftrap Road.
- West of Property: Zoned residential PDH-4, R-1 and R-12, with predominately single family attached houses and a few single family detached houses.

COMPREHENSIVE PLAN PROVISIONS

COMPREHENSIVE PLAN MAP:

Planning Area and District: Area II, Vienna Planning District

Planning Sector: V3 – Spring Lakes Community Planning Sector

Land Use Recommendations:

- Subject Property: Public Facilities, Governmental and Institutional
- North of Property: Residential, 8-12 dwelling units/acre (du/ac)
- East of Property: Commercial Office
- South of Property: Residential, 2-3 du/ac
- West of Property: Residential, 3-4 du/ac

COMPREHENSIVE PLAN PROVISIONS:

An assessment of this proposal for substantial conformance with recommendations of the Comprehensive Plan (“the Plan”) is guided by the following Plan citations:

Area Plan

FAIRFAX COUNTY COMPREHENSIVE PLAN, 2013 Edition, Area II, Vienna Planning District, Amended through 4-29-2014, V3-Spring Lake Community Planning Sector, Pages 66, 69, 71

“V3 SPRING LAKE COMMUNITY PLANNING SECTOR

CHARACTER

The Spring Lake Community Planning Sector is generally located north of the Town of Vienna and south of the Dulles Airport Access Road and Dulles Toll Road (DAAR, Route 267). The planning sector includes a portion of the Tysons Corner Urban Center. ...

Outside of the Tysons Corner Urban Center, development in the planning sector consists almost entirely of single-family detached residential uses. Townhouses and garden apartments are present in the eastern portion of the planning sector, adjacent to the Tysons Corner Urban Center. Commercial development is located along Gallows Road, near Cedar Lane.

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CONCEPT FOR FUTURE DEVELOPMENT

The Concept for Future Development recommends the areas of Spring Lake Planning Sector develop as Suburban Neighborhoods.

RECOMMENDATIONS

Land Use

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3. The area located between the western boundary of the Madrillon Farms subdivision (including the subdivision), Wolfrap Road, the Kilmer School, the Merry Oaks subdivision and commercial/institutional property on the south side of Old Courthouse Road is a largely undeveloped area that is located between stable residential areas to the south and west, and the Tysons Corner Urban Center. Notable archaeological sites in any development proposal should be preserved.

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Heritage Resources

Open space and low density residential areas or neighborhoods developed during the early or mid 20th century offer a high potential for significant heritage resources. Any development or ground disturbance in this sector, both on private and public land, should be preceded by heritage resource studies, and alternatives should be explored for the avoidance, preservation or recovery of significant heritage resources that are found. In those areas where significant heritage resources have been recorded, an effort should be made to preserve them. If preservation is not feasible, then, in accordance with countywide objectives and policies as cited in the Heritage Resources section of the Policy Plan, the threatened resource should be thoroughly recorded and in the case of archaeological resources, the artifacts recovered.”

Policy Plan

**FAIRFAX COUNTY COMPREHENSIVE PLAN, 2013 Edition, Policy Plan,
Public Facilities, Amended through 3-4-2014, Pages 37-40**

“MOBILE AND LAND-BASED TELECOMMUNICATION SERVICES

Mobile and land-based telecommunication services provide for the wireless transmission of voice and data and include cellular and personal communications services (PCS), paging and wireless Internet services and mobile radio communication. These services operate from wireless networks that depend on antenna devices and related equipment to transmit from a sender to one or more receivers. Such services are viewed as public utility service providers that benefit the community and its economic growth and

vitality.

.....

The 1996 Telecommunications Act, implemented by the Federal Communications Commission (FCC), and the federal courts defers to state and local governments (subject to certain exceptions) with respect to the placement, construction, and modification of facilities used to provide cellular, broadband, and other personal wireless services. State and local governments may not regulate these facilities based on the potential health or environmental effects of radio frequency (RF) emissions, to the extent that the facilities comply with established FCC regulations. Information on the FCC regulations is available for review on their Website.

GENERAL GUIDELINES

Objective 42: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the co-location of related facilities and the reduction or elimination of their visual impact, locate the network's necessary support facilities which include any antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

- Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10.)
- Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.
- Policy c. When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.
- Policy d. When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.
- Policy e. Locate mobile and land-based telecommunication facilities on public property only after a lease agreement between the county, or related board or authority, and the service provider has been established.

- Policy f. Ensure that the use of public property by mobile and land-based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.
- Policy g. Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.
- Policy h. Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.
- Policy i. When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.
- Policy j. Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.
- Policy k. Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.
- Policy l. A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:
- Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;
 - Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative

topography and other factors, to mitigate the visual presence and prominence of the structure;

- Blend proposed telecommunication facilities with an existing pattern of tall structures;
- Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and
- Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.

Policy m. Locate proposed telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.

Policy n. Site proposed telecommunication facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.

Policy o. Site proposed telecommunication facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.

Policy p. Design and site proposed telecommunication facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.

Policy q. Locate and construct antennas used for purposes other than mobile and land-based telecommunication services in accordance with the same guidelines established in this "Mobile and Land-Based Telecommunications Services" section.

Objective 43: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12.)

Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.

- Policy b. Design proposed telecommunication facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the feature selected.
- Policy c. Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.”

PREVIOUS 2232 APPROVALS

None.

STAFF ANALYSIS

Department of Planning and Zoning

Zoning Administration Division (ZAD)

Attachment B

Since the time of the ZAD review comments issued August 6, 2014, the applicant has received a waiver of the Steady Red Marker requirement from the Fairfax County Police Helicopter Division (also included in this attachment). In addition, the discrepancies in antenna calculation and size have been corrected.

Zoning Evaluation Division

Attachment C

The rezoning proffers for RZ 89-P-009 do not preclude the establishment of a telecommunications facility on the subject property.

Planning Division – Environment and Development Review Branch

Attachment D

There are no environmental concerns with the application.

Planning Division – Historic Preservation

Attachment E

The proposed site is not located within a Fairfax County Historic Overlay District, and is not listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places. There are no historic properties in the immediate vicinity that would be negatively impacted by the construction of the tree pole. Compliance with Sec. 106 of the National Historic Preservation Act of 1966 has been attained.

Department of Public Works and Environmental Services (DPWES)

Site Development and Inspections Division

Attachment F

There are no Resource Protection Areas or regulated floodplains on the property site.

There are no significant downstream drainage complaints on file. Water quality controls and demonstration of adequate outfall for stormwater management are required for this site. These issues will be reviewed at final design/site plan stage by DPWES. A site plan/minor site plan submittal is required for the proposed facility.

Urban Forest Management Division

Attachment G

All landscaping and transitional screening requirements have been addressed.

Fairfax County Public Schools (FCPS)

Department of Facilities and Transportation Services

Attachment H

The proposal is acceptable by FCPS, based on the applicant's latest revised plan.

Fairfax County Fire and Rescue Department

Attachment I

Strategic Planning Section

There are no issues regarding the proposal.

Fairfax Water

Attachment J

Planning Section

Adequate domestic water service is available. Any encroachments into the existing 15-foot Fairfax County Water Authority easement will not be allowed without prior written approval.

CONFORMANCE WITH THE COMPREHENSIVE PLAN

Requirement of Va. Code Sec. 15.2-2232

Attachment K

Va. Code Sec. 15.2-2232, as amended, requires the Planning Commission to determine whether the general or approximate location, character and extent of the proposed facility are substantially in accord with the adopted Comprehensive Plan.

LOCATION

The proposed telecommunications facility is located on public property owned by the School Board of Fairfax County at 8100 Wolftrap Road. The location conforms to Comprehensive Plan guidelines recommending that, subject to the availability and feasibility of a public site, public lands should be the preferred location for telecommunications structures. Also, the Plan recommends that when multiple sites

provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.

Plan guidelines recommend that telecommunications facilities be located on public property only after a lease agreement between the County, or related board or authority, and service provider has been established. According to the applicant, Milestone Communications, Inc. has an agreement with FCPS to establish telecommunications facilities and to lease space on the subject property.

The proposed 108 foot tree pole is designed to accommodate telecommunications equipment for Verizon and up to 3 future carriers. Locating mobile and land-based telecommunications facilities operated by different service providers on single sites and/or structures wherever possible also aligns with Comprehensive Plan objectives.

CHARACTER AND EXTENT

Whereas the applicant could have proposed a more generic galvanized steel monopole for this telecommunications facility, an alternate design has been generated that is more aesthetically pleasing for the surrounding community. In particular, the applicant's plan consists of a 108 foot tall tree pole painted brown with all antennas and antenna mountings painted brown. The tree pole also has artificial green pine branches designed to look like an evergreen tree. This meets Comprehensive Plan guidelines to disguise and camouflage the appearance of telecommunications facilities in order that the facility resembles other man-made structures that are typically found in a similar context and belong to the setting where placed.

Verizon proposes to place 12 panel antennas at a 100 foot height on the tree pole, with future carriers' antennas located at 90, 80, and 70 foot heights respectively. Considering that the Zoning Ordinance allows for monopoles up to 199 feet in height, and considering that there are up to 4 possible carriers, the proposed tree pole is only 108 feet tall. Therefore, Comprehensive Plan objectives are met ensuring that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunications facility based on its service area requirements while still mitigating the visual impact of the facility. It also meets Plan objectives to site proposed telecommunications facilities to allow for future expansion.

Photo-simulations (photosims) located at the end of Attachment A represent the tree pole's appearance from the adjacent residential and commercial areas. The majority of photosims reveal that only the upper portion of the tree pole is visible from a residential or commercial area, or if a larger portion of the tree pole is visible, it is more in character with its surroundings than if a galvanized steel monopole was installed. Therefore, Comprehensive Plan objectives have been achieved for designing and siting mobile and land-based telecommunication facilities to minimize impacts on the character of the property and surrounding areas through the proposal of a tree pole in lieu of a galvanized monopole.

The tree pole is placed within a proposed 2,133 SF equipment compound containing a 10.5 foot tall equipment shelter and a 5.5 foot tall natural gas generator for Verizon, and pad sites for the 3 future carriers. Proposed screening consists of an 8 foot tall chain link fence with black concealment slats. (Black is an official color of KMS sports.) Also, other evergreen plantings are proposed for the north and south sides of the equipment compound. No trees are permitted on the west side by FCPS as any trees would overhang the KMS parking lot. In addition, the proposed telecommunications facility is placed adjacent to an existing stand of tall deciduous trees in the south and east corners of the KMS property. An existing hill also borders the east edge of the property. As a result, the equipment compound is buffered from the adjacent commercial office buildings and Gallows Road to the east and from the residential area to the south across Wolftrap Road. Therefore, Comprehensive Plan objectives are achieved to design, site and/or landscape the proposed facility to minimize impacts on the character of the area.

The proposed facility is also in conformance with Comprehensive Plan guidelines to ensure that the use of public property by telecommunications facilities does not interfere with the existing or planned operational requirements of the public use. FCPS has approved the tree pole at KMS, thereby indicating that the proposed tree pole will not interfere with its operations.

An historic preservation review has confirmed that the proposed tree pole does not impact other historically significant landscapes and cultural resources. Specifically, the views of and vistas from other architecturally and/or historically significant structures is not impaired or diminished by placement of this telecommunications facility, thereby meeting Comprehensive Plan guidelines.

Overall, the Comprehensive Plan objectives are achieved for designing, siting, and/or landscaping mobile and land-based telecommunication facilities to minimize impacts on the character of the property and surrounding areas.

CONCLUSIONS AND RECOMMENDATIONS

Department of Planning and Zoning staff concludes that the subject proposal by Verizon Wireless and Milestone Communications, Inc., to construct a 108 foot tall tree pole at Kilmer Middle School, 8100 Wolftrap Road, Vienna, VA, satisfies the criteria of location, character, and extent as specified in Va. Code Sec. 15.2-2232. Therefore, staff recommends that the Planning Commission find Application 2232-P14-6 substantially in accord with provisions of the adopted Comprehensive Plan.

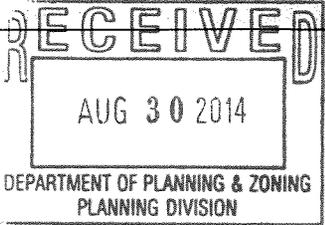


**COUNTY OF FAIRFAX, VIRGINIA
APPLICATION FOR DETERMINATION
PURSUANT TO VIRGINIA CODE SECTION 15.2-2232**

*** This area to be completed by staff ***

APPLICATION NUMBER 2232-P14-6
Date application received 4/16/14 by DPZ
Date(s) Revised 6/10/14 thru 10/9/14
Date application accepted 6/9/14 by DPZ

(Please Type or Clearly Print)



PART I: APPLICATION SUMMARY

LOCATION OF PROPOSED USE

Address 8100 Wolftrap Road
City/Town Vienna Zip Code 22182
Place Name (example: Dale High School) Kilmer Middle School
Tax Map I.D. Number(s) 0392 08 002A
Fairfax County Supervisor District Providence

APPLICANT(S)

Name (Company or Agency) Verizon Wireless and Milestone Communications
Agent Name Frank W. Stearns and Edward L. Donohue
(Note: Failure to notify County of a change in agent may result in application processing delays)
Agent's Mailing Address 201 Liberty Street
City/Town Leesburg State VA Zip Code 20175
Telephone Number (703) 726-2547 Fax (703) 737-3793
E-mail fwstearns@donohuestearns.com
Secondary Contact Cristian Hernandez, Milestone
Telephone Number (703) 620-2555 E-mail cris@milestonecorp.com

BRIEF DESCRIPTION OF PROPOSED USE

Construction of a telecommunications monopole structure designed to resemble a tree ("tree pole") with an overall height of 108 feet above ground level and an associated 79 feet by 27 feet (2,133 square feet) equipment compound area. The tree pole and equipment compound are designed to accommodate a total of four telecommunication carriers. Verizon Wireless will be the initial carrier on the facility and up to three additional carriers will co-locate at the facility in the future.

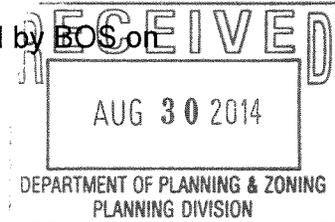
Total Area of Subject Parcel(s) 23.18

Zoning District R-3

Applicant's previous Zoning Approvals for all uses on site (proffered conditions, special permits, special exceptions, variances, development plans)

None by applicant.

RZ 89-P-009 by FCPS to rezone to R-3 zoning category was approved by BOS on 4/17/1989.



PROPERTY OWNER(S) OF RECORD

Owner School Board of Fairfax County

Street Address 8115 Gatehouse Road

City/Town Falls Church State VA Zip Code 22042

Has property owner been contacted about this proposed use? YES NO

SIGNATURE

The undersigned acknowledges that additional Fairfax County land use review requirements may be identified during the review of this 2232 Review application and the fulfillment of such requirements is the responsibility of the applicant. The undersigned also acknowledges that all Fairfax County Zoning Ordinance requirements pertaining to this project shall be fulfilled.

In the event a new agent is assigned responsibility for this application, the applicant agrees to provide a letter to the Department of Planning and Zoning authorizing the transfer of responsibility for the application and providing all new contact information. In the event the applicant fails to notify County staff of a change in agent, the application may be subject to processing delays.

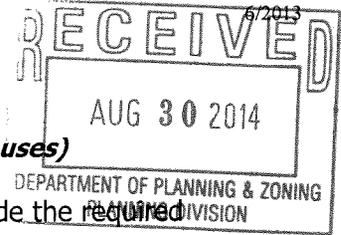
Signature of Applicant or Agent Frank W. Stearns

Date Submitted April 15, 2104; revised July 2, 2014 and August 29, 2014

Submit completed application to:

**Chris Caperton, Chief, Facilities Planning Branch
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035-5507
(703) 324-1380**

PART II: STATEMENT OF JUSTIFICATION



PART IV: TELECOMMUNICATION USES
(Do not submit for non-telecommunications public facility uses)

A. TYPE OF PROPOSED FACILITY Check the appropriate box(es) and provide the required information

	Yes	No
New monopole* or tower	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Collocation on existing monopole or tower	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Collocation on building facade or rooftop	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Collocation on replacement light pole or utility pole	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Located in utility or transportation easement and/or right-of-way	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Modification to approved telecommunications facility	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Collocation on other structure _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Including treepoles, flagpoles and other freestanding stealth structures.*

B. CALCULATION OF FACILITY MODIFICATIONS for modifications to an approved telecommunications facility, provide the following:

1. Application number(s) (456-, 2232-, FS-, FSA-) for all applicant's prior telecommunications uses on site:

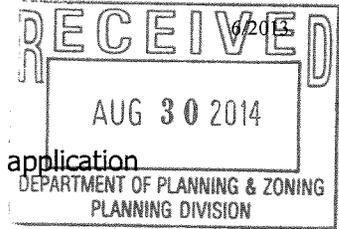
NA

2. Calculate the surface area, in square inches (height x width **or** height x diameter), of the applicant's antennas organized in the following categories:

- a. approved _____
- b. existing _____
- c. proposed 2 @ 1353.6 sq. in.; 4 @ 1401.6 sq. in.; 6 @ 441.64 sq. in. = total of 10,963 sq. in for 12 antennas

3. Calculate the volume (height x width x depth) of the applicant's equipment cabinets (in cubic inches) and/or shelter (in cubic feet) organized in the following categories:

- a. approved _____
- b. existing _____
- c. proposed shelter = 2,022 cu. ft.; generator = 168 cu. ft.



C. ANTENNA(S) Provide a separate page for each provider listed as part of the application

Provider Verizon Wireless

Model # or name	Type Panel, Dish, Omni	Quantity	Height	Width	Diameter	Location height on the structure
X7C-FRO-860	Panel	4	96"	14.6"	na	100' rad center
X7C-FRO-640-V	Panel	2	72"	18.8"	na	100' rad center
BXA-171063-12CF	Panel	6	72.4"	6.1"	na	100' rad center

Existing structure color: Brown and green Antenna color: Painted brown

Is antenna painted to match existing structure? Yes No

If No, please explain: _____

Will the antennas be screened? Yes No If Yes, describe the screening to be provided:

Artificial foliage on a tree pole structure

Will the antennas be flush-mounted to the structure on which they are located? Yes No

If No, please explain: Antennas will be screened from view.

Additional information:

D. EQUIPMENT

Model # or name	Type cabinet or shelter	Quantity	Height	Width	Depth	Location
Verizon	Shelter	1	10'5"	16'10.5"	11'6"	Inside fenced compound
MTU Natural Gas*	Generator	1	5'6" (66")	9'2" (110")	3'4" (40")	Inside fenced compound
*Dimensions are exterior						

How will the equipment cabinet or shelter be screened? 8' tall chain link fence with slats and plantings

Screen material: Steel chain link w/ black plastic insert and Red Cedar plantings Screen color: black

Additional information:

**Application for Determination
Pursuant to
Section 15.2-2232, Code of Virginia**

Part II: Statement of Justification

Applicants:

Verizon Wireless
9000 Junction Drive
Annapolis Junction, Maryland 20701

Milestone Communication
12110 Sunset Hills Road
Reston, Virginia 22042

Site Location

Kilmer Middle School
8100 Wolftrap Road
Vienna, Virginia 22182
Parcel Number: 0392 08 002A
Zoning District: R-3
Planned Use: Public Facility, Governmental and Institutional
Supervisor District: Providence

Description of Proposed Use

Pursuant to Section 15.2-2232 of the Code of Virginia, Verizon Wireless (“Applicant”) in conjunction with Milestone Communications respectively requests that a proposed telecommunications facility with an overall height of 108 feet above ground level designed as an evergreen tree (“tree pole”) with a supporting equipment compound at the base be approved at the Kilmer Middle School, 8100 Wolftrap Road, Vienna, VA 22182.

Milestone Communications has an agreement with Fairfax County Public Schools (“County”) to establish telecommunication facilities on school property and to lease space on the proposed facility to Verizon Wireless and other wireless providers in Fairfax County. The facility is designed for up to a total of four telecommunications carriers. Verizon Wireless will be located on the pole at the top position of 100 feet above ground level with space available for three other carriers at the 90 feet, 80 feet and 70 feet levels. A detailed depiction of the telecommunications facility is provided on the Site Plan entitled “Kilmer Middle School” prepared by Entrex Communications Services, Inc. and last dated April 11, 2014 with revisions through June 19, 2014 and included as part of this application. The Property consists of 23.18 acres, is zoned R-3 (Residential at 3 units to the acre), and is owned by the School Board of Fairfax County. The tree pole is designed to disguise the antennas and the telecommunications use and meet the Fairfax County Zoning Ordinance definition of “monopole”. Such structures are a permitted use on property owned by a governmental entity such as the subject property.

All antennas on the proposed tree pole structure will be located behind artificial foliage and will not be visible. Verizon Wireless will have 12 panel antennas with a rad center of 100 feet above ground level. The types and sizes of the Verizon Wireless antennas are detailed on

Page 7 of the application form and on the engineering drawings, Sheet Z-8, titled "Antenna Layout, Section, Details and Schedule".

An equipment compound at the base of the structure will measure 79 feet long and 27 feet wide with a total area of 2,133 square feet. It will be located just off an existing school parking area and accessed by a 12 feet wide gravel access driveway. An eight (8) foot high chain link fence with black slats to create a solid visual barrier will enclose the compound area and conceal the equipment from view. Natural landscaping as shown on Sheet Z-12, titled "Landscape Plan, Details and Notes," will be added on the north, south and west sides of the compound to mitigate nearby views of the compound.

The compound area will contain the tree pole base, Verizon Wireless' shelter and equipment, and all equipment of future carriers. The Verizon Wireless shelter will measure 16 feet 10.5 inches wide by 11 feet 6 inches deep, by 10 feet 5 inches high. Verizon Wireless also will locate a natural gas generator, and a MESA cabinet in the compound. Full details of the compound area are detailed on the Compound Plan, Sheet Z-3 of the engineering drawings. The dimensions of Verizon Wireless' shelter and generator are detailed on Sheet Z-10 of the engineering drawings, titled "Shelter Plans and Generator Details" and Sheet Z-11 titled "Shelter Elevations." Details are also provided on page 7 of the 2232 Review application forms.

The proposed equipment structure and equipment cabinets will be unmanned and will operate around the clock 365 days per year. All facilities are monitored off site by the providers' 24-hours a day 7-days a week in order to ensure that they are operating properly and that there is no unauthorized tampering with the facilities. Routine maintenance does occur for each of the equipment structures or cabinets once or twice a month as performed by a service technician driving a standard size vehicle to the site. There are no customers, employees or other personnel at the site.

The facility will operate as a cellular base station in the wireless telecommunications networks of Verizon Wireless and up to three additional providers. Attached to the application are Verizon Wireless' propagation maps that show the area to be covered by the new facility and the existing network coverage.

The proposed use is benign and will not generate noise (except for generator testing or usage), light, dust, glare, vibrations, fumes or odors. The traffic generated will be minimal. The proposed use does not present a threat to the public health, safety or welfare and will not impact radio, television or telephone reception. It will have no negative impact upon the air and water quality, nor will it impact any existing environmental features on the subject property.

Requirement of Proposed Use

The area served by the proposed telecommunications use is depicted on Verizon Wireless' radio frequency coverage (propagation) maps included in the application package. The maps show the area presently covered by Verizon Wireless' other immediate sites in this vicinity, labeled as "Pimmit Hills", "South Hampton Forest", "Idlywood", "Gosnell", "Vienna Woods" and "Dunn Loring", and the projected improvement anticipated after installation of the

proposed telecommunications use at the Kilmer Middle School site (labeled “Oak Street”). Verizon Wireless’ objective for this site is to fill existing service gaps and provide services to residences and commuters along the corridors of I-495, Gallows Road and Leesburg Pike (Route 7) and adjoining neighborhoods, particularly to the west and south of the site. The site will not only fill gaps but will enhance 4G-LTE data service to all users in the surrounding area.

To achieve the desired coverage and capacity within the intended geographical area, each antenna facility must be strategically located so as to ensure maximum coverage and a minimum overlap with each other facility. Because of the low power of the system, the antennas are effective only within a limited geographical area. Thus, each facility site is subject to technical and geographical constraints in order to provide reliable and efficient service. The proposed facility is necessary to meet Verizon Wireless’ objectives for the area and will further satisfy similar needs of other wireless telecommunications carriers in the future. Moreover, the proposed height of the tree pole allows placement of the antennas at a sufficient height so as to permit radio signals to clear any obstructions such as trees and structures while simultaneously providing coverage to the intended service area and allowing for the collocation of up to three additional wireless carriers at the site.

Verizon Wireless chose this proposed location as it meets coverage objectives and will improve telecommunications coverage to clients. The telecommunications tree pole facility at this location will serve additional carriers and is suitable to the site, its setting, and the nature of the existing public use on the property.

Since one of the primary benefits of the wireless communication system is the ability to communicate to and from any location, a network of facilities that provide seamless coverage is essential. The location and design of each facility in the network is therefore critical to the overall functioning of the entire network. Without a facility at or near this location, Verizon Wireless will be unable to provide reliable coverage to its users in the area.

Anticipated Impacts On Adjoining Properties

The tree pole will be located on a large public property totaling 23.18 acres and will be in proximity to a wooded area on the southeast property border between the school property and an adjacent volunteer fire station. The immediately adjacent property to the south is developed with the existing non-residential fire station use and the proposed tree pole structure is located approximately 79 feet north of the fire station - school property line. The proposed structure will be 224 feet north of the closest road (Wolftrap Road), and 108 feet from the closest off site building, an office complex zoned C-2 to the east along Gallows Road.

The proposed tree pole will be compatible with the existing development pattern in the immediate area and will be visually mitigated by the non-residential uses in its immediate vicinity, the wooded area to the south, and by distance to any residential properties. All immediately adjacent properties to the tree pole’s location are in non-residential uses and include the fire station, and several office uses/complexes between the school property and Gallows Road to the east. Across Gallows Road to the east are residential properties zoned PDH-5 and developed with attached residential uses. To the west of the school property and north of

Wolftrap Road, properties are zoned PDH-4, R-1 and R-12 and developed with single-family attached residential uses. Across Wolftrap Road south of the school site, is a non-residential property owned by the Young Women's Christian Association (YWCA) zoned PDH-3. Farther west properties are also zoned PDH-3 and are developed with townhouse use. To the immediate north of the school property, properties are zoned R-12 and developed with townhouse use. *and DW*

The proposed facility will have no impact on traffic or parking as the facility will be unmanned and does not generate vehicular traffic other than the once or twice a month for a technician to visit to ensure everything is in proper working order. The technician uses a standard vehicle and will have access to the structure and compound via the school parking lot adjacent to the compound area to the west. There is no perceptible noise generated by the facility and there will be no interference with electronic equipment for telephone, television, radio or other electronic uses.

Alternative Sites Considered for the Proposal

The proposed tree pole will be located to fill an existing service void identified on the propagation maps and address capacity issues. This overall area where improved service is desired is characterized by medium density residential development generally in the R-3 to R-12 zoning categories as well as some commercial and office development along Gallows Road ranging between 2 and 4 stories in height. Collocation on existing buildings or structures in the immediate area does not fulfill technical requirements and the taller buildings to the north along Gallows and Gallows Branch Roads are outside the applicants search area. Other non-residential properties in the immediate search area include the Dunn Loring Volunteer Fire Station, immediately adjacent to the Kilmer Middle School property, the Peace Baptist Church and property owned by Fairfax County and the Fairfax County Park Authority property along Wolf Trap Road to the West, and an existing Fairfax County Water Authority Water Tank to the south off of McGregor Court. The Dunn Loring Fairfax Public School Administrative III Center to the south along Gallows Road is outside of the target service area.

The Volunteer Fire Station property is a small, undersized 1.6-acre site for a fire station and any expansion that it may need in the future. This site has limited potential to accommodate a proposed telecommunications facility. The Peace Baptist Church and the land owned by the Board of Supervisors and Park Authority to the ^{west} east off of Wolf Trap Road are surrounded by residential areas and provide little advantage for concealing the facility. The water tank to the west owned by the Fairfax County Water Authority lacks the height and design features to successfully accommodate the facility and meet service objectives. *DW*

Relationship of the Proposed Facility to the Comprehensive Plan

Mobile and Land-Based Telecommunication Services provide for the wireless transmission of voice and data and include cellular and personal communications services (PCS), paging and wireless internet services and mobile radio. These services operate from wireless networks that are dependent on antenna devices and related equipment to transmit from a sender to one or more receivers. Such services are viewed as a public necessity that benefits the community and its economic growth and vitality.

The proposed facility is consistent with and furthers the goals of the Fairfax County Comprehensive Plan (“Comprehensive Plan”). The proposed structure will be located on publicly owned property, will have a camouflaged design resembling an evergreen tree, will accommodate multiple carriers and be situated on the property to minimize visual impacts on the site and surrounding area. The proposed facility is consistent with the stated Objectives of the Policy Plan of the Fairfax County Comprehensive Plan concerning Mobile and Land-Based Telecommunication Services as described below.

General Guidelines

Objective 42: In order to provide for the mobile and land-based telecommunication network for wireless telecommunication systems licensed by the Federal Communications Commission, and to achieve opportunities for the collocation of related facilities and the reduction or elimination of their visual impact, locate the network’s necessary support facilities which include antennas, support structures and equipment buildings or equipment boxes in accordance with the following policies.

Policy a. Avoid the construction of new structures by locating proposed telecommunication facilities on available existing structures such as rooftops, telecommunication and broadcast support structures, electrical utility poles and towers, and water storage facilities when the telecommunication facilities can be placed inconspicuously to blend with such existing structures. (See Figures 8, 9, 10.)

Within the search area the development pattern is comprised primarily of low-rise office and public/quasi public uses and single family detached and attached residential uses. These uses are of insufficient height to accommodate the collocation of a telecommunication use needed for service coverage. To serve this area and meet the engineering and service requirements of the use, it is necessary to construct a new structure of the height proposed.

Policy b. When existing structures are not available for co-location, or co-location is not appropriate because of adverse visual impacts or service needs, locate new structures that are required to support telecommunication antennas on properties that provide the greatest opportunity to conceal the telecommunication facilities and minimize their visual impact on surrounding areas.

The proposed facility is on a large 23.2-acre publicly owned parcel that has opportunities for screening and is adjacent to a fire station use at the corner of Wolftrap and Gallows Roads. The location for the pole on the school site is adjacent to a wooded area on the edge of the school and fire station properties on the school’s southeast corner adjacent to the existing parking area. The trees in this area of the property will provide a natural backdrop and blend with the camouflaged tree pole structure. The location, the relatively large size of the school property, the fire station use to the south as well as other non-residential office uses along Gallows Road to the east will also serve to buffer and conceal the proposed structure. The property offers ample area to locate the equipment

compound away from all existing buildings and to provide screening with an eight (8) foot high chain link fence with black slat inserts and landscape screening.

***Policy c.* When new structures or co-locations are required to serve residential neighborhoods, consider minimizing visual impacts on the surrounding area by utilizing camouflage structure design and/or micro-cell technologies or similar miniaturization technologies, such as distributed antenna systems (DAS), if feasible.**

To minimize visual impacts, the proposed structure will be designed to resemble a tree.

***Policy d.* When multiple sites provide similar or equal opportunity to minimize impacts, public lands shall be the preferred location.**

The subject property is publicly owned and operated by the Fairfax County Public Schools. The features of this public site provide an excellent opportunity for screening and buffering and an appropriate setting for the proposed tree pole structure. Other sites in the area provide no greater advantage for screening and locating the facility compatible with existing development.

***Policy e.* Locate mobile and land based telecommunication facilities on public property only after a lease agreement between the County, or related board or authority, and service providers has been established.**

Milestone is the representative of the Fairfax County School Board and will enter into a lease agreement with Fairfax County Public Schools to construct and locate the proposed facility.

***Policy f.* Ensure that the use of public property by mobile and land based telecommunication facilities does not interfere with the existing or planned operational requirements of the public use and complies with adopted policies and plans to protect natural resources.**

The applicants have worked closely with Fairfax County Public Schools to locate the proposed tree pole structure to ensure that there will be no impact on the existing and future use of the subject public property. The administrative office of the Fairfax County Public Schools has approved the location on site. The Fairfax County Public School's contact is Robert Cordova, Coordinator – Property Management, Office of Design and Construction, Department of Facilities and Transportation Services (Robert.Cordova@fcps.edu; 571-423-2303).

***Policy g.* Co-locate mobile and land-based telecommunication facilities operated by different service providers on single sites and/or structures whenever appropriate. Locate single-use structures on a property only when a co-location structure for multiple service providers is not desirable or feasible due to technological differences, site limitations or visual impact concerns.**

The proposed tree pole will be designed for a total of four telecommunication carriers. Sufficient space in the compound area for all related equipment will be available at the base of the tree pole and will be screened from view by an eight (8') foot tall chain link fence with black slats and landscaping.

***Policy h.* Ensure that the height of the proposed telecommunication facility is no greater than necessary to allow for co-location on the telecommunication facility based on its service area requirements while still mitigating the visual impact of the facility.**

The 108 feet overall height of the proposed tree pole is the minimum required to provide an effective camouflage design and meet the technical requirements of Verizon Wireless and to provide for the coverage objectives of additional carriers.

***Policy i.* When new structures, co-locations and/or technologies (such as distributed antenna systems, micro-cell technology or miniaturization technology) are necessary to meet the service area requirements for the residential neighborhood(s), ensure that the height and mass of any appropriate co-location on the telecommunication facility is in character with the surrounding residential area and mitigates the visual impact of the facility on the surrounding residential area.**

The proposed structure will be of height and mass consistent with a tree and will accommodate and conceal up to four telecommunication providers without impacting the character of the surrounding area.

***Policy j.* Design, site and/or landscape proposed telecommunication facilities to minimize impacts on the character of the property and surrounding areas. Demonstrate the appropriateness of the design through facility schematics and plans which detail the type, location, height, and material of the proposed structures and their relationship to other structures on the property and surrounding areas.**

The proposed facility will be located on the southeast portion of the school property adjacent to a wooded area along the property line and other non-residential uses to the south and east. The Site Plan and related engineering drawings show the design of the tree pole and compound area and their relationship to the existing school property and nearby properties. Aerial photos and photo-simulations are also provided with the application to demonstrate the structure's relationship to adjacent and surrounding properties and uses. The stealth tree pole design will be compatible and consistent with the public school site and the area in which it is located. The proposed structure will not negatively impact the existing school use or the character of the surrounding properties. The tree pole will be located so as to blend and be in context with the wooded area to east and south of its location on the property. The equipment compound at the base will be enclosed within a chain link fence with black slats to conceal the shelters and cabinets. Supplemental planting will be provided along the compound's north, south and west borders.

Policy k: Demonstrate that the selected site for a new telecommunication facility provides the least visual impact on residential areas and the public way, as compared with alternate sites. Analyze the potential impacts from other vantage points in the area, especially from residential properties, to show how the selected site provides the best opportunity to minimize its visual impact on the area and on properties near the proposed site.

The photo simulations that are enclosed with the application demonstrate the appropriateness of utilizing the middle school site. The photo simulations include 12 vantage points and the appearance of the structure when constructed. As demonstrated by the photosimulations, most views of the proposed structure will be through existing trees and vegetation and the tree pole structure. The new structure will blend with and be of comparable height as existing trees either on the property or in the general area. Further the existing trees along the school boundary will provide additional context for the facility and it will appear among a wooded setting. In general, views from adjacent properties and areas will be mitigated by distance, building orientation and vegetation.

Policy l: A key concept in assessing telecommunication facilities is mitigation which is defined as actions taken to reduce or eliminate negative visual impacts. Mitigate the visual impact of proposed telecommunication facilities and their equipment, by using effective design options appropriate to the site such as:

- **_Design, site and/or landscape the proposed facility to minimize impacts on the character of the area;**
- **_Locate proposed telecommunication facilities near or within areas of mature vegetation and trees that effectively screen or provide an appropriate setting for the proposed structure provided such location does not adversely impact sensitive resources or cause fragmentation of forested communities. When viewed in context, consider perspective views, relative topography and other factors, to mitigate the visual presence and prominence of the structure;**
- **_Blend proposed telecommunication facilities with an existing pattern of tall structures;**
- **_Obscure or block the views of proposed telecommunication facilities with other existing structures, vegetation, tree cover, or topographic features to the maximum extent feasible; and**
- **_Replace existing telecommunication facilities with taller structures or extend their overall height to reduce the need for another structure when such height increases or structure replacements are visually appropriate to the site, including the surrounding area and are consistent with the type, style and pattern of the existing structure.**

The visual impact of the proposed 108' structure will be mitigated by the tree pole design and its location adjacent to an area of mature vegetation that provides a natural setting for the structure. Views of the structure from surrounding areas will be largely obscured by distance and existing vegetation. The compound area will be screened from view with an eight-foot high chain link fence with black slats and supplemented by landscape plantings.

Policy m. Locate telecommunication facilities to ensure the protection of historically significant landscapes and cultural resources. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities.

The proposed use will not adversely impact historically significant landscapes or views or detract from any architecturally or historically significant structures in the area.

Policy n. Site proposed facilities to avoid areas of environmental sensitivity, such as steep slopes, floodplains, wetlands, environmental quality corridors, and resource protection areas.

The proposed use will have no impact upon environmentally sensitive areas.

Policy o. Site proposed facilities to allow for future expansion and with corresponding levels of screening to accommodate expansion.

The proposal structure and leased compound area on a 23+ acre public parcel will provide ample space for up to a total of four telecommunication carriers while maintaining levels of screening and a natural setting for the use.

Policy p. Design and site proposed telecommunication facilities to preserve areas necessary for future right-of-way dedication and ancillary easements for construction of road improvements.

The location of the proposed use is not within a public road right-of-way and will not impact any future right-of-way expansion and easements for road improvements should they be necessary.

Objective 43: Design proposed telecommunication facilities to mitigate their visual presence and prominence, particularly when located in residential areas, by concealing their intended purpose in a way that is consistent with the character of the surrounding area. (See Figures 11 and 12.)

Policy a. Disguise or camouflage the appearance of proposed telecommunication facilities to resemble other man-made structures and natural features (such as flagpoles, bell towers, and trees) that are typically found in a similar context and belong to the setting where placed.

The proposed use will be designed as a tree pole and located adjacent to a mature vegetated area to reduce its prominence and visual presence. The tree pole design will conceal the intended purpose of the structure and be in context with the setting in which it is located.

Policy b. Design proposed telecommunications facilities that are disguised and camouflaged to be of a bulk, mass and height typical of and similar to the feature selected.

The design, bulk, mass, and height of the camouflaged structure are consistent with that of a tree. Although it is recognized that the proposed monopine will be taller than the adjacent deciduous trees in the southeast corner of the school property, these trees will also provide context and an appropriate setting for the structure, particularly in the months of foliage.

Policy c: Use other new and existing structures and vegetation of comparable form and style to establish a grouping that complements a camouflaged telecommunication facility and supports its design, location and appearance.

The tree pole will be in close proximity to an existing wooded area of mature vegetation on the property's southeast border that will complement, blend with and serve to obscure the proposed camouflaged facility. Other existing vegetation and the general tree cover throughout the nearby residential areas will serve to mitigate views of the proposed use. Landscape plantings will be added to the compound area to mitigate nearby views of the compound area.

Conclusions

In light of the foregoing and the reasons stated, Verizon Wireless and Milestone Communications, Inc. submit that this proposal is in compliance with the Fairfax County Comprehensive Plan and Zoning Ordinance and respectfully requests that the 2232 Review Application be approved.



Frank W. Stearns
Donohue and Stearns, PLC
Agent for Applicant

Revised July 2, 2014



January 8, 2014

Verizon Wireless
9000 Junction Drive
Annapolis Junction, MD 20701
Mercy.Luhanga@verizonwireless.com

Milestone Communications
12110 Sunset Hills road
Suite 100
Reston, Virginia 20190

RE: Verizon Wireless
Oak Street Site
8102 Wolftrap Ct
Vienna, VA, 22182

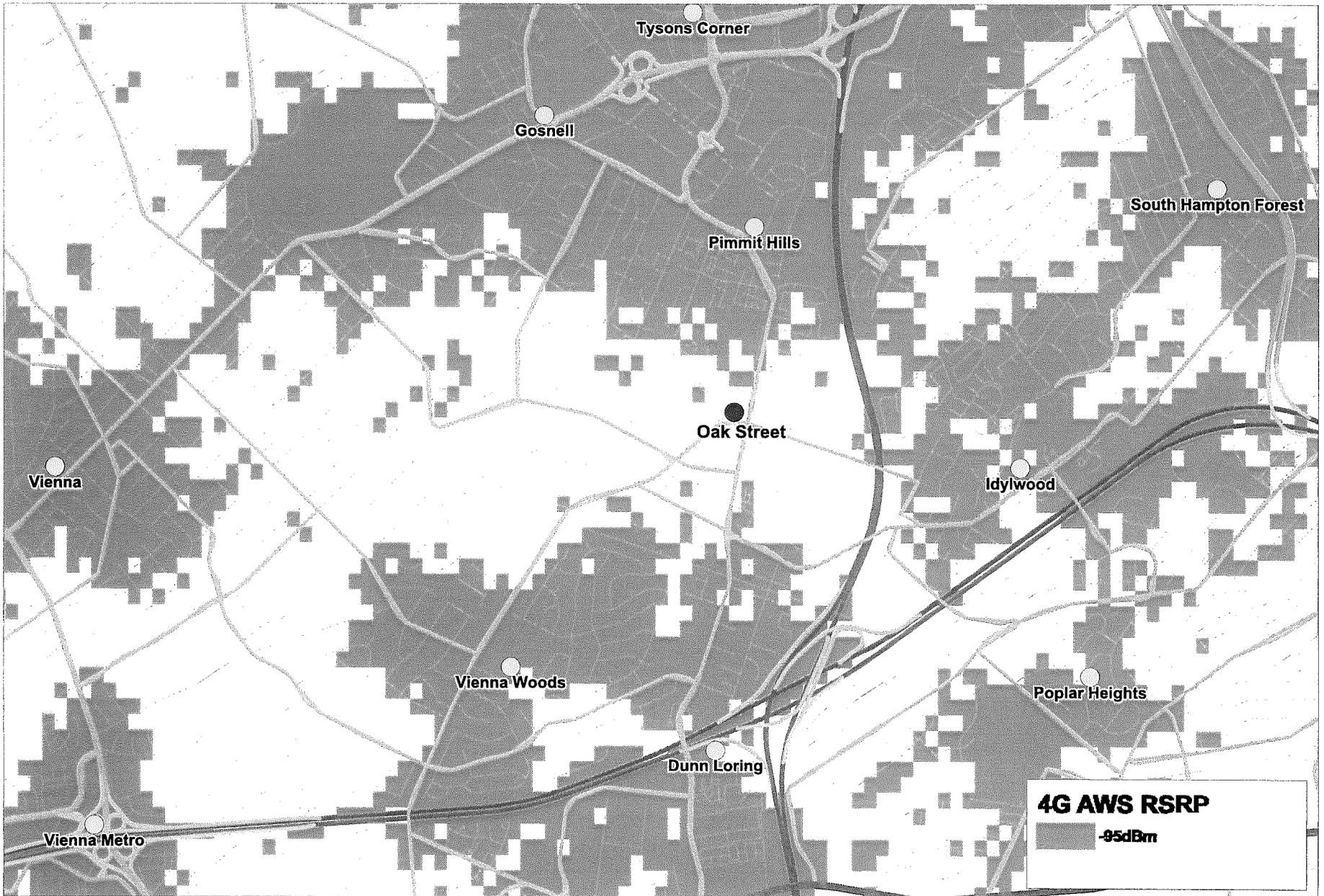
To whom it may concern:

Verizon Wireless would like to collocate on the Treepole that Milestone is proposing to build at Kilmer Middle School at an antenna centerline height of 100ft. This site will provide contiguous AWS LTE coverage along I-495 and Gallows road between existing Verizon wireless sites, Pimmit Hills, Idylwood, Dunn Loring and Vienna Woods. This site will also provide enhanced data coverage to the neighborhoods and businesses in these areas.

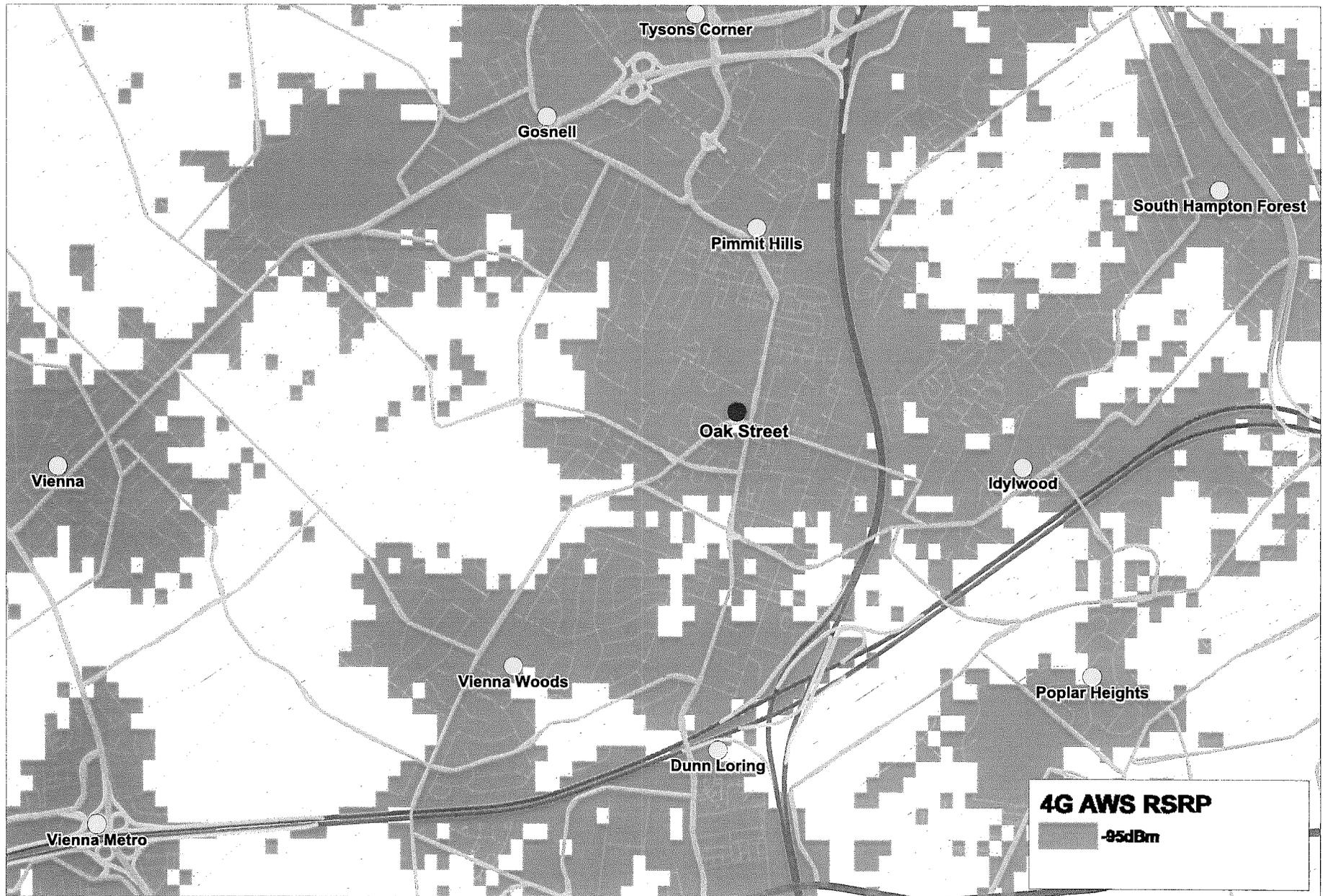
Sincerely,

Mercy Luhanga
RF Design Engineer, Verizon Wireless

VZW - 4G AWS Coverage - Without Oak Street Site



VZW - 4G AWS Coverage - With Oak Street Site





X7C-FRO-860

Xpol, 58° H-Beam

698-896 MHz

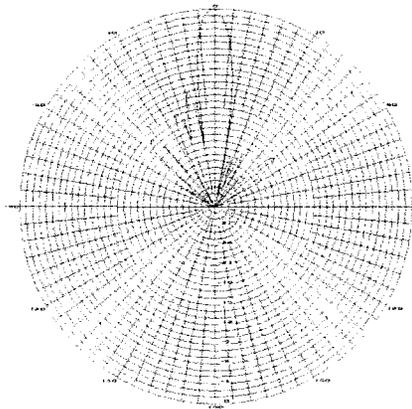
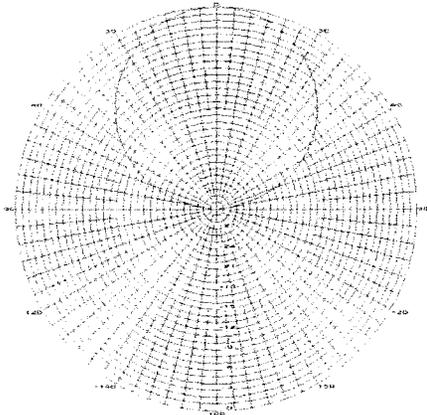
[Link to Mechanical Drawing](#)

Electrical Specifications

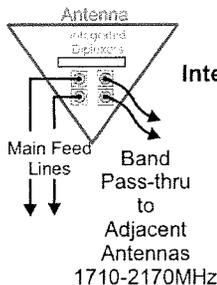
Frequency	698-896 MHz
Polarization	Slant +/- 45
Gain @ 698 MHz	17.2 dBi
Gain @ 782 MHz	17.7 dBi
Gain @ 896 MHz	18.3 dBi
Horizontal Beam (3dB Points)	58°
Vertical Beam (3dB Points)	8°
Elect. Downtilt Range, 2° Increments	0-10°
VSWR (2° thru 10° ET) / Return Loss	<1.40:1 / 15.6 dB
VSWR @ 0° & / Return Loss	<1.50:1 / 14.0 dB
Front-to-Back at Horizon	>30 dB
Upper Side Lobe Suppression	<-18 dB
Impedance	50 Ohms
Power Input Per Connector	500 CW at 800 MHz
Isolation	< -27 dB
Intermodulation (2x20W)	<-150 dBc

Mechanical Specifications

Input Connector (female)	Back 7/16 DIN or w/bot. opt.
Antenna Dimensions (LxWxD)	96.0 x 14.6 x 8.0 in. (2438 x 372 x 203mm)
*Antenna Weight	43.4 lbs
Bracket Weight	18.2 lbs
RF Distribution	Printed Microstrip Substrate
Radome	Ultra High-Strength Luran
Weatherability	UV Stabilized, ASTM D1925
Radome Water Absorption	ASTM D570, 0.45%
Environmental	MIL-STD-810E
Wind Survival	150 mph
Front Wind Load @100mph	288 lbf
Equivalent Flat Plate @100mph	5.87 sq-ft. (c=2)
Mounting Brackets	Fits 3.5 Inch Max. O.D. Pipe
Mechanical Downtilt Range	0-6°
Clamps/Bolts	Galvanized Steel/Stainless Steel



Available with
Integrated Pass-Thru Diplexers
to reduce mainline cables
and eliminate separate
external devices



Integrated Pass-Thru Diplexers will work with TMA's

Recommended Connector Coupling Torque
7/16 DIN: 220-265 lbf-in (25-30 N-m)

Return Loss at pass-thru port
into 50Ω load ≥17.7 dB

1710-2170MHz

Ordering Information & Options

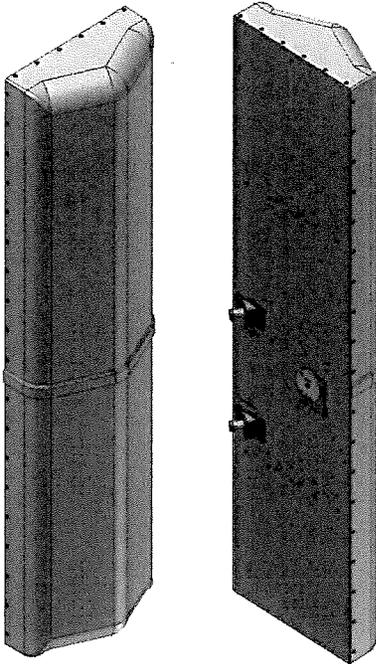
X7C-FRO-860-x	"-x" is a placeholder for the built-in fixed electrical downtilt in degrees, set to 0, 2, 4, 6, 8 or 10
X7C-FRO-860-xip	"ip" option includes pass-thru integrated diplexer(s) which pass DC to the diplexer port(s)
X7C-FRO-860-xip-bot	for bottom mounted connectors, add "-bot" (otherwise antenna comes standard with back mounted connectors)

*Antenna Weight may vary slightly with options.



X7C-FRO-640-V

X-Pol Antenna, 698-896MHz, 72", Fast Roll Off 40° Azimuth
Variable E-Tilt, RET/MET



- Designed to improve SNR
- Greatly increases LTE data rates
- Broadband radiator
- Macro Cell, high gain antenna
- Suitable for LTE/CDMA/UMTS/GSM
- AISG 2.0 RET or manual MET tilt control

Electrical Specifications

Frequency Band, MHz	698-824	824-896
Horizontal Beamwidth, 3dB points	46°	36°
Gain, dBi	17.3	18.5
Vertical Beamwidth, 3dB points	12.1°	10.2°
Front-to-Back at 180°, dB	24	
Upper Sidelobe Suppression, Typical, dB	18	
Polarization	+/-45°	
Electrical Downtilt	0-10° or 4-14°	
VSWR/Return Loss, dB, Maximum	1.5:1/-14.0	
Isolation Between Ports, dB, Mimimum	28	
Intermodulation (2x20w), IM3, dBc, Maximum	-150	
Impedance, ohms	50	
Maximum Power Per Connector, CW	500	

www.cssantenna.com

410-612-0080

customerservice@cssantenna.com

All Specifications are subject to change.

Refer to www.cssantenna.com for the most current information

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5/20/2014



X7C-FRO-640-V

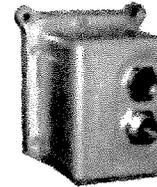
X-Pol Antenna, 698-896MHz, 72", Fast Roll Off 40° Azimuth
Variable E-Tilt, RET/MET

Mechanical Specifications

Dimensions, Length/Width/Depth	72.0/18.8/9.1 in (1829/479/231 mm)
Connector (Quantity) Type	(2) 7-16 DIN Female
Connector Torque	220-265 lbf-in (23-30 N-m)
Connector Location	Back
Antenna Weight	42.4 Lbs (19.3 Kg)
Bracket Weight	13.4 lb (6.0 kg)
Standard Bracket Kit	CSS P/N 919011
Mechanical Downtilt Range	0-12°
Radome Material	High Strength Luran, UV Stabilized, ASTM D1925
Wind Survival	150 mph (241 km/h)
Front Wind Load @100 mph	226.69 lbf (1008.42 N)
Equivalent Flat Plate @100 mph	4.51 sq-ft (c=2)

RET Information

Model	CSS-RET-200
Mounting Location	Rear of Antenna
Weight	1.2 lb (0.54 kg)
Communication Standard	AISG 2.0
Control System	CSS-PCU-220



Order Information

Model	Description
X7C-FRO-640-VR0	Antenna with remote RET adjust electrical downtilt 0-10°
X7C-FRO-640-VR4	Antenna with remote RET adjust electrical downtilt 4-14°
X7C-FRO-640-VM0	Antenna with manual MET adjust electrical downtilt 0-10°
X7C-FRO-640-VM4	Antenna with manual MET adjust electrical downtilt 4-14°

Optional Bracket Kit

919036	Bracket Kit, 2-Point, 12 deg D-tilt, For 4.5" OD Pole
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All Specifications are subject to change.

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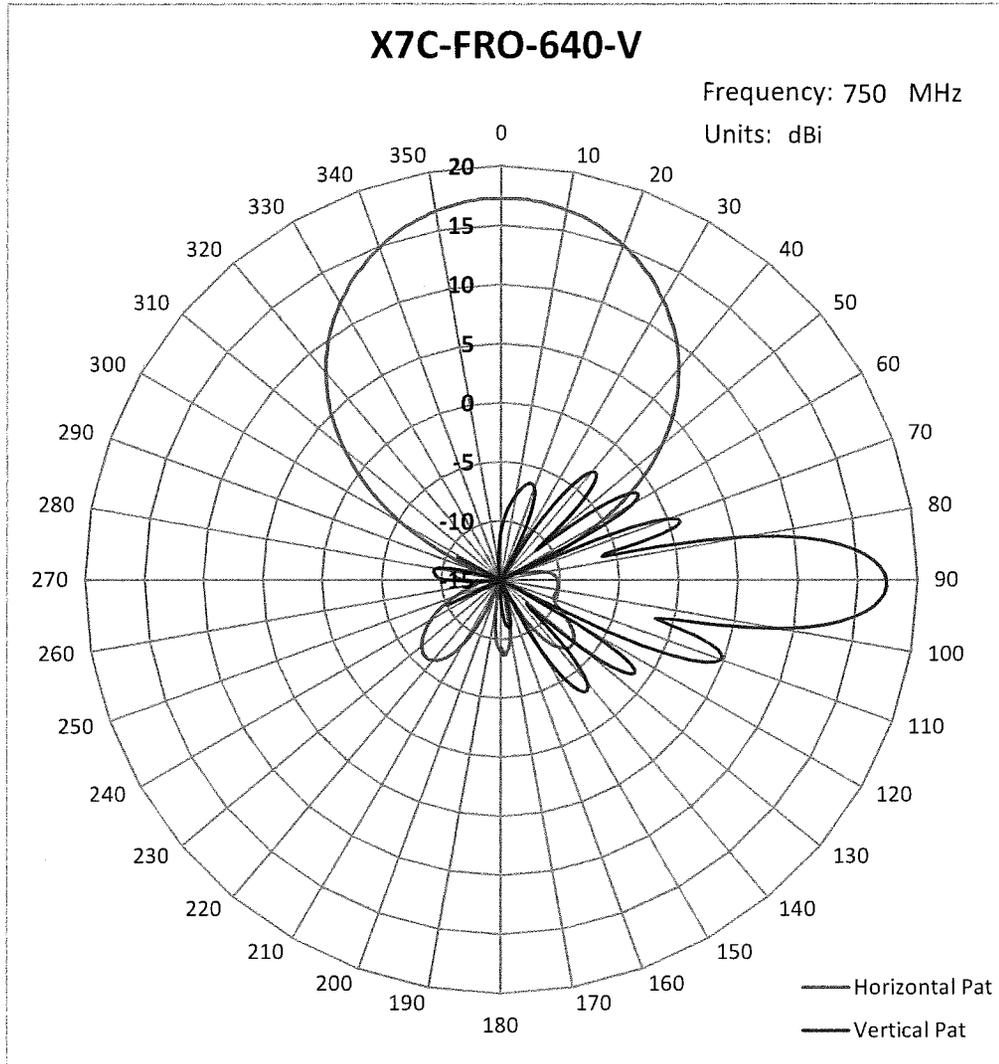
5/20/2014



X7C-FRO-640-V

X-Pol Antenna, 698-896MHz, 72", Fast Roll Off 40° Azimuth
Variable E-Tilt, RET/MET

Patterns Measured @ 750MHz



Center = -15dB, with 5 dB/radial division and 10° angular division

www.cssantenna.com

410-612-0080

All Specifications are subject to change.

Refer to www.cssantenna.com for the most current information

customerservice@cssantenna.com

Page 3 of 8

5/20/2014

BXA-171063/12CF _ FP

When ordering replace " _ " with connector type.

Mechanical specifications

Length	1840 mm	72.4 in
Width	154 mm	6.1 in
Depth	105 mm	4.1 in
Depth with t-bracket	133 mm	5.2 in
4) Weight	6.8 kg	15.0 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting:

Mounting bracket kit #26799997 included. Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in). See notes (below, right) regarding minimum diameters of mounting pipe and concealment radome. Antennas must be staggered.

Equipment requirements

Due to limited space in concealed configurations, it is necessary to order 90° elbow connectors for jumper cables.

Electrical specifications

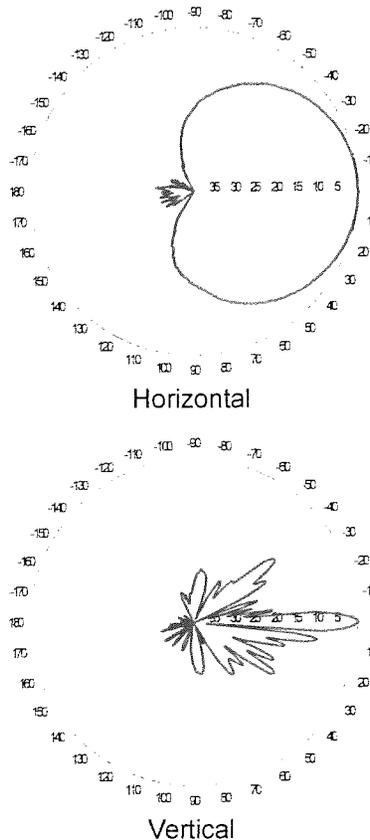
Frequency Range	1710-2170 MHz
Impedance	50Ω
3) Connector(s)	NE or E-DIN 2 ports / center
1) VSWR	≤ 1.5:1
Polarization	Slant ± 45°
1) Isolation Between Ports	< -25 dB
1) Gain:	1710-1755 MHz 19.5 dBi 1850-1990 MHz 19.5 dBi 2110-2155 MHz 19.0 dBi
2) Power Rating	250 W
1) Half Power Angle	
H-Plane	63°
E-Plane	5°
1) Electrical Downtilt	0°
1) Null Fill	5%
Lightning Protection	Direct Ground

Patented Dipole Design: U.S. Patent No. 6,597,324 B2

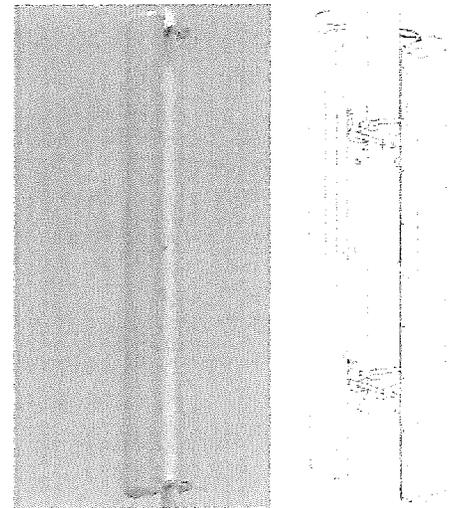
- 1) Typical values.
- 2) Power rating limited by connector only.
- 3) NE indicates an elongated N connector. E-DIN indicates an elongated DIN connector.
- 4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

Radiation pattern¹⁾



Right: Typical 3-antenna array using three BXA-171063/12CF _ FP antennas



The BXA-171063/12CF _ FP can be used in a 3-Antenna Array with the following specifications:

	<u>Outside Diameter of Mounting Pipe</u>		<u>Inside Diameter of Concealment Radome</u>	
1)	63.5 mm	2.5 in	457.2 mm	18 in
	88.9 mm	3.5 in	482.6 mm	19 in
	101.6 mm	4.0 in	495.3 mm	19.5 in

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connectors only.

CF Denotes a Center-Fed Connector.

1710-2170 MHz



Revision Date: 10/9/07

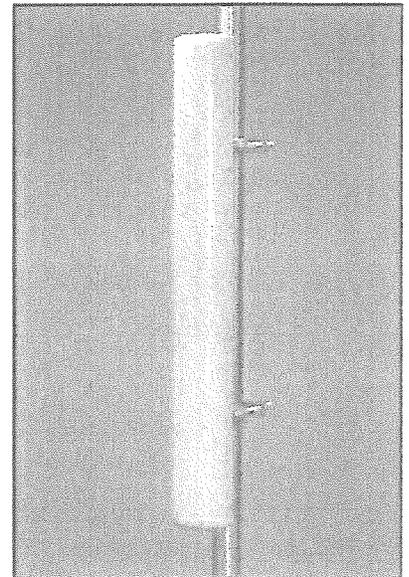
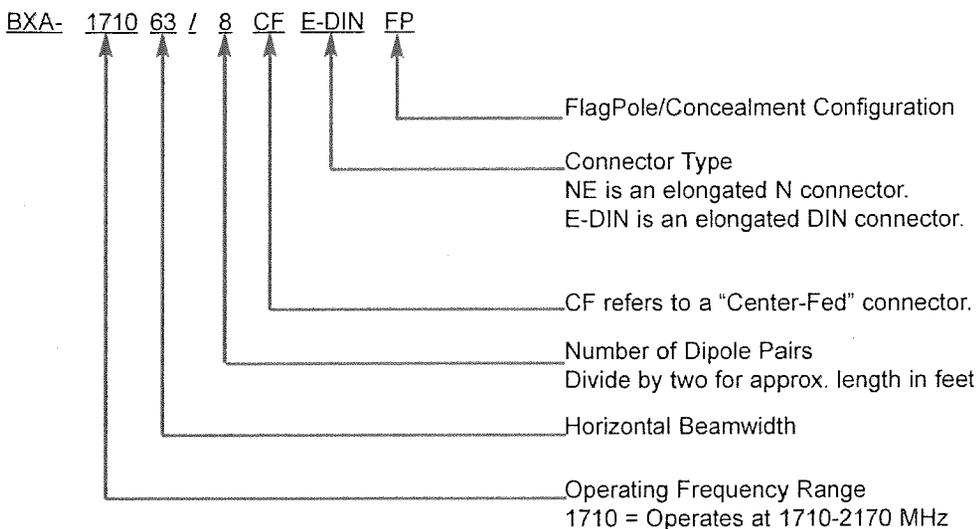
BXA-1710 FP Series

The **BXA FP** (Broadband X-Pol Antenna for Flag Pole Configuration) is a slant +/- 45° dual-polarized panel for concealment configurations covering the 1710-2170 MHz frequency range. Our unique all mechanical design and patented dipole element ensure excellent overall performance with similar electrical performance from both ports and consistent and repeatable performance from all production units of the same model. These characteristics contribute significantly to the overall quality of a carrier's network. Antennas are available with fixed electrical downtilt.

Design and Construction of the BXA-1710 FP Panel:

BXA antennas are manufactured with our exclusive 3T Technology, featuring single-piece, water-cut brass feedline assemblies for consistent performance; a non-collinear system with access to each radiating element for control of the shaping of the vertical pattern; air as insulation for virtually no internal signal loss; fiberglass radomes and aircraft grade aluminum reflector plates for even heat dissipation to minimize plate warping and bending.

Model Number Guide:



Model's Currently Available:

Model Number	Frequency Range (MHz)	H-Plane	E-Plane	Gain (dBi)	Fixed Electrical Downtilt Options	Length x Width x Depth (in inches)
BXA-171040/8CF _ FP	1710-2170 MHz	40°	7°	19.5 dBi	0°	48.8" x 11.8" x 4.7"
BXA-171063/8CF _ FP	1710-2170 MHz	63°	7°	18-18.5 dBi	0°	48.5" x 6.0" x 4.5"
BXA-171063/12CF _ FP	1710-2170 MHz	63°	5°	19-19.5 dBi	0°	72.4" x 6.1" x 4.1"

When ordering replace " _ " with the connector type (NE or E-DIN).

Amphenol Antel, Inc.

GAS ENGINE-GENERATOR SET 40-GC6NLT1

40 kW_e / 60 Hz / Standby
208 - 600V



SYSTEM RATINGS

Standby

Voltage (L-L)	210V**	240V**	208V**	240V**	180V**	600V**
Phase	1	1	3	3	3	3
PF	1.0	1.0	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60	60
Natural Gas						
Ratings: Amps	167	167	139	120	60	48
Natural Gas						
Ratings: kW/kVA	40/40	40/40	40/50	40/50	40/50	40/50
LP Gas						
Ratings: Amps	167	167	139	120	60	48
LP Gas						
Ratings: kW/kVA	40/40	40/40	40/50	40/50	40/50	40/50
skVA@30%						
Voltage Dip	128	116	125	125	167	92
Generator Model*	362CSL1604	361CSL1612	284PSL1742	284PSL1742	284PSL1742	361PSL1632
Temp Rise	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C	130 °C/40 °C
Connection	12 LEAD ZIG-ZAG	4 LEAD	12 LEAD LOW WYE	12 LEAD HI DELTA	12 LEAD HI WYE	4 LEAD WYE

* The Generator Model Number identified in the table is for standard C Series Configuration. Consult the factory for alternate configuration.

** UL 2200 Offered

CERTIFICATIONS AND STANDARDS

// **Engine-generator set is designed and manufactured in facilities certified to standards ISO 9001:2008 and ISO 14001:2004**

// **Power Rating**

- Accepts Rated Load in One Step Per NFPA 110

// **UL 2200 / CSA – Optional**

- UL 2200 Listed
- CSA Certified

// **Performance Assurance Certification (PAC)**

- Engine-Generator Set Tested to ISO 8528-5 for Transient Response
- Verified product design, quality and performance integrity
- All engine systems are prototype and factory tested

STANDARD FEATURES*

- // MTU Onsite Energy is a single source supplier
- // Global Product Support
- // 2 Year Standard Warranty
- // 4.3 L Engine
 - 4.3 Liter Displacement
 - 4-Cycle
- // Engine-generator resilient mounted
- // Complete Range of Accessories
- // Generator
 - Brushless, Rotating Field Generator
 - 2/3 Pitch Windings
 - 300% Short Circuit Capability with Optional PMG
- // Digital Control Panel(s)
 - UL Recognized, CSA Certified, NFPA 110
 - Complete System Metering
 - LCD Display
- // Cooling System
 - Integral Set-Mounted
 - Engine Driven Fan

STANDARD EQUIPMENT*

// Engine

Air Cleaner
 Oil Pump
 Oil Drain Extension & S/O Valve
 Full Flow Oil Filter
 Jacket Water Pump
 Thermostat
 Blower Fan & Fan Drive
 Radiator - Unit Mounted
 Electric Starting Motor - 12V
 Governor – Electronic Isochronous
 Base - Formed Steel
 SAE Flywheel & Bell Housing
 Charging Alternator - 12V
 Battery Box & Cables
 Flexible Fuel Connectors
 Flexible Exhaust Connection
 EPA Certified Engine

// Generator

NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor starting
 Self-Ventilated and Drip-Proof
 Superior Voltage Waveform
 Solid State, Volts-per-Hertz Regulator
 $\pm 1\%$ Voltage Regulation No Load to Full Load
 Brushless Alternator with Brushless Pilot Exciter
 4 Pole, Rotating Field

130 °C Maximum Standby Temperature Rise
 1 Bearing, Sealed
 Flexible Coupling
 Full Amortisseur Windings
 12.5% Rotor Balancing
 3-Phase Voltage Sensing
 100% of Rated Load - One Step
 3% Maximum Harmonic Content

// Digital Control Panel(s)

Digital Metering
 Engine Parameters
 Generator Protection Functions
 Engine Protection
 SAE J1939 Engine ECU Communications
 Windows-Based Software
 Multilingual Capability
 Remote Communications to RDP-110 Remote Annunciator
 16 Programmable Contact Inputs
 Up to 11 Contact Outputs
 UL Recognized, CSA Certified, CE Approved
 Event Recording
 IP 54 Front Panel Rating with Integrated Gasket
 NFPA110 Compatible

* Represents standard product only. Consult Factory/MTU Onsite Energy Distributor for additional configurations.

APPLICATION DATA

// Engine

Manufacturer	GM
Model	4.3L
Type	4-Cycle
Arrangement	6-V
Displacement: L (in ³)	4.3 (262)
Bore: cm (in)	10.2 (4)
Stroke: cm (in)	8.8 (3.5)
Compression Ratio	9.4:1
Rated RPM	1,800
Engine Governor	Bosch
Maximum Power (NG): kWm (bhp)	49.6 (66.5)
Maximum Power (LP): kWm (bhp)	53.2 (71.4)
Speed Regulation	C/F
Air Cleaner	Dry

// Fuel Consumption (NG-1000 BTU/ft³ / LP-2500 BTU/ft³)

	NG	LPG
At 100% of Power Rating: m ³ /hr (ft ³ /hr)	13.9 (489)	6.1 (216)
At 75% of Power Rating: m ³ /hr (ft ³ /hr)	10.4 (368)	4.6 (163)
At 50% of Power Rating: m ³ /hr (ft ³ /hr)	7.3 (256)	3.2 (113)

// Cooling - Radiator System

Ambient Capacity of Radiator: °C (°F)	50 (122)
Maximum Restriction of Cooling Air, Intake, and Discharge Side of Rad.: kPa (in. H ₂ O)	0.12 (0.5)
Water Pump Capacity: L/min (gpm)	117.3 (31)
Heat Rejection to Coolant: kW (BTUM)	39 (2,220)
Heat Radiated to Ambient: kW (BTUM)	16.5 (938)

// Liquid Capacity (Lubrication)

Total Oil System: L (gal)	4.2 (1.1)
Engine Jacket Water Capacity: L (gal)	7.2 (1.9)
System Coolant Capacity: L (gal)	21.6 (5.7)

// Electrical

Electric Volts DC	12
Cold Cranking Amps Under -17.8 °C (0 °F)	925

// Air Requirements

Aspirating: *m ³ /min (SCFM)	3.9 (136.5)
Air Flow Required for Rad. Cooled Unit: *m ³ /min (SCFM)	211.4 (7,464)
Remote Cooled Applications; Air Flow Required for Dissipation of Radiated Gen-set Heat For a Max of 25 °F Rise: *m ³ /min (SCFM)	59.9 (2,114)
* Air density = 1.184 kg/m ³ (0.0739 lbm/ft ³)	

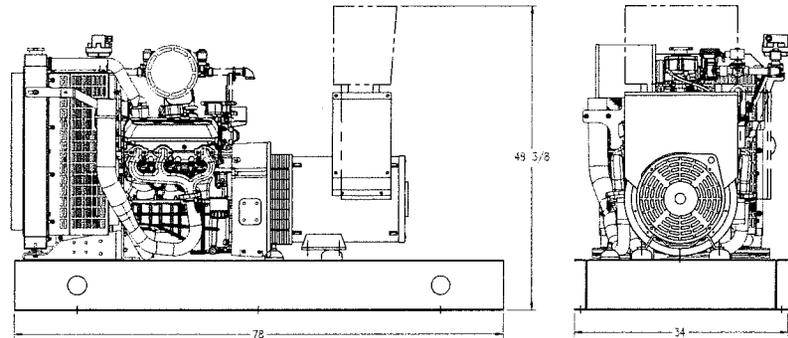
// Fuel Inlet

Fuel Supply Connection Size	3/4" NPT
Fuel Supply Pressure: mm H ₂ O (in. H ₂ O)	178-279 (7-11)

// Exhaust System

Gas Temp. (Stack): °C (°F)	704.4 (1,300)
Gas Volume at Stack Temp: m ³ /min (CFM)	12.5 (440.8)
Maximum Allowable Back Pressure: kPa (in. H ₂ O)	10 (40)

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open power 480 volt engine-generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

System	Dimensions (L x W x H)	Weight (dry)
OPU	1,981 x 864 x 1,229 mm (78 x 34 x 48.38 in)	572 kg (1,260 lb)

Weights and dimensions are based on open power units and are estimates only. Consult the factory for accurate weights and dimensions for your specific engine-generator set.

SOUND DATA

Unit Type	Standby, Full Load
Level 0: Open Power Unit (dBA)	C/F
WPE - No Sound Attenuation (dBA)	C/F
COE (dBA)	C/F

Sound data is provided at 7 m (23 ft). Engine-generator set tested in accordance with ISO 8528-10 and with infinite exhaust.

EMISSIONS DATA

Fuel Type	THC + NO _x	CO
Natural Gas	5.24	16.38
Liquid Propane	6.09	23.88

All units are in g/hp-hr.
Engine meets EPA 40 CFR Part 60/90 specifications.

RATING DEFINITIONS AND CONDITIONS

// Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO 3046-1, BS 5514, AS 2789, and DIN 6271.

// Deration Factor:

Altitude: Consult your local MTU Onsite Energy Power Generation Distributor for altitude derations.

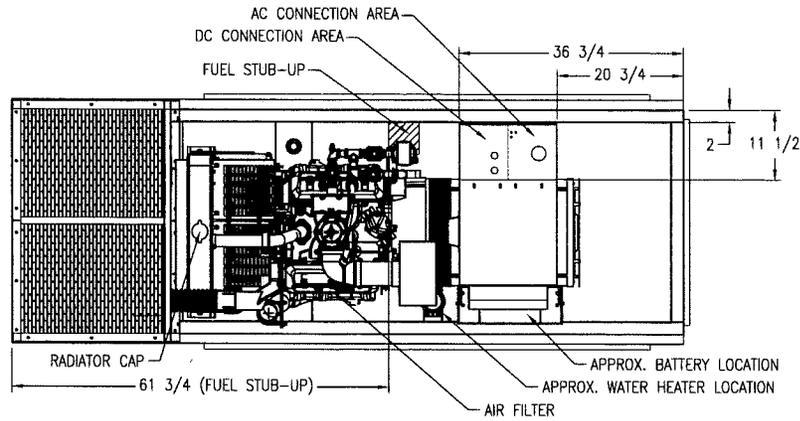
Temperature: Consult your local MTU Onsite Energy Power Generation Distributor for temperature derations.

Materials and specifications subject to change without notice.

C/F = Consult Factory/MTU Onsite Energy Distributor

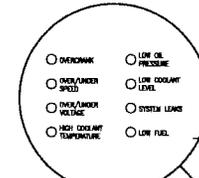
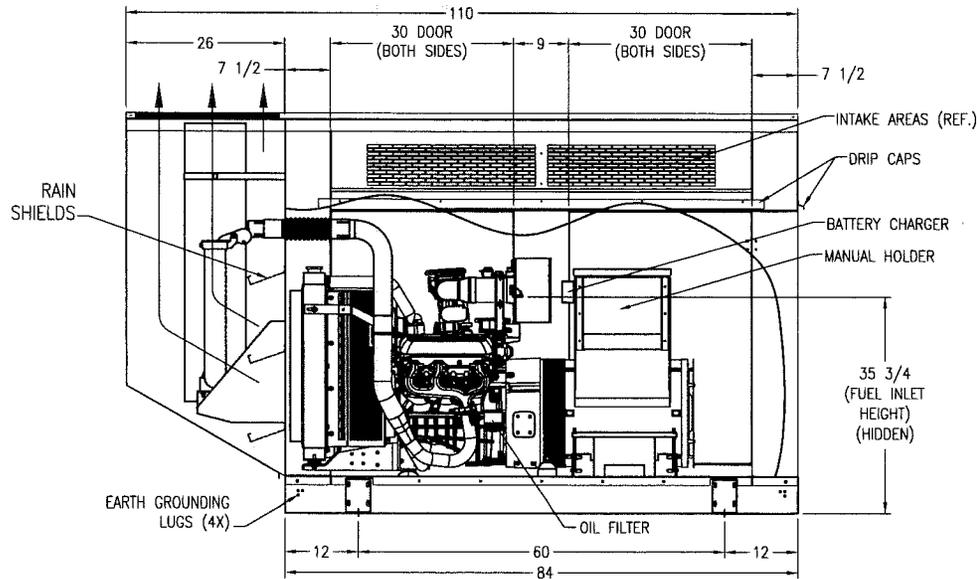
// **Tognum Group Companies: Europe / Middle East / Africa** / MTU Onsite Energy / 88040 Friedrichshafen / Germany / Phone + 49 7541 90 7060 / Fax +49 7541 90 7084 / powergenregion1@mtu-online.com // **Asia / Australia / Pacific** / MTU Onsite Energy / 1, Benoi Place / Singapore 629923 / Republic of Singapore / Phone + 65 6861 5922 / Fax + 65 6861 3615 / powergenregion2@mtu-online.com // **USA / Canada / Latin America / Mexico** / MTU Onsite Energy Corporation / 100 Power Drive / Mankato, Minnesota 56001 / USA / Phone + 1 507 625 7973 / Fax + 1 507 625 2968 / powergenregion3@mtu-online.com

DWG. #: VER30_GC6NLT1(4.3)CQE-MI-5

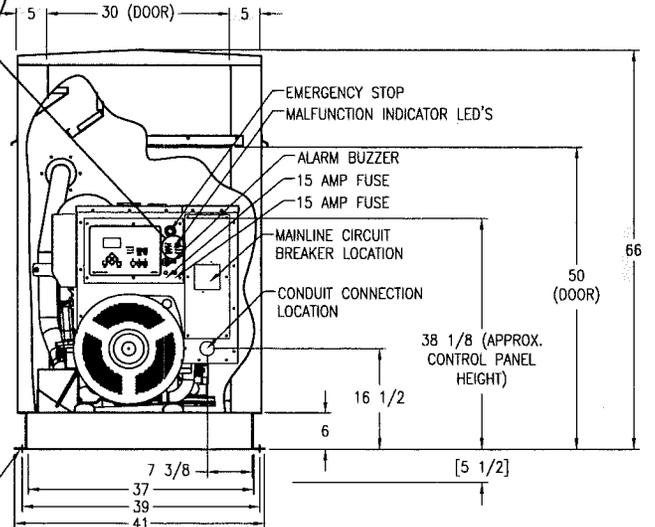


NOTES:

- 1) APPROX. WEIGHT: (WET) 1900#
- 2) REFERENCE BASE DRAWING: 105-5425
- 3) REFERENCE ENCLOSURE DRAWING: CQE-729-ALUM
- 4) SOUND LEVEL: 65 DBA @ 23 FT. (TO BE DETERMINED)
- 5) GEN-SET IS OFF-SET 1 3/4" TO LEFT SIDE OF BASE/ENCL.
- 6) ENCLOSURE & EXHAUST SYSTEMS ARE NOT SHOWN ON TOP VIEW
- 7) FUEL CONNECTIONS 3/4" NPT
- 8) PAINT FINISH: ANSI 61 GRAY



MALFUNCTION INDICATOR LED'S (SCALE: 10X)



GEN-SET INFORMATION

ENGINE: GM 4.3L	ENCLOSURE: CQE-729-ALUM
GENERATOR: 361	BREAKER: AS SPECIFIED
RADIATOR: W/ ENG.	TANK: NA
RADIATOR AMBIENT: 50C	MUFFLER: 3 CRITICAL
DUCT FLANGE: 105-1401	TRAILER: NA
CONTROL PANEL: DGC-2020	ISOLATORS: PADS
BASE: 105-5425	

DIMENSIONAL LAYOUT

DRAWN TO SCALE ALL DIMENSIONS ARE IN INCHES	MODEL: VER30_GC6NLT1
DATE: 04-11-13	DRAWN BY: JDA
DWG. #: VER30_GC6NLT1(4.3)CQE-MI-5	



THIS DRAWING IS THE PROPERTY OF ON SITE ENERGY CORPORATION AND SHALL BE USED ONLY AS SPECIFIED IN CONNECTION WITH THE ABOVE DRAWING. REPRODUCTION WITHOUT PERMISSION IS PROHIBITED.

REVISION	DATE	REVISION DESCRIPTION	INITIALS
A	04-11-13	INITIAL RELEASE TO SALES AND ENGINEERING	JDA



4.3L GM Genset
 AIRBORNE NOISE ANALYSIS
 30 / 1800

Onsite Energy
 VER-S30NG-CQE-100-7
 Data No.: S141
 Date: 10/15/2009

Genset Surface Noise Analysis - 1/3-Octave

ENGINE TYPE:	4.3L GM	ENGINE NO.:	4.3LX5247409
GENERATOR:	361 / 1600	TYPE:	60 Hz
POWER / SPEED:	30 / 1800	TEST CELL:	LB T1
ORDER / PROJECT NO.:	P2043	DATE MEASURED:	9/16/2009
TEST LOAD:	30 kW / 100%		
INTAKE AIR OPENING:	Paper filters with housing	ENCLOSURE:	CQE
MEASURING DISTANCE:	7 m		
MEASURING SURFACE DIMENSION:	29.2 dB		
NO. OF MEASURING POINTS:	12		
SOUND PROPAGATION:	Free-field		
MEASUREMENT STANDARD:	ISO 8528		
TOLERANCE:	+5 dB for single 1/3 octave band, +2 dB(A) for total A-weighted level.		

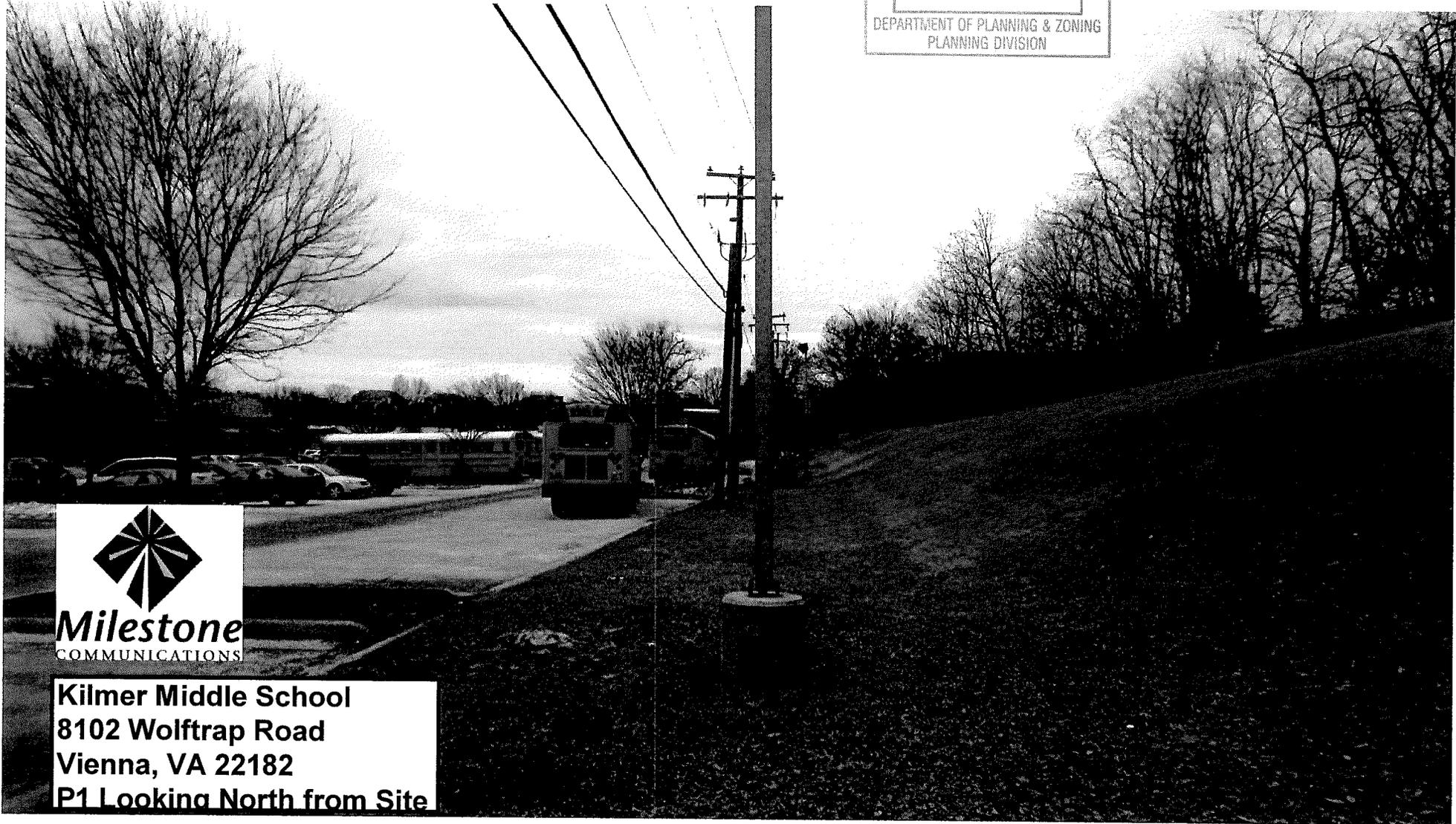
Energy mean sound pressure levels of the airborne noise that is emitted by the generator-set surface.
 For project purposes only.

Energy mean free-field level Average Level at 7 meters: 58.3 dB(A)

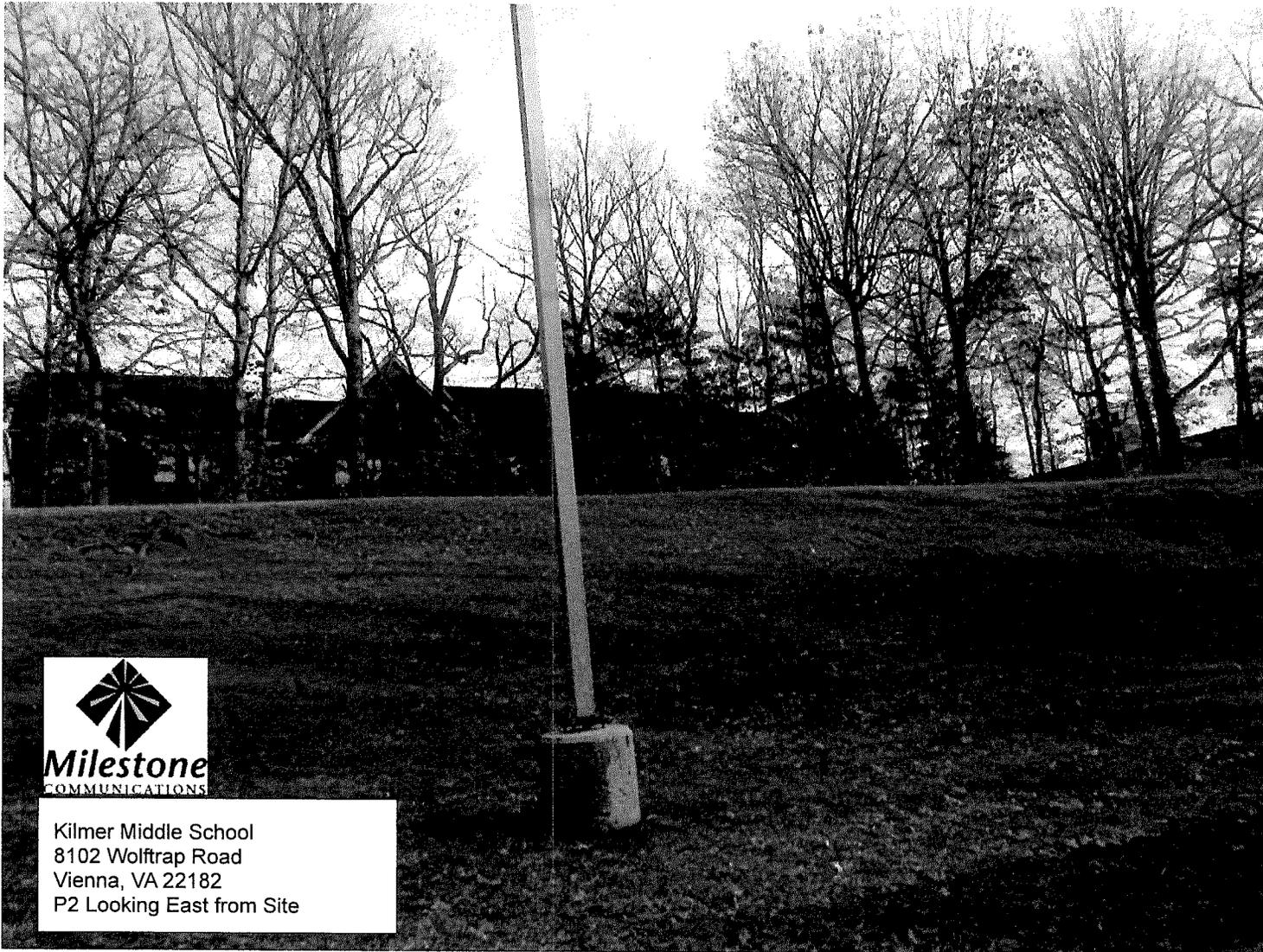
Level per Position [dB(A)]						Average [dB(A)]
1	2	3	4	5	6	
56.4	57.2	59.1	60.1	58.4	58.6	58.3

f [Hz]	Level per Frequency per Position [dB(A)]					
	1	2	3	4	5	6
25	8.5	9.3	8.4	8.3	8.2	8.2
31.5	25.2	27.7	24.8	23.4	21.9	17.4
40	8.9	16.5	15.9	14.7	8.9	13.8
50	12.5	20.3	17.4	12.0	16.4	11.9
63	33.1	32.8	30.4	32.3	34.0	34.9
80	37.1	39.5	41.1	39.9	45.5	38.9
100	41.4	33.8	42.9	39.9	45.3	32.8
125	45.3	45.2	48.2	48.4	45.9	49.5
160	46.6	42.2	52.0	52.9	50.1	53.8
200	48.6	47.8	53.2	53.5	53.9	56.1
250	46.2	53.8	51.5	51.6	55.3	57.5
315	45.2	47.6	47.4	47.1	47.6	50.6
400	52.3	49.9	55.4	54.8	52.3	53.9
500	46.4	46.5	49.0	49.7	46.8	49.6
630	43.1	43.6	45.0	46.3	45.4	44.3
800	49.2	47.4	51.7	51.1	47.3	46.5
1k	40.2	41.1	43.4	43.7	42.7	41.0
1.25k	45.0	46.7	48.2	49.2	47.7	47.2
1.6k	47.6	48.6	49.0	51.0	49.2	49.5
2k	44.7	46.9	47.2	50.1	47.9	47.3
2.5k	43.9	45.4	47.3	49.0	46.8	45.0
3.15k	43.4	45.1	46.0	47.5	46.2	44.8
4k	41.3	42.8	44.0	44.6	44.1	42.8
5k	38.8	40.3	41.5	43.4	41.1	40.4
6.3k	37.6	38.5	40.2	41.5	40.2	38.6
8k	36.2	39.1	39.2	40.8	40.3	40.9
10k	37.1	37.1	37.1	40.0	37.3	37.1

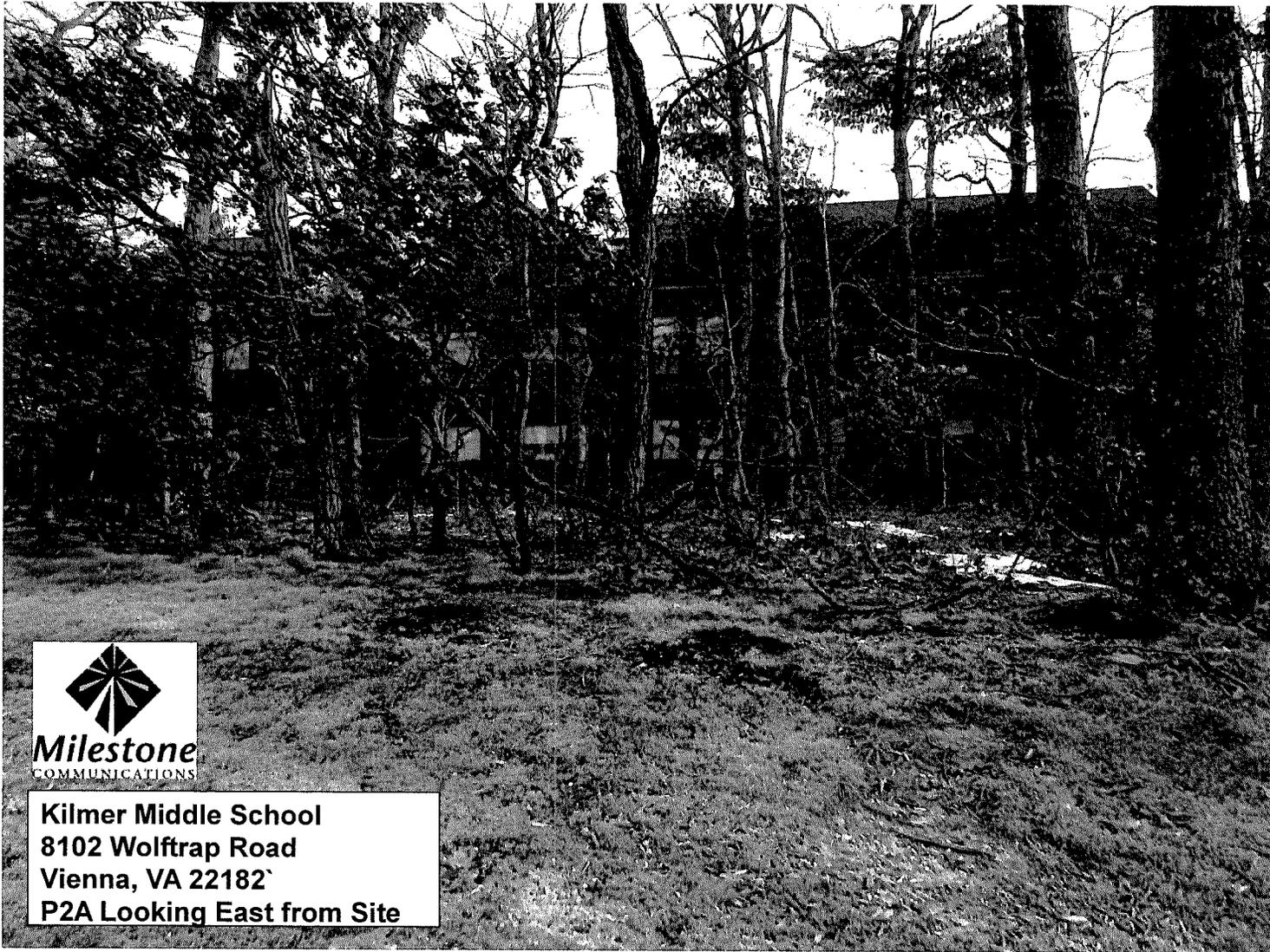
RECEIVED
APR 16 2014
DEPARTMENT OF PLANNING & ZONING
PLANNING DIVISION



Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P1 Looking North from Site



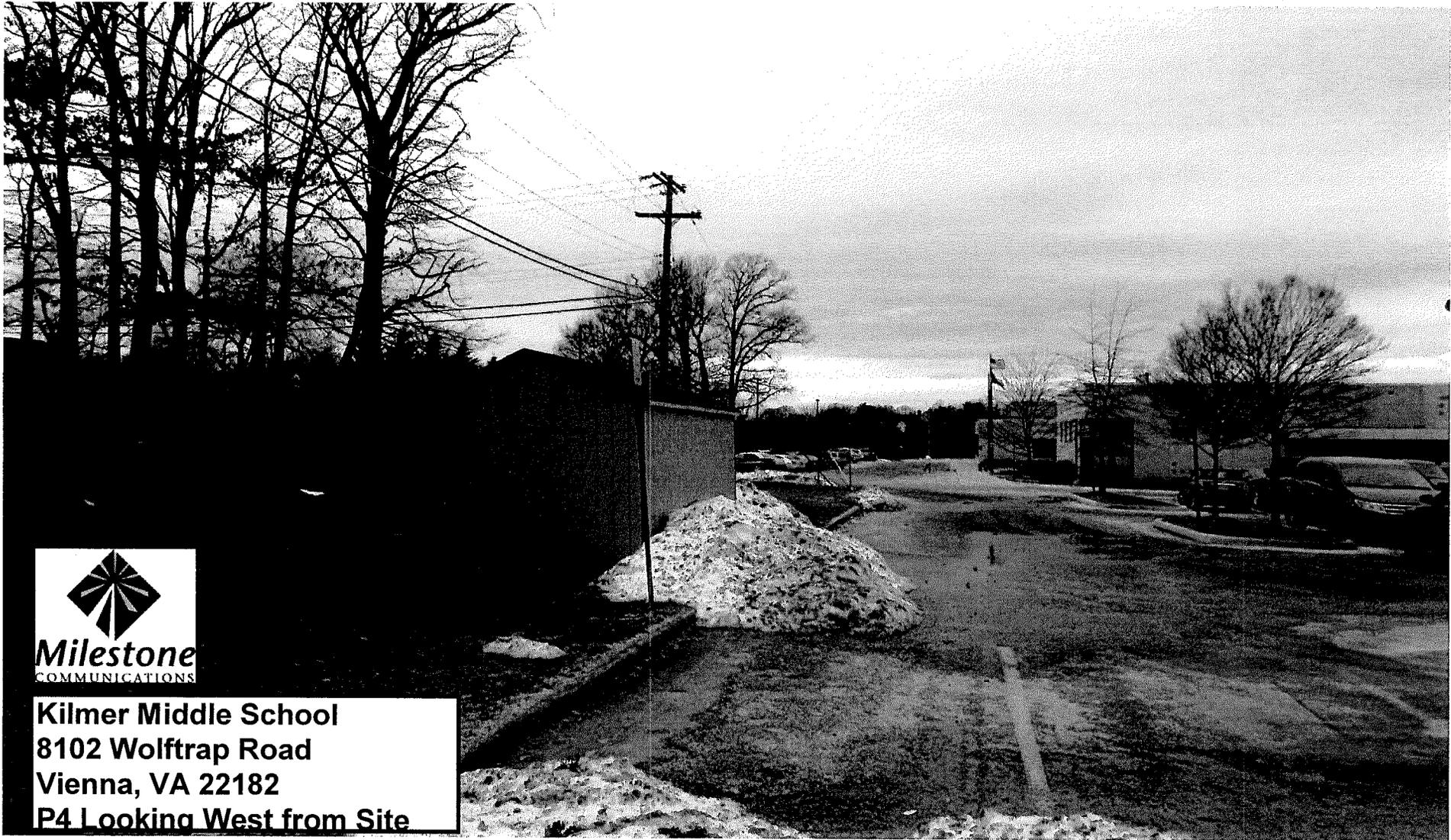
Kilmer Middle School
8102 Wolfrap Road
Vienna, VA 22182
P2 Looking East from Site



**Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P2A Looking East from Site**



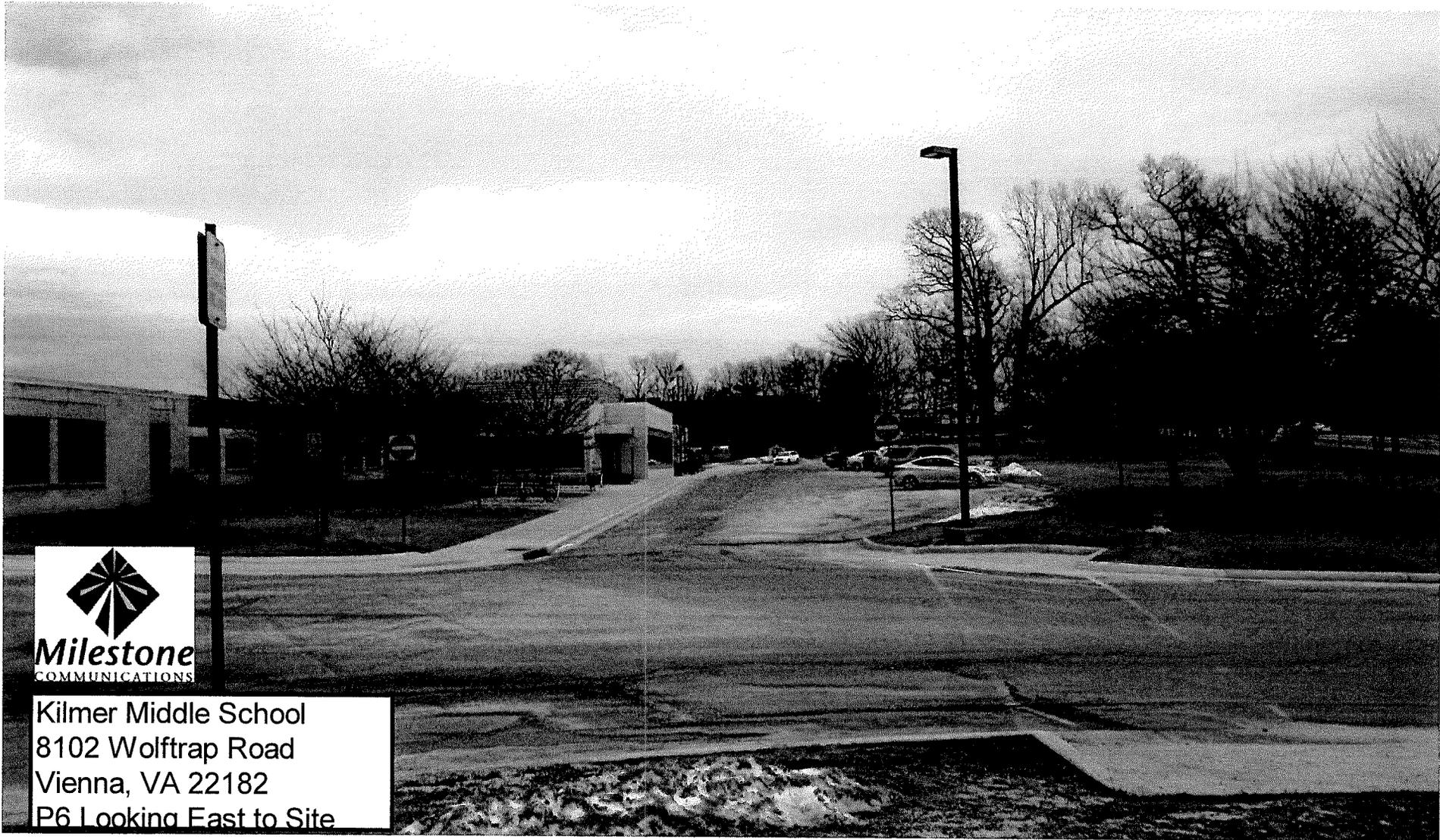
**Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P3 Looking South from Site**



**Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P4 Looking West from Site**



Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P5 Looking North to Site



Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P6 Looking East to Site

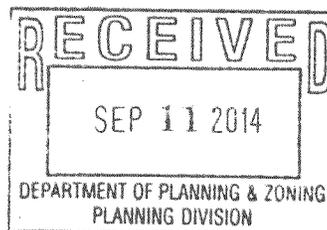
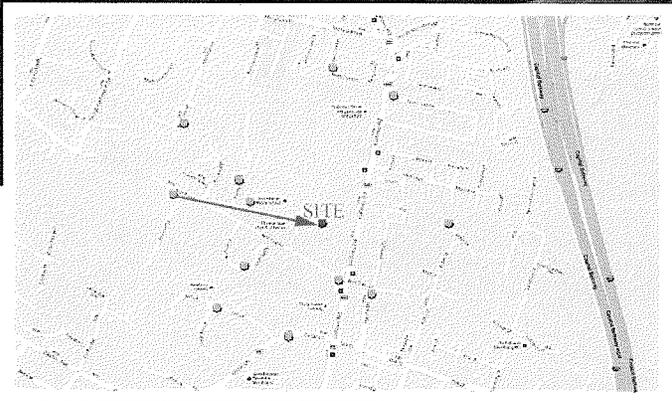
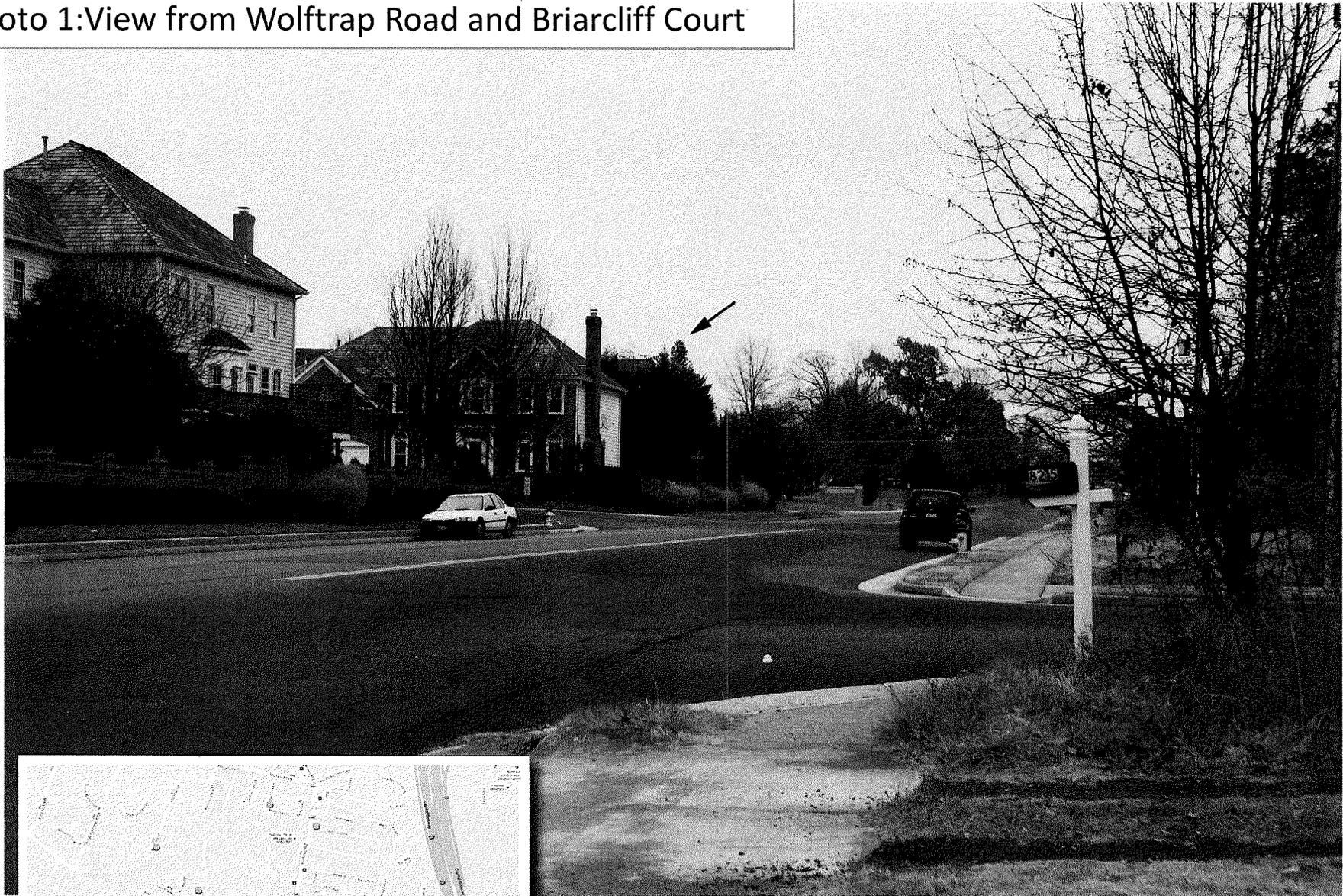


Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P7 Looking South to Site



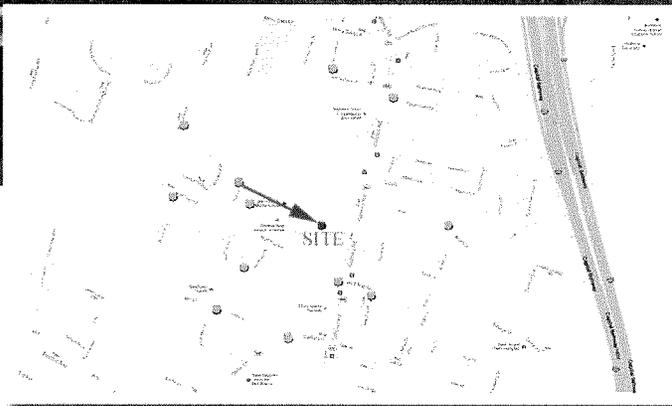
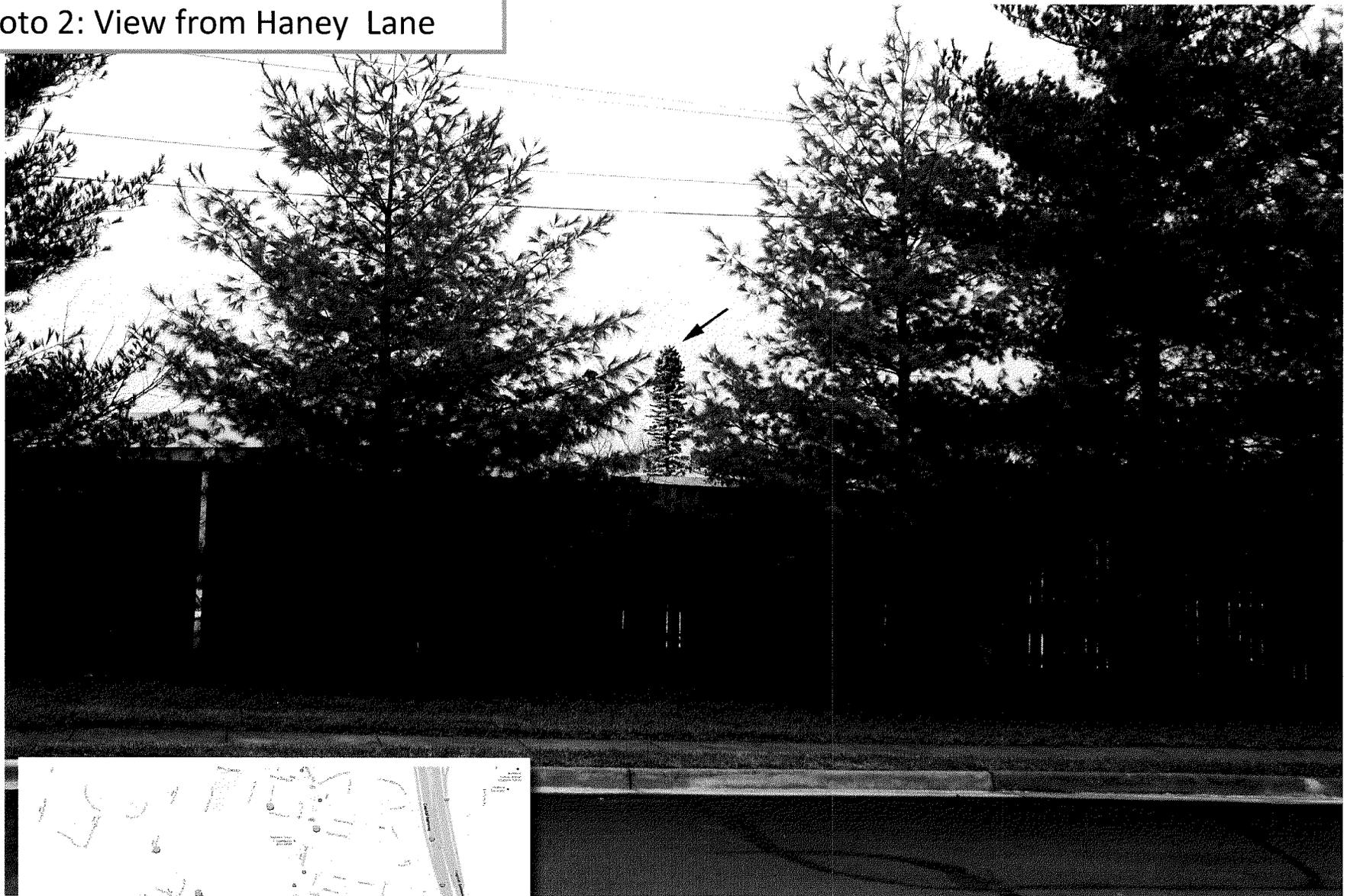
Kilmer Middle School
8102 Wolftrap Road
Vienna, VA 22182
P8 Looking West to Site

Photo 1:View from Wolftrap Road and Briarcliff Court



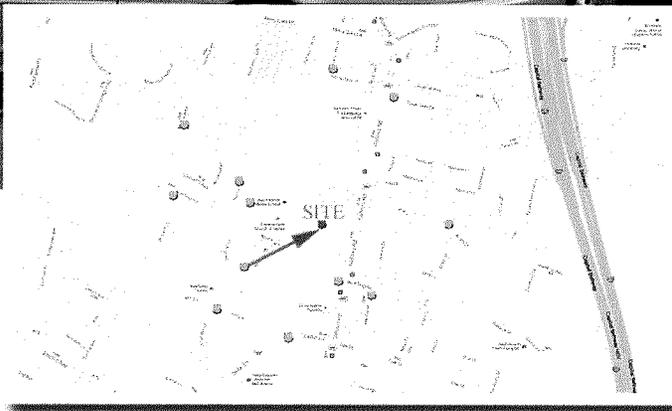
KILMER MS
PROPOSED MONOPINE

Photo 2: View from Haney Lane



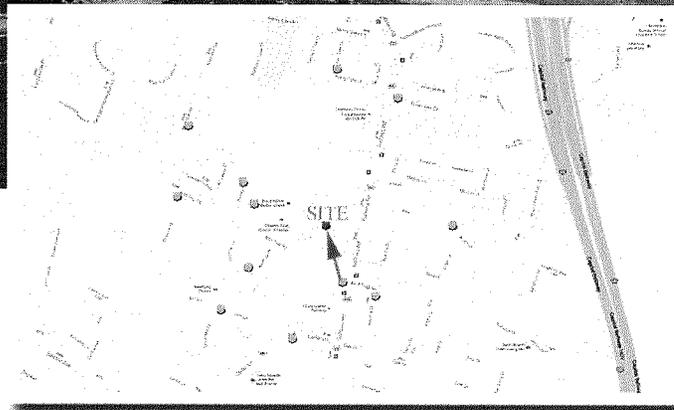
KILMER MS
PROPOSED MONOPINE

Photo 3: View from Wolftrap Court



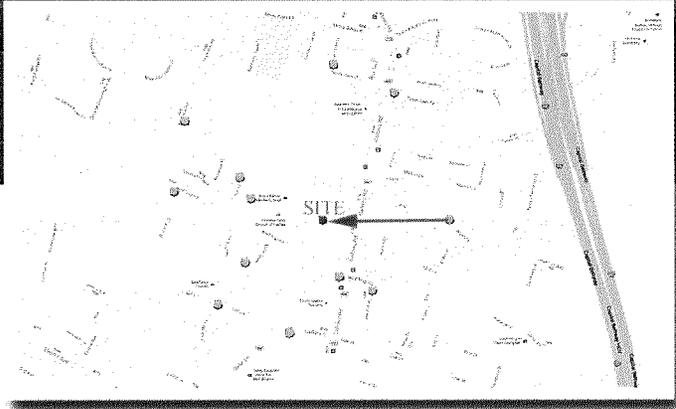
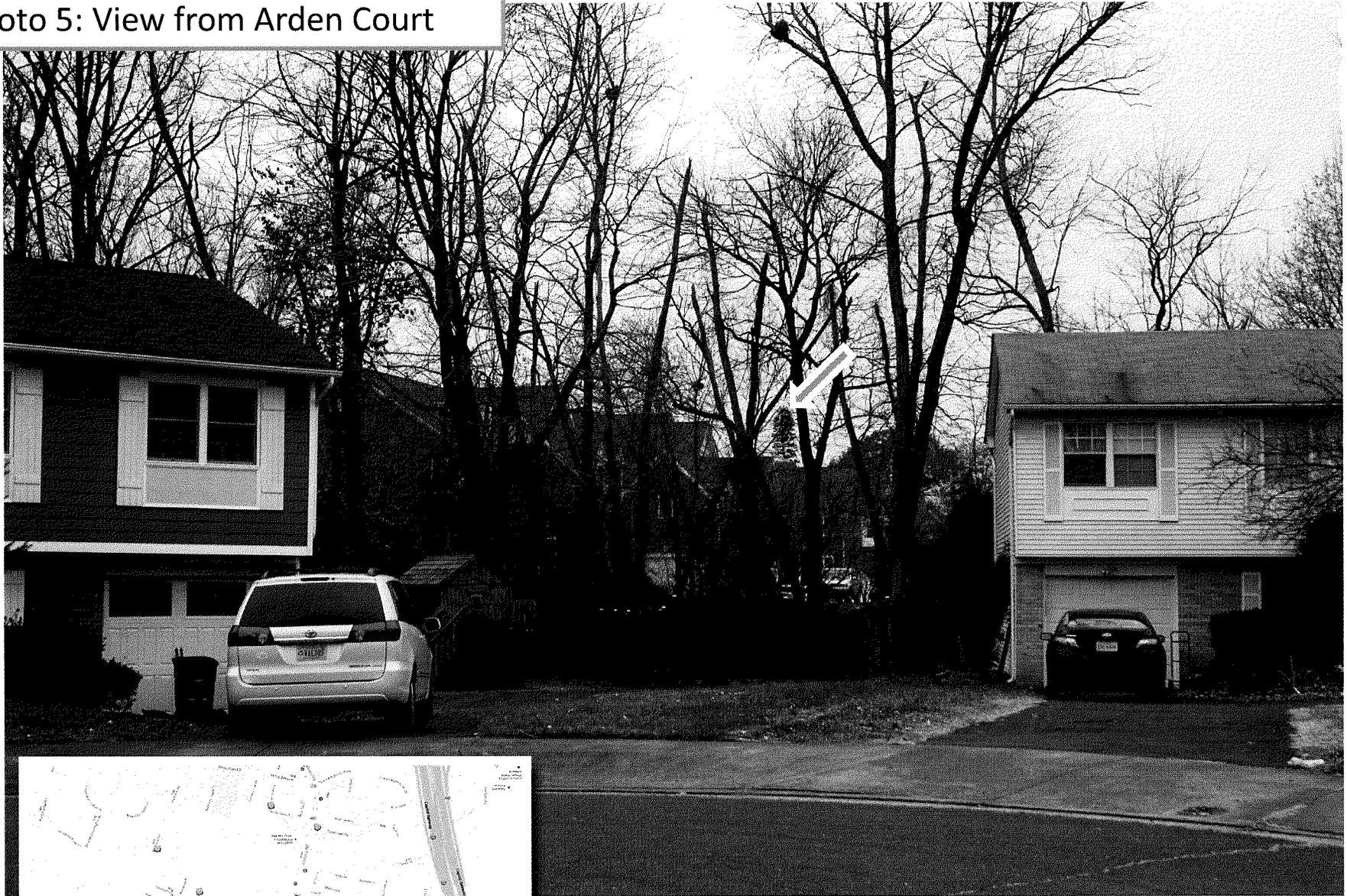
KILMER MS
PROPOSED MONOPINE

Photo 4: View from Wolftrap Road and Gallows Road



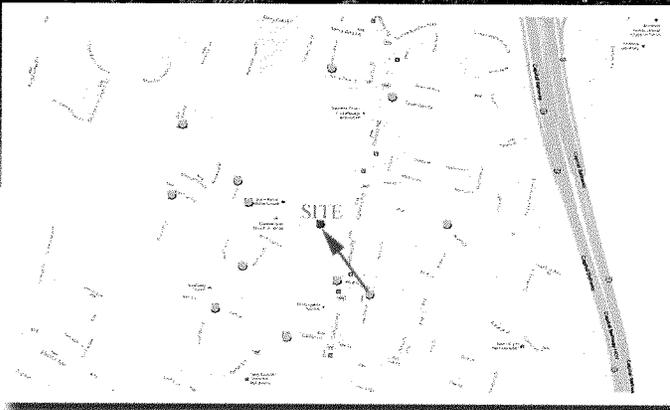
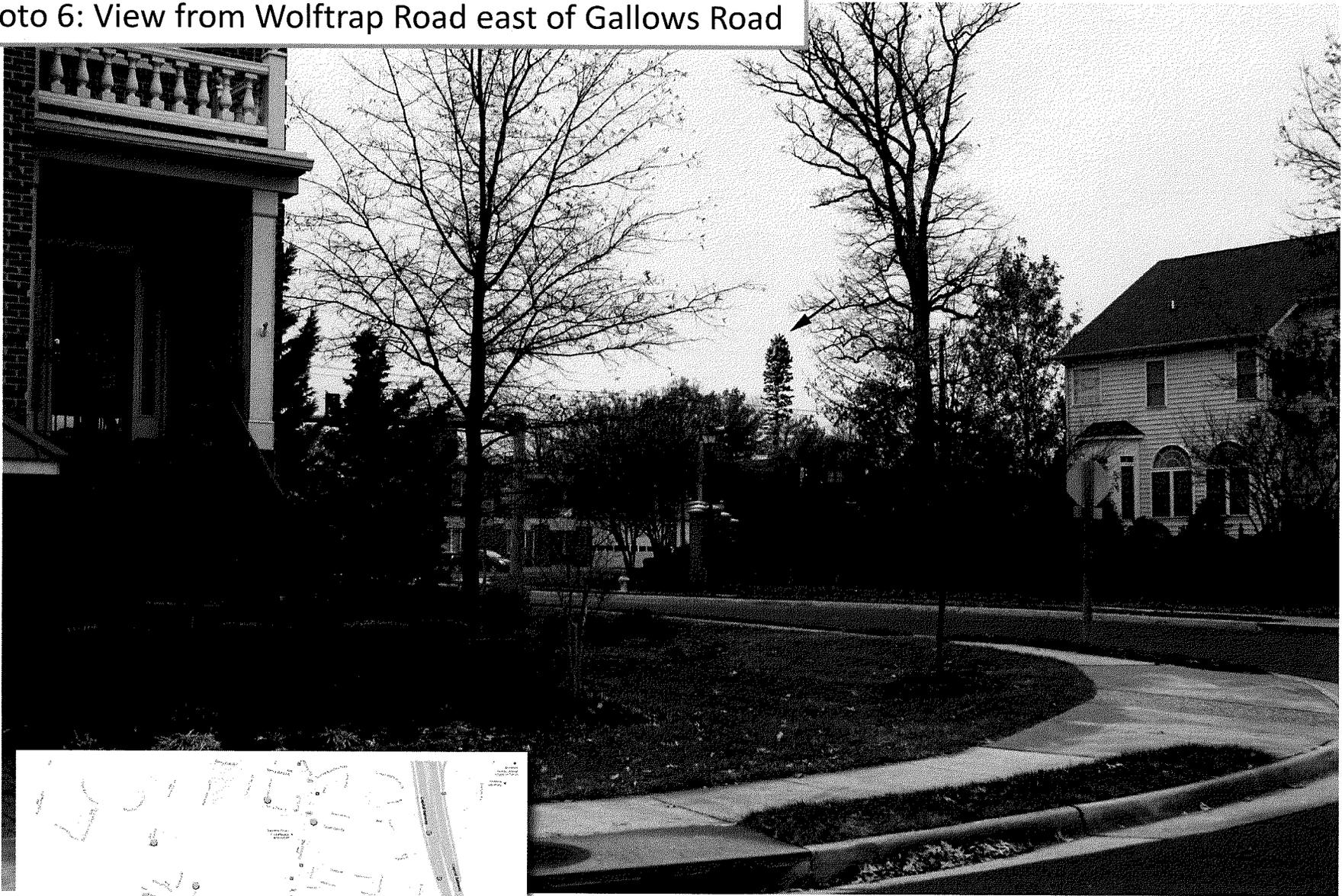
KILMER MS
PROPOSED MONOPINE

Photo 5: View from Arden Court



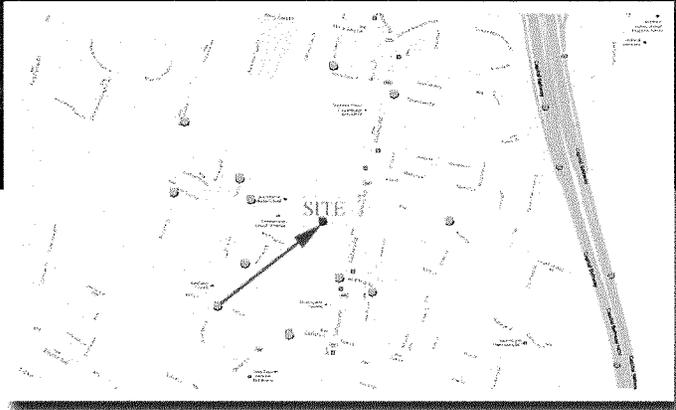
KILMER MS
PROPOSED MONOPINE

Photo 6: View from Wolftrap Road east of Gallows Road



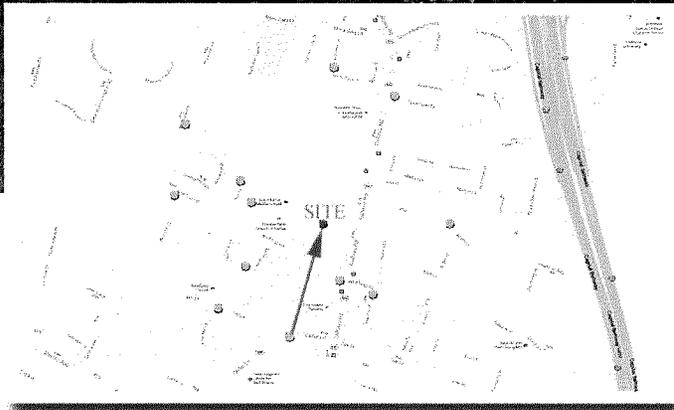
KILMER MS
PROPOSED MONOPINE

Photo 7: View from Bell Lane



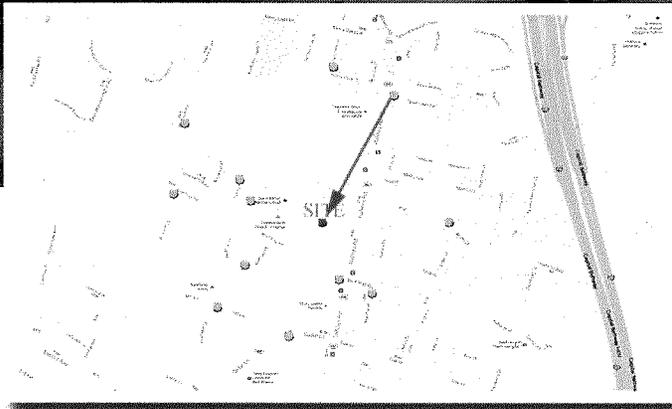
KILMER MS
PROPOSED MONOPINE

Photo 8: View Cedar Lane



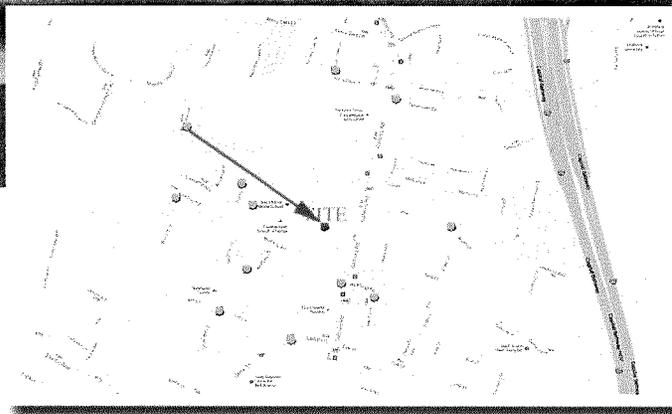
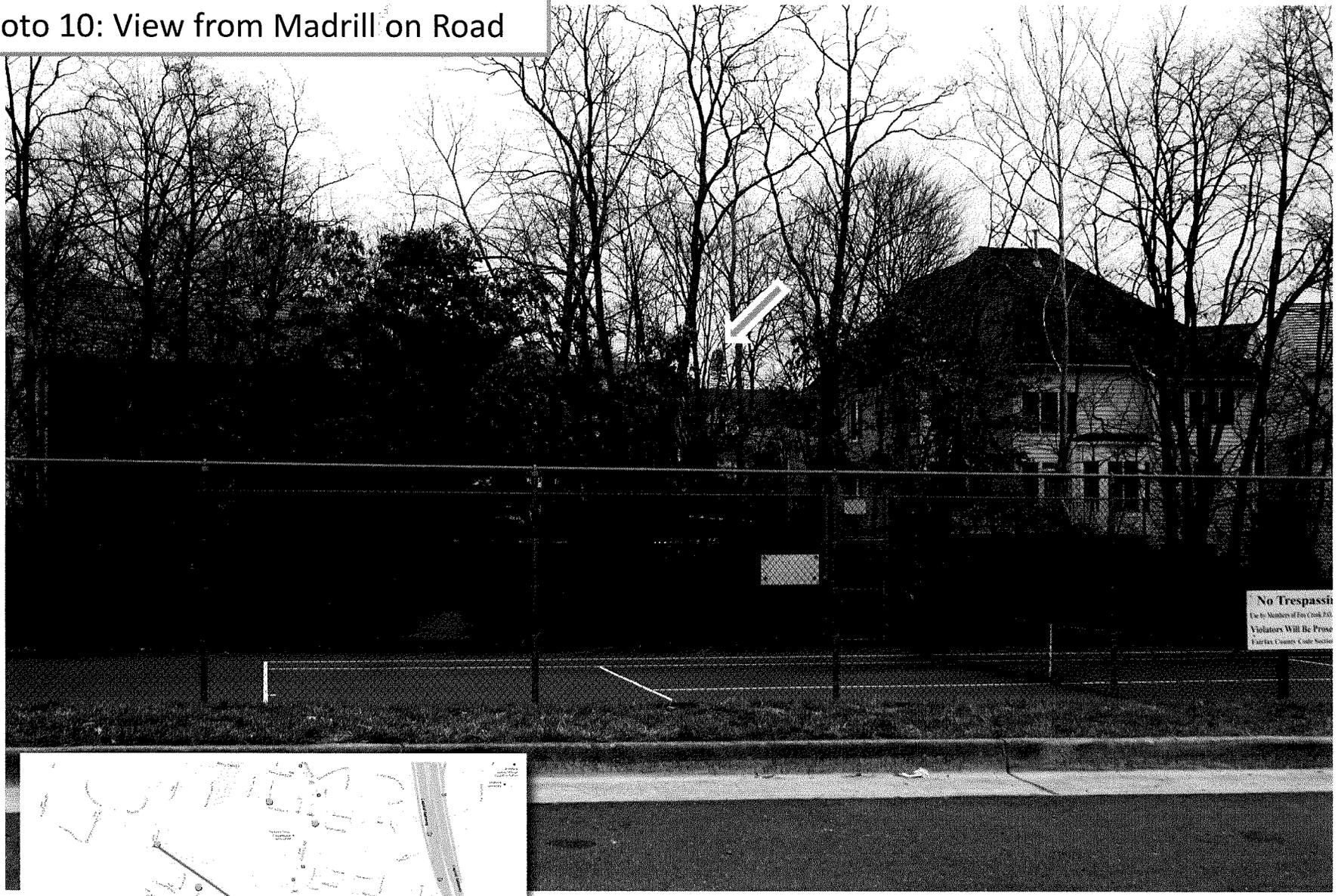
KILMER MS
PROPOSED MONOPINE

Photo 9: View from Tysons Oaks Circle and Gallows Road



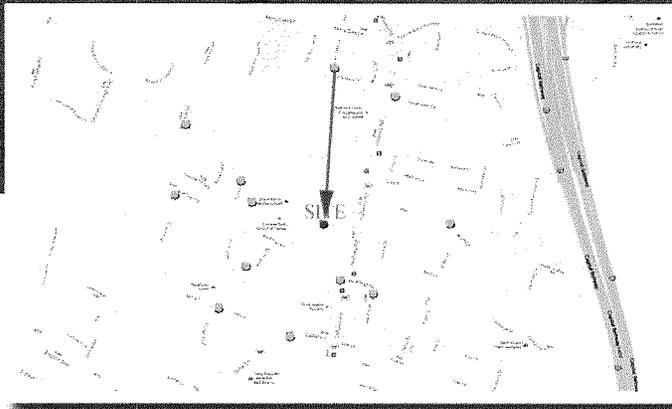
KILMER MS
PROPOSED MONOPINE

Photo 10: View from Madrill on Road



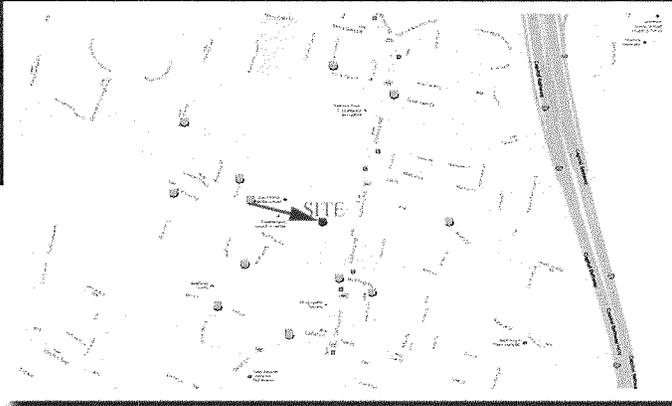
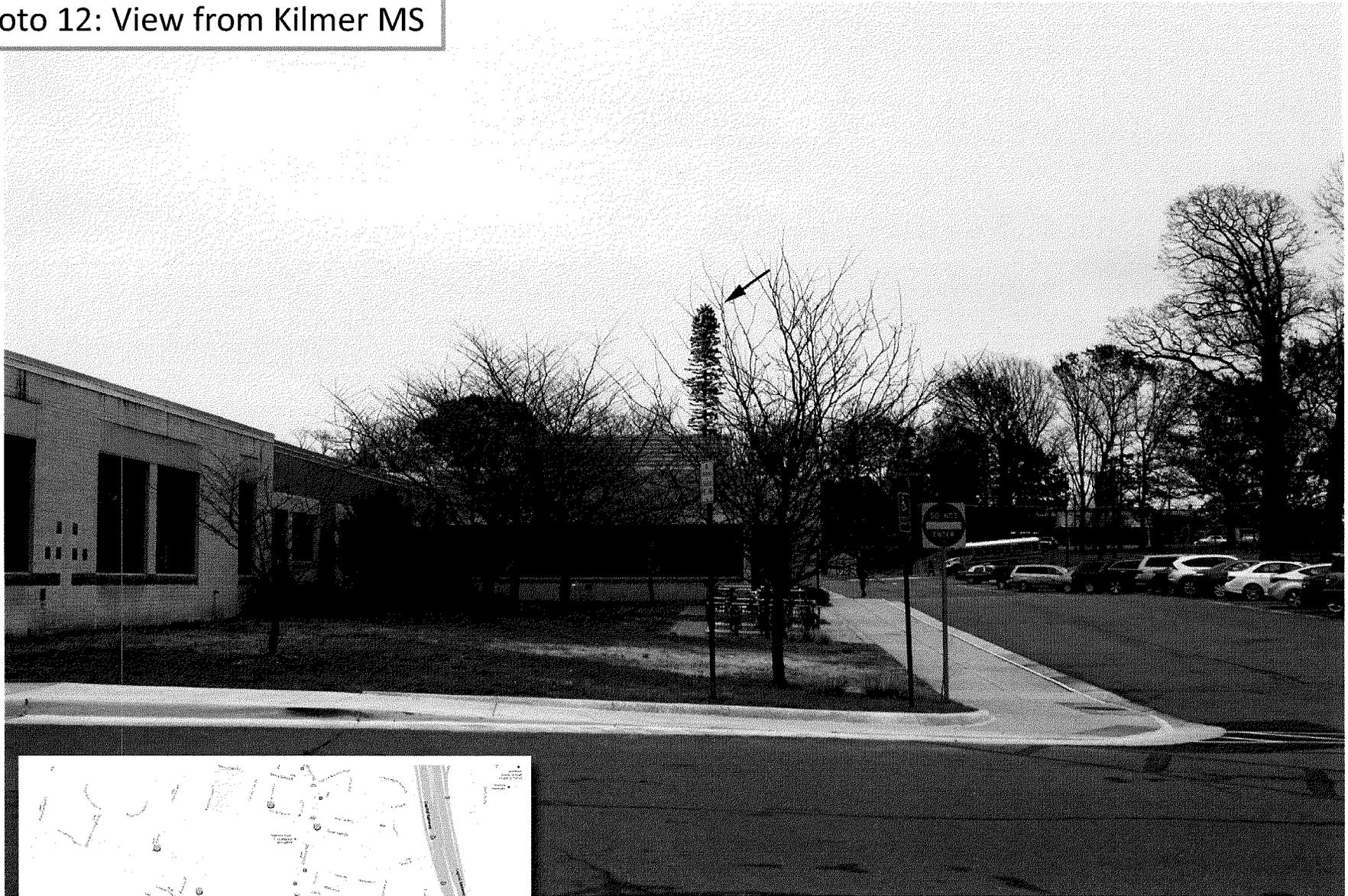
KILMER MS
PROPOSED MONOPINE

Photo 11: View from Gallows Tree Court at its intersection with Merry Oaks Court

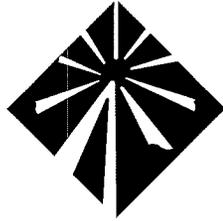


KILMER MS
PROPOSED MONOPINE

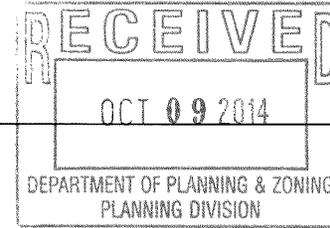
Photo 12: View from Kilmer MS



KILMER MS
PROPOSED MONOPINE



Milestone
COMMUNICATIONS



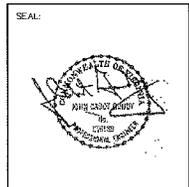
KILMER MIDDLE SCHOOL

8100 WOLFTRAP ROAD

VIENNA, VA 22182

entrex
communication services, inc.
6000 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
12-09-13	ZONING REVIEW	
03-21-14	ZONING REVIEW	
06-19-14	ZONING	
08-28-14	COUNTY COMMENTS	
08-28-14	FPCS COMMENTS	
08-28-14	COUNTY COMMENTS	



GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BEING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND/OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CONSTRUCTION MANAGER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWING/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATION UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDA OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBER AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
14. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL THE CONFLICT IS RESOLVED BY THE CONSTRUCTION MANAGER.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE PROJECT.

DIRECTIONS:

FROM I-495 (CAPITAL BELTWAY), TAKE EXIT 47 A-B FOR VA-7/ALESBURG PIKE/VIENNA 7 TOWARD FALLS CHURCH/TYSONS CORNER. TAKE EXIT 47A FOR VIENNA 7 W/ALESBURG PIKE TOWARD TYSONS CORNER. MERGE ONTO VA-7 W/ALESBURG PIKE. TURN RIGHT ONTO TOMERS CRESCENT DR. CONTINUE ONTO HOWELL DR. TURN RIGHT ONTO GALLOWAY BRANCH RD. TURN LEFT ONTO GALLOWAY RD. TURN RIGHT ONTO WOLF TRAP RD. PROCEED 0.6 MILES ON WOLFTRAP ROAD. SITE IS ON THE RIGHT.

VICINITY MAP



SYMBOLS AND ABBREVIATIONS

ADJ APPROX	ADJUSTABLE APPROXIMATE	MECH MFR	MECHANICAL MANUFACTURER	⊕	SPOT ELEVATION
CAB	CABINET	MGB	MAIN GROUND BAR	⊙	CENTERLINE
CLG	CEILING	MIR	MINIMUM	⊖	PLATE
CONC	CONCRETE	MTL	METAL	⊘	DETAIL NUMBER SHEET NUMBER
CONT	CONTINUOUS	NIC	NOT IN CONTRACT	⊘	GROUND WIRE
CJ	CONSTRUCTION JOINT	NTS	NOT TO SCALE	⊘	ANTENNA
DIA	DIAMETER	OC	ON CENTER	⊘	CALL UTILITIES NOTIFICATION MISS UTILITY 1-800-552-7001
DWG	DRAWING	OPP	OPPOSITE	⊘	3 WORKING DAYS PRIOR TO DIGGING SAFETY PRECAUTIONS SHALL BE IMPLEMENTED BY CONTRACTOR AT ALL TRENCHING IN ACCORDANCE WITH CURRENT OSHA STANDARDS
EGE	EQUIPMENT GROUND BAR	SP	SQUARE FOOT	⊘	
EA	EACH	SHT	SHEET	⊘	
ELEC	ELECTRICAL	SN	SIMILAR	⊘	
ELV	ELEVATION	SS	STAINLESS STEEL	⊘	
EQ	EQUAL	STL	STEEL	⊘	
EQUIP	EQUIPMENT	TOC	TOP OF CONCRETE	⊘	
EXT	EXTERIOR	TOM	TOP OF MASONRY	⊘	
FF	FINISHED FLOOR	TOS	TOP OF STEEL	⊘	
GA	GAGE	TYP	TYPICAL	⊘	
GALV	GALVANIZED	VF	VERIFY IN FIELD	⊘	
GB	GROUND BAR	UN	UNLESS OTHERWISE NOTED	⊘	
GC	GENERAL CONTRACTOR	WHF	WELDED WIRE FABRIC	⊘	
GRND	GROUND	W/	WITH	⊘	
LG	LONG	&	AND	⊘	
LLH	LONG LEG HORIZONTAL	⊘	AT	⊘	
MAX	MAXIMUM			⊘	

SHEET INDEX

- T-1 TITLE SHEET
- Z-1 SITE PLAN
- Z-2 EROSION AND SEDIMENT CONTROL PLAN AND DETAILS
- Z-3 COMPOUND PLAN
- Z-4 TREE POLE ELEVATION
- Z-5 SITE PROFILES
- Z-6 CIVIL DETAILS
- Z-7 SITE MAPS
- Z-8 ANTENNA SCHEDULE AND DETAILS
- Z-9 RRH AND DISTRIBUTION BOX DETAILS
- Z-10 SHELTER PLANS AND GENERATOR DETAILS
- Z-11 SHELTER ELEVATIONS
- Z-12 LANDSCAPE PLAN, DETAILS AND NOTES
- Z-13 UTILITY ROUTING PLAN

PROJECT DESCRIPTION

SCOPE OF WORK: 1. INSTALL A NEW 108"-Ø HIGH TREE POLE FOUNDATIONS AND TREE POLE.
2. INSTALL GROUNDING, UTILITIES, COMPOUND SUBGRADE, DRIVEWAY AND FENCING.
3. INSTALL LANDSCAPING.
4. INSTALL VERIZON WIRELESS EQUIPMENT SHELTER AND GENERATOR FOUNDATIONS.
5. INSTALL VERIZON WIRELESS SHELTER AND NATURAL GAS GENERATOR.
6. INSTALL VERIZON WIRELESS PANEL ANTENNAS ON T-ARMS ON THE TREE POLE.
7. INSTALL RR CABLES IN THE TREE POLE.

PROPERTY OWNER: SCHOOL BOARD OF FAIRFAX COUNTY
8115 GATEHOUSE RD
FALLS CHURCH, VA 22042

APPLICANT: MILESTONE COMMUNICATIONS
12110 SUNSET HILLS ROAD, SUITE 100
RESTON, VA 20107
MR. LEN FORKAS
(703) 626-2555 EX. 104

LATITUDE: N 38° 54' 10.967"
LONGITUDE: W 77° 13' 27.338"
GROUND ELEVATION: 470.0' AMSL
JURISDICTION: FAIRFAX COUNTY
PROPERTY INFO: MAP # 0392 08 0024
CURRENT ZONING: R-3
USE: PUBLIC SCHOOL / TELECOMMUNICATIONS SITE

APPROVALS

MILESTONE COMMUNICATIONS:
NAME _____ DATE _____

FAIRFAX COUNTY SCHOOL BOARD:
NAME _____ DATE _____

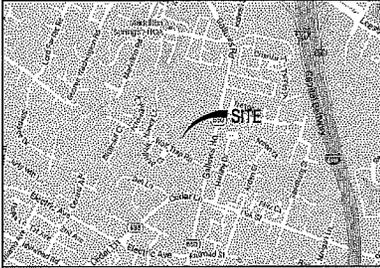
PROJECT NO: 1050.139
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
1" = 1/2' = 1'
GRAPHIC SCALE IN INCHES

KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
TITLE SHEET

SHEET NUMBER:
T-1



VICINITY MAP
SCALE: 1"=200'



SITE PLAN NOTES

- 1.) SITE NAME: KILMER MIDDLE SCHOOL
- 2.) THIS IS NOT A BOUNDARY SURVEY AND IS NOT TO BE USED FOR THE TRANSFER OF PROPERTY.
- 3.) THE SUBJECT PARCEL INFORMATION:
OWNER: SCHOOL BOARD OF FAIRFAX COUNTY
PREMISES ADDRESS: 8100 WOLFTRAP ROAD VIENNA, VA 22182
MAILING ADDRESS: 8115 GATEHOUSE RD FALLS CHURCH, VA 22042
COUNTY: FAIRFAX COUNTY
MAP #. 0392 08 0002A
DISTRICT: PROVIDENCE
ZONING: R-3
USE: PUBLIC SCHOOL
- 4.) THE RECORDED REFERENCES FOR THE SUBJECT PARCEL ARE AS FOLLOWS:
DEED: BOOK N/A, FOLIO N/A
AREA: 23.176 AC.
- 5.) THE DATUM'S ARE NAD 83 AND NAVD 88, AND THE BEARING BASE IS STATE GRID.
- 6.) NO UNDERGROUND UTILITIES HAVE BEEN LOCATED, THE PRESENCE OF ANY SUCH UTILITIES MUST BE CONFIRMED BY THE CONTRACTOR BEFORE CONSTRUCTION.
- 7.) NO WETLANDS HAVE BEEN DEFINED AND ANY AREAS SHOWN AS MARSH, PONDS OR DITCHES ARE DONE SO FROM VISIBLE SURFACE FEATURES AND IN NO WAY CONSTITUTE A DEFINED WETLAND.
- 8.) THE FLOOD ZONE OF THE PROPOSED TREE POLE IS AS FOLLOWS: FLOOD ZONE X, AREA OF MINIMUM FLOODING, SOURCE, FEMA FLOOD MAP FOR FAIRFAX COUNTY, VA, COMMUNITY PANEL NUMBER 51059C 0165E, REVISED, SEPTEMBER 17, 2010.
- 9.) NO TITLE REPORT HAS BEEN REVIEWED FOR THIS PROPERTY.
- 10.) THE DATA COLLECTED AND SHOWN ON THIS DRAWING ARE FOR THE PURPOSES OF CONSTRUCTION OF A CELLULAR TREE POLE, ANY NECESSARY ANOLLARY EQUIPMENT AND ALL APPROPRIATE EASEMENTS.
- 11.) NO UNRECORDED EASEMENTS ARE SHOWN ON THIS SITE PLAN AND IT IS POSSIBLE THAT SUCH EASEMENTS IMPACT THE SITE.
- 12.) THIS PROPERTY IS SUBJECT TO ALL MATTERS OF PUBLIC RECORD.
- 13.) THE LOCATION OF THE PROPOSED TREE POLE IS AS FOLLOWS: THE VALUES LISTED BELOW ARE WITHIN ±50' HORIZONTAL AND ±20' VERTICAL.
LATITUDE: N 38° 54' 10.987"
LONGITUDE: W 77° 13' 27.338"
ELEVATION: 470.0' AT BASE

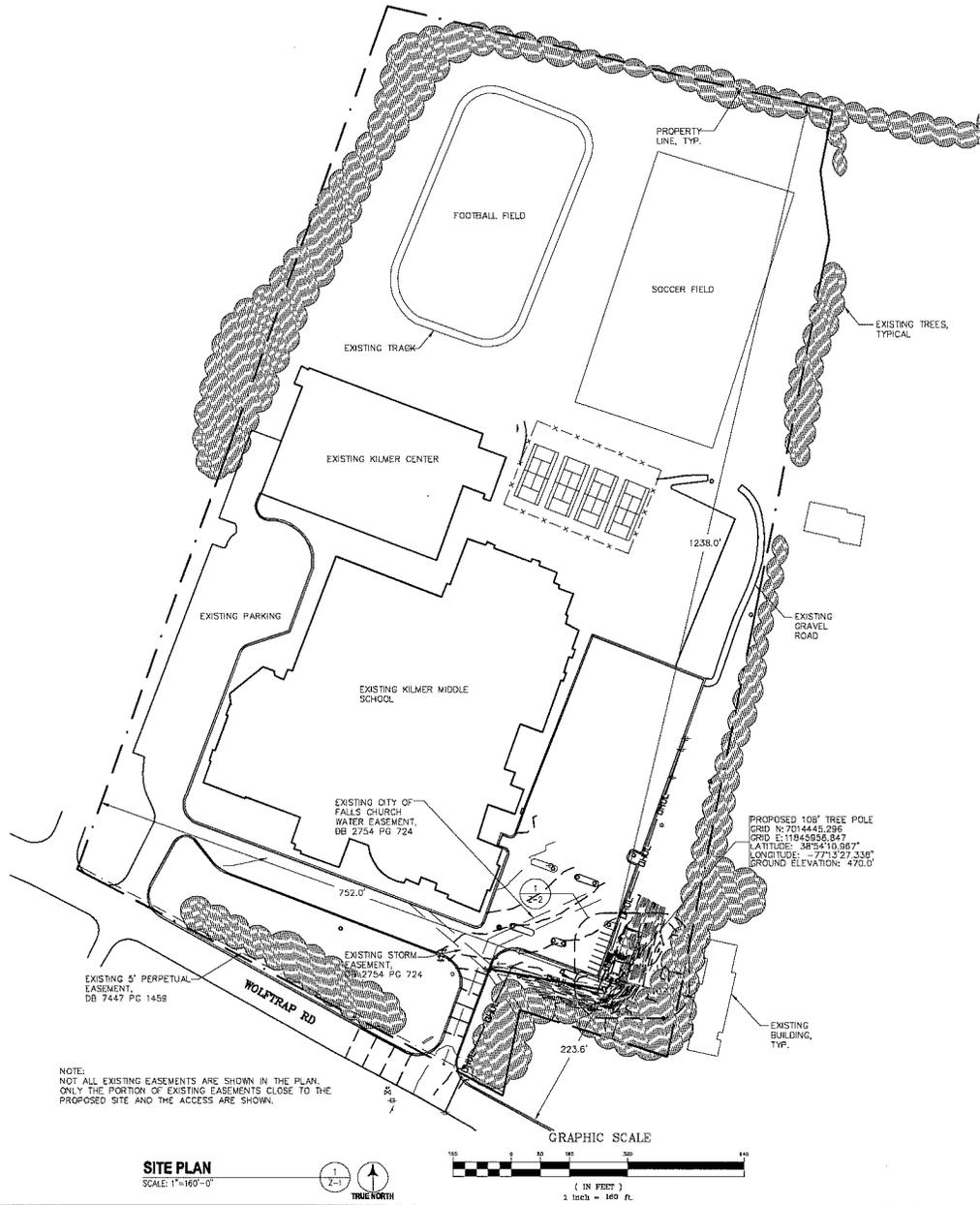
TREE POLE SETBACKS		
ZONING: R-3	PROPOSED	REQUIRED
FRONT YARD (SOUTH)	79.4'	30'
REAR YARD (NORTH)	1238.0'	25'
SIDE YARD (EAST)	87.1'	10'
SIDE YARD (WEST)	752.0'	10'
CLOSEST OFF BUILDING	107.7'	N/A
CLOSEST ROAD	223.8'	N/A

LEGEND

- LIGHT POLE
- INDIVIDUAL TREE
- INDIVIDUAL TREE--TO BE REMOVED
- CONCRETE SURFACE
- ASPHALT SURFACE
- GRAVEL SURFACE

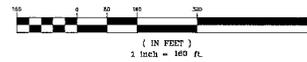
LINE TYPES

- BOUNDARY LINE - PARENT PARCEL
- RIGHT OF WAY BOUNDARY
- EDGE OF ASPHALT
- EDGE OF CONCRETE
- FENCE LINE - CHAIN
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- TREE OR VEGETATION LINE



NOTE:
NOT ALL EXISTING EASEMENTS ARE SHOWN IN THE PLAN.
ONLY THE PORTION OF EXISTING EASEMENTS CLOSE TO THE
PROPOSED SITE AND THE ACCESS ARE SHOWN.

SITE PLAN
SCALE: 1"=160'-0"



entrex
communication services, inc.

6600 Rockledge Drive, Suite 650
BETHESDA, MD 20817
PHONE: (202)408-0960
FAX: (202)408-0961

SUBMITTALS

DATE	DESCRIPTION	REV.
12-30-13	ZONING REVIEW	
03-21-14	ZONING REVIEW	
04-11-14	ZONING	
06-19-14	COUNTY COMMENTS	
06-28-14	FOPS COMMENTS	
08-28-14	COUNTY COMMENTS	



PROJECT NO: 1050.139
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

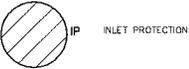
KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
SITE PLAN

SHEET NUMBER:
Z-1

LINE TYPES

- BOUNDARY LINE - PARENT PARCEL
- RIGHT OF WAY BOUNDARY
- EDGE OF ASPHALT
- EDGE OF CONCRETE
- FENCE LINE - CHAIN
- 1' CONTOUR LINE
- 5' CONTOUR LINE
- LIMITS OF DISTURBANCE
- LIMITS OF DISTURBANCE/ SILT FENCE
- TREE PROTECTION FENCE
- TREE OR VEGETATION LINE

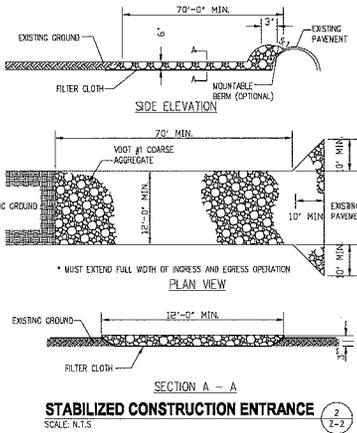


AREA TABULATION

SITE AREA: 2,7584 AC
 DISTURBED AREA: 3,198 SF

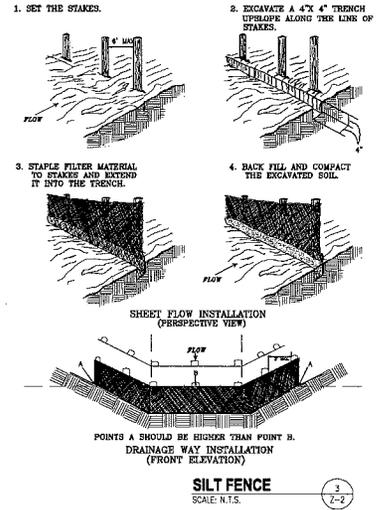
SWM NARRATIVE

A SWM WAIVER IS REQUESTED.



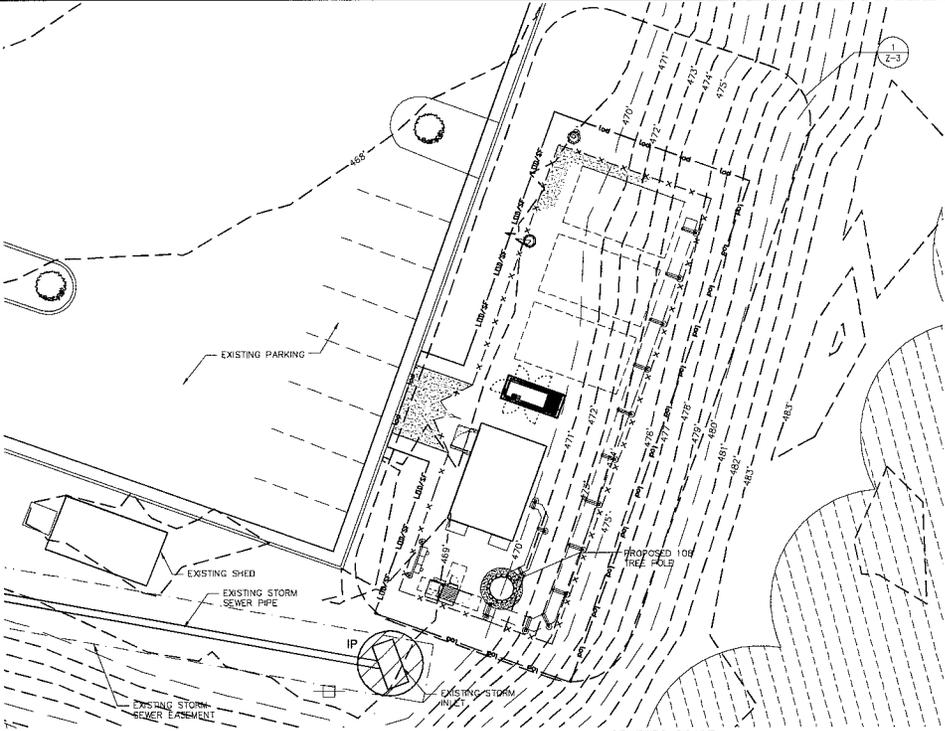
STABILIZED CONSTRUCTION ENTRANCE
 SCALE: N.T.S.

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)



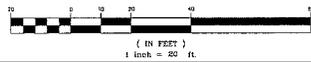
POINTS A SHOULD BE HIGHER THAN POINT B.
DRAINAGE WAY INSTALLATION (FRONT ELEVATION)

SILT FENCE
 SCALE: N.T.S.



EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1"=20'-0"

GRAPHIC SCALE



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 communication services, inc.
 6600 Rockledge Drive, Suite 550
 BETHESDA, MD 20817
 PHONE: (202)408-0960
 FAX: (202)408-0961

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06-26-14	FOPS COMMENTS	
08-28-14	COUNTY COMMENTS	

SEAL:

Milestone
 COMMUNICATIONS

PROJECT NO: 1050.139
 DESIGNER: M.A.
 ENGINEER: M.M.

SCALE:
 0 1/2 1
 GRAPHIC SCALE IN INCHES

KILMER MIDDLE SCHOOL
 8100 WOLFTRAP ROAD
 VIENNA, VA 22182

TITLE:
EROSION AND SEDIMENT CONTROL PLAN AND DETAILS

SHEET NUMBER:
Z-2



6800 Rockledge Drive, Suite 550
 BETHESDA, MD 20817
 PHONE: (202)408-6960
 FAX: (202)408-6961

SUBMITTALS

DATE	DESCRIPTION	REV.
12-30-13	ZONING REVIEW	
03-21-14	ZONING REVIEW	
04-11-14	ZONING	
06-18-14	COUNTY COMMENTS	
06-26-14	FOFS COMMENTS	
08-28-14	COUNTY COMMENTS	



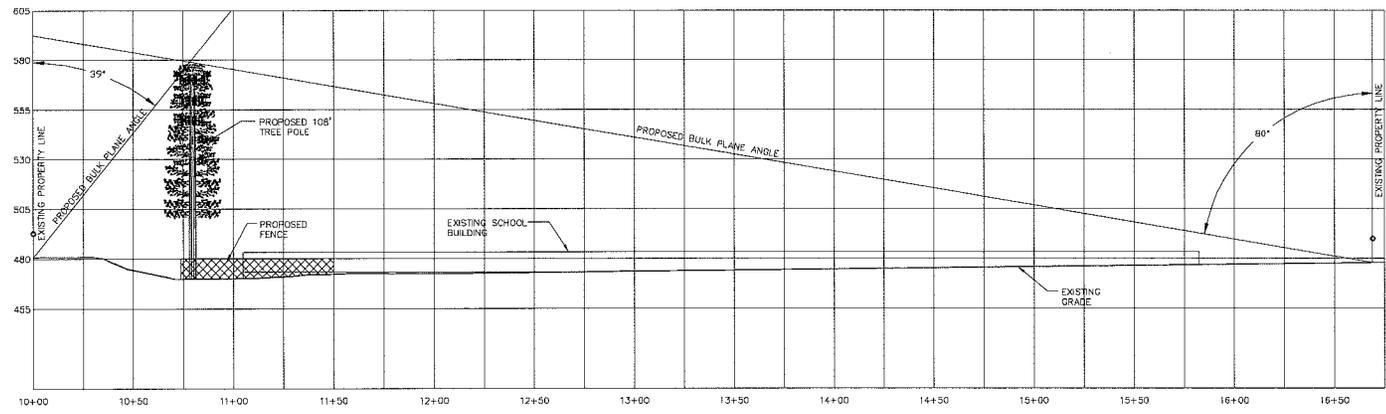
PROJECT NO: 1050.139
 DESIGNER: M.A.
 ENGINEER: M.M.

SCALE:
 0 1/2 1
 GRAPHIC SCALE IN INCHES

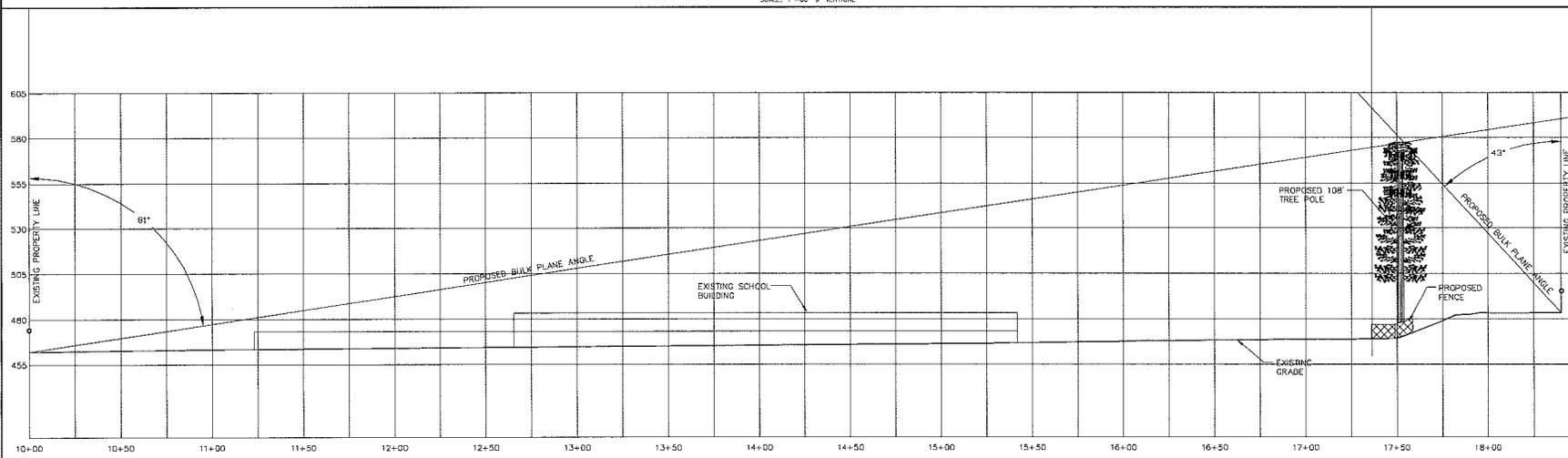
KILMER MIDDLE SCHOOL
 8100 WOLFTRAP ROAD
 VIENNA, VA 22182

TITLE:
SITE PROFILES

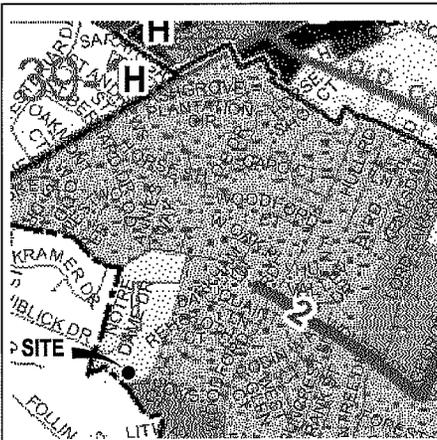
SHEET NUMBER:
Z-5



SITE PROFILE NORTH TO SOUTH ①
 SCALE: 1"=60'-0" HORIZONTAL
 SCALE: 1"=60'-0" VERTICAL



SITE PROFILE WEST TO EAST ②
 SCALE: 1"=60'-0" HORIZONTAL
 SCALE: 1"=60'-0" VERTICAL

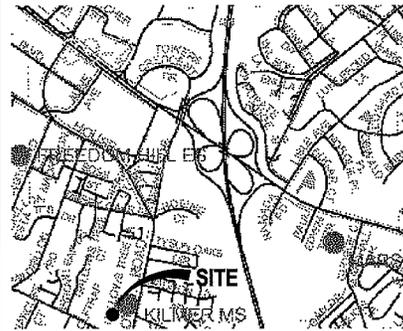


LAND USE MAP

SCALE: 1"=2000'



SOURCE:
FAIRFAX COUNTY COMPREHENSIVE PLAN



TRAIL MAP

SCALE: 1"=2000'



SOURCE:
FAIRFAX COUNTY

NOTES:
THERE IS A KNOCK NEARBY MAJOR PAVED TRAIL SYSTEM ALONG WOLFTRAP ROAD.



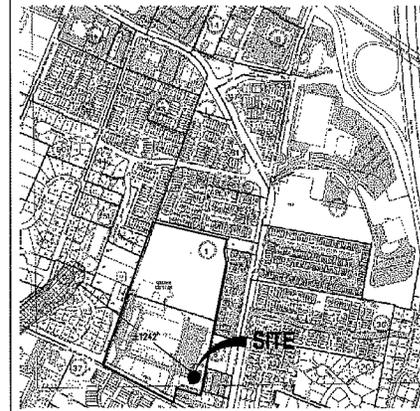
SOILS MAP

SCALE: 1"=1000'



SOURCE:
FAIRFAX COUNTY
MAP SECTION 84-2

NOTE:
SOIL TYPE: 318
SOIL NAME: DANBPPLE GRAVELLY LOAM
SOIL TYPE: 66
SOIL NAME: KINGSTON SANDY CLAY LOAM
SOIL TYPE: 95
SOIL NAME: URBAN LAND



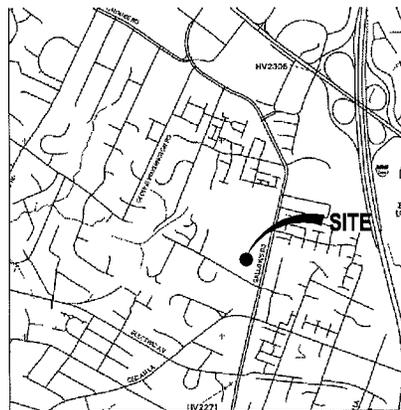
RESOURCE MANAGEMENT MAP

SCALE: 1"=1000'



SOURCE:
FAIRFAX COUNTY

NOTES:
THE PROJECT SITE IS LOCATED APPROXIMATELY 1,242'
FROM THE NEAREST RESOURCE PROTECTION AREA.



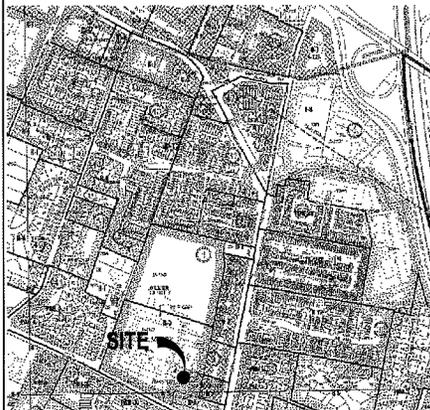
FLOOD ZONE MAP

SCALE: 1"=2000'



SOURCE:
FEMA FLOOD MAP FOR FAIRFAX COUNTY, VA
COMMUNITY PANEL NUMBER 51029C 0183E, SEPTEMBER 17, 2010.

NOTES:
THE PROJECT SITE IS LOCATED IN FLOOD ZONE X, AREAS DETERMINED
TO BE OUTSIDE 500-YEAR FLOOD-PLAIN.



ZONING MAP

SCALE: 1"=1000'



SOURCE:
FAIRFAX COUNTY

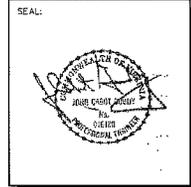
NOTES:
THE PROJECT SITE IS LOCATED IN A RESIDENTIAL AREA R-1.



6600 Rockledge Drive, Suite 650
BETHESDA, MD 20817
PHONE: (202)408-0360
FAX: (202)408-0961

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08-20-14	FOPS COMMENTS	
09-26-14	COUNTY COMMENTS	



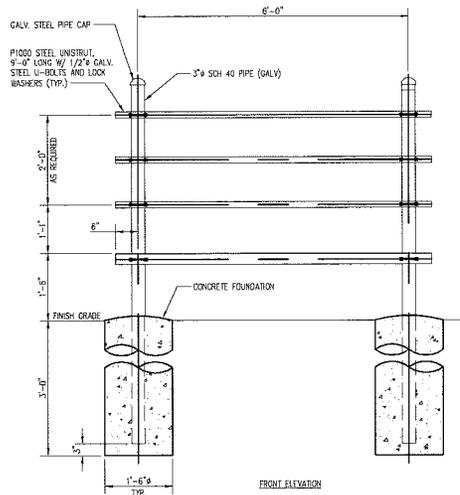
PROJECT NO: 1050.139
DESIGNER: M.A.
ENGINEER: W.M.

SCALE:
1" = 1/2" = 1'
GRAPHIC SCALE IN INCHES

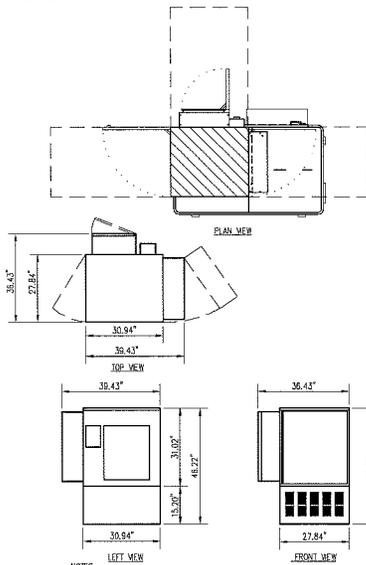
KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
CIVIL MAPS

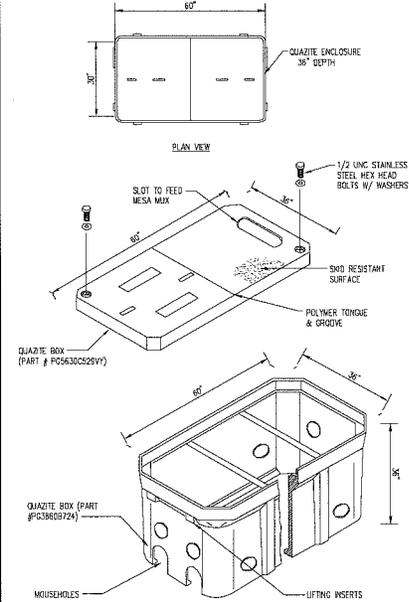
SHEET NUMBER:
Z-6



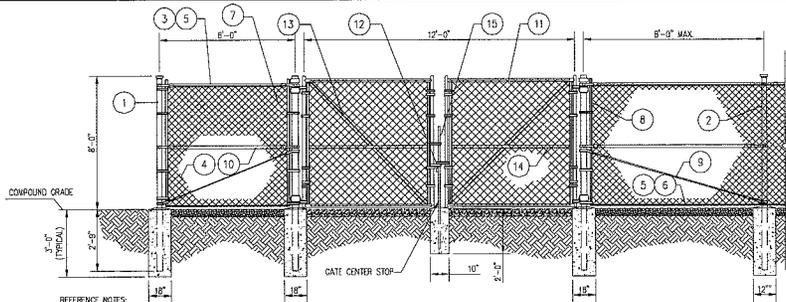
ELECTRICAL SERVICE FRAME
SCALE: 3/8"=1'-0"



MESA SPAN XL TELCO CABINET DETAILS
SCALE: 1/4"=1'-0"

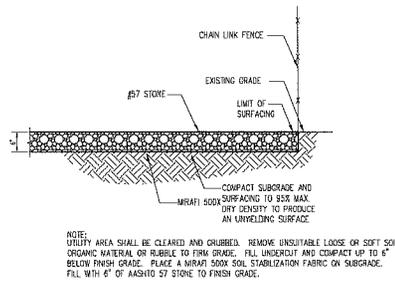


HANDHOLE QUAZITE BOX
SCALE: N.T.S.

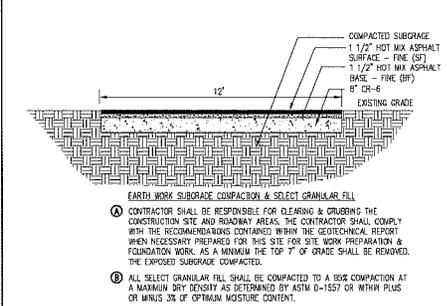


- REFERENCE NOTES:**
- CORNER END OR PULL POSTS 3" NOMINAL SCHEDULE 40 PIPE. GATE POSTS 4" NOMINAL SCHEDULE 40 PIPE.
 - LINE POSTS 2" SCHEDULE 40 PIPE. PER ASTM-F1083. LINE POSTS SHALL BE EQUALLY SPACED AT MAXIMUM 8'-0" O.C.
 - TOP RAIL & BRACE RAIL: 1 1/2" PIPE, PER ASTM-F1083.
 - FABRIC: 9 GA. CORE WIRE SIZE 2" MESH, CONFORMING TO ASTM-A392, MUCKLED AT TOP AND BOTTOM OF FENCE.
 - THE WIRE: MINIMUM 11 GA GALVANIZED STEEL AT POSTS AND RAILS A SINGLE WRAP OF FABRIC TO END AT TENSION WIRE BY 90° RINGS SPACED MAX. 24" INTERVALS.
 - TENSION WIRE: 9 GA. GALVANIZED STEEL.
 - BLACK CONCEALMENT SLATS.
 - STRETCHER BAR.
- GENERAL NOTES:**
- INSTALL FENCING PER ASTM F-567.
 - INSTALL SLING GATES PER ASTM F-900.
 - FENCE PIPE AND COMPONENTS SHALL BE GALVANIZED.
 - GATE FRAMES SHALL BE WELDED. WELDING SHALL BE COATED WITH (3) COATS OF COLD GALV. (OR EQUAL).
 - POSTS SHALL HAVE END-CAPS.
 - GATES SHALL HAVE LOCKING HARDWARE.
 - PROVIDE GATE STOPS TO SECURE GATES IN OPEN POSITION.
- 3/8" DIAGONAL ROD WITH GALVANIZED STEEL TUBESHAPE OR DIAGONAL THREADED ROD.**
- 10 FENCE CORNER POST WAY: 1 5/8" DIA. EACH CORNER EACH WAY.**
- 11 GATE FRAME: 1 1/2" PIPE, PER ASTM-F1083.**
- 12 MULTI-LOOKING DENICE BY STYME FURNISHED BY MILESTONE COMMUNICATIONS**
- 13 GATE DIAGONAL GALVANIZED STEEL 1 1/2" PIPE.**
- 14 GATE FRAME BRACE: 1 5/8" DIAMETER.**
- 15 CENTER GATE STOP**

GALVANIZED CHAIN LINK FENCE AND GATE WITH SLATS DETAIL
SCALE: N.T.S.



COMPOUND SURFACING DETAIL
SCALE: N.T.S.



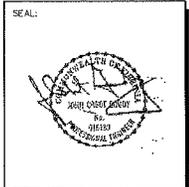
ASPHALT DRIVEWAY DETAIL
SCALE: N.T.S.

entrex
communication services, inc.

6600 Rockledge Drive, Suite 550
BETHESDA, MD 20817
PHONE: (202)408-8960
FAX: (202)408-8961

SUBMITTALS

DATE	DESCRIPTION	REV.
12-30-13	ZONING REVIEW	
03-21-14	ZONING REVIEW	
04-11-14	ZONING	
06-19-14	COUNTY COMMENTS	
08-26-14	FOPS COMMENTS	
08-26-14	COUNTY COMMENTS	



PROJECT NO: 1050.139
DESIGNER: M.A.
ENGINEER: N.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

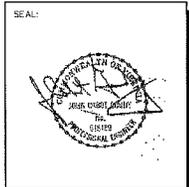
KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
SITE DETAILS

SHEET NUMBER:
Z-7

6800 Rockledge Drive, Suite 550
 BETHESDA, MD 20817
 PHONE: (202)408-0980
 FAX: (202)408-0961

SUBMITTALS		
DATE	DESCRIPTION	REV.
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04-11-14	ZONING	
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06-26-14	FOPS COMMENTS	
08-28-14	COUNTY COMMENTS	



PROJECT NO:	1050.139
DESIGNER:	M.A.
ENGINEER:	M.M.
SCALE:	0 1/2 1
	GRAPHIC SCALE IN INCHES

KILMER MIDDLE SCHOOL
 8100 WOLFTRAP ROAD
 VIENNA, VA 22182

TITLE:
**ANTENNA LAYOUT,
 SECTION, DETAILS
 AND SCHEDULE**

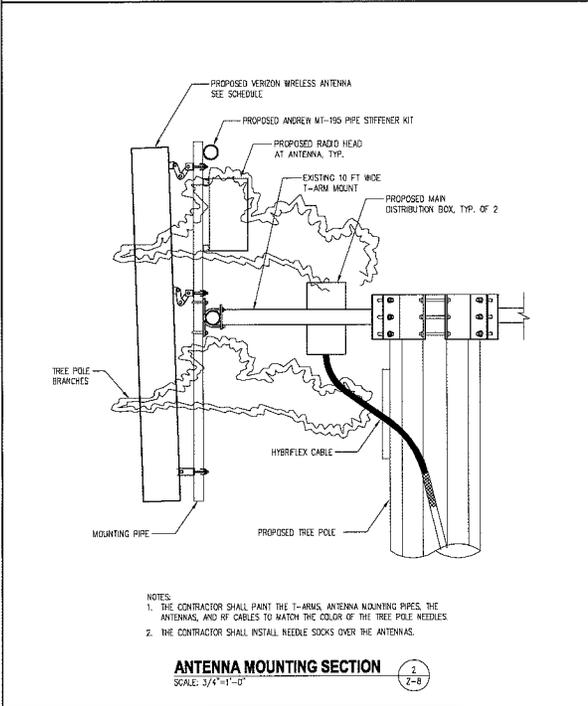
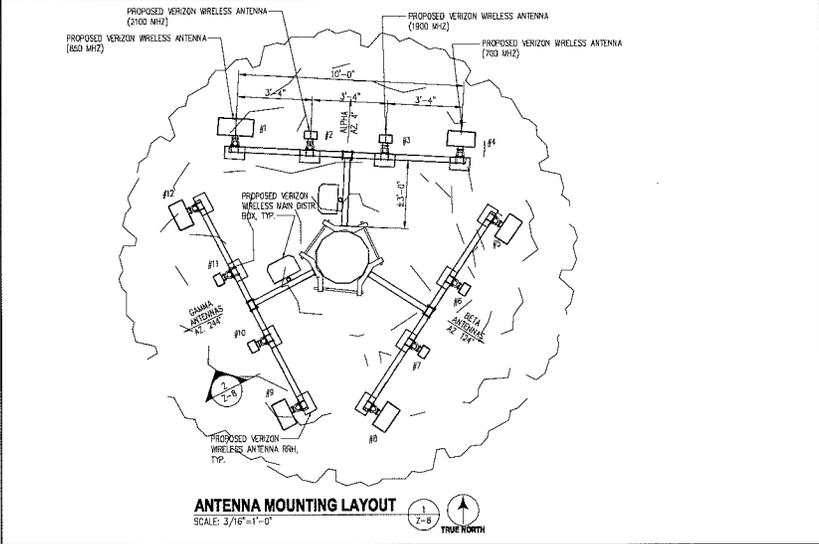
SHEET NUMBER:
Z-8

ANTENNA AND CABLE SCHEDULE									
ANTENNA SECTOR	ANTENNA MARK	RAD CENTER	ANTENNA	MECHANICAL DOWN-TILT	AZIMUTH	CABLE LENGTH	COAXIAL CABLE SIZE	COLOR CODE	FREQUENCY
ALPHA	#1	100'	XTC-FRO-640-V (72.0" H x 18.8" W x 9.1" D)	SEE NOTE 6	4°	120'	(1) 6X12 HYBRID CABLE	R	850 MHZ
	#2	100'	BXA-171063-12CF (72.4" H x 6.1" W x 4.1" D)	-	4°	120'	(1) 6X12 HYBRID CABLE	O/Y/G	2100 MHZ
	#3	100'	BXA-171063-12CF (72.4" H x 6.1" W x 4.1" D)	-	4°	-	SHARED HYBRID CABLE	B/Y/B	1900 MHZ
	#4	100'	XTC-FRO-640-V (72.0" H x 18.8" W x 9.1" D)	-	4°	-	SHARED HYBRID CABLE	O/Y/G	700 MHZ
BETA	#5	100'	XTC-FRO-660 (96.0" H x 14.6" W x 8.0" D)	-	124°	-	SHARED HYBRID CABLE	BL	850 MHZ
	#6	100'	BXA-171063-12CF (72.4" H x 6.1" W x 4.1" D)	-	124°	-	SHARED HYBRID CABLE	O/BL/O	2100 MHZ
	#7	100'	BXA-171063-12CF (72.4" H x 6.1" W x 4.1" D)	-	124°	-	SHARED HYBRID CABLE	B/BL/B	1900 MHZ
GAMMA	#8	100'	XTC-FRO-660 (96.0" H x 14.6" W x 8.0" D)	-	124°	-	SHARED HYBRID CABLE	G/BL/G	700 MHZ
	#9	100'	XTC-FRO-660 (96.0" H x 14.6" W x 8.0" D)	-	244°	-	SHARED HYBRID CABLE	Y	850 MHZ
	#10	100'	BXA-171063-12CF (72.4" H x 6.1" W x 4.1" D)	-	244°	-	SHARED HYBRID CABLE	O/Y/O	2100 MHZ
	#11	100'	BXA-171063-12CF (72.4" H x 6.1" W x 4.1" D)	-	244°	-	SHARED HYBRID CABLE	B/Y/B	1900 MHZ
GPS	#12	100'	XTC-FRO-890 (96.0" H x 14.6" W x 8.0" D)	-	244°	-	SHARED HYBRID CABLE	G/Y/G	700 MHZ
			MAXRAD GPS-TM3-HR26MNSLA (2) REQUIRED	-	-	-	1/2"	-	-

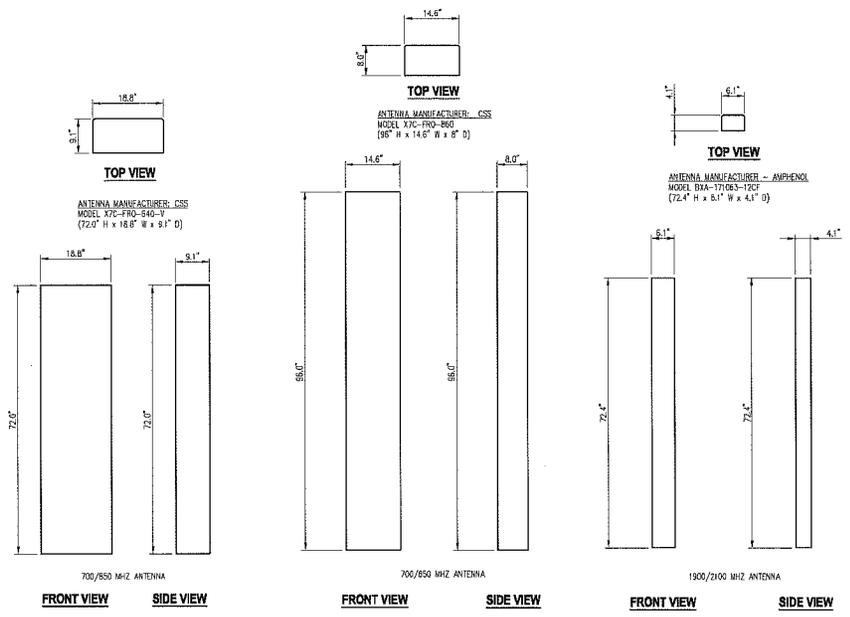
NOTES:

- ALL ANTENNAS SHALL BE FURNISHED WITH DOWNTILT BRACKETS. CONTRACTOR SHALL COORDINATE REQUIRED MECHANICAL DOWNTILT FOR EACH ANTENNA WITH RF ENGINEER. ANTENNA DOWNTILT SHALL BE SET AND REFERRED TO BY A SMARTY LABEL.
- ANTENNA CENTERLINE HEIGHT IS IN QUOTE TO ELEVATION 0.0'.
- FINAL CABLE LENGTHS SHALL BE DETERMINED AFTER INSTALLATION.
- COORDINATE THE ANTENNA DOWNTILT WITH THE RF ENGINEER.
- THE CABLE LENGTHS SHOWN ARE THE ACTUAL COMPACTED LENGTHS WITH NO OVERAGE ALLOWANCE.
- REFER TO THE ASP FOR THE ANTENNA DOWNTILT REQUIREMENTS.

CABLE MINIMUM BEND RADIUS				
7/8" Ø RF	1-1/4" Ø RF	1-5/8" Ø RF	2-1/4" Ø RF	1 1/2" HYBRIFLEX
10"	15"	20"	22"	10"



- NOTES:
- THE CONTRACTOR SHALL PAINT THE T-ARMS, ANTENNA MOUNTING PIPES, THE ANTENNAS, AND RF CABLES TO MATCH THE COLOR OF THE TREE POLE NEEDLES.
 - THE CONTRACTOR SHALL INSTALL KEEPER SOCKS OVER THE ANTENNAS.



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08-26-14	FOPS COMMENTS	
08-28-14	COUNTY COMMENTS	

SEAL:



Milestone
COMMUNICATIONS

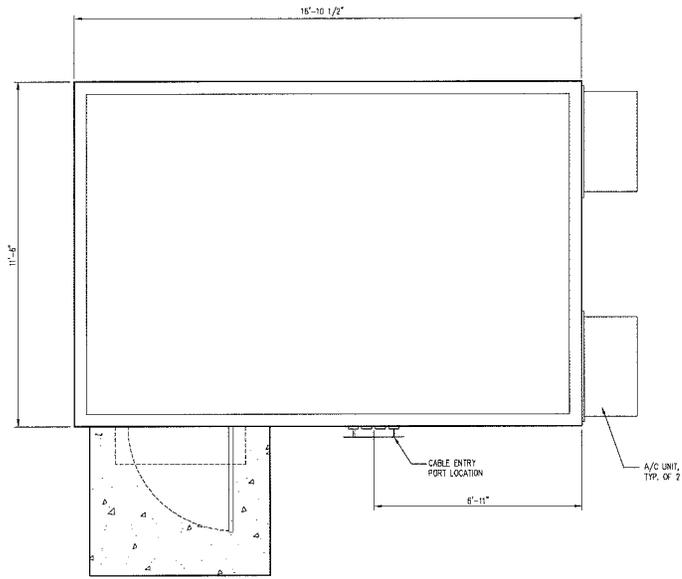
PROJECT NO: 1050.139
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

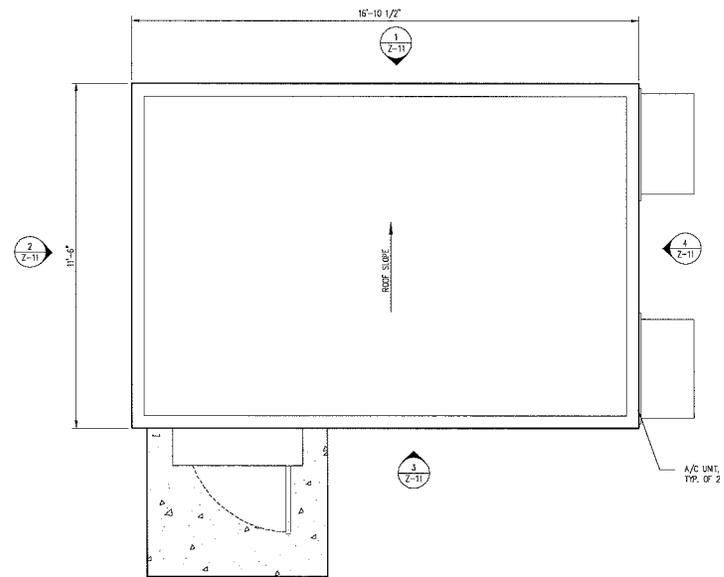
KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
**SHELTER PLANS
AND GENERATOR
DETAILS**

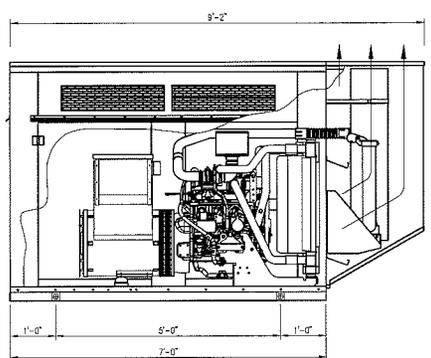
SHEET NUMBER:
Z-10



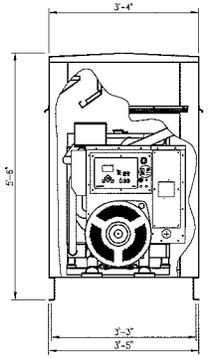
EQUIPMENT SHELTER FLOOR PLAN
SCALE: 1/4"=1'-0"
1
Z-10
TRUE NORTH



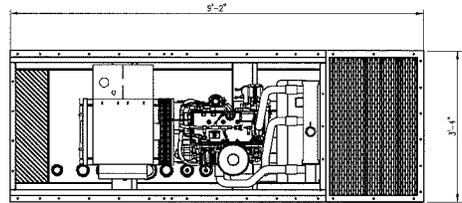
EQUIPMENT SHELTER ROOF PLAN
SCALE: 1/4"=1'-0"
2
Z-10



SIDE VIEW



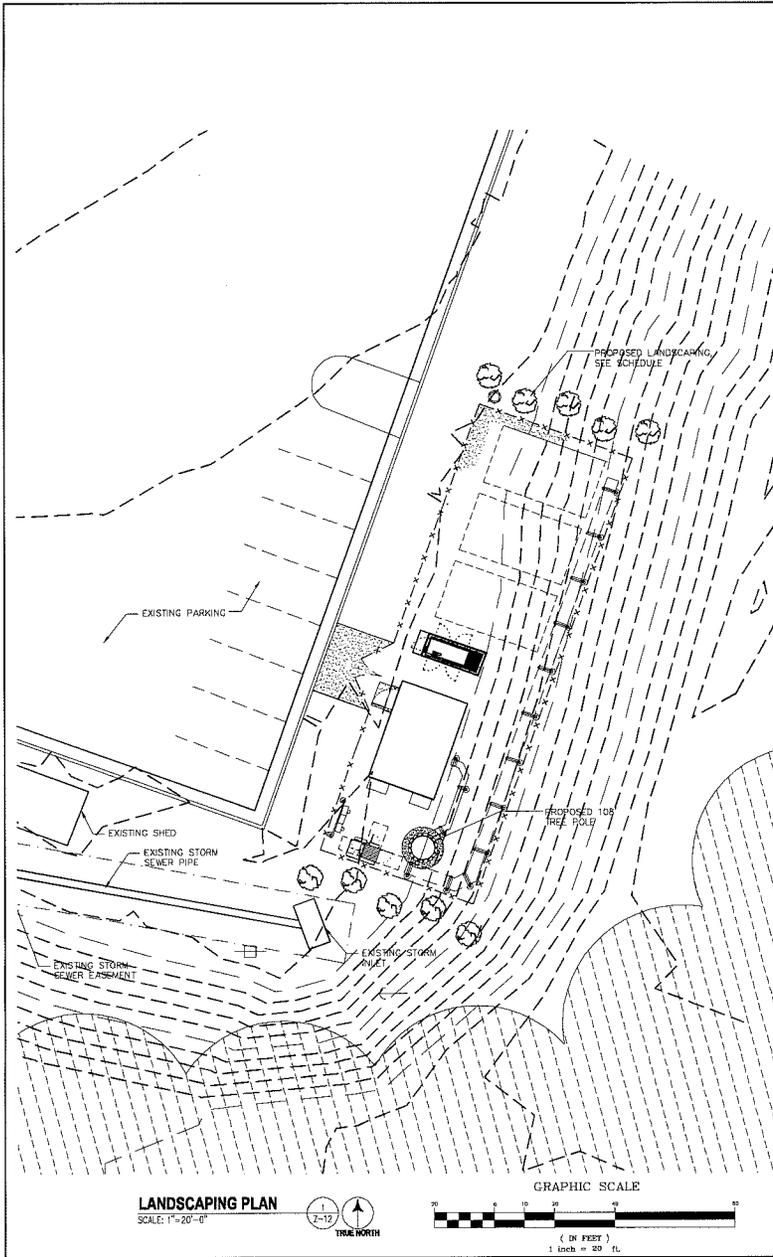
END VIEW



TOP VIEW

- NOTES:
1. STANDBY NATURAL GAS GENERATOR.
2. MANUFACTURER: MTU MODEL: 4000ZAL1.
3. REFERENCE ENCLOSURE DRAWING: CGE-10-5
4. THE GENERATOR DESIGN WEIGHT (WET): 1900 LBS.

MTU NATURAL GAS GENERATOR DETAILS
SCALE: 3/8"=1'-0"
3
Z-10



FAIRFAX COUNTY PUBLIC FACILITIES MANUAL

- Soak roots in water 2 to 4 hours prior to planting. Do not allow roots to dry out before planting.
- Remove grass from a 3 ft circle and turn up soil. Dig a planting hole 8 in wider than the diameter of the seedling roots in center of circle.
- Position seedling at original nursery depth. Do not bend roots on sides or bottom of planting hole. Gently backfill excavated soil around roots.
- Remove air pockets from backfill soil. Soil should be firm but not tightly packed. Construct water-holding basin around planting hole and water thoroughly.
- Place a 2 in deep layer of mulch in a 3 ft diameter circle around base. Mulch should not touch the tree trunk.
- During dry weather, water generously once every 7 to 10 days during the first year.

Illustrations provided by The National Arbor Foundation

Ref. Sec. 13-0705.5F Rev. 2-01, 2011 Reprint	PLANTING TREE SEEDLINGS	PLATE NO. 8-12	STD. NO.
---	-------------------------	-------------------	----------

TREE PLANTING NOTES:

- EXCAVATE 'PLANTING PIT' TWICE THE DIAMETER OF BALL & 6" GREATER IN DEPTH
- LOOSEN SUBSOIL W/PICK TO ENSURE POROSITY
- PLACE 6" PEAT MOSS IN 'PLANTING PIT' & TAMP
- SELECT BEST VIEWING ANGLE, LIFT STOCK BY BALL & PLACE IN 'PLANTING PIT'
- UNWRAP TOP HALF OF BALL BACK
- FILL W/MIXTURE 1/3 PEAT MOSS-2/3 TOP- SOIL & TAMP
- WRAP TRUNK W/PAPER TAPE TO FIRST BRANCH
- LAY-IN (POROUS) FABRIC WEED BARRIER FORM 3" SAUCER TO ENCLOSE STOCK
- FILL W/3" PINE STRAW MULCH
- FLOOD IMMEDIATELY & WATER FREQUENTLY

PLANTING DETAIL

SCALE: N.T.S.

2
Z-12

PLANTING SCHEDULE

BOTANICAL NAME	COMMON NAME	HEIGHT	QUANTITY	REMARKS	SYMBOL
THUJA OCCIDENTALIS	DWARF EASTERN ARBORVITAE CULTIVARS	18"	10	BORDER, FULL SUN TO LIGHT SHADE; TOLERATES DRY SITES	



6600 Rockledge Drive, Suite 550
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FAX: (202)408-0961

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08-28-14	COUNTY COMMENTS	

SEAL:



Milestone COMMUNICATIONS

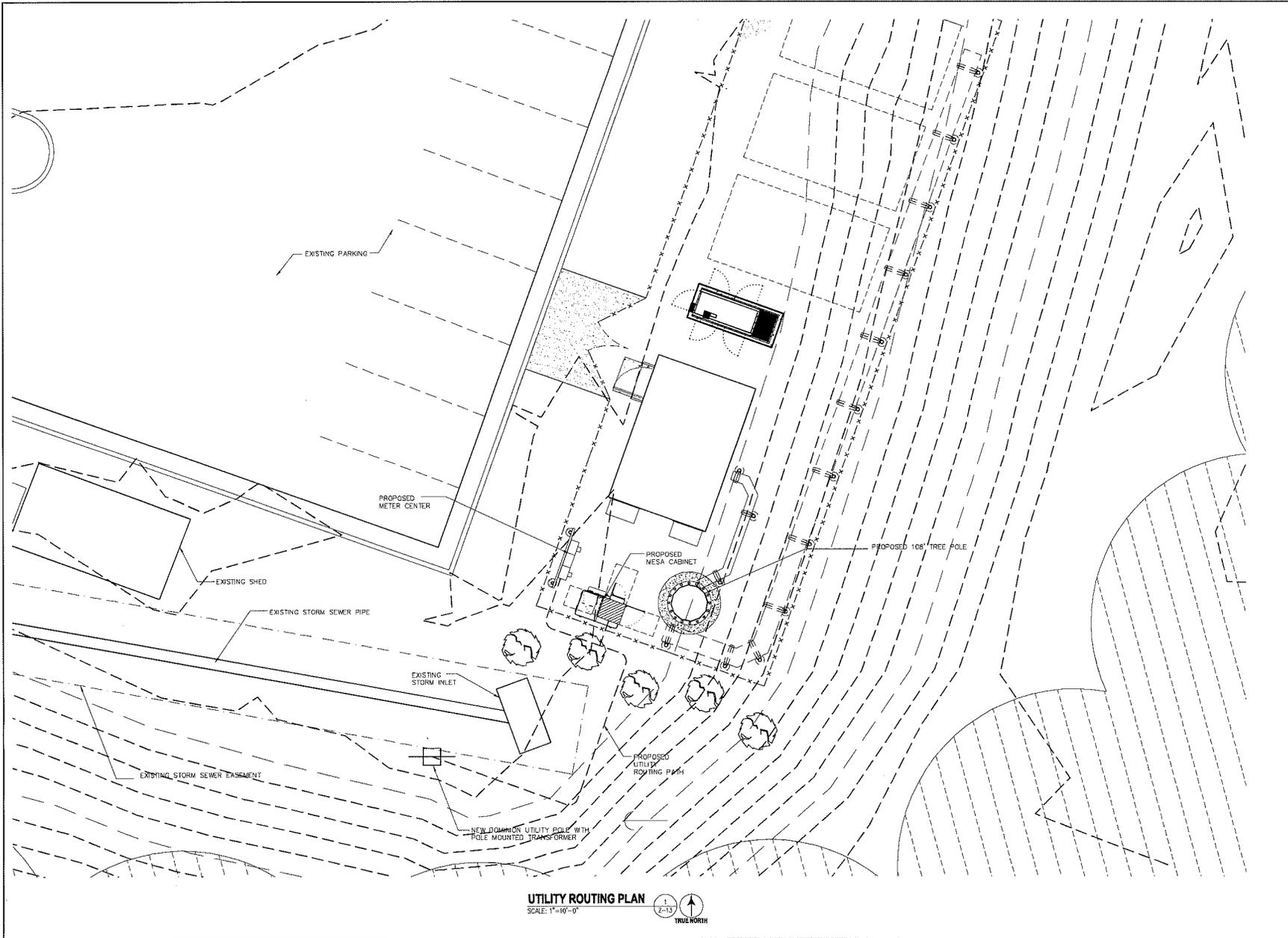
PROJECT NO: 1050.139
DESIGNER: M.A.
ENGINEER: M.M.

SCALE:
0 1/2 1
GRAPHIC SCALE IN INCHES

KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
**LANDSCAPE PLAN,
DETAILS AND NOTES**

SHEET NUMBER:
Z-12



UTILITY ROUTING PLAN
 SCALE: 1"=10'-0"
 TRUE NORTH



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 FAX: (202)408-0961

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PROJECT NO:	1050.139
DESIGNER:	M.A.
ENGINEER:	M.M.

SCALE:

 GRAPHIC SCALE IN INCHES

KILMER MIDDLE SCHOOL
8100 WOLFTRAP ROAD
VIENNA, VA 22182

TITLE:
UTILITY ROUTING PLAN

SHEET NUMBER:
Z-13

SWM NARRATIVE

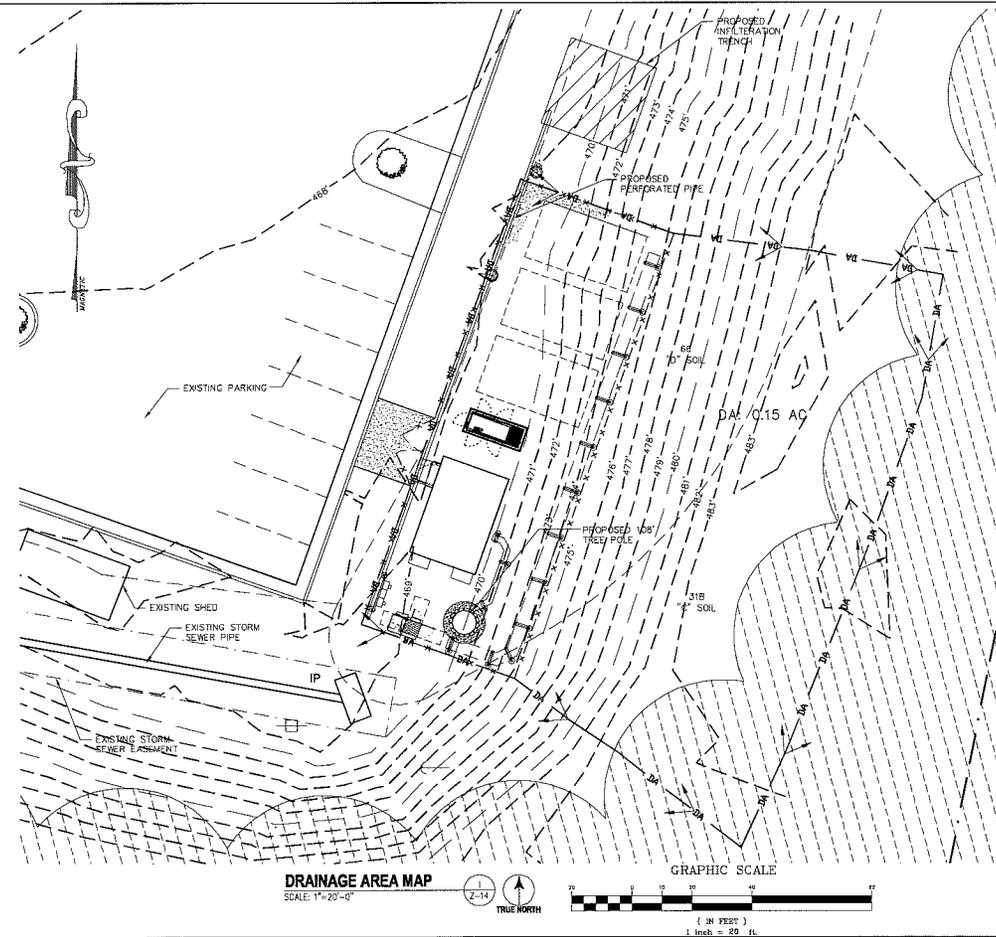
THE PROPOSED DEVELOPMENT DISTURBS 3,198 SF OF LAND AND ADDS 2,133 SF OF IMPERVIOUS AREA IN PRE-DEVELOPMENT CONDITION. MAJORITY OF THE SITE DRAINS TO EXISTING STORM INLET 18 NORTHWEST OF THE SITE, CLOSE TO THE SCHOOL BUILDING.

STORMWATER MANAGEMENT (BOTH QUALITY AND QUANTITY) FOR THE PROPOSED DEVELOPMENT WILL BE OBTAIN BY AN INFILTRATION TRENCH TO OBTAIN REQUIRED PHOSPHOROUS REMOVAL AND PROVIDE DETENTION TO GET PRE-DEVELOPMENT RUNOFF CONDITION.

OUTFALL NARRATIVE

THE PROPOSED DEVELOPMENT DISCHARGE TO EXISTING STORM INLET EX 18 AND OUTFALLS TO EXISTING STORM DRAIN SYSTEM TO THE SOUTHWEST PROPERTY CORNER WHICH EVENTUALLY DISCHARGE TO WOLFTRAP REGIONAL POND.

SINCE STORMWATER MANAGEMENT CRITERIA OF BOTH QUALITY AND QUANTITY ARE MET, EXISTING OUTFALL SHOULD BE ADEQUATE.



Virginia Runoff Reduction Method Redevelopment Worksheet v2.0 Revised April 2011
 To be used with 2011 LSW Standards and Specifications

Site Data

Project Name:	KILMER MIDDLE SCHOOL
Date:	02/27/2014

Post-Redevelopment Project & Land Cover Information

Construction	Asphalt	0.00	0.00	0.00	0.00	0.00
Impervious	Asphalt	0.00	0.00	0.00	0.00	0.00
Permeable	Grass	0.00	0.00	0.00	0.00	0.00
Non-impervious	Grass	0.00	0.00	0.00	0.00	0.00
Permeable	Grass	0.00	0.00	0.00	0.00	0.00
Non-impervious	Grass	0.00	0.00	0.00	0.00	0.00

Land Cover Summary

Pre-Redevelopment	Post-Redevelopment	Land Cover Summary	Land Cover Summary
Asphalt	Asphalt	Asphalt	Asphalt
Grass	Grass	Grass	Grass
Impervious	Impervious	Impervious	Impervious
Non-impervious	Non-impervious	Non-impervious	Non-impervious
Permeable	Permeable	Permeable	Permeable
Non-permeable	Non-permeable	Non-permeable	Non-permeable

Runoff Reduction

Pre-Redevelopment Runoff	1.00
Post-Redevelopment Runoff	0.50
Runoff Reduction	0.50

Drainage Area A

Area	Area	Area	Area	Area	Area
Asphalt	0.00	0.00	0.00	0.00	0.00
Grass	0.00	0.00	0.00	0.00	0.00
Impervious	0.00	0.00	0.00	0.00	0.00
Non-impervious	0.00	0.00	0.00	0.00	0.00
Permeable	0.00	0.00	0.00	0.00	0.00
Non-permeable	0.00	0.00	0.00	0.00	0.00

Drainage Area B

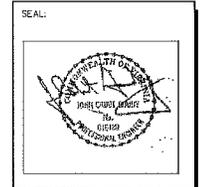
Area	Area	Area	Area	Area	Area
Asphalt	0.00	0.00	0.00	0.00	0.00
Grass	0.00	0.00	0.00	0.00	0.00
Impervious	0.00	0.00	0.00	0.00	0.00
Non-impervious	0.00	0.00	0.00	0.00	0.00
Permeable	0.00	0.00	0.00	0.00	0.00
Non-permeable	0.00	0.00	0.00	0.00	0.00

TOTAL IMPERVIOUS COVER TREATED (sq ft)	
TOTAL TURF AREA TREATED (sq ft)	
AREA CHECKBOX	
TOTAL PHOSPHOROUS REMOVAL REQUIRED ON SITE (lb/yr)	
TOTAL PHOSPHOROUS REMOVAL FROM RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr)	
TOTAL PHOSPHOROUS REMOVAL FROM RUNOFF REDUCTION PRACTICES IN D.A. B (lb/yr)	
SEE WATER QUALITY COMPLIANCE TAB FOR SITE COMPLIANCE CALCULATIONS	

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 PHONE: (202)408-0960
 FAX: (202)408-0961

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08-29-14	COUNTY COMMENTS	



PROJECT NO: 1050.139
 DESIGNER: M.A.
 ENGINEER: M.M.

SCALE: 0 1/2 1
 GRAPHIC SCALE IN INCHES

KILMER MIDDLE SCHOOL
 8100 WOLFTRAP ROAD
 VIENNA, VA 22182

TITLE:
DRAINAGE AREA MAP, SWM NOTES AND CALCULATIONS

SHEET NUMBER:
Z-14

Hansen, Doug

From: O'connell, Sandra
Sent: Wednesday, August 06, 2014 2:19 PM
To: Hansen, Doug
Cc: Hushour, Andrew
Subject: 2232-P14-6; Verizon Wireless; 8102 Wolftrap Road

2232-P14-6
Verizon Wireless
8102 Wolftrap Road
Tax Map Ref.: 39-2 ((8)) 2A
Zoning District: R-3

Comments: The proposal does not meet the following requirements:

1. There is no Steady Red Marker as required in Par. 3.H of Section 2-514, however, a waiver of this request is being processed.
2. The surface area of 422.25 sq. in. and the total of 10,847 sq. in. listed in Part IV, item B.2.c on page 6 of the application is incorrect. There is also a discrepancy between the dimensions shown on the plan and the dimension shown in the specifications for this antenna. Clarify on the plans and application the correct antenna size.

ZED: Must be in substantial conformance with RZ 89-P-009.

Prepared by Sandra O'Connell – 8/4/14

Sandra O'Connell, LS, CFM
Assistant to the Zoning Administrator
Fairfax County Dept. of Planning & Zoning
Zoning Administration Division
12055 Government Center Parkway, Suite 807
Fairfax, VA 22035
(703) 324-1314
<http://www.fairfaxcounty.gov/dpz/>



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

August 28, 2014

Mr. Frank W. Stearns
Donohue & Stearns, PLC
117 Oronoco Street
Alexandria, VA 22314

RE: Request for Waiver of Steady Red Marker – 2232-P14-06

Kilmer Middle school
8102 Wolftrap Road
Tax Map: 39-2 ((8)) 2A
Zoning District: R-3

Dear Mr. Stearns:

This is in response to your February 4, 2014 letter to Leslie Johnson, Zoning Administrator, in which you requested waiver of the steady red marker requirement for a proposed 108 foot tall telecommunications tower on the above referenced property. The proposed facility is currently under review as part of Application #2232-P14-06. Pursuant to Par. 3.H of Sect. 2-514 of the Fairfax County Zoning Ordinance, a steady red marker light is required to be installed, and operated at all times, on all antenna structures exceeding 100 feet in height. However, this requirement may be waived by the Zoning Administrator upon a determination by the Police Department that such marker is not necessary for flight safety requirements for police and emergency helicopter operations.

We have received confirmation from the Helicopter Division of the Police Department that the steady red marker is not required for the proposed facility; a copy of their finding is enclosed for your records. Given the input from the Helicopter Division, the requirement for the steady red marker has been waived by the Zoning Administration Division for this particular application.

I trust this information adequately responds to your request. If you have any additional questions, please feel free to contact me at 703-324-1314.

Sincerely,

Sandra D. O'Connell, LS, CFM
Assistant to the Zoning Administrator

Department of Planning and Zoning
Zoning Administration Division
Ordinance Administration Branch
12055 Government Center Parkway, Suite 807
Fairfax, Virginia 22035-5505
Phone 703-324-1314 FAX 703-803-6372
www.fairfaxcounty.gov/dpz/



Mr. Frank W. Stearns
August 28, 2014
Page 2

SO'C/

cc: Linda Q. Smyth, Supervisor, Providence District
Diane Johnson-Quinn, Deputy Zoning Administrator for Zoning Permit Review Branch
✓Chris Caperton, Chief, Facilities Planning Branch, DPZ
Captain Thomas J. Rogers, Commander, Helicopter Division, Police Department



County of Fairfax, Virginia

MEMORANDUM

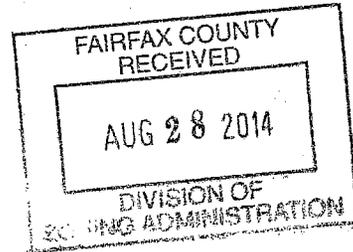
DATE: August 22, 2014

TO: Ms. Sandra D. O'Connell, LS, CFM
Assistant to the Zoning Administrator

FROM: Thomas J. Rogers, Captain *TR*
Commander, Helicopter Division

SUBJECT: Waiver Request of Steady Marker

RE: #2232-P14-06, 8102 Wolftrap Road



The Fairfax County Police Helicopter Division has reviewed the referenced application. The proposed structure does not pose an adverse safety condition for our daily operations. We have also concluded that the lack of a steady red marker would not pose a flight safety hazard for our aircrews or aircraft.

At the discretion of the Zoning Administrator, the requirement for a steady red light marker may be waived with no objection from the Police Helicopter Division.

Any questions may be directed to Mr. Jason Post, Chief Pilot @ Jason.post@fairfaxcounty.gov or 703-830-3105.

Cc: Mr. Leslie Johnson, Zoning Administrator
Mr. Jason Post, FCPD Helicopter Division
Mr. Doug Hansen, DPZ
Mr. Chris Caperton, DPZ

Jmp

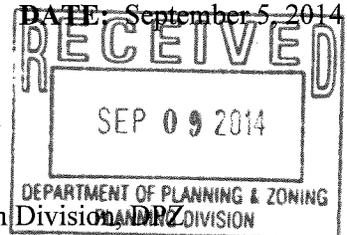
Fairfax County Police Department
4100 Chain Bridge Road
Fairfax, Virginia 22030





County of Fairfax, Virginia

MEMORANDUM



TO: Chris B. Caperton, Chief
Facilities Planning Branch, Planning Division, DPZ

FROM: Kevin Guinaw, Chief *K. Guinaw*
Special Projects/Applications Management Branch, Zoning Evaluation

SUBJECT: Proposed Verizon Telecommunications Facility at 8100 Wolftrap Road;
Tax Map 39-2 ((8)) 2A; 2232 Application 2232-P14-6

This memorandum supersedes my previous memorandum dated June 18, 2014, in response to a request for a review and comment on a telecommunications facility proposed by Verizon Wireless, at 8100 Wolftrap Road (Kilmer Middle School). As described in the revised 2232 telecommunications application dated received July 3, 2014, from Frank W. Stearns, a 108-foot tall monopole, and a 2,133 square foot equipment compound, are proposed within an area of existing open space. A copy of the 2232 application, including illustrations of the proposed locations of the telecommunications equipment, is attached.

The 23.18 acre site is located at the northwest quadrant of Gallows Road and Wolftrap Road and is improved with the existing Kilmer Middle School, the existing Kilmer Center, associated athletic fields, and parking. The school was originally constructed in 1959 on property zoned R-1. The property was subsequently rezoned to the R-3 zoning district pursuant to the approval of RZ 89-P-009 by the Board of Supervisors on April 17, 1989, subject to proffers. This rezoning was intended to increase the maximum allowable Floor Area Ratio (FAR) on the property, previously limited by the R-1 district to 0.15, in order to facilitate a 1,344 square foot building addition. Proffer # 2 limits development on the property to 223,619 square feet or a 0.22 FAR. The Generalized Development Plan, which depicts two existing buildings, the proposed building addition, parking, and athletic fields, was not proffered. In conjunction with the rezoning, the Board of Supervisors waived the barrier requirements along the southern property boundary and modified the transitional screening along the northern, southern, and western property boundaries to allow existing vegetation to satisfy screening requirements.

The plat entitled "Kilmer Middle School, 8100 Wolftrap Road, Vienna, VA 22182," dated revised June 26, 2014, prepared by Entrex, depicts a "proposed 108' tree pole" to be located at the southeastern property boundary between the existing parking lot and a stand of existing deciduous trees (heights estimated by Sheet Z-4 ranging from seventy to eighty feet), approximately 0.07 miles from the Wolftrap Road/Gallows Road intersection. Twelve new panel antennas (6 antennas 72.5 inches high by 6.1 inches wide, 4 antennas 96 inches high by 14.6 inches wide, and 2 antennas 72 inches high by 18.8 inches wide) for the benefit of Verizon Wireless would be located at an elevation of 100-feet. In addition, an equipment shelter (10.5 feet high by 16 feet, 10.5 inches wide by 11.6 feet deep), a MTU natural gas generator (5.6 feet high by 9.2 feet wide by 3.4 feet deep), and a MESA cabinet would be located at-grade within a fenced (8 feet tall) compound (79 feet long by 27 feet wide). Fifteen eastern red cedars (eight feet in height) are proposed to be planted along the northern, southern, and western compound boundaries.

In addition to Verizon, the 2232 application and the Statement of Justification state the "monopine" will accommodate three additional unspecified carriers. Sheet Z-3 depicts three additional at-grade "future carrier

Frank W. Stearns
Page 2

lease areas,” and Sheet Z-4 depicts three additional “future carrier antennas” at 90-feet, 80-feet, and 70-feet.

The Zoning Administration Division has determined that a telecommunications facility, as described above, is a permitted use pursuant to the provisions of Sect. 2-514 of the Zoning Ordinance, provided that it is determined to be in substantial conformance with any applicable rezoning. It is my determination that the rezoning proffers do not preclude the establishment of a telecommunication facility on the property, provided that the limitations on gross floor area and FAR noted above are not exceeded, and provided that the subject 2232 application for the proposed use is approved by the Fairfax County Planning Commission to be in substantially accord with the location, character, and extent of the Comprehensive Plan. Inclusive of building additions made subsequent to the rezoning, I will note that the Kilmer Middle School campus currently includes approximately 194,827 square feet of gross floor area at a 0.19 FAR. The Verizon equipment shelters, and any subsequent equipment shelters, would constitute additional square footage and FAR.

This determination has been made in my capacity as the duly authorized agent of the Zoning Administrator. If you have any questions regarding this memorandum, please call Stephen Gardner at (703) 324-1273.

N:\Antennas\Verizon Wireless_8102 Wolftrap Rd_ANT 14 05 013\Verizon_8102 Wolftrap Rd_Revised 9-5-14.Doc

Attachments: A/S

cc: Linda Q. Smyth, Supervisor, Providence District
Kenneth Lawrence, Planning Commissioner, Providence District
Barbara C. Berlin, Director, Zoning Evaluation Division, DPZ
Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review, ZAD, DPZ
Frank Stearns, Verizon Wireless and Milestone Communications, 201 Liberty Street, Leesburg, VA 20175
File: RZ 89-P-009, ANT 14 05 013, Imaging

Hansen, Doug

From: Dhavale, Maya
Sent: Tuesday, April 29, 2014 5:02 PM
To: Hansen, Doug
Cc: Nee, Pamela
Subject: 2232-P14-6

Hi Doug,

I've reviewed the 2232 application for the Verizon Monopole at Kilmer Middle School. There are no environmental concerns associated with the site, so we have no issues with the application.

Please let me know if you need any other information for this application.

Thanks!
Maya



County of Fairfax, Virginia

MEMORANDUM

DATE: 6 June 2014

TO: Doug Hansen, Planner III, Facilities Planning Branch

FROM: Linda Cornish Blank, Historic Preservation Planner *ACB*

SUBJECT: 2232-P14-6, Kilmer Middle School, 8102 Wolftrap Road, Tax Map 39-2 ((8)) 2A, to construct a 108' high stealth monopole; tree pole (monopine)

Policy Plan: Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Public Facilities, Amended through 3-34-2014, page 39:

"Policy m. Locate telecommunication facilities to ensure the protection of historically significant landscapes. The views of and vistas from architecturally and/or historically significant structures should not be impaired or diminished by the placement of telecommunication facilities."

Background: This subject parcel is not included within the boundaries of a Fairfax County Historic Overlay District, is not listed on the Fairfax County Inventory of Historic Sites or the National Register of Historic Places or documented in the historic structures survey file. There are no properties in the immediate vicinity of the subject property of this application that are within the boundaries of a Fairfax County Historic Overlay District, listed on the Fairfax County Inventory of Historic Sites or the National Register or documented in the historic structures survey file that would be negatively impacted by the construction of the monopine.

The applicant has complied with Section 106 of the National Historic Preservation Act of 1966. As a local government, Fairfax County was afforded an opportunity to provide comment as required under Section 106. On March 18, 2014, the local government was notified that the Lead State Historic Preservation Office concurred with the following filing:

Direct Effect: No Historic Properties in Area of Potential Effects (APE)
 Visual Effect: No Historic Properties in Area of Potential Effects (APE)

Heritage Resources staff findings:

1. Staff finds the proposal in-keeping with the Policy Plan text cited above and finds that no known historic properties will be adversely affected by the project.
2. No action concerning heritage resources is required.

Department of Planning and Zoning
 Planning Division
 12055 Government Center Parkway, Suite 730
 Fairfax, Virginia 22035-5509
 Phone 703-324-1380
 Fax 703-324-3056
www.fairfaxcounty.gov/dpz/





County of Fairfax, Virginia

MEMORANDUM

DATE: October 8, 2014

TO: Doug Hanson, Staff Coordinator
Planning Division
Department of Planning and Zoning

FROM: William J. Veon, Jr., Senior Engineer III (Stormwater)
Site Development and Inspections Division
Department of Public Works and Environmental Services

SUBJECT: 2232 Review Application No.: 2232-P14-6
Kilmer Middle School - Telecommunications Facility
Site Plan (REVISED dated August 28, 2014)
Tax Map #039-2-08-0002A
Providence District

The subject revised application has been reviewed, and the following stormwater management comments are offered at this time:

Please Note: The County's Stormwater Management Ordinance (SWMO - County Code Chapter 124) and updated Public Facilities Manual (PFM), which became effective on July 1, 2014, are applicable to this proposed site.

Chesapeake Bay Preservation Ordinance (CBPO)
There is no Resource Protection Area (RPA) on this site.

Water quality controls are required for this site (SWMO 124-1-6 & 124-4-1). A proposed land disturbance area of 3,198 sf has been identified, and proposed site additions include new impervious surfaces of at least 2,133 sf. An infiltration trench has been proposed to address SWM/BMP requirements, although site-specific design data have not been provided. Preliminary VRRM (Virginia Runoff Reduction Method) calculations have been provided, though, to estimate the phosphorus reduction requirement, as well as to identify the design engineer's expectation that the proposed SWM/BMP facility will provide compliance with this requirement. Calculation and design details will be reviewed at the final design/site plan stage.

Floodplains
There are no regulated floodplains on the property/site.



Doug Hansen, Staff Coordinator
2232 Review Application No.: 2232-P14-6
October 8, 2014
Page 2 of 2

Downstream Drainage Complaints

There are no significant, contemporary downstream drainage complaints on file. However, there are a number of "older" complaints that seem to be related to blockage of Wolf Trap Run by beaver dams.

Stormwater Detention

Water quantity controls are required for this site (SWMO 124-1-6 & 124-4-1). A proposed land disturbance area of 3,198 sf has been identified, and proposed site additions include new impervious surfaces of at least 2,133 sf. An infiltration trench has been proposed to address SWM/BMP requirements, although site-specific design data has not been provided. The SWM Narrative identifies the design engineer's expectation that the proposed SWM/BMP facility will provide compliance with detention requirements. Calculation and design details will be reviewed at the final design/site plan stage.

Site Outfall

Demonstration of adequate outfall is required for this site (PFM 6-0200). A preliminary narrative has been provided to identify the design engineer's expectation that the proposed SWM/BMP facility will result in adequate outfall being met. Supporting calculations and an enhanced narrative will be reviewed at the final design/site plan stage.

Miscellaneous

A site plan/minor site plan submittal is required for this proposed facility.

Please contact me at 703-324-1720 or William.Veon@fairfaxcounty.gov, if you have any questions or require additional information.

WJV/

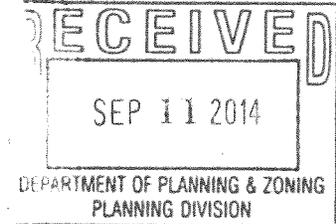
cc: Don Demetrius, Chief, Watershed Projects Evaluation Branch, SPD, DPWES
Fred Rose, Chief, Watershed Planning & Assessment Branch, SPD, DPWES
Durga Kharel, Chief, Central Branch, SDID, DPWES
Hani Fawaz, Senior Engineer III, Central Branch, SDID, DPWES
Zoning Application File



County of Fairfax, Virginia

MEMORANDUM

DATE: September 11, 2014
TO: Doug Hansen, Senior Planner
Facilities Planning Branch, Planning Division, DPZ
FROM: Todd Nelson, Urban Forester II
Forest Conservation Branch, DPWES
SUBJECT: Verizon Wireless-Kilmer Middle School (8102 Wolftrap Rd.); 2232-P14-6
RE: Request for assistance dated September 4, 2014



This review is based on the 2232-P14-6 review application stamped "Received, Urban Forest Management Division, Forest Conservation Branch, September 4, 2014". Urban Forest Management Division comments contained in the August 6, 2014, memo appear to be adequately addressed. There are no additional comments or recommendations on tree or landscape related issues associated with this application.

Please contact me at 703-324-1770 should you have any questions.

TLN/
UFMDID #: 190983

cc: DPZ File



Attachment H

Hansen, Doug

From: Hansen, Doug
Sent: Friday, August 08, 2014 12:22 PM
To: Hansen, Doug
Subject: FW: Kilmer MS-County DPZ Application 2232-P14-6 - 108' Monopine Request by Verizon Wireless

From: Cordova, Robert W. [<mailto:RWCordova@fcps.edu>]
Sent: Friday, August 08, 2014 11:08 AM
To: Hansen, Doug
Cc: Casey, Tom
Subject: RE: Kilmer MS-County DPZ Application 2232-P14-6 - 108' Monopine Request by Verizon Wireless

Doug,

This will serve as FCPS's official notice that we are good to go with Milestone's revised plan. They have met or will meet all our conditions. Let me know if you need anything else. Thanks.

Best,



Bob Cordova, FMP, CFM
Coordinator-Property Management
Office of Design and Construction

Fairfax County Public Schools
Department of Facilities & Transportation Services
8115 Gatehouse Road, Suite 3200
Falls Church, Virginia 22042

(B) 571-423-2303
(C) 571-237-0316
(F) 571-423-2307
(E) robert.cordova@fcps.edu

Attachment I

Hansen, Doug

From: Stone, Laurie A.
Sent: Tuesday, June 03, 2014 3:42 PM
To: Hansen, Doug
Subject: RE: 2232-P14-6 | New Monopole at Kilmer Middle School | Verizon Wireless

Hi Doug,

I apologize for not responding sooner. The Fire and Rescue Department has no comments regarding application number 2232-P14-6 for a new monopole at Kilmer Middle School.

Laurie Stone
Strategic Planner
Fairfax County Fire and Rescue Department
4100 Chain Bridge Road
Fairfax, VA 22030
Phone: 703-246-3889

From: Hansen, Doug
Sent: Tuesday, June 03, 2014 3:38 PM
To: Stone, Laurie A.
Subject: 2232-P14-6 | New Monopole at Kilmer Middle School | Verizon Wireless

Hi Laurie,

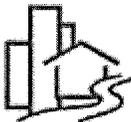
I do not have a record of a response to our material sent to your office on April 28, 2014 with any comments due May 28, 2014. Please advise status.

Thanks and have a great afternoon.

Doug

Doug Hansen, Senior Planner

**FAIRFAX COUNTY
DEPARTMENT OF
PLANNING
& ZONING**



Planning Division, Facilities Planning Branch
12055 Government Center Parkway, Suite 730
Fairfax, VA 22035 | (703) 324-1249



FAIRFAX COUNTY WATER AUTHORITY
8560 Arlington Boulevard, Fairfax, Virginia 22031
www.fairfaxwater.org

**PLANNING & ENGINEERING
DIVISION**

Jamie Bain Hedges, P.E.
Director
(703) 289-6325
Fax (703) 289-6382

May 2, 2014

Mr. Doug Hansen
Facilities Planning Branch
Fairfax County Department of Planning & Zoning
12055 Government Center Parkway, Suite 730
Fairfax, Virginia 22035

Re: Application No. 2232-P14-6
Kilmer Middle School
Verizon Proposed Tree Monopole
Tax Map: 39-2 ((8)) 2A

Dear Mr. Hansen:

The following information is submitted in response to your request for a water service analysis for the above application:

1. The property is served by Fairfax Water.
2. Adequate domestic water service is available at the site from an existing 12-inch water main located onsite. See the enclosed water system map.
3. Any encroachments into the existing 15-foot FCWA easement, for construction of the monopole and associated equipment will not be allowed without obtaining separate prior written approval from Fairfax Water.

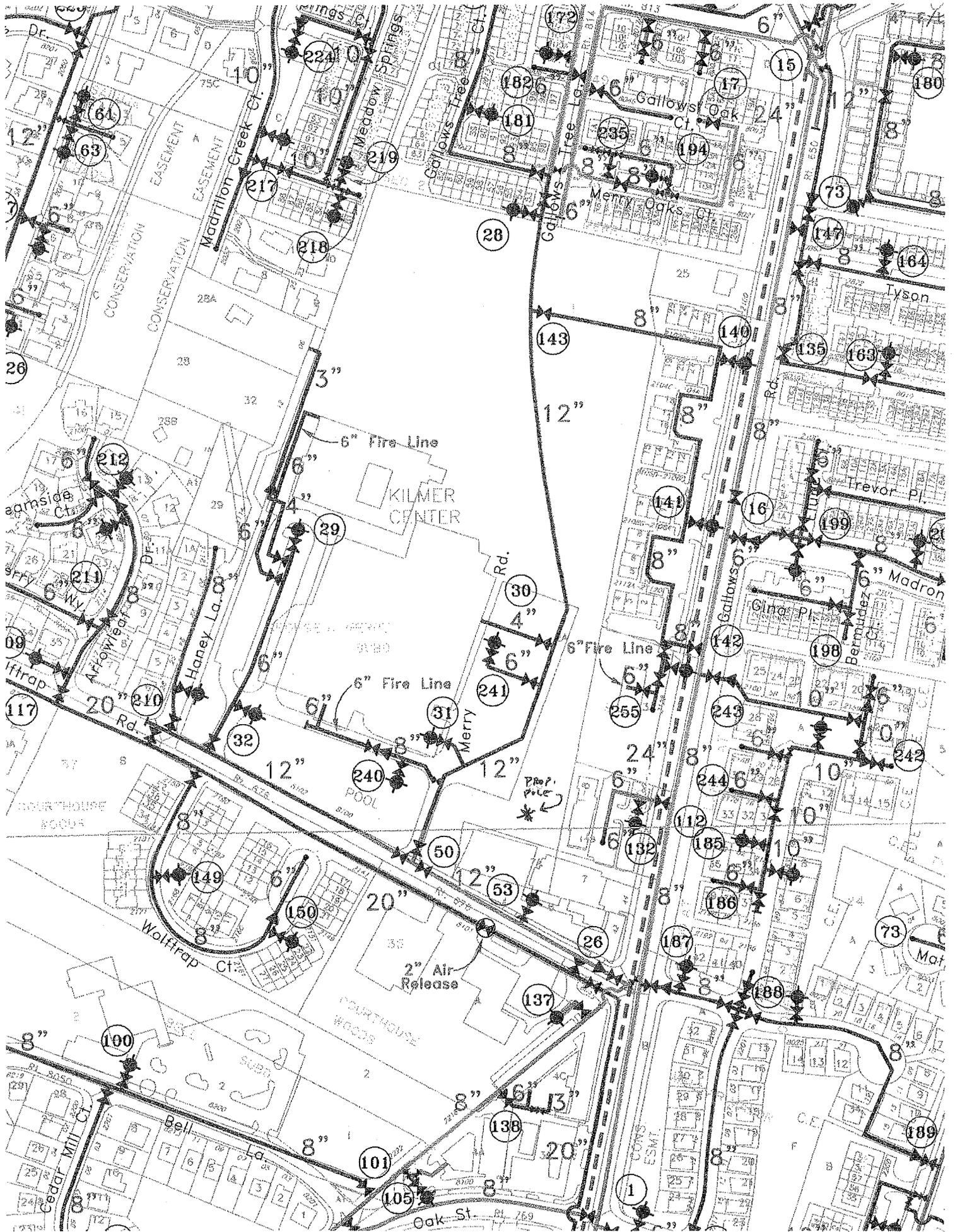
If you have any questions regarding this information please contact Ross Stilling, P.E., Chief, Site Plan Review at (703) 289-6385.

Sincerely,

A handwritten signature in cursive script that reads "Traci K. Goldberg".

Traci K. Goldberg, P.E.
Manager, Planning

Enclosure



Attachment K

§ 15.2-2232. Legal status of plan.

A. Whenever a local planning commission recommends a comprehensive plan or part thereof for the locality and such plan has been approved and adopted by the governing body, it shall control the general or approximate location, character and extent of each feature shown on the plan. Thereafter, unless a feature is already shown on the adopted master plan or part thereof or is deemed so under subsection D, no street or connection to an existing street, park or other public area, public building or public structure, public utility facility or public service corporation facility other than a railroad facility or an underground natural gas or underground electric distribution facility of a public utility as defined in subdivision (b) of § 56-265.1 within its certificated service territory, whether publicly or privately owned, shall be constructed, established or authorized, unless and until the general location or approximate location, character, and extent thereof has been submitted to and approved by the commission as being substantially in accord with the adopted comprehensive plan or part thereof. In connection with any such determination, the commission may, and at the direction of the governing body shall, hold a public hearing, after notice as required by § 15.2-2204. Following the adoption of the Statewide Transportation Plan by the Commonwealth Transportation Board pursuant to § 33.1-23.03 and written notification to the affected local governments, each local government through which one or more of the designated corridors of statewide significance traverses, shall, at a minimum, note such corridor or corridors on the transportation plan map included in its comprehensive plan for information purposes at the next regular update of the transportation plan map. Prior to the next regular update of the transportation plan map, the local government shall acknowledge the existence of corridors of statewide significance within its boundaries.

B. The commission shall communicate its findings to the governing body, indicating its approval or disapproval with written reasons therefor. The governing body may overrule the action of the commission by a vote of a majority of its membership. Failure of the commission to act within 60 days of a submission, unless the time is extended by the governing body, shall be deemed approval. The owner or owners or their agents may appeal the decision of the commission to the governing body within 10 days after the decision of the commission. The appeal shall be by written petition to the governing body setting forth the reasons for the appeal. The appeal shall be heard and determined within 60 days from its filing. A majority vote of the governing body shall overrule the commission.

C. Widening, narrowing, extension, enlargement, vacation or change of use of streets or public areas shall likewise be submitted for approval, but paving, repair, reconstruction, improvement, drainage or similar work and normal service extensions of public utilities or public service corporations shall not require approval unless such work involves a change in location or extent of a street or public area.

D. Any public area, facility or use as set forth in subsection A which is identified within, but not the entire subject of, a submission under either § 15.2-2258 for subdivision or subdivision A 8 of § 15.2-2286 for development or both may be deemed a feature already shown on the adopted master plan, and, therefore, excepted from the requirement for submittal to and approval by the commission or the governing body; provided, that the governing body has by ordinance or resolution defined standards governing the construction, establishment or authorization of such public area, facility or use or has approved it through acceptance of a proffer made pursuant to § 15.2-2303.

E. Approval and funding of a public telecommunications facility on or before July 1, 2012, by the Virginia Public Broadcasting Board pursuant to Article 12 (§ 2.2-2426 et seq.) of Chapter 24 of Title 2.2 or after July 1, 2012, by the Board of Education pursuant to § 22.1-20.1 shall be deemed to satisfy the requirements of this section and local zoning ordinances with respect to such facility with the exception of television and radio towers and structures not necessary to house electronic apparatus. The exemption provided for in this subsection shall not apply to facilities existing or approved by the Virginia Public Telecommunications Board prior to July 1, 1990. The Board of Education shall notify the governing body of the locality in advance of any meeting where approval of any such facility shall be acted upon.

F. On any application for a telecommunications facility, the commission's decision shall comply with the requirements of the Federal Telecommunications Act of 1996. Failure of the commission to act on any such application for a telecommunications facility under subsection A submitted on or after July 1, 1998, within 90 days of such submission shall be deemed approval of the application by the commission unless the governing body has authorized an extension of time for consideration or the applicant has agreed to an extension of time. The governing body may extend the time required for action by the local commission by no more than 60 additional days. If the commission has not acted on the application by the end of the extension, or by the end of such longer period as may be agreed to by the applicant, the application is deemed approved by the commission.

(Code 1950, §§ 15-909, 15-923, 15-964.10; 1958, c. 389; 1960, c. 567; 1962, c. 407, § 15.1-456; 1964, c. 528; 1966, c. 596; 1968, c. 290; 1975, c. 641; 1976, c. 291; 1978, c. 584; 1982, c. 39; 1987, c. 312; 1989, c. 532; 1990, c. 633; 1997, cc. 587, 858; 1998, c. 683; 2007, c. 801; 2009, cc. 670, 690; 2012, cc. 803, 835.)