

Docket Item # 3  
BAR CASE # 2011-0280

BAR Meeting  
October 26, 2011

**ISSUE:** After-the-Fact Replacement of Siding

**APPLICANT:** James Sisco

**LOCATION:** 620 North Patrick Street

**ZONE:** RB/Residential

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**STAFF RECOMMENDATION:** Staff recommends approval of the Certificate of Appropriateness to retain the installed fiber cement composition siding on the sides and rear of the dwelling but to remove it from the front elevation and replace it with 6” painted wood German profile siding to match the original.

**\*\*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 siding or roofing over 100 square feet, windows and 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, 703-746-4200 for further information.



**I. ISSUE:**

The applicant is requesting approval of an after-the-fact Certificate of Appropriateness for the replacement of wood and vinyl siding on all elevations of the existing house with new, wood-grain pattern HardiePlank brand fiber-cement siding.

Prior to the violation, the exterior finish materials were painted wood, German lap siding on the front façade and wood German lap siding on much of the side elevations. Vinyl siding, approved by the BAR in 1986, clad the side elevations on top of the wood siding and covered the one-story, 1986 garage addition in the rear.

***Background***

1984	Parker-Gray Historic District Local District Designated
March 12, 1986	BAR approved rear garage addition and installation of vinyl siding on side elevations only (BAR86-24PG) (Deferred from 2/26/86 hearing as case BAR86-007PG – the first case on newly formed PG BAR docket)
October 7, 1999	BAR Administrative Approval for replacement in-kind of German siding on front elevation of house (BLD99-02866)
March 2003	Applicant purchased property, per City real estate records
June 16, 2011	The applicant initially approached BAR Staff with the desire to construct an addition to his home. During this consultation, the applicant addressed previous and future exterior projects, including siding replacement. Staff explained the BAR’s replacement and repair policy and procedures and the options that the Staff could approve administratively, as well as the options which require a full BAR application review. During this meeting, the applicant informed staff he had replaced the existing wood German siding on the front elevation of the home with HardiePlank clapboard siding in 2008, and stated that he was not aware of the Historic District regulations. The applicant was cautioned that removal of any siding without BAR approval was a violation and not to undertake any exterior alterations or demolition without first contacting the Historic Preservation Office.
September 6, 2011	Staff observed that the applicant was removing the vinyl and wood German siding and replacing it with HardiePlank board siding. After conducting a site visit and verifying that the work, which was approximately 80% complete, did not comply with Historic Preservation Ordinance (10-103 Certificate of Appropriateness Required), Staff issued a Stop Work Order, and a Notice of Violation (Ticket # 4311) with \$500.00 fine.

## **II. HISTORY:**

The two-story, two-bay, freestanding, shed roofed, wood frame Italianate-style Victorian townhouse is currently clad in HardiePlank brand fiber cement clapboard siding with a wood grain pattern, but historically had painted wood 1x6 German profile siding. The front façade contains double-hung 1/1 windows and a four-panel door with single-light transom and is ornamented with a wood, denticulated and bracketed cornice and pedimented door and window lintels. At the center of each lintel is a combination of applied horizontal decorative elements, including a bulls-eye ornament at the center, typical of the late 19<sup>th</sup> century woodwork.

The original house was constructed c1880 with a one-story garage addition constructed in 1986.

## **III. ANALYSIS:**

The applicant in this case, prior to 2008, had wood German siding on the front and side elevations of his home. The side elevations were additionally covered with vinyl siding, approved by the BAR in 1986 when the rear, one-car garage was constructed. In 2008, without BAR or Staff approval, the applicant removed the wood German siding on the front façade and replaced it with wood-grain 5/16" thick HardiePlank clapboard siding and replaced the window and door trim. In September of 2011, without BAR or Staff approval, the applicant removed the wood and vinyl siding from the side elevations and the vinyl siding from the side and rear elevations of the garage and replaced it with wood-grain 5/16" thick HardiePlank clapboard siding. The removal of wood siding on a c1880s structure and its replacement with synthetic or composite materials is not in compliance with the recently adopted Modern and Sustainable Materials siding policy and is the subject of this application.

### ***Procedures/ Policies***

The BAR has specific procedures and policies for siding replacement within the historic district. The BAR's policies were formally adopted in the *Design Guidelines* in 1992 and expanded with the later adoption of the *Fiber Cement Policy* by both Boards. The Modern and Sustainable Materials Ad Hoc Work Group recently reviewed and revised a range of BAR policies to expand the type of materials appropriate for the historic districts which were adopted as the *Minor Architectural Elements Policy* in March 2011. The current siding policy is stated below:

#### **Siding & Trim**

The replacement siding policy expands upon the Board's existing fiber cement policy and past practice, as follows:

- Existing early siding must be preserved wherever possible.
- Where synthetic siding, such as Insulbrick, Formstone, aluminum or vinyl, is removed, and early siding is uncovered below, retention, repair and selective replacement of the early siding is required. Where staff finds in the field that the early siding is too damaged to be repaired, new siding must match the material, profile, exposure and texture of the early siding.
- Fiber cement siding and synthetic/composite trim may only be installed on buildings and additions constructed after 1975 and must have a smooth finish without a wood grain surface texture.
- Synthetic/composite trim may only be approved administratively in certain limited locations on early buildings, such as the fascia board behind gutters or a water table near grade, where wood trim is consistently exposed to moisture.
- Replacement siding/trim over 100 square feet requires a building permit

The standard BAR review procedure for alterations is initiated when a homeowner or contractor contacts the Historic Preservation office and describes their scope of work. For siding

replacement, BAR staff will conduct a site visit with the owner or contractor and evaluate all existing layers of siding on the structure. As outlined in the *Design Guidelines* and the *Minor Architectural Elements Policy*, if historic siding exists and is in good condition, as determined by Staff in the field, retention, repair and selective replacement of the historic siding with new matching wood siding, where necessary, is required. This is not simply an aesthetic desire to retain original building fabric. Wood siding from the late 19<sup>th</sup> century is often first growth Heart Pine which is durable, dry and holds paint very well. Retaining this material is a sustainable practice which potentially saves the property owner the cost of new siding material. However, if the condition of the historic siding is poor and retention is not practical, Staff will recommend that new wood siding in the same size and pattern be installed. If it is determined that the existing siding is not historic, and the original design of the siding for that property cannot be determined from physical or archival evidence, then the *Guidelines* recommend replacement with any historically appropriate wood siding profile.<sup>1</sup> If a homeowner does not agree with the Staff review and the analysis of their project, Staff will assist them with an application for a full BAR review.<sup>2</sup>

Staff is well aware that the Yellow Pine siding used locally in the past few decades is very poor quality and was often poorly installed by inexperienced contractors. Because the price of the siding material is a small percentage of the total project cost for professional installation and painting, Staff always recommends (but does not require) that the owner utilize Western Red Cedar, Cypress or a modern wood product which is either chemically or thermally treated and primed on all sides prior to installation. Because so many homeowners have had trouble with Yellow Pine siding, Staff last year encouraged a local lumber supplier to stock a sustainably harvested, pressure treated and pre-primed wood product which carries a 30 year warranty.

However, the Board's *Fiber Cement Policy* and *Minor Architectural Elements Policy* do allow the use of some substitute materials, such as fiber cement siding (HardiePlank brand being the most well-known) and to utilize synthetic/composite trim on buildings and additions constructed after 1975. These materials must have a **smooth finish** without a wood grain texture and Staff may only administratively approve the installation of these materials within these limited parameters. Furthermore, it should also be noted that the *Design Guidelines* continue to "strongly discourage synthetic siding materials such as aluminum or vinyl" and promote the "removal whenever possible synthetic materials and the reapplication of the original siding."

In order to inform property owners that they are in a historic district and should contact staff before embarking on an exterior construction project, a letter is sent to all property owners in late April each year with their property tax statements each year. (*A sample of the letter is attached to this report, see page 15 & 16.*)

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<sup>1</sup> The above review and approvals are all handled through the administrative approval process. The BAR administrative approval application is a \$75 processing fee and in most cases can be processed on the same day.

<sup>2</sup> The BAR application fee for alterations is \$250 and needs to be submitted four (4) weeks prior to public hearing.

**Compatibility**

When considering replacement siding on any historic building, the Board should evaluate the potential loss of a character-defining feature (such as the curved “drop” profile of German profile siding), the loss of the original (if any) historic material, the loss of a historically appropriate material texture (a smooth painted wood finish), and the overall impact to the district as a whole.

The *Design Guidelines* are clear that “siding is one of the principal character-defining elements of a building.” The removal of historic or a historically appropriate style siding from a building and replacement with an inappropriate siding diminishes a building’s architectural integrity and compromises one of the unique aspects of the building’s materials and craftsmanship. The character of a historic building is established by its form, size, placement on the lot, scale and decorative architectural features. It is also influenced by the original builder’s selection of materials, which includes their dimension, detailing, and other characteristics. This Italianate building’s primary character-defining materials include its wood, German siding, the bracketed cornice, windows and trim. "German siding" although certainly not unique to Alexandria, was a milled 1x6 lap siding that is thin above and thicker below with a concave bevel. It was utilized primarily in the late nineteenth and early twentieth centuries. Its profile and shadow lines are distinctive and afford a very different visual effect on the façade than a 5/16” thick fiber cement (HardiePlank) or beveled wood siding (see below).



German Siding



Fiber Cement (HardiePlank)



Beveled Wood Siding

Although, the German siding recently removed from the front elevation was installed in 1999, it was historically appropriate to the building’s architectural style and compatible with period of significance of the overall district. The applicant also removed wood siding, along with a vinyl siding overlay, from the side elevations. Because the German siding was removed and discarded prior to a staff evaluation, its age was not determined but it is possible that it dated to the late 19<sup>th</sup> century, first period of construction.

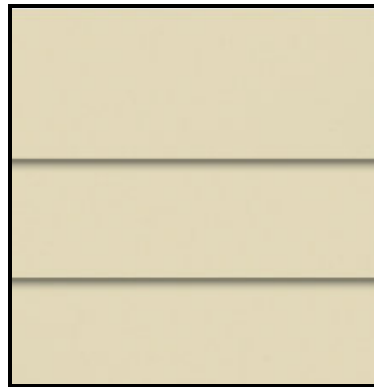
Even though the Board approved the installation of the vinyl siding on this and three adjacent houses in 1986, the Boards have since adopted the *Design Guidelines* and the *Minor Architectural Elements Policy* which require the retention of historic siding or a historically appropriate wood profile and do not permit the use of vinyl siding. In an effort to be fair and consistent throughout the district, all proposed alterations to the building must conform to these

policies or the owner must demonstrate to the Board at a hearing why there are unique circumstances that warrant deviation from the standard policies.

In this case, the applicant's fiber cement siding selection has been especially dramatic along the North Patrick Street due to the utilization of an embossed faux wood grain finish instead of a smooth finish (see below). This over-exaggerated wood graining is not seen on a typical painted wood façade. While Staff finds this fake wood grain finish to be unfortunate, the sides and rear of the townhouse are much less visible than the front and the finish will likely be muted following several coats of paint in the future, particularly if it is applied with a small roller, as seems to be the industry practice today.



Hardie Plank Wood Grain



Hardie Plank Smooth Finish

These changes to a building's character-defining features, such as removal of distinctive siding, always have an impact on more than just that singular building; they also alter the historic streetscape of the district. If historic or historically appropriate siding is replaced on a number of buildings in a historic district, the historic character of the entire district may be seriously compromised. This is particularly true in an urban district, such as Parker-Gray, where the buildings sit adjacent to the sidewalk and the siding material is able to be seen and touched by pedestrians.

However, Staff has found through recent field research that rough sawn flush weatherboard or simple clapboard siding was traditionally used on the side and rear elevations of Alexandria frame houses and the more expensive, high-style novelty siding profiles were used only on the more visible, front façade. Staff also has observed that the side elevations, due to their close proximity to adjoining houses, are a challenge for homeowners to physically access for maintenance and also lack the sun penetration and air circulation needed to prevent moisture accumulation and rot. For these reasons, Staff could reluctantly support retention of the existing fiber cement siding on the sides and rear of this townhouse.

Staff notes that the *Design Guidelines* enable the Parker-Gray BAR to approve "synthetic siding on case-by-case basis if there is minimum visibility of the building façade from a public way." Although the BAR has only recently reviewed and updated its siding policy as part of the *Minor Architectural Elements* supplement, Staff suggests that the Board could amend the policy, with administrative approval delegated to BAR staff. The policy could allow for installation of a smooth finish, fiber cement clapboard siding on rear and side elevations of buildings which do

not abut a street. Staff recommends that the policy still require retention of any original wood siding and wood siding on all elevations which abut public streets, such as buildings on corner lots.

As a footnote, in his BAR submission the applicant outlined his reasons for selecting HardiePlank instead of wood for his home. He explained that HardiePlank siding “significantly reduces noise, provides greater insulation than wood, and is relatively maintenance free.”<sup>3</sup> As the Material Analysis below indicates, fiber cement siding and wood siding provide the same rate of sound transmission between outdoor and indoor spaces. Additionally, typical wood siding has double the insulation value of fiber cement siding, and cedar siding almost three times the insulation value. Finally, no material is maintenance free. Both wood and fiber cement siding need to be maintained by painting and caulking around windows and doors. The vinyl siding previously used on the sides, long touted by the industry as never requiring maintenance, evidently allowed significant moisture penetration, causing the need for its replacement and structural repairs which had nothing to do with the present choice between wood or fiber cement siding.

**Material Analysis**

**R-Value (Insulation Value)<sup>4</sup>**

Fiber Cement (5/16 inch)	0.48
Wood Beveled Siding (1/2”)	0.81
Cedar Beveled Siding (1/2”)	1.35

**Acoustical Value (Outdoor-Indoor Transmission Class (OITC)) Value<sup>5</sup>**

(Rate of transmission of sound between outdoor and indoor spaces in a structure.  
 A higher OITC value represents improved sound isolation.)

Fiber Cement (Hardie)	25
Wood Siding	26
Cedar Siding	No Specific Data Found – From WCLA website “Important acoustical property of cedar is its ability to damp vibrations. It dense cellular network of minute interlocking pores converts sound energy into heat by frictional and viscoelastic resistance.”

**Cost per Square Foot<sup>6</sup>**

Fiber Cement Fiber (unpainted)	\$0.61
Pine German Siding	\$1.30
Cypress/Cedar German Siding	\$2.00
Primelock pre-primed German Siding <sup>7</sup>	\$3.00

<sup>3</sup> Page 1, Paragraph 2 of Applicant’s BAR Submission Document dated September 23, 2011.

<sup>4</sup> Data from James Hardie NER-405 report; ColoradoEnergy.org; and Western Red Cedar Lumber Association

<sup>5</sup> Data from James Hardie report; *Multi-Criteria Evaluation Framework of Factory Built Wood Frame Walls* White Paper and Western Red Cedar Lumber Association website

<sup>6</sup> Information gathered by contacting several local lumber yards in the past year.

<sup>7</sup> Primelock is a trademark name for a borate treated, finger-jointed, pre-primed, sustainably harvested wood which bears a 30-year warranty. There are several companies that are now making similar products.



***Summary***

Based on the above analysis, Staff recommends that the Board allow the applicant to retain the installed HardiePlank siding on the side elevations by finding that these elevations of the building are minimally-visible, as suggested in the *Design Guidelines*. Staff also seeks direction from the Board to amend this policy and to allow this approach in the future as well. However, due to the highly visible location of this building along North Patrick Street, and the desire to retain its historic visual integrity adjacent to the public sidewalk, Staff finds the utilization of HardiePlank siding to be inappropriate on the principal façade of the building and recommends that the synthetic siding be removed from this elevation and replaced with 6” painted, wood German siding.

**STAFF:**

Al Cox, FAIA, Historic Preservation Manager, Planning & Zoning

**IV. CITY DEPARTMENT COMMENTS**

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

**Code Administration:**

- C-1 A building construction permit is required to legalize work performed on the property.
- C-2 After issuance of the permit inspections must be performed to determine if work was performed according to the VUSBC

**Transportation and Environmental Services (T & ES):**

No comments received.

**V. IMAGES**



**Figure 1: Photo of Front Elevation of the House with German Profile Wood Siding**



**Figure 2: Photo of Front Elevation of House (After installation of HardiePlank)**



**Figure 3: Photos of Interior Water Damage to House after July 2011 Storm**

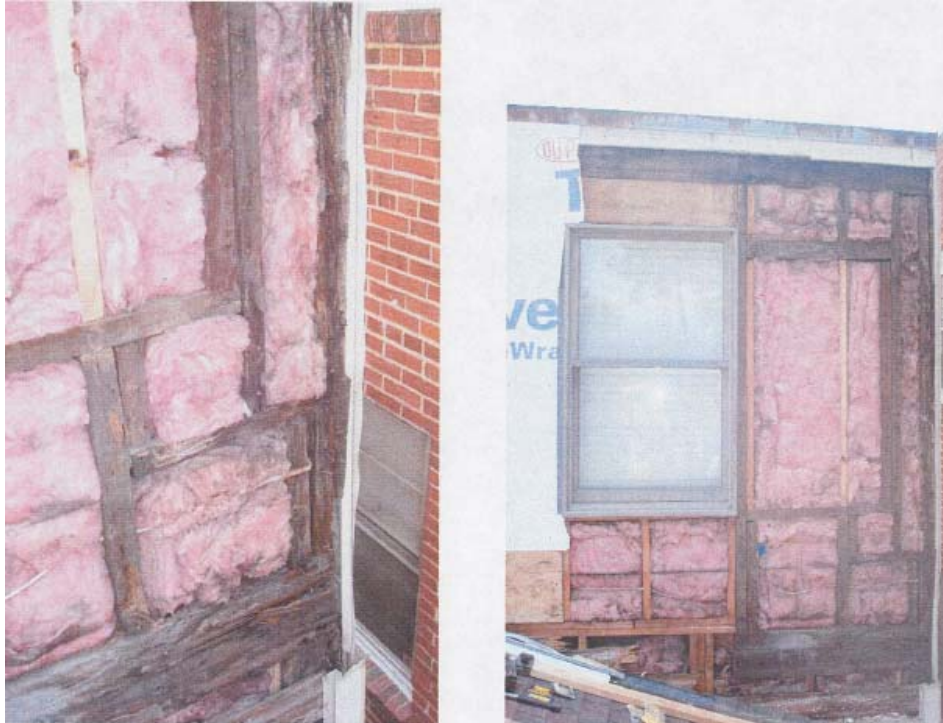


Figure 4: View of Water Damage to Structure

View of Vinyl  
& German  
Siding



Figure 5: View of Wood and Vinyl Siding Being Removed on the Main Building Mass



Figure 6: Existing Conditions



**Figure 7: Existing Fiber Cement Clapboard Siding With Wood Grain Pattern**



DEPARTMENT OF PLANNING AND ZONING

301 King Street, Room 2100

Alexandriava.gov/preservation

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Alexandria, VA 22313

Phone (703) 746-4666  
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February 2011

IMPORTANT INFORMATION ABOUT HISTORIC PROPERTIES

Dear Residents and Property Owners:

You are receiving this letter because our records indicate that you own or reside in property that is located in one of Alexandria's two locally regulated historic districts - the **Old and Historic Alexandria District (OHAD)** or the **Parker-Gray (P-G) District**, or is a designated **100 Year Old Building** located outside a historic district - all of which have special architectural protections. Since 1946, the community and the City government have worked diligently together to preserve the historic resources that create Alexandria's unique character. *There have been a number of important changes over the past year which may impact future projects you may undertake on the exterior of your building.*

BOARD OF ARCHITECTURAL REVIEW APPROVALS

New construction, demolition and any exterior alterations visible from a public right-of-way (which includes alleys and parks) must be approved by the Board of Architectural Review (BAR) for the district where the property is located. The OHAD Board also reviews projects related to individually designated 100 Year Old Buildings. The Boards approve projects by issuing a **Certificate of Appropriateness** for alterations and new construction. The Boards must also approve any demolition or encapsulation greater than 25 square feet, regardless of visibility, by issuing a **Permit to Demolish**.

In the past year, the Boards have approved a streamlined approval process for many common minor alterations and repairs (such as roofing, windows, siding, door, and light fixture replacement) which may now be approved administratively by BAR Staff. Examples of work requiring a Certificate of Appropriateness or BAR administrative approval are:

- |                      |                          |                      |
|----------------------|--------------------------|----------------------|
| ▪ windows            | ▪ fences and gates       | ▪ shutters           |
| ▪ doors              | ▪ signage and awnings    | ▪ steps and railings |
| ▪ roofing materials  | ▪ HVAC equipment         | ▪ sheds              |
| ▪ pergolas           | ▪ exterior lighting      | ▪ decks and porches  |
| ▪ exterior vents     | ▪ painting of previously | ▪ additions.         |
| ▪ siding replacement | ▪ unpainted masonry      |                      |

*Should you fail to obtain the required Certificate of Appropriateness, BAR Administrative Approval, or Permit to Demolish prior to undertaking a project, you and your contractor may be subject to monetary fines and other penalties as specified in the Zoning Ordinance and the Uniform Statewide Building Code. In addition, you will be required to correct the violation.*

Figure 8: Page 1 of Annual Historic District Notification Letter

## BUILDING PERMITS

In most cases, a building permit is also required for work that you undertake. As of June 2010, building permits are now required for replacement of over 100 square feet of roofing or siding and for the installation of any windows in the historic districts. Owners and residents should be cautious to use only licensed contractors. If you have work performed by unlicensed contractors or without the benefit of permits and City approval, your ability to sell or refinance your home or to file insurance policy claims may be affected.

Information about whether a building permit is required and whether a contractor is licensed to work in the City of Alexandria may be obtained by calling the Department of Code Administration at 703-746-4200 or from the City's website at <http://alexandriava.gov/code/>.

## BAR STAFF IS AVAILABLE TO HELP

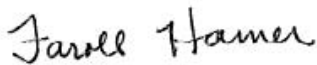
BAR Staff is available to help you navigate the BAR process and we encourage you to contact staff early in the planning process in order to provide sufficient time in your construction schedule for the necessary reviews. Staff can also advise you on the review process, including preparation of the necessary application and supporting materials and completion of the public notice requirements. Please visit the City's website at [www.alexandriava.gov/preservation](http://www.alexandriava.gov/preservation) for more detailed information, including the BAR *Design Guidelines*, applications and forms, and Board meeting schedules. We also have designated staff within the Department of Planning and Zoning to provide guidance and to answer any questions you may have about historically appropriate materials. The historic preservation phone number is 703-746-3833.

## SHARE INFORMATION WITH NEIGHBORS

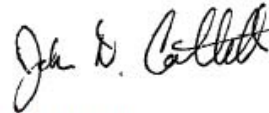
By working together, we can keep Alexandria's historic buildings and historic districts safe and beautiful. We hope that you will assist us by sharing this important information with your neighbors, thereby ensuring that everyone knows to obtain the proper approvals and permits before embarking on a project.

We also encourage you to sign up for the City of Alexandria's free *eNews* service to receive updates from various agencies about topics of interest to you, including Historic Preservation, Building and Fire Code Administration, and Construction/Permitting. You can subscribe to eNews at the City's website <https://enews.alexandriava.gov/>.

Sincerely,



Faroll Hamer, Director  
Department of Planning and Zoning



John Catlett, Director  
Department of Code Administration