

Docket Item # 4
BAR CASE# 2009-0035

BAR Meeting
March 3, 2010

ISSUE: Alterations and Waiver of HVAC Screening

APPLICANT: Lynn Rogerson Lewis

LOCATION: 202 Duke Street

ZONE: RM/Residential

STAFF RECOMMENDATION: Staff recommends approval of the Certificate of Appropriateness and Waiver of HVAC Screening Requirement with the following conditions:

1. That the condenser units be painted an oxide red color to match the adjacent standing seam roof.
2. That the applicant verify 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 compliance with the zoning ordinance.
3. That a structural engineer submit load calculations with the building permit application.

****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 final approval if the work is not commenced and diligently and substantially pursued by the end of that 12-month period.

****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 and waiver of HVAC screening requirement to mount two HVAC condensers on the rooftop of the rear portion of the house at 202 Duke Street. The condensers will be located near the existing chimney on the existing shed roof addition adjacent to the alley in the rear. 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.

UPDATE:

The application was first reviewed at the OHAD Board's April 1, 2009 public hearing. At this hearing the Board was provided written and verbal testimony from citizens and civic groups expressing 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 and study the property for possible alternative locations for the condenser units; and (2) If the rooftop is determined to be the only viable location for the units, then they were to evaluate the current roof structure for capacity and provide documentation of potential visual impacts to the existing streetscape.

The Board has been provided correspondence from Mr. Carpi, the previous owner/applicant (attached figure #8) addressing the above issues from the April 1, 2009 hearing.

Since the June 17, 2009 public hearing, the applicant has provided additional information to address concerns that were raised by the Board and installed a mock-up of the condenser units on the roof. Staff has met with several of the adjacent neighbors and with the Chair of the Historic Restoration & Preservation Commission for clarification of the conditions of the open space easement. The current property owners, Mr. & Mrs. Rogerson Lewis, desire to place the subject condenser units in the originally proposed location on the rear shed addition's south elevation roof slope.

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.* 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:

“HVAC equipment is an important contemporary functional element of a structure. At the same time, 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. To the extent possible HVAC equipment should be hidden from view.” When units cannot be located on the ground “...HVAC equipment can sometimes be located on the roof of a historic structure.” (*Design Guidelines*, HVAC Equipment - Page 1 & 2).

Ground Installation

Where possible, Staff’s preference is to locate HVAC units on the ground and out of public view. Although noise is not within the BAR’s purview, staff also generally encourages applicants to locate units where they will not be a nuisance to neighbors. However, in this instance, there is no space available on the ground. The Alexandria Historic Restoration & Preservation Commission holds an open space easement on the entire yard area north of the building (figure #9). During extensive discussions, Staff was informed by the Chair of the commission that HVAC condensers are not allowed within the easement (correspondence attached). The only remaining ground level space is a narrow side yard which leads to the front door and basement stairs. As is evident in the attached photograph taken by staff (figure #5), there is no practical location within this side yard for two HVAC condensers.

Roof Installation

The installation of HVAC condensers on the roof of any historic building is challenging. The Board must insure that installation of the equipment does not damage/alter historic roof materials or create a silhouette against the skyline that visually distracts from the historic architectural roof form.

The revised application includes additional documentation from the applicant confirming that the existing roof form upon which the condensers will be placed was reconstructed and raised approximately four feet in height in a 1996 BAR approval (BAR#1996-0197). As this roof structure is new and the material below the standing seam roof is not historic framing, Staff is not concerned with penetrations, as previously identified in the April 1, 2009 report. Although the structural system is not visible and, therefore, not within the scope of the Board’s review, any structural system, contemporary or historic, must be analyzed to determine if it can support the proposed additional weight. As part of the regular building permit application, Code Administration will require a structural engineer to certify that the existing roof structure will support the units or to design additional internal bracing. The applicant must also confirm on the building permit application plat that the HVAC units comply with the rear yard setback of sixteen feet from the center line of the alley per the *Zoning Ordinance*.

Rooftop Mechanical Screening

The revised application provides the Board with additional information on the potential visual effect of the condensers on the architectural character of the existing roof, as seen from the public way on South Lee Street. The attached photos show the applicant's cardboard mock-up, installed on 2/25/10 at the request of Staff (figures #1 & 2).

As previously stated, the *Design Guidelines* encourage HVAC equipment to be "hidden from view."

The *Alexandria Zoning Ordinance* also requires that any rooftop HVAC unit in the City be screened from view. However, in general, staff believes that rooftop mechanical screens are visually problematic and rarely well integrated with the architectural character of a historic structure. Therefore, the *Zoning Ordinance* allows the Board to waive this requirement, should they determine that the mass of the screening would be more visually obtrusive than the units themselves.

As in the previous report, Staff continues to believe that the proposed condensing units are minimally visible from the public way, even without taking into account the several trees that effectively screen the rear of this property, and would draw less attention to themselves if they were simply painted oxide red to match the adjacent roof/wall surface.

However, Staff is aware of the substantial neighborhood concern for the visibility of these units and has no strong objection to the installation of a screen designed to match the existing railing of the second floor terrace on this dwelling, if that is the Board's preference. The suggested wood railing is translucent enough to obscure the units while the balusters are open enough to allow adequate airflow even if the railing is placed relatively close to the condenser. There is a flat spot on the slope of the roof which would create the logical architectural illusion of a third floor terrace. The applicant has no objection to installation of the railing and has agreed to work with staff on the details, if the waiver of rooftop screening requirement is denied by the Board.

IV. STAFF RECOMMENDATION: Staff recommends approval of the Certificate of Appropriateness and Waiver of Screening Requirement with the following conditions:

1. That the condenser units be painted an oxide red color to match the adjacent standing seam roof.
2. That the applicant verify 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 compliance with the *Zoning Ordinance*.
3. That a structural engineer submit load calculations with the building permit application.

STAFF:

Michele Oaks, Historic Preservation Planner, Planning & Zoning
Al Cox, Architect, Historic Preservation Manager, Planning & Zoning

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 $\wedge \geq 24"$, 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 rooftop condenser mock-up from Lee St. looking west through the private alley



Figure 2: View of rooftop condenser mock-up from Lee Street ROW looking west

**Approximate Location of
Proposed Condenser Units**



Figure 3: View of rear addition showing new brick from previous alteration



Figure 4: View of Front Yard



Figure 5: View of side yard at entrance – Portion not within open space easement

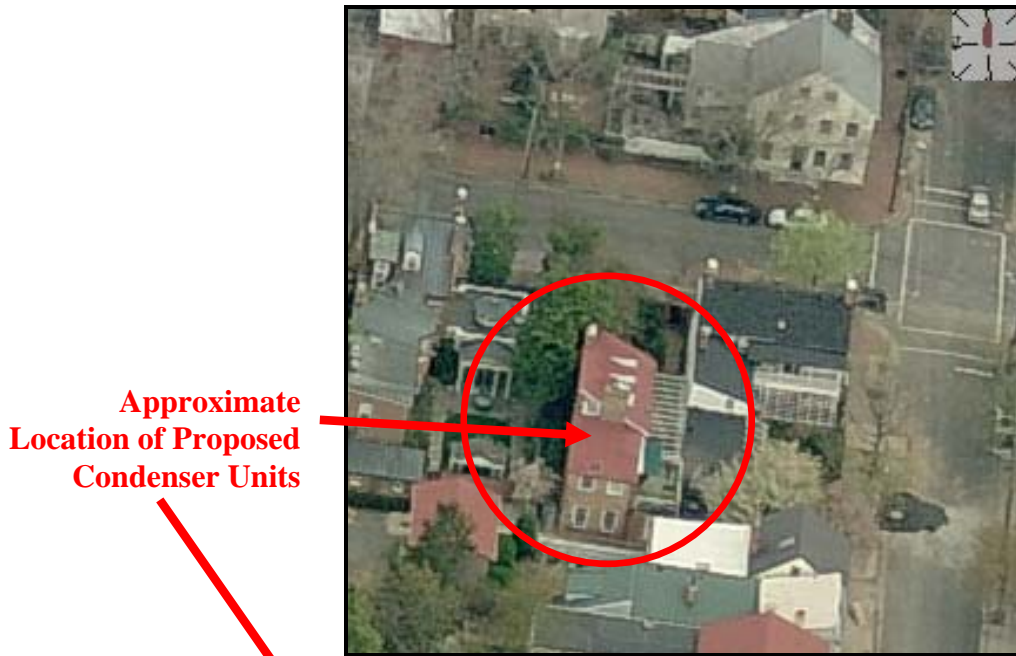
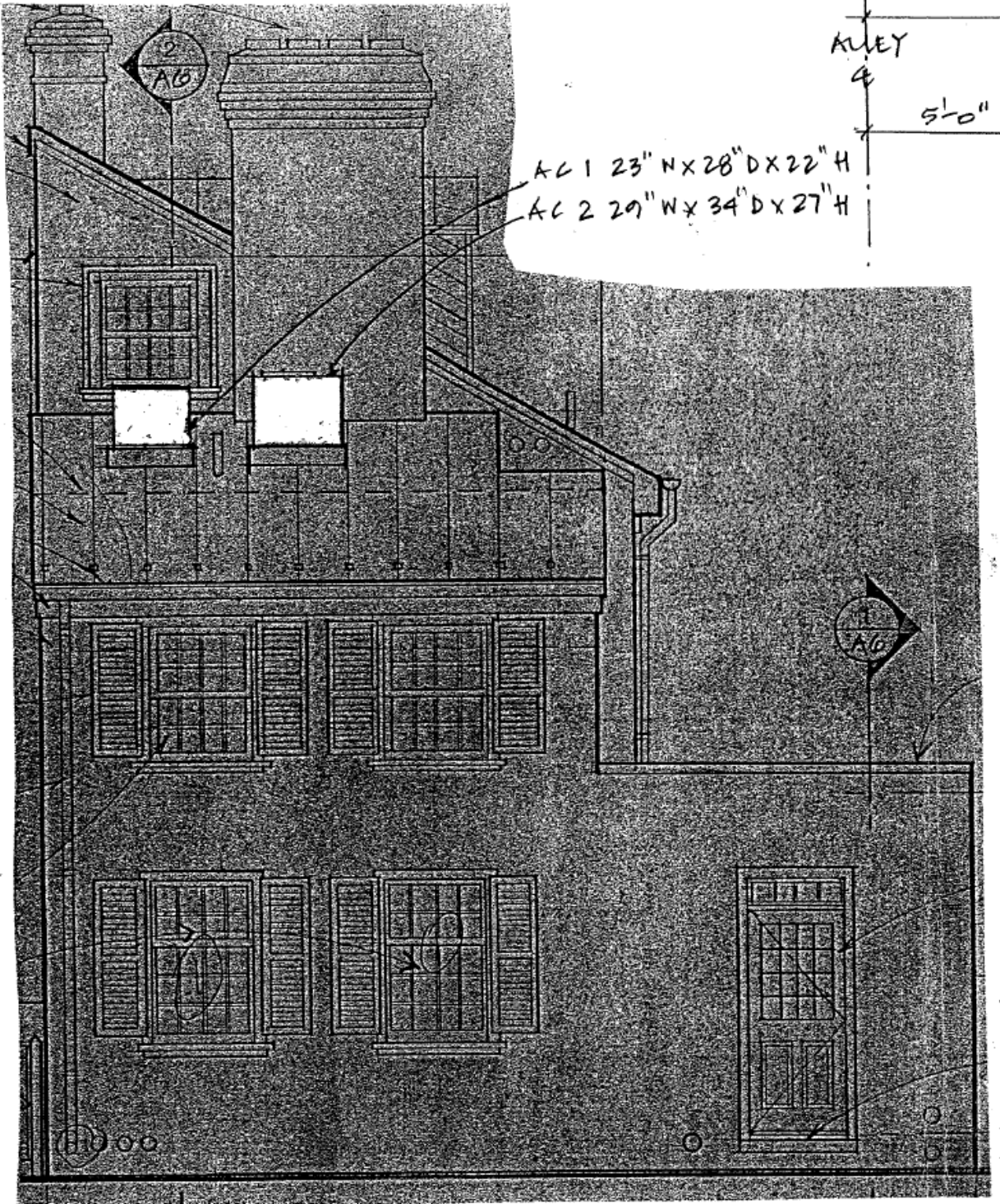
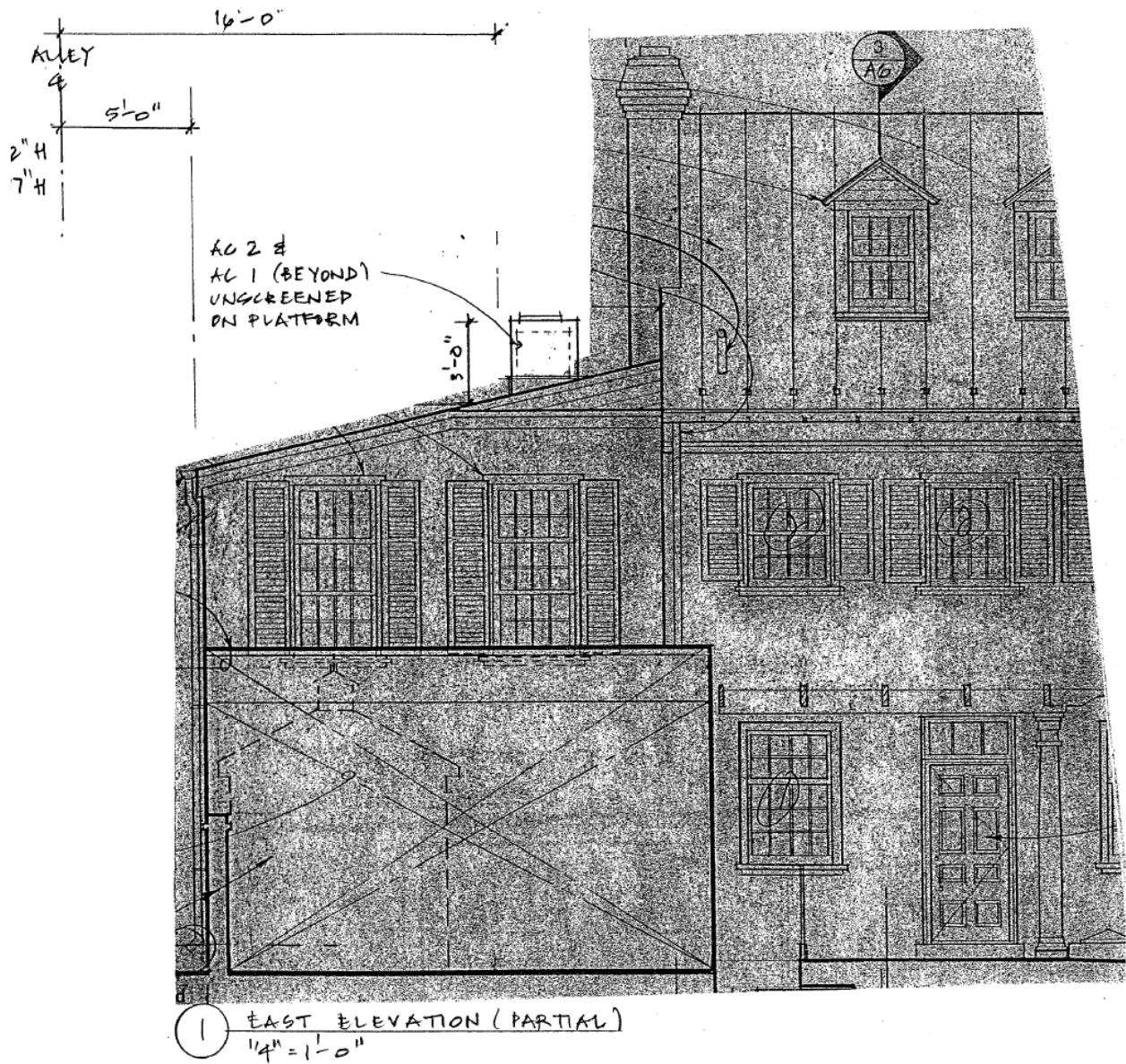


Figure 6: Ariel Views of Subject Property



2 SOUTH ELEVATION
1/4" = 1'-0"



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 7: Dimensions of Proposed 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:

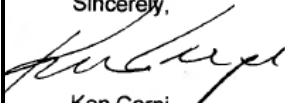
- The units will be minimally visible from the public rights of way and, if painted to match the roof color, will be nearly indistinguishable.
- The options mentioned in the staff report of April 1 in some cases would be more visible from the public right of way, and other alternatives would actually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

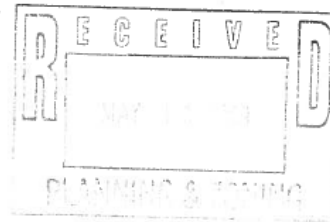


Figure 8: Previous Owner's Summary Letter

ALEXANDRIA HISTORICAL RESTORATION
AND PRESERVATION COMMISSION



LLOYD HOGUE
OFFICE OF HISTORIC ALEXANDRIA
220 NORTH WASHINGTON STREET
ALEXANDRIA, VA 22314-2521
(703) 838-4554

MEMORANDUM

To: OHAD Board of Architectural Review

From: Charles L. Trozzo, Chairman

Date: October 21, 2009

Subject: 202 Duke Street proposed A/C units

The Alexandria Historical Restoration and Preservation Commission is the grantee of an open space easement on the property at 202 Duke Street.

We have reviewed the proposal to locate the air conditioner units on the sloped roof of the addition to the south wall of the main block of the structure and determined that that location does not conflict with the terms of the easement dated December 15, 2004.

The attached plat indicates that the portion of the property covered by the easement lies between the east and west garden walls, from the north wall of the main block of the house to the north wall of the garden. The leg of open space to the east of the flounder is not included in the easement. However, the Commission believes that placing objects such as being considered in that space would adversely affect the quality of the easement because any such objects would detract from views of the overall garden once one makes entry at the gate or stands at most points in the open space covered by the easement.

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WHEREAS, Grantee is authorized to accept and hold easements on open space and historic property;

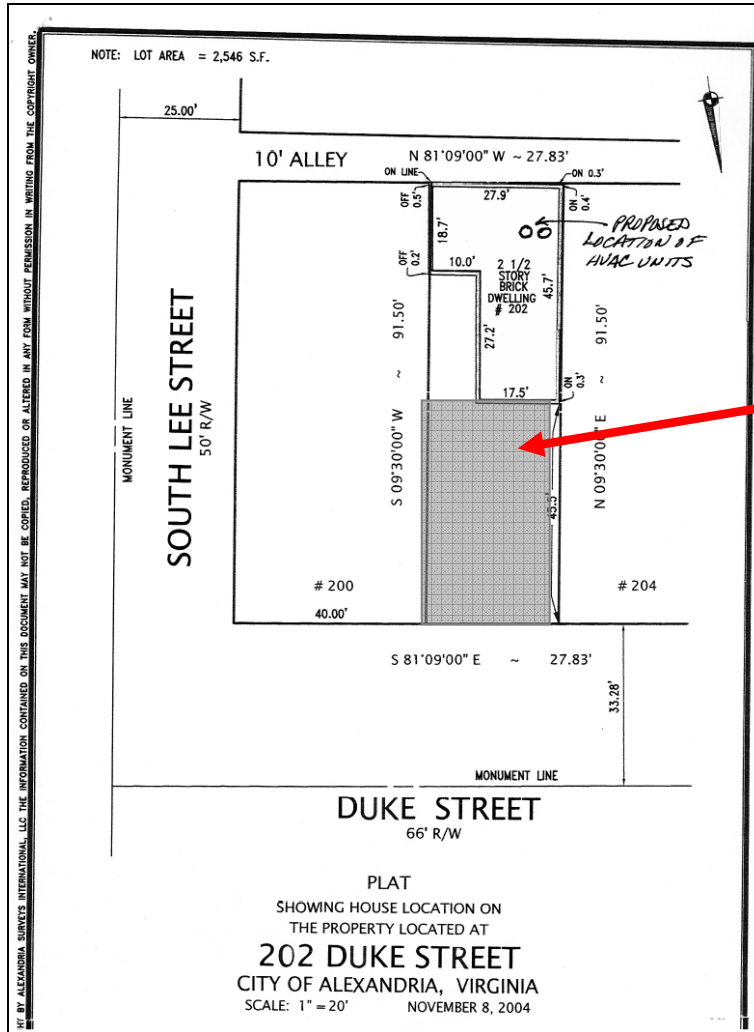
WHEREAS, to this end, Grantors desires to grant to Grantee, and Grantee desires to accept, an open space easement on the Property;

NOW THEREFORE, in consideration of Ten Dollars (\$10.00) and other good and valuable consideration, receipt of which is hereby acknowledged, Grantors do hereby grant and convey to the Grantee an easement in gross in perpetuity in and over a portion of the Property, identified as 202 Duke Street in the City of Alexandria, Virginia, which Easement is more particularly described on Exhibit A and depicted on Exhibit B.

The Easement shall constitute a binding servitude upon the Property, but not personal to Grantors, and to that end, Grantors and Grantee covenant, on behalf of themselves, their successors and assigns, such covenants being deemed as a binding servitude, in perpetuity, with the land, but not personal to Grantors, to do (and refrain from doing) upon the Property each of the following stipulations, which contribute to the public purpose in that they aid significantly in the preservation of open space land.

1. No extension of the existing structures or erection of additional structures within the Easement shall be permitted except that Grantors shall be permitted to construct accessory garden structures, including but not limited to pergolas, gazebos, maintenance sheds, awnings, and water features within the Easement.
2. Notwithstanding the provisions of paragraph 1 above, the open space land of the Property may be fully used as a residential yard and/or garden, and planted with such plants and trees and otherwise landscaped as Grantors may choose from time to time.
3. Division of the Property in any manner is prohibited.
4. No new overhead utility transmission lines, except those reasonably necessary for the existing structures, may be permitted on the Easement. Utility transmission lines subject to utility easements already recorded may be permitted.
5. Grantors agree to allow public viewing of the open space within the Easement for one day per year from 9:00 a.m. to 5:00 p.m. The scheduling of the date of any such opening shall be by mutual consent of Grantors and Grantee. Any such opening may be subject to restrictions mutually agreed upon as reasonably designed for the protection and maintenance of the Property. Such opening may also be subject to a reasonable fee, if any, as approved by the Grantee.
6. Grantors agree that representatives of Grantee shall be permitted to inspect the open space area annually. Inspection of the Property will be made at a time mutually agreed upon by Grantors and Grantee, and Grantors shall not withhold unreasonably his/her consent in determining a date and time for such inspection.

(Excerpt from Easement)



**Boundaries of
Preservation
Easement**

Figure 9: Location of Condenser Units