

Docket Item # 4
BAR CASE# 2009-0035

BAR Meeting
June 17, 2009

ISSUE: Alterations and Waiver of HVAC Screening

APPLICANT: Kenneth Carpi

LOCATION: 202 Duke Street

ZONE: RM/Residential

STAFF RECOMMENDATION: Staff recommends approval of the Certificate of Appropriateness to relocate the HVAC condenser units with the following condition:

1. That the HVAC condenser units are installed in the yard of 202 Duke Street or on the second level rooftop deck with the location of the units to be reviewed and approved by Staff.

In the alternative, if the Board supports the installation of the HVAC condenser units on the roof structure, Staff recommends approval of the Certificate of Appropriateness and Waiver of Screening with the following conditions:

1. That the applicant provides verification on the plat submitted for building permit that the rooftop HVAC condenser units comply with the rear yard setback of 16 feet to the center line of the alley in order to be in compliance with the zoning ordinance.
2. That the applicant provides drawings detailing how the condenser units will be affixed to the roof.
3. That the condenser units be painted with a color which matches the dominant color of the brickwork.

***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.

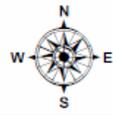
****BUILDING PERMIT NOTE:** Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Building and Fire Code Administration (including signs). The applicant is responsible for obtaining all necessary construction permits after receiving Board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

further information.



BAR CASE #2009-0035

6/17/2009



UPDATE:

Since the April 1, 2009 public hearing, the applicant has provided additional information to address concerns that were raised by the Board and Staff and has met with some of the adjacent neighbors. The applicant continues to seek approval for the HVAC condenser unit's location as originally proposed.

I. ISSUE:

The applicant is requesting approval of a Certificate of Appropriateness and waiver of HVAC screening to mount two, HVAC condensers on the rooftop of the rear portion of the house at 202 Duke Street. The condensers will be relocated near the existing chimney on the existing shed roof addition that is adjacent to the rear alley. The dimensions of the two condensers are (1) 23 inches wide x 28 inches deep x 22 inches high, and (2) 29 inches wide by 34 inches deep x 27 inches high.

II. HISTORY:

According to Ethelyn Cox in Historic Alexandria Street by Street, 202 Duke Street was built by William Mitchell between 1795 and 1805. This Alexandria flounder house never acquired an addition fronting the street, hence the large front yard and lack of rear yard.

Prior Approvals:

In 1996, the Board approved demolition/capsulation, a rear addition and alterations to this property (BAR Case #95-0012 & 0013, 1/17/1996). *These alterations included raising the height of the shed roof of the subject addition and installing a new roof structure.* Later, the Board subsequently approved alterations to the previously approved plans (BAR Case #96-0197, 9/18/1996).

In September 2007, the BAR approved a five foot six inch by seven foot shed for the subject property. The shed was approved with a sloped roof with the high side to be constructed against the west brick garden wall and the low side facing east into the yard. The approved materials included a standing seam copper roof and "antique" brick veneer walls.

III. ANALYSIS:

The applicant must confirm the rooftop HVAC units comply with the rear yard setback of sixteen (16) feet to the center line of the alley to be in compliance with zoning.

The Board first reviewed this application at its April 1, 2009 public hearing. At this hearing the Board was provided written and verbal testimony from citizens and civic groups expressing their concerns with the potential effects the condenser unit's weight could have on the structural integrity of the roof and the visibility of the units proposed location from the public rights-of-way.

After a discussion with the applicant, the Board deferred this item for further study in order to provide the applicant an opportunity to: (1) Meet with the neighbors. (2) Study the property for possible alternative locations for the condenser units. (3) If determined the current location is the only viable location for the units, evaluate the current roof structure for capacity. (4) Provide

documentation of potential visual impacts to the existing streetscape.

The Board has been provided correspondence from Mr. Carpi, the applicant (attached page 16) addressing the above issues from the April 1, 2009 hearing. In summary, the applicant desires to maintain the current proposed location for the condenser units, as he believes it is the best location for the needs of the property owner.

The *Design Guidelines* describe HVAC equipment as an “important contemporary functional element of a structure” and “such equipment can have an important effect on the overall visual composition of a historic building and, if not appropriately located, may be a visual disruption of the skyline and a unified building design.” It is recommended that “to the extent possible HVAC equipment should be hidden from view.” The *Guidelines* further explain that “HVAC equipment can sometimes be located on the roof of a historic structure. However...roof rafters in a historic structure may not be able to carry the additional weight of an HVAC compressor.” (*Design Guidelines*, Doors - Page 1 & 2).

The installation of condensers on rooftops of any historic building is a challenging issue within the historic district. The Board must evaluate its impact to the structural integrity of the individual historic resource upon which it is being mounted, ensure that the installation of the equipment does not damage/alter a historic roof or compromise the architectural integrity of the historic district’s streetscape.

The revised application includes additional documentation from the applicant confirming that the roof form upon which the condensers will be placed was reconstructed and raised approximately four feet in height per the 1996 BAR approval. As this roof structure is new and the material below the standing seam roof is not historic framing, Staff is not concerned with penetration into this roof structure, as previously identified in the April 1, 2009 report. However, any structural system, contemporary or historic needs to be analyzed to determine if it can support the proposed additional “dead weight” without requiring an alteration to its structural system. Therefore, if the Board supports the application as submitted, the applicant has offered to obtain certification from a structural engineer documenting that the proposed condenser units can be placed upon the subject roof structure without any negative impacts to the roof or wall systems.

The revised application also provides the Board with additional information on the potential visual impacts that the proposed condenser’s rooftop location will have to the existing historic district’s streetscape. The attached photo montage documents the applicant’s mock-up created at the request of Staff. The details of the mock-up included installing a single cardboard box measuring approximately the size of one of the two proposed condenser units and generating the attached photo collection. Although Staff would have hoped that this mock-up would have been a true representation of the proposed conditions, not utilizing only one box to represent the two units, we commend the applicant for providing this level of visual detail for the neighbors and the BAR. As previously stated in the April 1, 2009 Staff report, the *Design Guidelines* encourage HVAC equipment to be “hidden from view.” Affixing HVAC equipment on a roof structure is viewed by the *Guidelines* as a last resort, when conditions prevent an applicant from installing the equipment

elsewhere on the property. Since there are locations in the garden for these units to be appropriately installed, Staff continues to recommend that the compressor units be located in an inconspicuous location on ground level. If the applicant strongly desires not to install the units on the ground level, an above-ground alternative is to install the condenser units on the dwelling's second level rooftop deck, which is surrounded by an existing wood balustrade. However, if the Board finds the proposed roof mounted units suitable and approves the units to be installed on the roof structure, upon review of the photographs taken during the mock-up, Staff feels the condensers will not be highly visible from the existing rights-of-way.

The *Zoning Ordinance* requires that a rooftop HVAC unit be screened from view. However, the *Ordinance* allows the Board to waive this requirement should they determine screening to be more visually obtrusive. If the Board supports a rooftop installation, Staff recommends the Board support the applicant's request for Waiver of Screening, as an enclosure surrounding the condensers will add more mass and create more visual bulk. Additionally, Staff suggests that if the Board approves this waiver, the condensers are camouflaged by painting them the dominant color in the wall and chimney's brickwork.

IV. STAFF RECOMMENDATION: Staff recommends approval of the Certificate of Appropriateness to relocate the HVAC condenser units with the following condition:

1. That the HVAC condenser units are installed in the yard of 202 Duke Street or on the second level rooftop deck with the location of the units to be reviewed and approved by Staff.

In the alternative, if the Board supports the installation of the HVAC condenser units on the roof structure, Staff recommends approval of the Certificate of Appropriateness and Waiver of Screening with the following conditions:

1. That the applicant provides verification on the plat submitted for building permit that the rooftop HVAC condenser units comply with the rear yard setback of 16 feet to the center line of the alley in order to be in compliance with the zoning ordinance.
2. That the applicant provides drawings detailing how the condenser units will be affixed to the roof.
3. That the condenser units be painted with a color which matches the dominant color of the brickwork.

V. CITY DEPARTMENT COMMENTS:

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

Code Administration:

- C1. Alterations to the existing structure must comply with the 2006 edition of the Uniform Statewide Building Code (USBC).
- C2. A Building / Mechanical / Electrical permit is required for the proposed project.
- C3. Structural calculations are required to verify the ability of the existing roof to support the additional weight of the A/C unit.
- C4. Guardrail structural design and construction must comply with USBC.
- C5. Where appliances are located $\leq 10'$ from a roof edge or open side with a drop $\geq 24"$, guards shall be provided (USBC 2801.1)

Historic Alexandria:

R Approve.

Alexandria Archaeology:

No Comments.

Transportation and Environmental Services:

No Comments.

VI. IMAGES:



Figure 1: View of Property from Public ROW



Figure 2: View of Property from Public ROW

**Location of Condenser
Units (Toward Rear of
Roof Structure)**

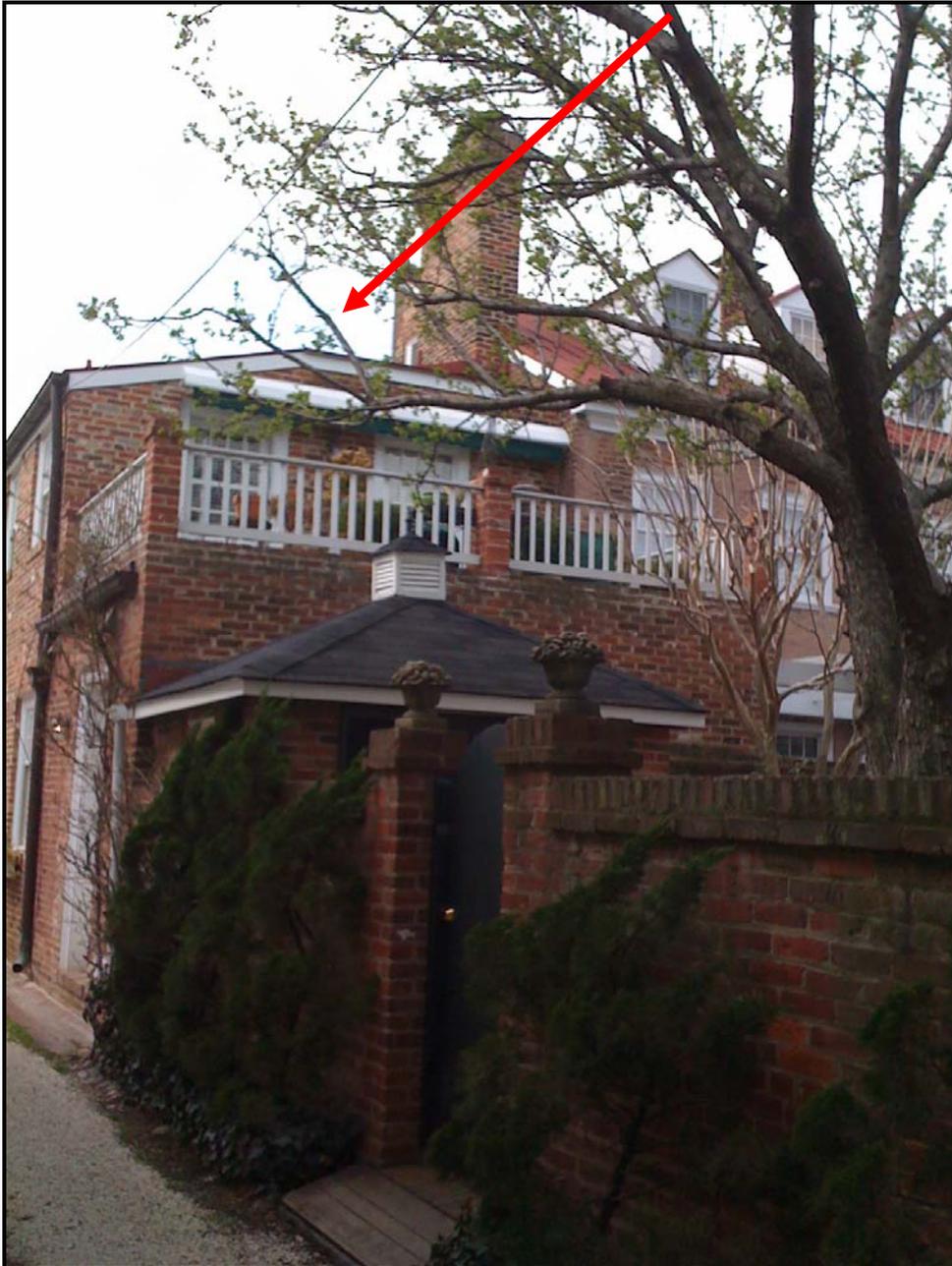


Figure 3: View of Property from Public Alley

Approximate Location of
Condenser Units



Figure 4: View of Rear Addition



Figure 5: Ariel Views of Subject Property

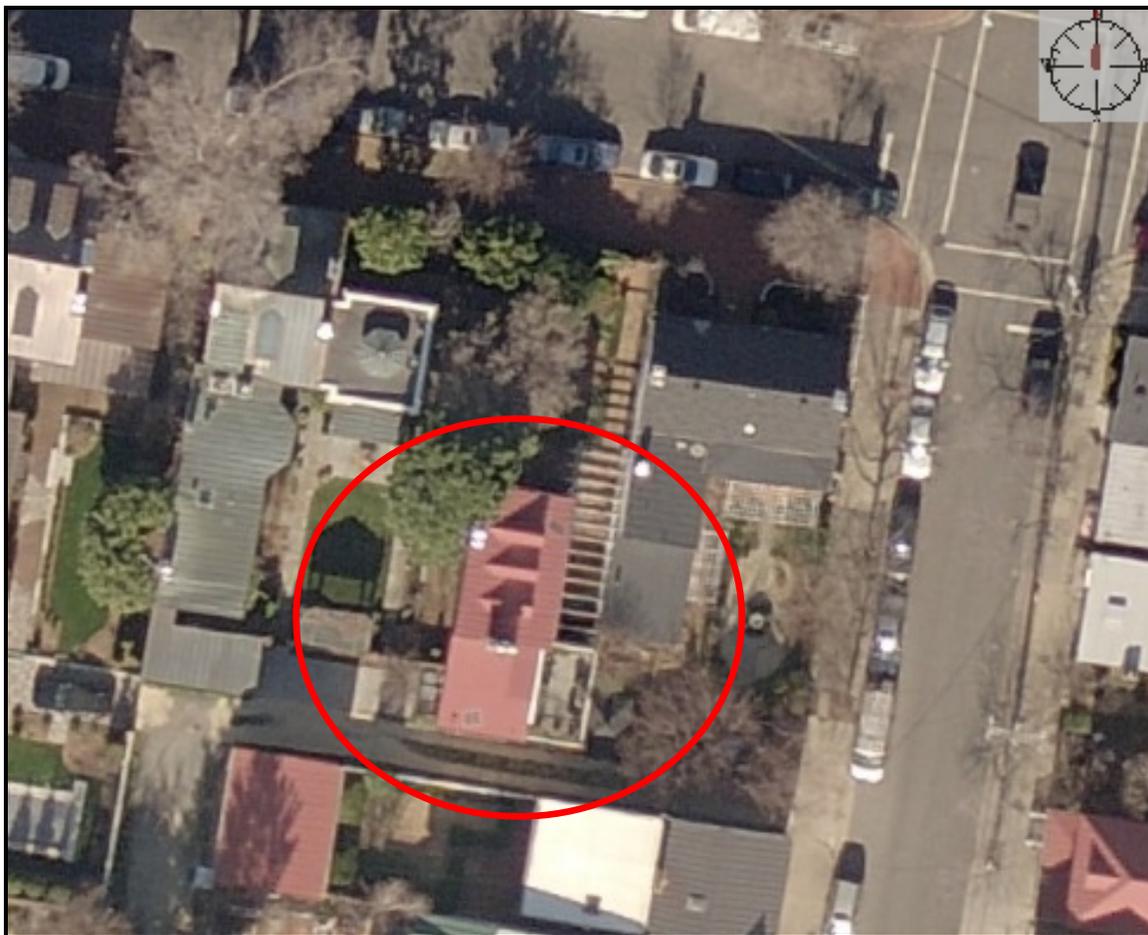


Figure 6: Aerial View of Subject Property

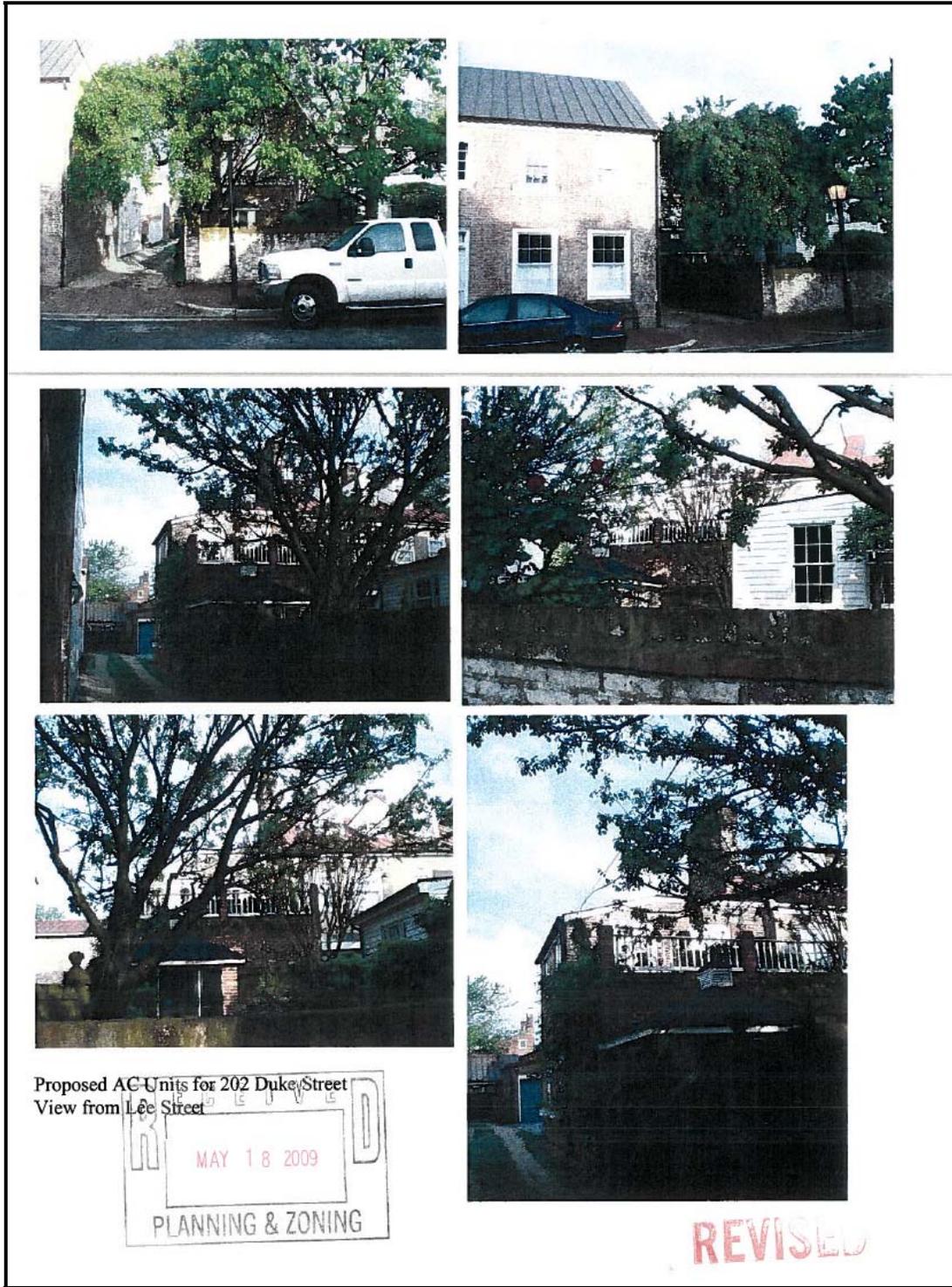


Figure 7: Applicant's Submitted Photos



Proposed AC Units for 202 Duke Street
View from back of house



View from West end of alley looking East to Lee
Street

Figure 8: Applicant's Submitted Photos

202 Duke Street

Dimensions of HVAC Condensers to be relocated:

Unit #1 – 23"W x 28"D x 22"H

Unit #2 – 29"W x 34"D x 27"H

Figure 9: Dimensions of Proposed Condenser Units

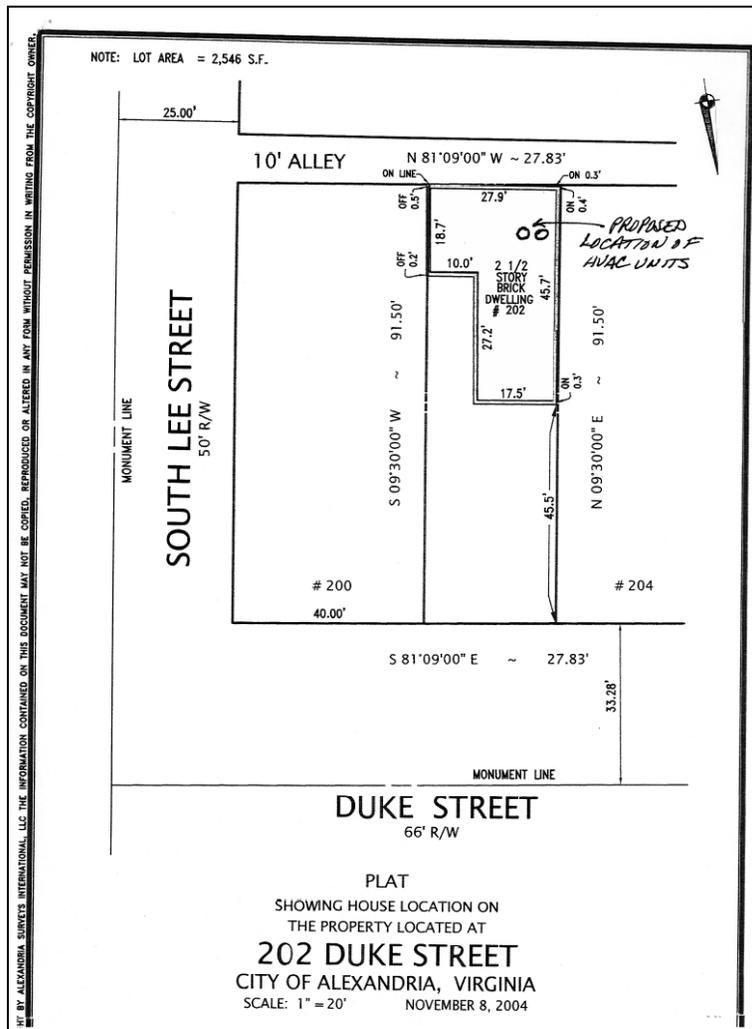


Figure 10: Location of Condenser Units

May 18, 2009

Michele Oaks, Urban Planner
Historic Preservation Office
City of Alexandria
301 King Street, Room 2100
Alexandria, Virginia 22314

Dear Ms. Oaks:

Following up on our conversations and email, I am requesting that the BAR Case # 2009-0035 be placed on the June 17 Board of Architectural Review Hearing Agenda.

The matter was deferred for further study at the April 1, 2009 hearing. Subsequent to that hearing we have had further discussions with all of our immediate neighbors; placed a mock-up of A/C units on the roof and photographed the mock-up; and we have considered the options and issues raised in the staff report of April 1.

The review and mock-up have illustrated two points:

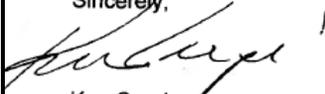
- The units will be minimally visible from the public rights of way and, if painted to match the roof color, will be nearly indistinguishable.
- The options mentioned in the staff report of April 1 in some cases would be more visible from the public right of way, and other alternatives would actually intrude more (primarily noise) upon our neighbors.

Accordingly, after further review and discussion with our neighbors, we are requesting that the application be approved with the following conditions:

- The units are painted to match the color of the roof.
- Certification from a structural engineer that the existing roof can safely support the units. The existing roof was a new structure in 1996. As can be seen from the last photo on the attachment, the structure was raised approximately 4 feet (see change in brick) in 1996 and a complete new roof structure was put in place.

Please let me know if you have questions or need additional information.

Sincerely,



Ken Carpi
202 Duke Street
Alexandria, VA 22314

Attachment

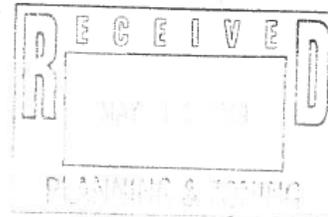


Figure 11: Applicants Summary Letter