Docket Item # 10 BAR CASE # 2009-0174

BAR Meeting September 2, 2009

ISSUE: Alterations

APPLICANT: Virginia Theological Seminary (T-Mobile Northeast, Agent)

LOCATION: 3737 Seminary Road

ZONE: R-20/Residential

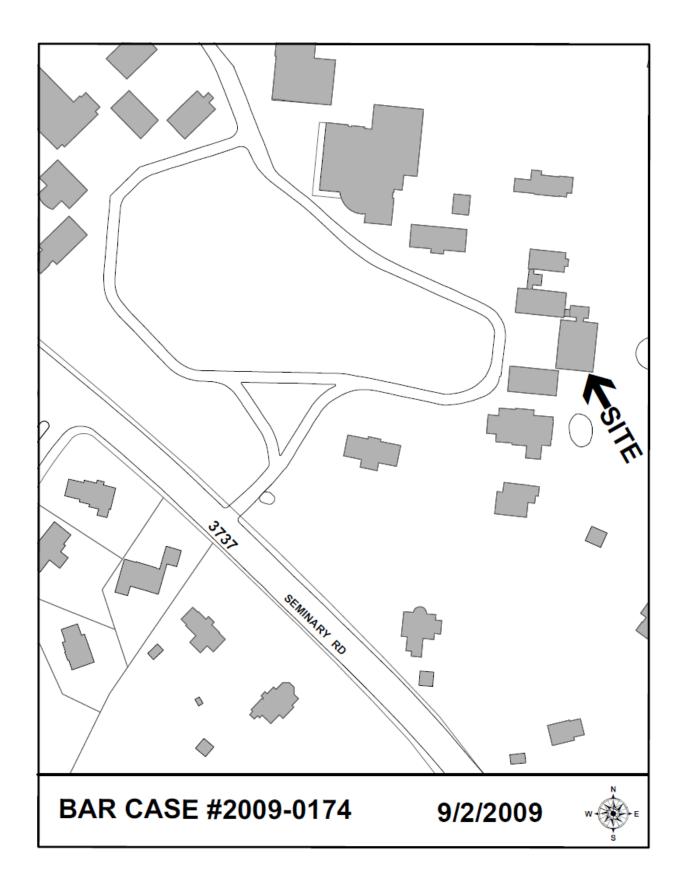
STAFF RECOMMENDATION: Staff recommends denial of the Application for a Certificate of Appropriateness.

In the alternative, if the Board approves the Certificate of Appropriateness, Staff recommends the following conditions:

- 1. That the historic windows being removed will be in one-piece, identified on each sash that they "Cannot be removed from site per BAR Approval #2009-0174" and stored securely on-site. The notes in the construction drawing will denote the exact storage location for each labeled window.
- 2. That the antennas, cables, struts, metal framing and an RBS cabinet be painted a dark color to assist in camouflaging them when viewed from ground level.
- 3. That the replacement window sashes will be fabricated out of wood and the profile of the new frame will match exactly to the existing window sashes. Replacement acrylic glazing may be utilized instead of glass.
- 4. That when this cellular technology becomes obsolete and is no longer utilized, the original windows will be re-installed.

*EXPIRATION OF APPROVALS NOTE: In accordance with Sections 10-106(B) and 10-206(B) of the Zoning Ordinance, any official Board of Architectural Review approval will expire 12 months from the date of issuance if the work is not commenced and diligently and substantially pursued by the end of that 12-month period. In the case for a certificate or permit for a project that requires a development special use permit or site plan under section 11-400 of the zoning ordinance, the period of validity shall be coincident with the validity of the development special use permit or site plan as determined pursuant to section 11-418 of the ordinance.

**BUILDING PERMIT NOTE: Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Building and Fire Code Administration (including signs). The applicant is responsible for obtaining all necessary construction permits after receiving Board of Architectural Review approval. Contact Code Administration, Room 4200, City Hall, 703-838-4360 for further information.



I. ISSUE:

The applicant is requesting approval of a Certificate of Appropriateness for alterations at Aspinwall Hall, at the Virginia Theological Seminary, at 3737 Seminary Road. Aspinwall Hall is a designated 100-Year Old Building under the City's Zoning Ordinance and under the purview of the Old and Historic Alexandria Board of Architectural Review for exterior changes visible from a public right-of-way.

The current central tower/steeple contains four, original, wood, arched windows, one ornamenting each of its four elevations. The proposed alterations include removing the original, east and west facing, arched windows and replacing them with new windows fabricated from PVC muntins, Stealthcore – a PVC composite product and a ¼" thick acrylic opaque glazing. All the proposed products are designed to promote cellular phone radio wave transparency. The applicant has provided a sample of these proposed materials. The north and south facing arched windows in the tower/steeple will be retained in their original configuration and not replaced.

T-Mobile is also proposing to locate antennas, cables, strut framing, and a RBS cabinet within the interior of the steeple. The proposed internal antennas and framing will be visible at ground level.

II. HISTORY:

Aspinwall Hall is individually listed as a 100-year Old Building under Ordinance 2180. It is part of the Virginia Theological Seminary, established in 1823, on a site purchased in 1827. Aspinwall Hall is located between Bohlen Hall and Meade Hall, in a park-like setting atop of a hill overlooking Seminary Road.

According to the survey information for the 100-Year Old Building listing, Aspinwall Hall was built in 1859, in the Romanesque Revival style and declared a monument by the Virginia Historical Society. The building's Romanesque Revival characteristic features include the gabled nave, semi-circular arched windows and doors, arched corbelled embellishments, corner buttresses, round arched openings and archivolt trim, and an ornate central tower featuring a domed cupola top.

The Board has approved a number of projects for Aspinwall Hall at the Virginia Theological Seminary, which include the following:

- In 2008, the Board approved removing the circular wood detail in the central tower/steeple in Aspinwall Hall and replacing it with a StealthSkin V-panel (BAR Case #2009-0136, 09/17/08).
- In 1991, the Board approved an elevator tower design and ramp for accessibility for the adjacent Aspinwall Hall (BAR Case #91-225, 10/16/91).

III. ANALYSIS:

The proposed addition complies with zoning ordinance requirements.

The subject proposal is requesting removal and replacement of two, historic window sashes on the building - the original, east and west facing, arched windows in the central tower/steeple. The replacement sashes would be fabricated out of modern, synthetic materials to achieve T-Mobile's desired frequency output.

The *Design Guidelines* clearly state that "a central tenet of the philosophy of historic preservation is that original historic materials should be retained and repaired rather than replaced. The *Guidelines* also state that "single-glazed, true-divided light, wood windows are the preferred replacement window type."

Prior to filing an application, T-Mobile contacted BAR Staff to inquire about window replacement. Staff conducted a site visit to discuss the proposal with the applicant. During the site visit, Staff determined that the existing windows were historic and advised they be retained, as any window replacement would require the Board's approval. Staff further explained that they would be unable to present a favorable recommendation for the replacement of original features with new sashes constructed out of synthetic materials. Additionally, there was a concern with the installation of antennas, cables, struts, metal framing and a RBS cabinet in the interior of the steeple and the proposed color of this hardware. The weight and mounting of this hardware should not negatively impact the steeple's structural integrity and it should be painted a dark color to camouflage it when viewed from ground level.

In reviewing the application, Staff continues to have strong concerns about removing and replacing historic fabric with synthetic materials. Although the replacement windows are located high above any public access, the proposal still requests the removal of a character-defining feature and thus compromising the integrity of this historic resource. The narrative in the submittal packet expressed that the existing windows will be retained and stored on site. However, Staff still cannot support the removal of original windows on a historic building even if the proposal includes retaining the original windows for a future re-installation. Historic preservation is founded on the philosophy of retaining, and maintaining historic fabric in its original configuration and location.

The applicant has supplied the Board with a structural assessment verifying that the proposed interior equipment installations will not "affect the building's resistance to wind loading and will not adversely impact the building's structural integrity." The engineer professionally attests that the "existing building structure can safely support the structural loads generated by the proposed equipment provided it is installed as shown in the final construction drawings."

Staff finds that the current submission request is not consistent with *Design Guidelines* and would recommend that the applicant restudy the approach to explore other options that do not require any exterior alteration and removal of historic fabric from the historic tower of Aspinwall Hall.

IV. <u>STAFF RECOMMENDATION</u>: Staff recommends denial of the Application for a Certificate of Appropriateness.

In the alternative, if the Board approves the Certificate of Appropriateness, Staff recommends the following conditions:

- 1. That the historic windows being removed will be in one-piece, identified on each sash that they "Cannot be removed from site per BAR Approval #2009-0174" and stored securely on-site. The notes in the construction drawing will denote the exact storage location for each labeled window.
- 2. That the antennas, cables, struts, metal framing and an RBS cabinet be painted a dark color to assist in camouflaging them when viewed from ground level.
- 3. That the replacement window sashes will be fabricated out of wood and the profile of the new frame will match exactly to the existing window sashes. Replacement acrylic glazing may be utilized instead of glass.
- 4. That when this cellular technology becomes obsolete and is no longer utilized, the original windows will be re-installed.

STAFF:

Michele Oaks, Historic Preservation Planner, Planning & Zoning Lee Webb, Historic Preservation Manager, Planning & Zoning

V. <u>CITY DEPARTMENT COMMENTS</u>

Legend: C - code requirement R - recommendation S - suggestion F- finding

Code Enforcement:

- C- Alterations to the existing structure must comply with the 2006 edition of the Uniform Statewide Building Code (USBC).
- C- Building Code Analysis: The following minimum building code data is required on the drawings: a) use group, b) number of stories and c) construction type.
- C- Additions and alterations to the existing structure and/or installation and/or altering of equipment therein requires a building permit (USBC 108.1). Five sets of plans, bearing the signature and seal of a design professional registered in the Commonwealth of Virginia, must accompany the written application (USBC 109.1).

Historic Alexandria:

No comments received.

<u>Transportation and Environmental Services:</u>

F-1. All work shown is internal with no land disturbance. T&ES has no comments.

Building and Fire Code Administration:

No comments received.

VI. <u>IMAGES</u>

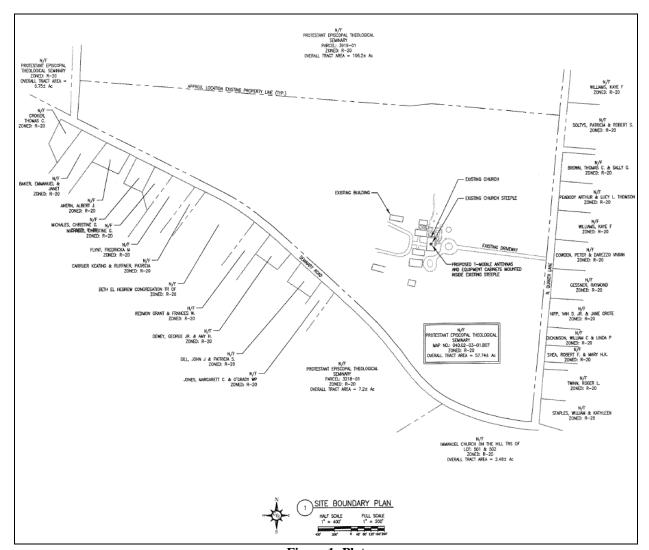


Figure 1: Plat



Figure 2: Aspinwall Hall



Figure 3: Existing View of Tower/Steeple





Figure 4: Existing and Proposed Elevations





Figure 5: Existing and Proposed Elevations

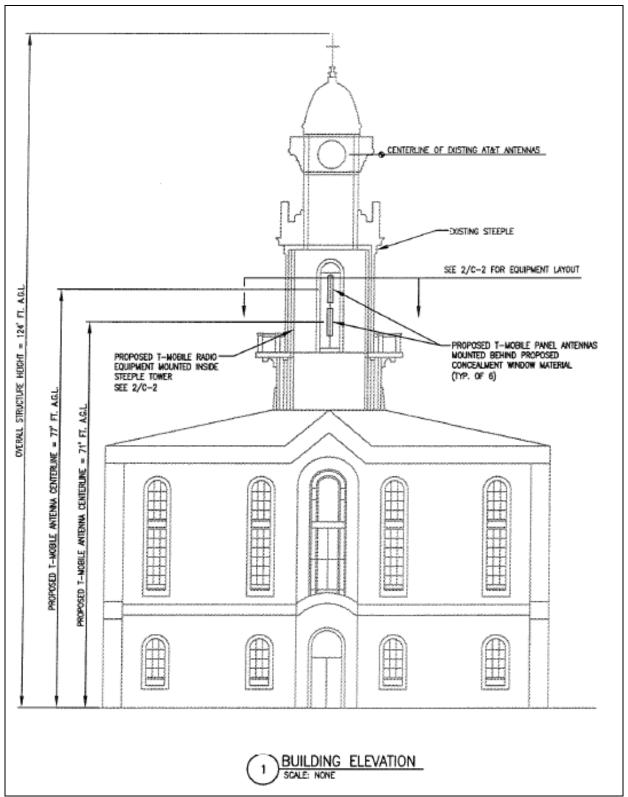


Figure 6: Proposal

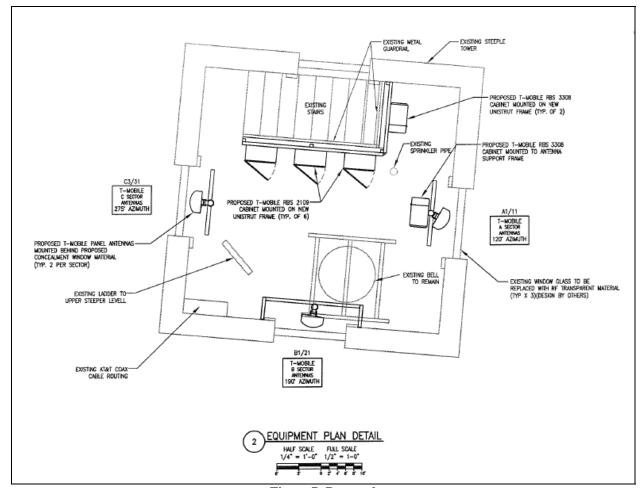


Figure 7: Proposal

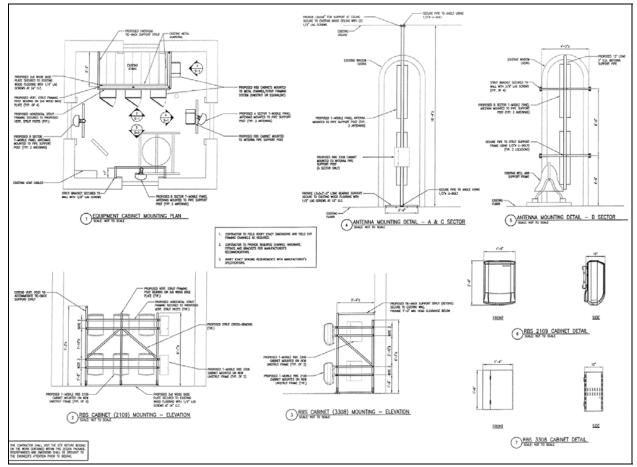


Figure 8: Proposal

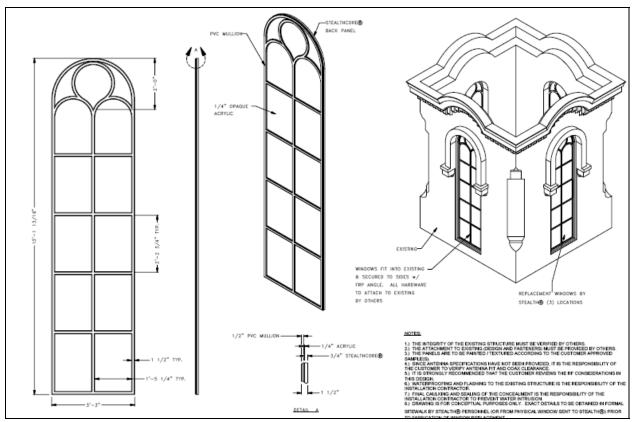


Figure 9: Detail of Proposal

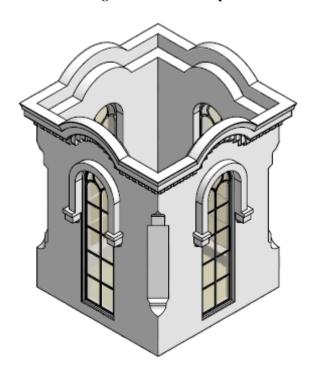


Figure 10: Illustrative of Tower/Steeple after New Window Installation



Virginia Seminary Replacement Windows

The use of conventional materials such as wood cannot be used on the replacement windows, as these materials are not RF transparent. They use of wood, and many other conventional construction materials, will not allow the antennas to transmit the RF signals required. STEALTH® can however match the architectural requirements for the window frame with the use of our StealthCore® panel as labeled in the preliminary design drawings.

Our StealthCore® is a high performance PVC plastic based panel that will meet both the aesthetic and RF performance requirements. The StealthCore® window frame will provide the same visual appearance as one constructed of conventional materials. At the same time, the opaque acrylic window will give the same appearance as an opaque glass but with the added benefit of RF transmittance.

STEALTH's business is based on the ability to match critical architectural elements as well as provide RF performance to the carriers to assist in building operational sites that benefit both the carrier and landowner.

If you have any question or concerns please feel free to contact me at any time.

Brad Balkham

Project Manager STEALTH®

6549 Fain Blvd. N. Charleston, SC 29406 O: 843-207-8000 x133 F: 843-207-0207

Figure 11: Correspondence



COMPASS Technology Services, Inc • 5449 Bells Ferry Road • Acworth, GA 30102

Phone: 770-701-2500 • Fax: 770-701-2501

July 17, 2009

Jessica Andrews Network Building & Consulting, LLC 7380 Coca Cola Drive Suite 106 Hanover, MD 21076

RE: T-Mobile site WAC357 "Seminary"

Equipment Installation Seminary Rad Alexandria, VA 22304

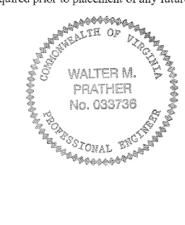
Dear Jessica,

Compass Technology Services is pleased to submit this structural assessment for the proposed T-Mobile equipment installation described above. Our assessment is based on our review of the existing building structure. It is assumed that the existing building was properly designed and constructed, has been well maintained and is in good structural condition.

The proposed strut equipment frames to be installed inside the steeple are designed to support the proposed equipment cabinets and antennas. These framing components will not affect the building's resistance to wind loading and will not adversely impact the building's structural integrity.

It is our opinion that the existing building structure <u>can</u> safely support the structural loads generated by the equipment listed in Table 1, provided the equipment is installed as shown in the final construction drawings issued by Compass Technology Services. Please note that additional engineering review will be required prior to placement of any future equipment.

W. Mathews Prather, P.E.



COMPASS Technology Services, Inc.

Proprietary & Confidential

Figure 12: Correspondence from Structural Engineer

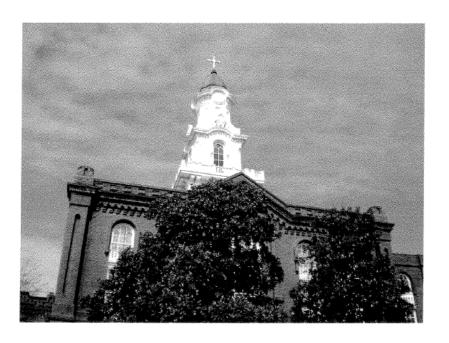


COMPASS Technology Services, Inc • 5449 Bells Ferry Road • Acworth, GA 30102

Phone: 770-701-2500 • Fax: 770-701-2501

TABLE 1 - Equipment Loading

(6) Andrew TMBXX-6516-R2M Panel antennas (6) Ericsson KRY 11271/X TMA's (3) Andrew ETW200VA12UB TMA's (12) 7/8" Coaxial cables (6) Ericsson RBS 2109 radio cabinets (3) Ericsson RBS 3308 radio cabinets



COMPASS Technology Services, Inc.

Proprietary & Confidential