II.B

Preliminary Consultation
MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address: 7417 Maple Ave., Takoma Park  Meeting Date: 3/11/2020
Resource: Contributing Resource  Report Date: 3/4/2020
Takoma Park Historic District  Public Notice: 2/26/2020
Applicant: David Bend  Tax Credit: No
Review: Preliminary Consultation  Staff: Michael Kyne
Case Number: N/A

PROPOSAL: Window replacement

STAFF RECOMMENDATION

Staff recommends that the applicants make any revisions based upon the HPC’s comments and return with a HAWP application.

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE: Contributing Resource within the Takoma Park Historic District
STYLE: Dutch Colonial
DATE: c. 1910-20s

Fig. 1: Subject property.
II.B

PROPOSAL

The applicant proposes the following work items at the subject property:

- Replace six second-floor windows.
- Replace three basement-level windows.

APPLICABLE GUIDELINES

When reviewing alterations and new construction within the Takoma Park Historic District several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include the historic preservation review guidelines in the approved and adopted amendment for the Takoma Park Historic District (Guidelines), Montgomery County Code Chapter 24A (Chapter 24A), and the Secretary of the Interior’s Standards for Rehabilitation (Standards). The pertinent information in these documents is outlined below.

Takoma Park Historic District Guidelines

There are two very general, broad planning and design concepts which apply to all categories. These are:

- The design review emphasis will be restricted to changes that are all visible from the public right-of-way, irrespective of landscaping or vegetation (it is expected that the majority of new additions will be reviewed for their impact on the overall district), and
- The importance of assuring that additions and other changes to existing structures act to reinforce and continue existing streetscape, landscape, and building patterns rather than to impair the character of the historic district.

A majority of structures in the Takoma Park Historic District have been assessed as being “Contributing Resources.” While these structures may not have the same level of architectural or historical significance as Outstanding Resources or may have lost some degree of integrity, collectively, they are the basic building blocks of the Takoma Park district. However, they are more important to the overall character of the district and the streetscape due to their size, scale, and architectural character, rather than for their particular architectural features.

Contributing Resources should receive a more lenient level of design review than those structures that have been classified as Outstanding. This design review should emphasize the importance of the resource to the overall streetscape and its compatibility with existing patterns rather than focusing on a close scrutiny of architectural detailing. In general, however, changes to Contributing Resources should respect the predominant architectural style of the resource.

The Guidelines that pertain to this project are as follows:

- All exterior alterations, including those to architectural features and details, should be generally consistent with the predominant architectural style and period of the resource and should preserve the predominant architectural features of the resource; exact replication of existing details and features is, however, not required.
- Original size and shape of window and door openings should be maintained, where feasible.
- Some non-original building materials may be acceptable on a case-by-case basis; artificial siding on areas visible from the public right of way is discouraged where such materials would replace
or damage original building materials that are in good condition.

- All changes and additions should respect existing environmental settings, landscaping, and patterns of open space.

**Montgomery County Code; Chapter 24A-8**

(a) The commission shall instruct the director to deny a permit if it finds, based on the evidence and information presented to or before the commission that the alteration for which the permit is sought would be inappropriate, inconsistent with or detrimental to the preservation, enhancement or ultimate protection of the historic site or historic resource within an historic district, and to the purposes of this chapter.

(b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to ensure conformity with the purposes and requirements of this chapter, if it finds that:

1. The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or
2. The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or
3. The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or
4. The proposal is necessary in order that unsafe conditions or health hazards be remedied; or
5. The proposal is necessary in order that the owner of the subject property not be deprived of reasonable use of the property or suffer undue hardship; or
6. In balancing the interests of the public in preserving the historic site or historic resource located within an historic district, with the interests of the public from the use and benefit of the alternative proposal, the general public welfare is better served by granting the permit.

(c) It is not the intent of this chapter to limit new construction, alteration or repairs to any 1 period or architectural style.

(d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district. (Ord. No. 9-4, § 1; Ord. No. 11-59.)
Secretary of the Interior’s Standards for Rehabilitation

The Secretary of the Interior defines rehabilitation as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features, which convey its historical, cultural, or architectural values.” The applicable Standards in this case are as follows:

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive features, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

STAFF DISCUSSION

The subject property is a c. 1910-20s Dutch Colonial-style Contributing Resource within the Takoma Park Historic District. The house is on a corner lot with Maple Avenue to the west (front) and Valley View Avenue to the south (right).

The applicant proposes the following work items at the subject property:

- Replace six second-floor windows.
- Replace three basement-level windows.

On the second-floor, the windows to be replaced include two windows on the south (right) elevation, two windows on the north (left) elevation, and two windows in the dormer on the west (front) elevation. All of the windows are original six-over-six double-hung wood windows.

At the basement-level, two windows are proposed to be replaced on the south (right) elevation, and one window is proposed to be replaced on the north (left) elevation. The windows to be replaced on the south (right) elevation include one six-lite wood casement window and one two-lite wood awning window. The window to be replaced on the north (left) elevation is a four-lite wood casement window. The six-lite wood casement window on the south (right) elevation is original to the house and is consistent with the style of the six-over-six double-hung windows on the upper floors. The four-lite wood casement window on the north (left) elevation also appears to be original to the house, as it is consistent with two four-lite casement windows directly above it on the first-floor. The material and weathering of the two-lite awning window on the south (right) elevation is consistent with the other windows.

The proposed replacement windows are wood SDL windows with permanently-affixed interior and exterior muntins and internal spacer bars. The proposed muntins are traditional 7/8” muntins, and the proposed jamb liners are wood.
Staff visited the subject property on Wednesday, February 19, 2020 to assess the condition of the windows to be replaced. Staff found many of the windows had peeling paint, one basement-level window was in clear need of weatherization, one second-floor window had a cracked pane of glass, and another second-floor window had a broken sash cord. Overall, however, the windows were in good condition and repairable.

In accordance with the Standards and preservation best practices, staff recommended that the windows be repaired and provided contact information for several contractors that specialize in historic window restoration. In a later telephone conversation, the applicant informed staff that a contractor had since assessed their windows and recommended restoration and the addition of storm windows. However, the applicant prefers window replacement, due to the presence of lead-based paint on the original windows as well as issues regarding home energy performance.

The applicant had a lead test performed by LeadProbe, Inc. on February 4, 2020. The test was conducted in accordance with Housing and Urban development (HUD) Protocols Chapter 7 (1997), EPA 40 CFR 745.227, and MDE COMAR Chapter 26-16. The results indicated the presence of lead-based paint on the original woodwork throughout the entire house (see Pages 49-50). While lead-based paint was present on the original windows, casings, and jambs, it was also present on the doors, door jambs, stairs, walls, cabinets, shelving, and baseboards. The test concluded that there was defective lead-based paint, constituting a lead-based paint hazard, on the following:

- **Interior:**
  - All window wells are extremely dirty and most are chipping
  - Front left bedroom closet shelves, shelf supports, doors, door jambs and casings
  - Front right bedroom entry door, door jambs and casings
  - Basement stairs exit to exterior door jamb and casings

- **Exterior:**
  - All soffit where chipping/peeling
  - Side D basement door and door jamb

To eliminate the lead based paint hazards, LeadProbe, Inc. recommended stabilization of the paint using an EPA RRP certified contractor.

According to Chapter 18: Lead-Based Paint and Historic Preservation of HUD’s Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 edition), paint stabilization is the “correction of substrate defects, specialized cleaning, temporary repairs, management and resident education programs, and ongoing LBP maintenance. Paint stabilization, an interim control that allows intact historic paint to remain in place (with topcoat of lead-free paint) is the least damaging treatment to an element. Stabilized surfaces will, however, have to be properly maintained.”

Staff concurs with LeadProbe, Inc.’s recommendation, as it is consistent with the Standards and preservation best practices, and it also complies with HUD’s recommendations. Chapter 18 of HUD’s guidelines continues:

HUD recommends that all lead-based paint professionals and housing agencies should consider interim controls on historic properties instead of abatement if feasible and permissible. For historic properties, interim controls are preferred because they preserve the original structure and are usually less costly. In some cases, however, interim controls are not technically feasible or the condition of the affected building components is poor, which makes interim controls impractical. In all cases, decision-makers should justify and be able to document their position.
Staff would also support lead abatement/lead-based paint removal, either on- or off-site, which can be performed by a contractor specializing in historic window restoration without damaging the windows. However, staff notes that removal of lead-based paint from the windows will not eliminate the lead-based paint hazards at the subject property. As noted in LeadProbe, Inc.’s test results, lead-based paint is present on the original woodwork throughout the entire house.

The National Park Services’s Preservation Brief 37: Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing, includes a list of lead-based paint hazards that should be removed, mitigated, or managed. The list is provided in order from greatest to least health risk, with 1 being the greatest and 8 the least. The list is as follows:

1. Peeling, chipping, flaking, and chewed interior lead-based paint and surfaces
2. Lead dust on interior surfaces
3. High lead in soil levels around the house and in play areas (check state requirements)
4. Deteriorated exterior painted surfaces and features
5. Friction surfaces subject to abrasion (windows, doors, painted floors)
6. Accessible, chewable surfaces (sills, rails) if small children are present
7. Impact surfaces (baseboards and door jambs)
8. Other interior surfaces showing age or deterioration (walls and ceilings)

According to this list, the original windows are not the greatest lead-based paint hazard at the subject property. Any poorly-maintained lead-based paint on the interior or exterior of the house poses a greater risk, and any chewable or impact surfaces pose a similar risk.

The applicant has cited the Montgomery County Department of Health and Human Services’ website for Childhood Lead Poisoning Case Management, which states the following regarding lead poisoning prevention:

The best way to prevent lead poisoning is to remove the source of lead. If you cannot remove peeling or chipping lead-based paint [emphasis added] right away, block the area with a heavy chair so a child cannot get to it. You can also shut the door to a room, or move a crib or bed away from the wall. Remove the lead source promptly and safely. Protect your child from lead dust by wet washing the floors and wiping down your window sills, woodwork, chairs and tables often. Be sure to wash your child's hands, face, and toys often with soap and water. You may also use a High Efficiency Particulate Air (HEPA) vacuum cleaner with a specialized filter designed to trap virtually all of the lead dust. This prevents small particles of lead from being blown throughout the room in the exhaust of the vacuum.

Although the Department of Health and Human Services’ website states that the source of lead should be removed promptly and safely, staff argues that the referenced source is peeling or chipping lead-based paint. This is consistent with available guidance, including the previously cited guidance from HUD and the National Park Service.

Concerning energy efficiency, staff notes that the applicant contracted Atlas Home Energy Solutions to conduct a Home Energy Audit on February 28, 2018. The resulting report states the following regarding windows and doors:

While windows and doors are commonly talked about as the one of the most important energy saving upgrades; replacing all the windows or doors in your home is often one of the least cost effective energy improvements. However, some problems caused by old or improperly installed windows/doors can be fixed cost effectively. These include:
1. Installing weatherstripping on leaky doors.
2. Sealing leaky window frames and sashes.
3. Installing low-e films to existing windows.
4. Adding blinds and drapes to block unwanted heat from the sun.

To improve energy efficiency, the report recommended that weatherstripping be added to multiple doors around the house, specifically those at the front, rear, and basement-level.

Given the good, repairable condition of the windows, LeadProbe, Inc’s test results and recommendation, and the guidance provided by HUD and the National Park Service, staff does not support the proposal to replace the original windows at the subject property. Staff finds the proposal inconsistent with the Standards – specifically, Standards #2, #5, #6, and #9, as cited on Page 4. Staff recommends that the applicant work with an experienced historic window restoration contractor to repair the windows and to stabilize or abate the lead-based paint, per the contractor’s recommendations.

Staff notes that window restoration (including the cost of lead abatement) is eligible for the County’s 25% Historic Preservation Tax Credit, which can help offset any cost discrepancies between window repair and replacement. Additionally, the HPC encourages the installation of storm windows, which is also eligible for the tax credit, as it can address energy efficiency problems and act as a deterrent to window replacement. The subject property is also within the National Register of Historic Places-listed Takoma Park Historic District, and window restoration would be eligible for the State’s 20% Historic Preservation Tax Credit, which is administered by the Maryland Historical Trust.

STAFF RECOMMENDATION

Staff recommends that the applicants make any revisions based upon the HPC’s comments and return with a HAWP application.
APPLICATION FOR HISTORIC AREA WORK PERMIT

Contact Email: dave.d.berdeg@gmail.com  Contact Person: David Bend  Daytime Phone #: 415-336-2278

Tax Account #: ____________________________

Name of Property Owner: David Bend  Daytime Phone #: A15-336-2278

Address: 7417 Maple Avenue  Takoma Park  MD  20912

City:  Zip Code: __________________________

Contractor: W. Osborne and W. Washington  Phone #: 703-376-1190

Contractor Registration #: MAIC 92780

Agent for Owner: Jay Harris  Daytime Phone #: 703-397-6037

LOCATION OF PROJECT:

House Number: 7417 Maple

Street: Maple Avenue

Town/City: Takoma Park  Nearest Cross Street: Philadelphia/Volley View

Lot #: 2005  Block #: 025  Subdivision: 025

PAR T ONE: TYPE OF PERM IT AND USE

1A. CHECK ALL APPLICABLE:

☐ Construct  ☑ Extend  ☑ Alter/Remodel  ☑ A/C  ☑ Slab  ☑ Room Addition  ☑ Porch  ☑ Deck  ☑ Shed

☐ Move  ☑ Install  ☑ Wreck/Raze  ☑ Spa  ☑ Fireplace  ☑ Woodburning Stove  ☑ Single Family

☐ Revision  ☑ Repair  ☑ Renovate  ☑ Fence/Wall (complete Section 4)  ☑ Other: Windows

1B. Construction cost estimate: $ 6,000

1C. If this is a revision of a previously approved active permit, see Permit #: No

PART TWO: COMMENTS FOR NEW CONSTRUCTION AND EXISTING BUILDINGS

2A. Type of sewage disposal: 01 ☑ WSSC  02 ☑ Septic  03 ☐ Other:

2B. Type of water supply: 01 ☑ WSSC  02 ☑ Well  03 ☐ Other:

PART THREE: COMMENTS ON FENCE OR RETAINING WALL

3A. Height: feet inches

3B. Indicate whether the fence or retaining wall is to be constructed on one of the following locations:

☑ On party line/property line  ☐ Entirely on land of owner  ☐ On public right of way/assessment

I hereby certify that I have the authority to make the foregoing application, that the application is correct, and that the construction will comply with plans approved by all agencies listed and I hereby acknowledge and accept this to be a condition for the issuance of this permit.

[Signature]

Date: 12/20/19

Approved: ____________________________  For Chairperson, Historic Preservation Commission

Disapproved: ____________________________  Signature: ____________________________  Date: ____________________________

Application/Permit No. ____________________________  Date Filed: ____________________________  Date Issued: ____________________________

SEE REVERSE SIDE FOR INSTRUCTIONS
THE FOLLOWING ITEMS MUST BE COMPLETED AND THE REQUIRED DOCUMENTS MUST ACCOMPANY THIS APPLICATION.

1. WRITTEN DESCRIPTION OF PROJECT
   a. Description of existing structure(s) and environmental setting, including their historical features and significance:

   We plan to replace the windows and exterior of the house with new ones. We believe the windows are original to the house (1922), but they are very leaky. So we want to improve the house's energy performance. But we plan to replace the windows with new windows that mirror the old design.

   General description of project and its effect on the historic house(s), the environmental setting, and, where applicable, the historic district:

   We plan to use windows of a compatible design. All the windows we are replacing are not easy to view from the street, which will further minimize the impact on the historic character of the windows will have the same pattern as the original windows.

2. SITE PLAN
   Site and environmental setting, drawn to scale. You may use your plot. Your site plan must include:
   a. the scale, north arrow, and date;
   b. dimensions of all existing and proposed structures; and
   c. site features such as walkways, driveways, fences, ponds, streams, trash dumpsters, mechanical equipment, and landscaping.

3. PLANS AND ELEVATIONS
   You must submit 2 copies of plans and elevations in a format no larger than 11" x 17". Plans on 8 1/2" x 11" paper are preferred.
   a. Schematic construction plans, with marked dimensions, indicating location, size, and general type of walls, window and door openings, and other fixed features of both the existing resources and the proposed work.

   b. Elevations (facades), with marked dimensions, clearly indicating proposed work in relation to existing construction and, when appropriate, context. All materials and fixtures proposed for the exterior must be noted on the elevations drawings. An existing and a proposed elevation drawing of each facade affected by the proposed work is required.

4. MATERIALS SPECIFICATIONS
   General description of materials and manufactured items proposed for incorporation in the work of the project. This information may be included on your design drawings.

5. PHOTOGRAPHS
   a. Clearly labeled photographic prints of each facade of existing resource, including details of the affected portions. All labels should be placed on the front of photographs.

   b. Clearly label photographic prints of the resource as viewed from the public right-of-way and of the adjoining properties. All labels should be placed on the front of photographs.

6. TREE SURVEY
   If you plan on proposing construction adjacent to or within the drip line of any tree 6" or larger in diameter (at approximately 4 feet above the ground), you must file an accurate tree survey identifying the size, location, and species of each tree of at least that dimension.

7. ADDRESSES OF ADJACENT AND CONFRONTING PROPERTY OWNERS
   For ALL projects, provide an accurate list of adjacent and confronting property owners (not tenants), including names, addresses, and zip codes. This list should include the owners of all lots or parcels which adjoin the parcel in question, as well as the owner(s) of lot(s) or parcel(s) which lie directly across the street/highway from the parcel in question.

PLEASE PRINT IN BLUE OR BLACK INK OR TYPE THIS INFORMATION ON THE FOLLOWING PAGE.
PLEASE STAY WITHIN THE GUIDES OF THE TEMPLATE, AS THIS WILL BE PHOTOCOPIED DIRECTLY ONTO MAILING LABELS.
<table>
<thead>
<tr>
<th>Owner’s mailing address</th>
<th>Owner’s Agent’s mailing address</th>
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<tr>
<td>David Bend</td>
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<td>7417 Maple Avenue</td>
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<td>Takoma Park MD 20912</td>
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<th>Adjacent and confronting Property Owners mailing addresses</th>
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<tr>
<td>2 Valley View Avenue</td>
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<td>Takoma Park MD 20912</td>
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**Project Description:**

The project is split across two floors. The home’s upper level and the basement.

*Upper Level*

On the upper level six windows of uniform size (51”X34”) will be replaced with windows selected with care to conform to the original design. They will be the same color, be double hung, and have the same grid pattern (six over six). The windows will be Okna Insult-tee [since revised] to ensure the home’s energy performance is greatly improved while also ensuring continuity with the homes historic character.

*Basement*

Two windows will be replaced in the basement; one that is 34”X34”. It will be replaced with the same size and pattern window (3X2 grid pattern). And another 30X16 window will be replaced with a similar two panel grid pattern all matching the current color.
Child’s Bedroom #1 (One Window)

- Exact Dimensions of each window to be replaced
  - Jamb size- 34.50” x 53.50” / sash stiles- 2” / bottom rail= 2 3/8” / meeting rail- 1 1/8” / Visible glass- 30.25” x 23.75” / 5/8” grilles- 10” on center

- Exact Dimensions of each proposed new window:
  - The replacement window will be double hung 6X6 with a jamb size of 34.5” X 53.50”. We will be using the premium wood Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be 3/8” traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- Conditions assessment
  - The window is extremely energy inefficient and leaks cold air into our home. The bottom of the window is severely deteriorated (photo included) which is leading to the leakiness. Our daughter has asthma and she has had breathing challenges since we moved in as a result of the cold air which is also disturbing her sleep. An energy audit commissioned through Pepco (attached) identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint which is also in alignment with Montgomery County’s climate commitments. In addition, the leakiness makes the room very noisy and since we live on a busy street the frequent honking and transit bus noise has been disturbing our daughter’s sleep.

Child’s Bedroom #2 (One Window)

- Exact Dimensions of each window to be replaced
  - Jamb size- 34.50” x 53.50” / sash stiles- 2” / bottom rail= 2 3/8” / meeting rail- 1 1/8” / Visible glass- 30.25” x 23.75” / 5/8” grilles- 10” on center

- Exact Dimensions of each proposed new window
  - The replacement window will be double hung 6X6 with a jamb size of 34.5” X 53.50”. We will be using the premium wood Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be 3/8” traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- Conditions assessment
  - The window is extremely energy inefficient and leaks cold air into our home. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint which is also in alignment with Montgomery County’s climate commitments. In addition, the leakiness makes the room very noisy and since we live on a busy street it makes it difficult to sleep in the room.
Philadelphia Avenue Facing Adult Bedroom (One Window)

- **Exact Dimensions of each window to be replaced**
  - Jamb size- 34.50” x 53.50” / sash stiles- 2”/ bottom rail= 2 3/8” / meeting rail- 1 1/8” / Visible glass- 30.25” x 23.75”/ 5/8” grilles- 10” on center

- **Exact Dimensions of each proposed new window**
  - The replacement window will be double hung 6X6 with a jamb size of 34.5” X 53.50”. We will be using the premium wood  Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be 7/8” traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- **Conditions assessment**
  - The window is extremely energy inefficient and leaks cold air into our home. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint. In addition, the leakiness makes the room very noisy and since we live on a busy street it makes it difficult to sleep in the room.

Maple Avenue Facing Adult Bedroom (Two windows)

- **Exact Dimensions of each window to be replaced**
  - Jamb size- 28.50” x 53.50”/ sash stiles- 2”/ bottom rail= 2 3/8” / meeting rail-1 1/8”/ Visible glass- 24.25” x 23.75”/ 5/8” grilles- 8” on center

- **Exact Dimensions of each proposed new window**
  - The replacement windows will be double hung 6X6 with a jamb size of 24.25” X 23.75”. We will be using the premium wood  Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be 7/8” traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- **Conditions assessment**
  - The window is extremely energy inefficient and leaks cold air into our home. The window is also cracked. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint. In addition, the leakiness makes the room very noisy and since we live on a busy street it makes it difficult to sleep in the room.

Upstairs Bathroom (One window)

- **Exact Dimensions of each window to be replaced**
  - Exact Dimensions of each window to be replaced
- Jamb size- 34.50" x 53.50" / sash stiles- 2" / bottom rail= 2 3/8" / meeting rail- 1 1/8" / Visible glass- 30.25" x 23.75" / 5/8" grilles- 10" on center

- Exact Dimensions of each proposed new window
  - The replacement window will be double hung 6X6 with a jamb size of 34.5” X 53.50”. We will be using the premium wood Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be ¾” traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- Conditions assessment
  - The window is extremely energy inefficient and leaks cold air into our home. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint. In addition, the leakiness makes the room very noisy.

Basement facing Valley View (One window)
- Exact Dimensions of each window to be replaced
  - Jamb size- 34.50” x 34.50” / sash stiles- 2” / bottom rail= 2 3/8” / meeting rail- 1 1/8” / Visible glass- 30” x 30” / 5/8” grilles- 10” on center

- Exact Dimensions of each proposed new window
  - The replacement window will have a jamb size of 34.5” X 34.50”. We will be using the premium wood Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be ¾” traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- Conditions assessment
  - The window is extremely energy inefficient and leaks cold air into our home. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint.

Basement facing Philadelphia (one Window)
- Exact Dimensions of each window to be replaced
  - Jamb size- 28” x 32” / sash stiles- 2” / bottom rail= 2 3/8” / meeting rail- 1 1/8” / Visible glass- 22” x 27.5” / 5/8” grilles- 10” on center

- Exact Dimensions of each proposed new window
  - The replacement window will have a jamb size of 28” X 32”. We will be using the premium wood Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior...
jamb liners. There will be $\frac{3}{8}$" traditional ILT colonial grilles with white traditional spoon locks. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.

- Conditions assessment
  - The window is extremely energy inefficient and leaks cold air into our home. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint.

Basement Facing Valley View Bathroom Window
  - Exact Dimensions of each window to be replaced
    - Jamb size- 30" x 16" / sash stiles- 2"/ bottom rail= 2 3/8" / meeting rail- 1 1/8" / Visible glass- 25" x 12"/ 5/8" grilles- 10" on center
  - Exact Dimensions of each proposed new window
    - The replacement window will have a jamb size of 30” X 16”. We will be using the premium wood Pella Architectural Series which is the highest grade window we found (several contractors were consulted) specified for historic district renovations (see attachment). The window will be prefinished white in and out with all wood interior jamb liners. There will be $\frac{3}{8}$” traditional ILT colonial grilles. The contractor will also finish the perimeter with color matched stops to marry the windows to existing exterior wood trim.
  - Conditions assessment
    - The window is extremely energy inefficient and leaks cold air into our home. An energy audit commissioned through Pepco identified our windows as one of the biggest sources of energy loss in our home. We are very committed to doing what is in our control to limit our carbon footprint.
Maple Avenue Facing Adult Bedroom (Two Windows)
Philadelphia Avenue Facing Adult Bedroom (One Window)
Upstairs Bathroom (One window)
Basement facing Valley View
Basement facing Philadelphia
Basement Shower Window
Existing Property Condition Photographs (duplicate as needed)

Front 2nd story window

3rd Maple Avenue

Two second story windows facing Philadelphia Avenue

Detail: ____________________________

Applicant: Daniel Beal

Page: 36
Site Plan

2nd story window facing Valley View Avenue

Shade portion to indicate North

Applicant: [Handwritten Signature]

Page:
Two basement windows facing Valley View Avenue.

2nd Story window facing Valley View Avenue.
Pella® Architect Series® Traditional

$$$–$$$$

**WOOD**

**Pella Architect Series Traditional**

**FEATURES**

- Classic aesthetics featuring fine-furniture details
- Virtually unlimited design choices including custom sizes and grille patterns
- Stunning hardware in rich patinas and other timeless finishes

**WINDOW STYLES**

Custom sizes and fixed configurations are also available.

**PATIO DOOR STYLES**

SLIDING  HINGED  BIFOLD  MULTI-SLIDE
**Colors & Finishes**

**PELLA® ARCHITECT SERIES® TRADITIONAL**

**WOOD TYPES**

Choose the wood species that best complements your home’s interior. White oak, red oak, cherry and maple are available as custom solutions.

<table>
<thead>
<tr>
<th>Pine</th>
<th>Douglas Fir</th>
<th>Mahogany</th>
</tr>
</thead>
</table>

**PREFINISHED PINE INTERIOR COLORS**

When you select pine, we can prefinish in your choice of seven stains or three paint colors. Unfinished or primed and ready-to-paint are also available.

<table>
<thead>
<tr>
<th>White</th>
<th>Bright White</th>
<th>Linen White</th>
<th>Artisan Greige</th>
<th>Natural Stain</th>
<th>Wheat Stain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golden Oak Stain</td>
<td>Early American Stain</td>
<td>Provincial Stain</td>
<td>Dark Mahogany Stain</td>
<td>Red Mahogany Stain</td>
<td>Espresso Stain</td>
</tr>
<tr>
<td>Skyline Gray Stain</td>
<td>Charcoal Stain</td>
<td>Black Stain</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ALUMINUM-CLAD EXTERIOR COLORS**

Our low-maintenance EnduraClad® exterior finish resists fading. Take durability one step further with EnduraClad Plus which also resists chalking and corrosion. * Custom colors are also available.

<table>
<thead>
<tr>
<th>White</th>
<th>Tan</th>
<th>Putty</th>
<th>Brown</th>
<th>Classic White</th>
<th>Vanilla Cream</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poplar White</td>
<td>Almond</td>
<td>Sand Dune</td>
<td>Honeysuckle</td>
<td>Fossil</td>
<td>Portobello</td>
</tr>
<tr>
<td>Deep Olive</td>
<td>Auburn Brown</td>
<td>French Roast</td>
<td>Summer Sage</td>
<td>Hemlock</td>
<td>Hartford Green</td>
</tr>
<tr>
<td>Morning Sky Gray</td>
<td>Eldridge Gray</td>
<td>Iron Ore</td>
<td>Black</td>
<td>Naval</td>
<td>Stormy Blue</td>
</tr>
<tr>
<td>Real Red</td>
<td>Brick Red</td>
<td>Cranberry</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* EnduraClad Plus protective finish is not available with all colors. See your local Pella sales representative for availability.
Grilles \textit{PELLA® ARCHITECT SERIES® TRADITIONAL}

**Grilles**

Choose the look of true divided light, removable roomside grilles or make cleaning easier by selecting grilles-between-the-glass.

**Grilles-Between-The-Glass Interior Colors:**

- White
- Ivory
- Tan
- Putty
- Brown
- Harvest
- Brickstone
- Cordovan
- Black
- Morning Sky Gray
- Sand Dune

**Grille Patterns**

In addition to the patterns shown here, custom grille patterns are available.

- Traditional
- 9-Lite Prairie
- 12-Lite Prairie
- 14-Lite Prairie
- Victorian
- Top Row
- Cross
- New England
- Diamond
- Simulated French
- Custom

---

1 Color-matched to your product's interior and exterior color.
2 Appearance of exterior grille color may vary depending on the Low-E insulating glass selection.
3 Only available with matching interior and exterior colors.
Window Hardware  PELLA® ARCHITECT SERIES® TRADITIONAL

CLASSIC COLLECTION

Get a timeless look with authentic styles in classic finishes.

FINISHES:

- champagne
- white
- brown
- matte black
- antique brass
- bright brass
- oil-rubbed bronze
- satin nickel

RUSTIC COLLECTION

Create a distinct and charming look with distressed finishes.

FINISHES:

- distressed bronze
- distressed nickel

ESSENTIAL COLLECTION

Select from popular designs and finishes to suit every style.

FINISHES:

- champagne
- white
- brown
- matte black
- bright brass
- oil-rubbed bronze
- satin nickel

Added Security

INSYNCTIVE® TECHNOLOGY

Choose optional built-in security sensors powered by Insynctive technology so you know at a glance if your windows are closed and patio doors are closed and locked.
Patio Door Hardware

**CLASSIC COLLECTION**

Choose timeless pieces for a look that will never go out of style.

- *Hinged Patio Door Handles*: Locus | Virago
- *Sliding Patio Door Handle*: Ambrose

**FINISHES:**
- Matte Black
- Antique Brass
- Bright Brass
- Oil-Rubbed Bronze
- Satin Nickel

**MODERN COLLECTION**

Achieve the ultimate contemporary look with sleek finishes.

- *Hinged Patio Door Handle*: Spiere
- *Sliding Patio Door Handle*: Plazo

**FINISHES:**
- Matte Black
- Satin Nickel
- Polished Chrome
- Polished Nickel

**RUSTIC COLLECTION**

Stand out with bold looks and create an utterly unique aesthetic.

- *Hinged Patio Door Handles*: Rustiek | Gusto
- *Sliding Patio Door Handle*: Notus

**FINISHES:**
- Distressed Bronze
- Distressed Nickel

**ESSENTIAL COLLECTION**

Elevate your style and transform your home with elegant selections.

- *Hinged Patio Door Handle*
- *Sliding Patio Door Handle*

**FINISHES:**
- Champagne
- White
- Brown
- Matte Black
- Bright Brass
- Oil-Rubbed Bronze
- Satin Nickel

---

1 Different patio door hardware options available on Pella® Scenescape™ bifold and multi-slide products. See pella.com or contact your local Pella sales representative for availability.
**Glass** PELLA® ARCHITECT SERIES® TRADITIONAL

**INSULSHIELD® LOW-E GLASS**
- Advanced Low-E insulating dual- or triple-pane glass with argon or krypton¹
- AdvancedComfort Low-E insulating dual-pane glass with argon¹
- NaturalSun Low-E insulating dual- or triple-pane glass with argon or krypton¹
- SunDefense™ Low-E insulating dual- or triple-pane glass with argon or krypton²

**ADDITIONAL GLASS OPTIONS**
- HurricaneShield® products with impact-resistant glass**
- Laminated (non-impact-resistant)³, tinted³ or obscure³ glass also available on select products
- STC (Sound Transmission Class)-improved dual-pane sound glass⁵

**Screens**

**ROLSCREEN®**
- Rolscreen soft-closing retractable screens roll out of sight when not in use.
  (Available on casement windows and sliding patio doors only.)

**FLAT**
- InView™ screens are clearer than conventional screens. Vivid View® window screens offer the sharpest view.

**WOOD-WRAPPED**
- Optional wood veneer can be added over the metal screen channel on interior screens to provide a more seamless look.

---

¹ Optional high-altitude InsulShield Low-E glass is available with or without argon on select products.
² Available on select products only. See your local Pella sales representative for availability.
³ Available with Low-E insulating glass with argon on select products.
⁴ For best performance, the laminated glass may be in the interior or exterior pane of the insulating glass, depending on the product.
⁵ Sound control glass consists of dissimilar glass thickness (3mm/5mm).
⁶ Warning: Use caution when children or pets are around open windows and doors. Screens are not designed to retain children or pets.

---

Want to learn more? Call us at 833-44-PELLA or visit pella.com

The confidence of Pella’s warranty.

Pella® Architect Series® products are covered by the best limited lifetime warranty for wood windows and patio doors.⁷ See written limited warranty for details, including exceptions and limitations, at pella.com/warranty.

⁷ Based on comparing written limited warranties of leading national wood window and wood patio door brands.
To: David Bend and Erin Mohan

To: Department of Permitting Services
    255 Rockville Pike, 2nd Floor
    Rockville, Maryland 20850-4166
    Fax 240-777-6398; 240-777-6262; 240-777-6223

From: Planning and Development Services Division

THIS IS NOT A PERMIT – For Informational Purposes Only

VALID FOR ONE YEAR FROM DATE OF ISSUE

The property owner is responsible for obtaining all required permits from
Montgomery County and the City of Takoma Park. If this property is in the Takoma Park
Historic District, it is subject to Montgomery County Historic Preservation requirements.

Representative/email: David Bend; dave.d.bend@gmail.com
Location of Project: 7417 Maple Avenue Takoma Park, MD 20912
Proposed Scope of Work: Replacing 10 windows with energy efficient models

The purpose of this municipality letter is to inform you that the City of Takoma Park has
regulations and city permit requirements that may apply to your project. This municipality letter
serves as notification that, in addition to all Montgomery County requirements, you are required
to comply with all City permitting requirements, including:

- Tree Impact Assessment/Tree Protection Plan
- Stormwater management
- City Right of Way

Failure to comply with these requirements could result in the issuance of a Stop Work Order and
other administrative actions within the provisions of the law. Details of Takoma Park’s permit
requirements are attached on page 2.

The issuance of this letter does not indicate approval of the project nor does it authorize the
property owner to proceed with the project. The City retains the right to review and comment on
project plans during the Montgomery County review process.
The City of Takoma Park permits for the following issues:

Tree Impact Assessment/Tree Protection Plan/Tree Removal Application:
Construction activities that occur within 50 feet of any urban forest tree (7 5/8” in diameter or greater), located on the property or on an adjacent property, may require a Tree Impact Assessment and Tree Protection Plan. Make sure to submit a Tree Impact Assessment and schedule a site visit with the City's Urban Forest Manager if any urban forest tree will be impacted by the proposed construction. The removal of any urban forest tree will require a tree removal application. The tree ordinance is detailed in the City Code, section 12.12. For permit information check: [https://takomaparkmd.gov/services/permits/tree-permits/](https://takomaparkmd.gov/services/permits/tree-permits/) The City's Urban Forest Manager can be reached at 301-891-7612 or janiez@takomaparkmd.gov

Stormwater Management:
If you plan to develop or redevelop property, you may be required to provide appropriate stormwater management measures to control or manage runoff, as detailed in City Code section 16.04. All commercial or institutional development in the city must apply for Stormwater Management Permit regardless of the size of the land disturbance. Additions or modifications to existing detached single-family residential properties do not require a Stormwater Management permit if the project does not disturb more than 5,000 square feet of land area. For more information: [https://takomaparkmd.gov/government/public-works/stormwater-management-program/](https://takomaparkmd.gov/government/public-works/stormwater-management-program/). The City Engineer should be contacted to determine if a City permit is required at 301-891-7620.

City Right of Way:
- To place a construction dumpster or storage container temporarily on a City right of way (usually an adjacent road), you will need to obtain a permit. A permit is not required if the dumpster is placed in a privately-owned driveway or parking lot.
- If you plan to install a new driveway apron, or enlarge or replace an existing driveway apron, you need a Driveway Apron Permit.
- If you plan to construct a fence in the City right of way, you need to request a Fence Agreement. If approved, the Agreement will be recorded in the Land Records of Montgomery County.

For more information and applications for City permits, see [https://takomaparkmd.gov/services/permits/](https://takomaparkmd.gov/services/permits/) or contact the Takoma Park Department of Public Works at 301-891-7633.

Failure to comply with the City’s permitting requirements could result in the issuance of a Stop Work Order and other administrative actions within the provisions of the law.
For Children 6 Months to 72 Months of Age

Table 1: Guidelines for Blood Lead Level Testing in Children 6 Months to 72 Months of Age (COMAR 10.11.04, as of 3/28/2016)

For ALL children born on or after 1/1/15, OR on Medicaid, OR ever lived in a 2004 At-Risk Zip code*

<table>
<thead>
<tr>
<th>Age</th>
<th>Screen</th>
<th>9 Months</th>
<th>12 Months</th>
<th>15 Months</th>
<th>18 Months</th>
<th>24 Months</th>
<th>30 Months</th>
<th>36 Months</th>
<th>48 Months</th>
<th>60 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Months</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
</tr>
<tr>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test Blood Lead Level</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test Blood Lead Level</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
</tr>
</tbody>
</table>

For children born before 1/1/15, AND not on Medicaid, AND never lived in a 2004 At-Risk ZIP code*

<table>
<thead>
<tr>
<th>Age</th>
<th>Screen</th>
<th>9 Months</th>
<th>12 Months</th>
<th>15 Months</th>
<th>18 Months</th>
<th>24 Months</th>
<th>30 Months</th>
<th>36 Months</th>
<th>48 Months</th>
<th>60 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Months</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
<td>Screen</td>
</tr>
<tr>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test Blood Lead Level</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test Blood Lead Level</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
<td>Test if indicated</td>
</tr>
</tbody>
</table>

Table 2: Schedule for Confirmatory Venous Sample after Initial Capillary Test **

<table>
<thead>
<tr>
<th>Capillary Screening Test Result</th>
<th>Perform Venous Test Within</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 mcg/dL</td>
<td>Not Required</td>
</tr>
<tr>
<td>5 – 9 mcg/dL</td>
<td>12 weeks</td>
</tr>
<tr>
<td>10 – 44 mcg/dL</td>
<td>4 weeks</td>
</tr>
<tr>
<td>45 – 59 mcg/dL</td>
<td>48 hours</td>
</tr>
<tr>
<td>60 – 69 mcg/dL</td>
<td>24 hours</td>
</tr>
<tr>
<td>70 mcg/dL and above</td>
<td>Immediate Emergency Lab Test</td>
</tr>
</tbody>
</table>

Table 3: Abbreviated Clinical Guidance for Management of Lead in Children Ages 6 Months to 72 Months (Full Guidelines in Table 5)

<table>
<thead>
<tr>
<th>Blood Lead Level</th>
<th>Follow-up testing</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5 mcg/dL</td>
<td>On schedule Table 1</td>
<td>- Continue screening and testing on schedule. - Continue education for prevention. - If new concern identified by clinician, then retest blood lead level.</td>
</tr>
<tr>
<td>5-9 mcg/dL</td>
<td>3 months See Table 4</td>
<td>All of above AND: Investigate for exposure source in environment and notify health department. - For more detail consult Table 5</td>
</tr>
<tr>
<td>≥ 10 mcg/dL</td>
<td>See Table 4 Consult Table 5</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Schedule for Follow-up Venous Blood Lead Testing after Blood Lead Level ≥ 5 mcg/dL

<table>
<thead>
<tr>
<th>Venous Blood Lead Level</th>
<th>Early follow-up testing (2-4 tests after identification)</th>
<th>Later follow-up testing after blood lead level declining</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 – 9 mcg/dL</td>
<td>1 – 3 months***</td>
<td>6 – 9 months</td>
</tr>
<tr>
<td>10 – 19 mcg/dL</td>
<td>1 – 3 months***</td>
<td>3 – 6 months</td>
</tr>
<tr>
<td>20 – 24 mcg/dL</td>
<td>1 – 3 months***</td>
<td>1 – 3 months</td>
</tr>
<tr>
<td>25 – 44 mcg/dL</td>
<td>2 weeks – 1 month</td>
<td>1 month</td>
</tr>
<tr>
<td>≥ 45 mcg/dL</td>
<td>As Soon As Possible, based on treatment plan</td>
<td>As Soon As Possible, based on treatment plan</td>
</tr>
</tbody>
</table>

Seasonal variation of Blood Lead Levels exists, greater exposure in the summer months may necessitate more frequent follow up.***

Some clinicians may choose to repeat elevated blood lead test within a month to ensure that their BLL level is not rising quickly. (Advisory Committee on Childhood Lead Poisoning Prevention - CDC 2012)

**Requirements for blood lead reporting to the Maryland Childhood Lead Registry are located at COMAR 26.02.01. Reporting is required for all blood lead tests performed on any child 18 years old and younger who resides in Maryland.

* See back of chart for list of 2004 At-Risk Zip codes
further evaluation. Children with BLL over 20 mcg/dL should be evaluated in consultation with an experienced clinician, specialist, or Local Health

Refer to schedule of follow-up blood lead testing in Table 4.

Includes discussion of pic a and lead sources including house paints (before 1978), ceramics, paint on old furniture, soil, foreign travel, traditional

Refer to information about confirmation of capillary tests in Table 2.

debris (e.g. painting, construction, battery reclamation, ceramics, furniture refinishers, radiator repair).

folk medicines, certain imported items (candies, food, jewelry, toys, cosmetics, pottery), and parental occupations that can bring home lead dust and

Consult with lead specialist, who will also

Follow-up blood lead monitoring

Home environmental investigation

Follow-up lead blood monitoring

Obtain developmental and psychological evaluation

Consult with lead specialist, who will also evaluate for chelation therapy

Urgent evaluation for chelation therapy

Hospitalize for medical emergency

1 Refer to information about confirmation of capillary tests in Table 2.

2 Includes discussion of pic a and lead sources including house paints (before 1978), ceramics, paint on old furniture, soil, foreign travel, traditional

folks/medicines, certain imported items (candies, food, jewelry, toys, cosmetics, pottery), and parental occupations that can bring home lead dust and
debris (e.g. painting, construction, battery reclamation, ceramics, furniture refinishers, radiator repair).

3 Exposure/environmental history. Consider Notice of Defect (information at night) for child living in pre-1978 rental property.

4 Initial confirmed blood lead of 5 – 9 mcg/dL may not require home environmental investigation. Contact LHD for more guidance.

5 Refer to schedule of follow-up blood lead testing in Table 4.

6 Contact LHD for more information about care coordination for blood lead levels of 5 - 9 mcg/dL.

Use validated developmental screen for children with BLL over 20 mcg/dL, such as Ages and Stages Questionnaire (ASQ). Refer children as appropriate for

Further evaluation. Children with BLL over 20 mcg/dL should be evaluated in consultation with an experienced clinician, specialist, or Local Health

Department regarding further evaluation.

Table 5: Clinical Guidance for Management of Lead in Children Ages 0 – 6 years

<table>
<thead>
<tr>
<th>County</th>
<th>Age 0 – 6</th>
<th>Age 7 – 11</th>
<th>Age 12 – 17</th>
<th>Age 18 – 21</th>
<th>&gt; 21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore City</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Carroll County</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Howard County</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Prince George's County</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

For more information or assistance with filing a Notice of Defect, contact the Maryland Department of the Environment, Lead Poisoning Prevention Program or the Green & Healthy Homes Initiative.

A Notice of Defect is a written notice that tells the landlord that there is chipping, flaking or peeling paint or structural defect in the home that is in need of repair. A Notice of Defect may also tell the landlord that a ‘Person at Risk’ (a child under the age of six or a pregnant woman) has a lead level of 10 or above and that repairs need to be made in the home.

The Notice of Defect must be sent by certified mail, return receipt (be certain to retain a copy of the return receipt) and the rental property owner has 30 days to repair the listed defects. It is illegal for a property owner to evict a tenant or raise the rent for reporting problems and/or defects in the home or that a child has been poisoned by lead. A rental property owner can evict a tenant if they fail to make timely rental payments. To download a copy of the Notice of Defect form, visit: http://www.mde.state.md.us/programs/Land/Documents/Lead/Notifications/NoticeOfDefect.pdf.

More information or assistance with filing a Notice of Defect, contact the Maryland Department of the Environment, Lead Poisoning Prevention Program or the Green & Healthy Homes Initiative.

Clinical Resources

Mid-Atlantic Center for Children’s Health & the Environment
Pediatric Environmental Health Specialty Unit
866-622-2431
www.pedenv.org

Mt. Washington Pediatric Hospital Lead Treatment Program
410-367-2222
www.mwphg.org

Maryland Poison Control
800-222-1222

Regulatory Programs and Resources

Maryland Department of Health and Mental Hygiene
670-735-3266
dhmh.envhealth@maryland.gov
http://phea.dhmh.maryland.gov/EPHP/Pages/Lead.aspx

Maryland Department of the Environment
Lead Poisoning Prevention Program
410-537-3825/800-776-2706
http://www.mde.state.md.us/programs/Land/Lead/PoisoningPrevention/Pages/index.aspx

48
To Whom It May Concern:
Date: 2-4-20
Address: 7417 Maple Ave. Takoma Park, MD
Inspector: Daniel Perez
Readings Int/Ext: 144/30

The following components contained lead based paint according to MDE, EPA and HUD guidelines.

Interior:
Living Room:
All baseboards
All window casings, sills, sashes, wells and jambs
Front door, door jamb, sidelights and casings
Door jamb and casing to kitchen
Built in bookcases around fireplace
Stair stringers, base rail, balusters and wooden rail board mounted to rear wall halfway up the stairs

Kitchen/Dining Room:
All window casings, sills, sashes, well and jambs
All baseboards
Door, door jamb and casing to basement
Front wall
Rear left kitchen bump out B wall
Basement stair walls

2nd Floor Bathroom:
All walls and ceiling
Window casings, sills, sashes, well and jambs
Medicine cabinet
Hallway entry and closet door jambs and casings

Front Left Bedroom:
All baseboards
Window casings, sills, sashes, well and jambs
Hallway entry and closet doors, door jambs and casings
Closet shelves and shelf supports

Front Right Bedroom:
All baseboards
All window casings, sills, sashes, wells and jambs
Hallway entry door, door jamb and casing
Front built in below window

Rear Bedroom:
All baseboards
Window casings, sills, sashes, well and jambs
Hallway entry and closet doors, door jambs and casings
Closet shelf and shelf supports

2nd Floor Hallway:
All baseboards
Moldings on corners of walls
Closet door jamb and casing
Closet shelf and shelf supports
Shower access panel and casing
Attic access hatch and casing

2nd Floor Rear Office:
Front wooden panel wall
Door jamb to hallway
Basement:
Door jamb and casing leading to exterior on stairs
Wooden window sashes and inner original casings
Basement bathroom window sash and inner original casing

Exterior:
All window casings, jambs and sashes
All soffit, fascia boards and soffit supports joists
Front door, door jamb, casing, side lights and threshold
Front porch ceiling, beams and columns
Side D basement door, door jamb and casing
Garage walls, soffit, soffit support joists, fascia boards, doors, door casings and window

The following components contained lead based paint and defective paint and constitute a lead based paint hazard.

Interior:
All window wells are extremely dirty and most are chipping
Front left bedroom closet shelves, shelf supports, doors, door jambs and casings
Front right bedroom entry door, door jambs and casings
Basement stairs exit to exterior door jamb and casings

Exterior:
All soffit where chipping/peeling
Side D basement door and door jamb

To eliminate the lead based paint hazards, stabilize the paint using an EPA RRP certified contractor.

All other tested components tested negative for the presence of lead based paint.

The lead survey was conducted in accordance with Housing and Urban development (HUD) Protocols Chapter 7, dated 1997, EPA 40 CFR 745.227, and MDE COMAR Chapter 26-16.

If you have any questions, please don’t hesitate to call.

Neil Roseman
LeadProbe, Inc
Accreditations: #11110, #7799 and DC15-8101, DC14-7649
#14154, #13243, #14723, #13764, #14503, #14505, #15846, #14582, #15643, #15644 DC16-8284
TEST INSTRUMENT INFORMATION

All surface testing was performed using the Heuresis Pb200i, X-Ray Fluorescence (XRF) Lead Paint Analyzer. The instrument provides a fast quantitative measurement of lead in paint on any surface. The method of measurement is based on the spectrometric analysis of lead K-shell X-ray fluorescence within a controlled depth of interrogation. Various studies have concluded that K-shell x-ray measurement of lead in paint is more accurate and the preferred method for XRF analysis. Unlike L-shell X-rays, K-shell X-rays can easily go through the paint without being affected by the thickness and the composition of various layers of paint that can cause false readings. The controlled depth concept used restricts the penetration of the energetic K-shell X-rays into the substrate so that the system cannot be mislead by the presence of lead pipes or other objects located deep in a wall.

The Analyzer uses a Co-57 radioactive source and an advanced, solid-state, room temperature, radiation detector to generate and detect the x-ray fluorescence spectrum of a painted surface. The spectrum is then analyzed by a microprocessor to eliminate the effects of substrate and other factors such as scattering to allow an accurate determination of the amount of lead on a surface.

The instrument automatically analyzes spectrometric data in real time and differentiates the lead signal from the spectrum. The x-ray fluorescence properties are determined through calibration process and are used for automatic substrate correction and calculation of the lead content of a painted surface.

The Analyzer microprocessor executes the mathematical calculations for XRF analysis, controls the system's automatic self-calibration, and monitors all other aspects of the system operation. The Analyzer consistently monitors its own internal spectrum and makes self-adjustments as necessary. Thus, an operator does not need to perform any system calibrations in the field. Though calibrations are performed at the beginning of the job, after four hours of use and then at the end of the job.

INSPECTION PROCESS

Dwelling Unit Interiors: Upon initial entry to the unit the inspector surveyed each area to identify room equivalents, components and various substrates. The substrates noted within the dwelling units were metal, drywall, wood and concrete. The walls in each room were then assigned a designation being either A, B, C or D with A always being the wall on which faces the named street.

At the beginning of the day the inspector calibrates the instrument. Calibration is performed using a NIST provided standard of 1.0 mg/cm², lead. Six readings are taken and then averaged to determine if the instrument is within the calibration limits. If it is, the inspector will begin to take readings. If the instrument not calibrate, the inspector will attempt to calibrate the instrument. If the inspector is unsuccessful the instrument will not be used, and another instrument may be used. If no calibrated instrument is available, testing will be aborted for the day. If testing begins, the next calibration period will be at 4 hours of continuous use, or prior to shutdown of the testing for the day, whichever time span is less.

The inspector will take one reading from each wall, the floor, ceiling, baseboards, various moldings as present, doors, door casings, windows, window casings, vents, etc. At a minimum one component per room equivalent with the same substrate shall be tested, e.g. if two wooden doors are present in a room only one needs to be tested. If two doors, one metal and one wood are present in a room then both require testing. As each reading is collected the inspector annotates a mockup of the room with the reading number, not the reading itself. The instrument stores the reading numbers and readings during the testing. The mock up provides a guide as to where the testing was performed. Following completion of the inspection and final calibration, the information stored in the instrument is downloaded and the data entered into a program that generates the report.
## Certificate of Analysis: Lead In Dust Wipe by EPA Method 7000B/3050B*

**Client:** Danny Perez  
5745 Yellowrose Ct.  
Columbia, MD 21045  

**Attn:** Danny Perez  
Email: dannyperezleadinspector@gmail.com  
Phone: 910-729-0456  
Fax:  

**Client Project:** 7417 MAPLE  
**Project Location:** 7417 MAPLE

<table>
<thead>
<tr>
<th>Lab Sample ID</th>
<th>Client Code</th>
<th>Sample Description</th>
<th>Length (inch)</th>
<th>Width (inch)</th>
<th>Area (Sq ft)</th>
<th>Results Lead μg/ft² *</th>
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</thead>
<tbody>
<tr>
<td>5321122</td>
<td>1</td>
<td>LR F</td>
<td>12</td>
<td>12</td>
<td>1.00</td>
<td>&lt;5.00</td>
</tr>
<tr>
<td>5321123</td>
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<td>LR WS</td>
<td>12</td>
<td>3</td>
<td>0.25</td>
<td>&lt;20.00</td>
</tr>
<tr>
<td>5321124</td>
<td>3</td>
<td>K F</td>
<td>12</td>
<td>12</td>
<td>1.00</td>
<td>&lt;5.00</td>
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<tr>
<td>5321125</td>
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<td>0.25</td>
<td>&lt;20.00</td>
</tr>
<tr>
<td>5321126</td>
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<td>BS LANDING F</td>
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<td>&lt;5.00</td>
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<td>5321127</td>
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<td>BLANK F</td>
<td>12</td>
<td>12</td>
<td>1.00</td>
<td>&lt;5.00</td>
</tr>
<tr>
<td>5321128</td>
<td>7</td>
<td>CHILD ROOM F</td>
<td>12</td>
<td>12</td>
<td>1.00</td>
<td>10.69</td>
</tr>
<tr>
<td>5321129</td>
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<td>CHILD ROOM WS</td>
<td>12</td>
<td>3</td>
<td>0.25</td>
<td>&lt;20.00</td>
</tr>
</tbody>
</table>

**Results Lead μg/ft² *:**

- **5.00**
- **<20.00**
- **<5.00**
- **<5.00**
- **<5.00**
- **10.69**
- **<20.00**

---

**Analyst Signature:**

Ricky Perez

---

ND = Not Detected, N/A = Not Available, RL = Reporting Limit. Analytical Reporting Limit is 5 ug/sample. For true values assume (2) significant figures.  
AAT internal SOP 5205. The method and batch QC are acceptable unless otherwise stated. EPA Regulatory Limits: 10 ug/ft² (Floors, Carpeted/Uncarpeted), 100 ug/ft² (Window Sill/Stools), 400 ug/ft² (Window Trough/Well/Ext Concrete Surfaces). EPA Lead Dust Clearance Limits: 40 ug/ft² (Floors, Carpeted/Uncarpeted), 250 ug/ft² (Window Sill/Stools), 400 ug/ft² (Window Trough/Well/Ext Concrete Surfaces). HUD Grantee Regulatory Limits: 10 ug/ft² (Interior Floors), 40 ug/ft² (Porch Floors), 100 ug/ft² (Window Sills), 100 ug/ft² (Window Troughs). The laboratory operates in accord with ISO 17025 guidelines and holds limited scopes of accreditation under AIHA-LAP and NY State DOH ELAP programs. These results are submitted pursuant to AAT, LLC current terms and conditions of sale, including the company’s standard warranty and limitation of liability provisions. Analytical results relate to the samples as received by the lab. AAT will not assume any liability or responsibility for the manner in which the results are used or interpreted. All Quality Control requirements for the samples this report contains have been met. AAT does not blank correct reported values. Sample data apply only to items analyzed. Results are calculated with wipe dimensions supplied by client. Reproduction of this document other than in its entirety is not authorized by AAT, LLC. * = Validated modified method. Samples are stored for 15 days following report date.

**AAT Project:** 552503

---

* = Validated modified method. Samples are stored for 15 days following report date.
To: Danny Perez  
5745 Yellowrose Ct.  
Columbia, MD 21045  

Attn: Danny Perez  

Email: dannyperezleadinspector@gmail.com  
Phone: 910-729-0456  

Project Location: 7417 MAPLE  

<table>
<thead>
<tr>
<th>Sample</th>
<th>Client Code</th>
<th>Analysis Requested</th>
<th>Completed</th>
<th>Analyst</th>
</tr>
</thead>
<tbody>
<tr>
<td>5321122</td>
<td>1</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321123</td>
<td>2</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321124</td>
<td>3</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321125</td>
<td>4</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321126</td>
<td>5</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321127</td>
<td>6</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321128</td>
<td>7</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
<tr>
<td>5321129</td>
<td>8</td>
<td>Dust Wipe</td>
<td>02/15/2020</td>
<td>Ricky Perez</td>
</tr>
</tbody>
</table>

Reviewed By: Quality Assurance Coordinator - Stephen Northcott

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Home Energy Audit Report

Prepared For:
Howard Savage
7417 Maple Ave
Takoma Park, MD 20912

Energy Consultant:
Nolan Walker

Audit Date:
2/28/2018
Message from Atlas Home Energy

Dear Howard,

Thank you for choosing Atlas Home Energy Solutions as your partner in improving the comfort and energy efficiency of your home. The findings of your Home Energy Audit are compiled in this report which is intended to be used as a guide for implementing building performance improvements. The report is designed to give you a general view of how efficient each of the systems of your home is and to provide a detailed description of your most significant inefficiencies.

Our recommended improvements are listed in the table of contents on the next page. For details on the recommended improvements please refer to their individual sections which includes pictures and descriptions of all of our findings. The improvements are listed in terms of highest priority with respect to the comfort concerns or energy reduction goals you expressed to us during your audit.

Finally, we have compiled a list of financial incentives available in your area for energy improvements for you to save the most when you do your upgrades.

If you have questions feel free to contact us at (301) 364-5055.

Best regards,

Atlas Home Energy Solutions
# Table of Contents

*Property Overview*  
Homeowner Concerns  
Property Information  
Utility Bill Analysis  
Combustion Appliance Safety Test  

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Blower Door Air Leakage Test and Ventilation Fan Testing  
Mechanical Ventilation System Evaluation  

**Recommended Improvements**  
1 - Remedy Home Health Concerns  
2 - Air Seal and Insulate  
3 - Improve Window/Door Efficiency  

**Prioritized Scope of Work**
Property Overview

During your audit, you expressed the following concerns with regard to the comfort and energy usage of your home:

Homeowner Concerns

1. Very leaky doors
2. Temperature upstairs gets warm but 1st floor gets cold
3. Seeking home insulation estimates

Property Information

<table>
<thead>
<tr>
<th>Prepared For:</th>
<th>Howard Savage</th>
<th>Phone Number:</th>
<th>301-356-1799</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>7417 Maple Ave Takoma Park, MD20912</td>
<td>Front Door Orientation:</td>
<td>North West</td>
</tr>
<tr>
<td>Year of Construction:</td>
<td>1923</td>
<td>Lived In Since:</td>
<td>1998</td>
</tr>
<tr>
<td>Conditioned Floor Area:</td>
<td>1941ft²</td>
<td>Conditioned Volume:</td>
<td>14841ft³</td>
</tr>
<tr>
<td>Building Type:</td>
<td>Single Family Home</td>
<td>Construction Type:</td>
<td>Platform Framing</td>
</tr>
<tr>
<td>Exterior Finish:</td>
<td>Asbestos Siding</td>
<td>Roof:</td>
<td>Asphalt Shingles</td>
</tr>
<tr>
<td>Foundation Type:</td>
<td>Conditioned Basement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garage:</td>
<td>Detached Garage</td>
<td>Windows:</td>
<td>Single Pane with Storm</td>
</tr>
<tr>
<td># of Bedrooms:</td>
<td>5</td>
<td># of Occupants</td>
<td>2</td>
</tr>
<tr>
<td>Heating Type 1:</td>
<td>Mechanical Assisted Draft Boiler</td>
<td>Heating System 1 Age:</td>
<td>2016</td>
</tr>
<tr>
<td>Cooling Type 1:</td>
<td>Central AC Unit</td>
<td>Cooling System 1 Age:</td>
<td>2005</td>
</tr>
<tr>
<td>Heating Type 2:</td>
<td></td>
<td>Heating System 2 Age:</td>
<td></td>
</tr>
<tr>
<td>Cooling Type 2:</td>
<td>Electric Mini-Split</td>
<td>Cooling System 2 Age:</td>
<td>2000</td>
</tr>
<tr>
<td>Heating Type 3:</td>
<td></td>
<td>Heating System 3 Age:</td>
<td></td>
</tr>
<tr>
<td>Cooling Type 3:</td>
<td></td>
<td>Cooling System 3 Age:</td>
<td></td>
</tr>
<tr>
<td>Hot Water System Type:</td>
<td>Gas Storage Unit</td>
<td>Hot Water System Age:</td>
<td>2016</td>
</tr>
<tr>
<td>Electric Provider:</td>
<td>Pepco</td>
<td>Hot Water Fuel:</td>
<td>Natural Gas</td>
</tr>
<tr>
<td>Heating Provider:</td>
<td>Washington Gas</td>
<td>Heating Fuel:</td>
<td>Natural Gas</td>
</tr>
</tbody>
</table>
Utility Bill Analysis

Estimate Annual Savings

<table>
<thead>
<tr>
<th>Expense</th>
<th>Current</th>
<th>After</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating</td>
<td>$701</td>
<td>$664</td>
<td>$37</td>
</tr>
<tr>
<td>Cooling</td>
<td>$216</td>
<td>$143</td>
<td>$73</td>
</tr>
<tr>
<td>Water Heating</td>
<td>$158</td>
<td>$158</td>
<td>$0</td>
</tr>
<tr>
<td>Lighting and App.</td>
<td>$853</td>
<td>$716</td>
<td>$137</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1,928</td>
<td>$1,681</td>
<td><strong>$247</strong></td>
</tr>
</tbody>
</table>

Potential Bill Reduction = 12.8%

Comments on Your Bills

1. Electric bills provided by homeowner. Gas Usage information is estimated from historical data of homes with similar size, age, occupancy and heating fuel.

---

1 Estimated energy savings are calculated via Beacon HEA which is the standard Home Energy Modeling Software used by your local Electric Utility Provider. Annual costs are listed “After” all recommended improvements are implemented.

2 Atlas Home Energy Solutions
Combustion Appliance Safety Test

Heating appliances such as furnaces, boilers and water heaters which use natural gas, propane, or heating oil as a fuel, create poisonous and hazardous fumes during their standard operation. These fumes can cause health problems to people in the home.

It is crucial that any combustion safety hazard is corrected prior to air sealing or insulation work because these activities could increase the risk of health/safety problems if done improperly.

During your audit, the following tests were performed to access the state of your equipment:

1. **Worst Case Depressurization** – Test to determine if a condition exists where there is a potential for backdrafting or flame roll out from the combustion appliances
2. **Spillage** - Test to determine if exhaust gases are leaking into the house rather than being directed out of the flue/chimney
3. **Draft Pressure** – Test to determine if the flue/chimney has enough force to pull exhaust gases from the appliance.
4. **CO Content** – Test to determine if the amount of Carbon Monoxide\(^2\) (CO) in the exhaust gases is too high indicating that the appliance is operating inefficiently and is potentially hazardous.

<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
<th>Pass</th>
<th>Fail</th>
<th>N/A</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAZ(^3) Depressurization</td>
<td>-1.1Pa</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
<td>There is currently no concern that the exhaust fans in the house can backdraft the combustion equipment.</td>
</tr>
<tr>
<td>Water Heater Spillage</td>
<td></td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>No action is required at this time.</td>
</tr>
<tr>
<td>CO Content</td>
<td>1ppm</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>Furnace/Boiler Spillage</td>
<td></td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
<td>No action is required at this time.</td>
</tr>
<tr>
<td>CO Content</td>
<td>2ppm</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>Oven CO Content</td>
<td>747ppm</td>
<td>☒</td>
<td>☐</td>
<td>☒</td>
<td>The oven is currently outputting high levels of carbon monoxide. See health and safety section for recommendation.</td>
</tr>
</tbody>
</table>

\(^2\) A colorless, odorless gas which can cause headaches, fatigue, or even death in significant concentrations.

\(^3\) CAZ stands for Combustion Appliance Zone and it is where the combustion appliances are located.
Blower Door Air Leakage Test and Ventilation Fan Testing

The blower door test is used to determine how many air leaks a home has while also aiding a home energy auditor with finding the most significant air leakage problems. A quantifiable measurement of the home’s air leakage is provided from the test which can be used to determine if the house is leakier or tighter than modern ENERGY STAR Homes.

A leaky home generally has a large amount of holes between attics, crawl spaces, and the outside caused by poorly sealed plumbing/electrical penetrations and voids around large chases or framing connections. These leaks cause cold drafts, uncomfortable rooms, and diminished insulation effectiveness. Heating and cooling systems have to work harder to condition the air from these leaks which drives up utility bills. Air sealing leaky homes is one of the most cost effective ways to reduce energy usage and improve the home’s comfort.

In contrast, a tight home uses significantly less energy to keep at a comfortable temperature and has more even temperatures throughout the home. Many people believe that “a house must breathe” and that making a home too tight will result in health or building durability problems. This train of thought has been proven to be incorrect and modern building code requires building very tight homes that have mechanical ventilation systems designed to provide the correct amount of fresh air at the locations throughout a home where it is needed.

The contemporary building code requirements for mechanical ventilation systems apply to both leaky and tight homes. While owners of older homes are not required to install mechanical ventilation systems because they are “grandfathered,” we advise upgrading the home’s ventilation systems whenever work is being performed that will make a home tighter. By upgrading the ventilation systems, you ensure that enough fresh air is moved through the house to remove indoor air pollutants like dust mites, odors, and moisture, and to provide fresh air for occupants to breath.

On the next page are the results from the air leakage test on your home. Compare your air tightness rate to the ideal air tightness rate. A typical whole house air sealing plan achieves a minimum 20% reduction in your current air tightness rate. Estimated savings are based off of achieving a 20% reduction.
This Home’s Blower Door Test Results

<table>
<thead>
<tr>
<th>Your Home’s Air Tightness Rate (CFM50)</th>
<th>Ideal Tightness Rate* (CFM50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>742</td>
</tr>
</tbody>
</table>

*Ideal tightness rate is the level required for a new home of equal size to your home to be qualified as ENERGY STAR.

General Recommendation from Blower Door Test Results:

A blower door test was not performed during the audit due to the presence of vermiculite, ventilation calculation can only be done with blower door test number.

Air sealing activities should be completed from top to bottom in your home in order to maximize cost effectiveness while minimizing the risks of creating a combustion safety problem. Refer to the “Insulate and Air Seal” section for more details on where major air leakage is occurring in your home and how to fix it.

**Mechanical Ventilation System Evaluation**

Below are the results of testing that was performed on the ventilation systems in your home. We recommend upgrading any ventilation system that is currently lower than the current building code’s required rate if any air sealing work is performed that will make the home tighter.

<table>
<thead>
<tr>
<th>Ventilation System</th>
<th>Required Ventilation Rate</th>
<th>Current Ventilation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole House Ventilation*</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Kitchen</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Basement Bathroom</td>
<td>50</td>
<td>37</td>
</tr>
<tr>
<td>2nd Floor Bathroom</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>

*Extremely Leaky Homes may not require a whole house ventilation system
1 - Remedy Home Health Concerns

There are a variety of health hazards prevalent in homes including:

1. **Carbon Monoxide** – A colorless odorless gas which can cause headaches, nausea, and fatigue.
2. **VOC’s** – Gases emitted by household products including paint, cleaning products, and certain types of home furnishings like rugs and couches. Some VOC’s cause headaches, loss of coordination, and can cause cancer.
3. **Radon** – A colorless odorless gas which is the second leading cause of lung cancer in America. It is emitted by radioactive decay in the ground.
4. **Mold** – Growth occurs in areas of high moisture content. Allergic reactions, asthma and other health effects can be caused by inhaling mold spores.

These hazards can become more dangerous when air/vapor barriers are improperly installed or simply not installed in homes. Some problems that can be caused by this are: (1) **backdrafting** of combustion appliances, (2) **improper ventilation** to remove indoor air pollutants and to provide oxygen to occupants, (3) **moisture accumulation** in walls or crawlspaces leading to mold and rot.

Based off of testing and observations in your home we recommend the following actions:

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kitchen</td>
<td>Service the Oven to Lower Carbon Monoxide Output Below 100ppm</td>
</tr>
<tr>
<td>2</td>
<td>Utility</td>
<td>Gas Leak Detected</td>
</tr>
<tr>
<td>3</td>
<td>Main Attic</td>
<td>Identify and RemEDIATE Vermiculite Insulation</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 1 - Service the Oven to Lower Carbon Monoxide Output Below 100ppm

The oven for this house is currently outputting a high level of carbon monoxide. This is typically caused by having an improper fuel to air mixture or dirty burners. The oven should be serviced by an appliance technician like Sears or A&E Appliance to lower Carbon Monoxide output below 100ppm.

![High CO reading from oven](image)

### 2 - Gas Leak Detected

The auditor detected a potential natural gas leak / issue in the basement. An HVAC technician or certified plumber should remediate this situation before air sealing and insulation work can be done in your home. The specific location where a gas leak was detected is at the gas line near the water heater in the basement. Refer to picture.

![Gas leak detected near water heater](image)
3 - Identify and Remediate Vermiculite Insulation
Currently, the attic is insulated with vermiculite. This is a pebble-like insulation that is no longer used because of potential health risks. Vermiculite may contain asbestos, and because of this, your attic should be inspected and remediated by a professional abatement company.

| Potential vermiculite with asbestos | Vermiculite under fiberglass batts |
2 - Air Seal and Insulate

Insulation is installed in walls, ceilings, and floors which are between conditioned space and attics, crawl spaces, common town house units and the outside to **prevent heat loss in the winter** and **heat gain in the summer**. This insulation can either be fiberglass, cellulose, foam, or cotton, and it must be installed properly to control room temperatures. Insulation is only effective when it is installed in contact with the interior and exterior air barriers of the home. Often either the interior or exterior air barriers are ineffective because of electrical and mechanical penetrations or because they were installed poorly or they’re simply missing. Before insulation is installed air barriers must be identified or installed to ensure maximum performance of the thermal barrier.

Below are areas in your home where air barrier or insulation deficiencies exist:

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Attic</td>
<td>Seal all Air Leakage Pathways into the Attic</td>
</tr>
<tr>
<td>2</td>
<td>Main Attic</td>
<td>Increase Attic Insulation Levels to R-49</td>
</tr>
<tr>
<td>3</td>
<td>2nd Floor Dormers</td>
<td>Seal and Insulate Dormer Closets on the 2nd Floor</td>
</tr>
</tbody>
</table>

4

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8
1 - Seal all Air Leakage Pathways into the Attic

There are numerous gaps and cracks at top plates, electrical/mechanical/plumbing penetrations and recessed lights which allow air leakage into the attic. These areas should be sealed with spray foam insulation to reduce heat loss during the winter and heat gain during the summer.

| Common plumbing and wiring penetration | Common plumbing penetration in attic |

2 - Increase Attic Insulation Levels to R-49

The attic insulation levels are currently only R-13 which is much less than the current code of R-49. In addition, there are areas in the attic where the insulation has been trampled by maintenance work and is as low as R-0 levels. Additional loose fill insulation should be added to bring the attic to R-49.

| Current main attic insulation | Well insulated R-49 attic with damming |
3 - Seal and Insulate Dormer Closets on the 2nd Floor

The dormer closet areas in the 2nd floor are currently not sealed to prevent air from leaking into the house. All of the existing fiberglass insulation should be removed to allow access to install spray foam insulation that will stop air movement and provide a superior insulation value. This should occur in all dormer areas.

| Dormer within 2nd floor closet | Example of encapsulated attic space |
3 - Improve Window/Door Efficiency

While windows and doors are commonly talked about as the one of the most important energy saving upgrades; replacing all the windows or doors in your home is often one of the least cost effective energy improvements. However, some problems caused by old or improperly installed windows/doors can be fixed cost effectively. These include:

1. Installing Weather-stripping on leaky doors
2. Sealing leaky window frames and sashes
3. Installing low-e films to existing windows
4. Adding blinds and drapes to block unwanted heat from the sun

Your Windows and Doors

<table>
<thead>
<tr>
<th>No.</th>
<th>Location</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Front/Rear/ Basement</td>
<td>Weather-strip multiple doors around the house.</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1 - Weather-strip multiple doors around the house.

A few doors around the house are poorly sealed and need to have new weather-stripping installed. Kerf style foam weather-stripping should be installed around the perimeter of the door and a new threshold sweep should be installed. The strike plate for the door may need to be adjusted to ensure a tight seal when the doors are closed.
## Prioritized Scope of Work

**Homeowner:**
Howard Savage  
7417 Maple Ave  
Takoma Park, MD 20912  
(P) 301-356-1799

**Atlas Energy Auditor:**
Nolan Walker  
(O) (301) 364-5055  
(C) (301) 364-5055  
(E) nolan@atlashomeenergy.com

### Recommended Improvements

1. Service the Oven to Lower Carbon Monoxide Output Below 100ppm
2. Gas Leak Detected
3. Identify and Remediate Vermiculite Insulation
4. Seal all Air Leakage Pathways into the Attic
5. Increase Attic Insulation Levels to R-49
6. Seal and Insulate Dormer Closets on the 2nd Floor
7. Weather-strip multiple doors around the house.

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4 Recommended improvements are listed with highest priority first. Improvements should not be completed out of order without consulting the Energy Auditor first.
Michael,

Thank you for making the trek to our home today. I wanted to follow up with the additional information I provided during our discussion:

- We received some very bad news over the weekend. Our home was tested for lead and the laboratory results have found levels above the EPA thresholds (results attached). Obviously that is extraordinarily concerning given we have a toddler in the house who is tremendously at risk given the level of brain development at this age. More information on the risks to children can be found from the Montgomery County health department [here](#).

- Previous testing (see attached) confirms that our windows are a source of lead paint.

- Updating windows is out of alignment with Maryland's recommendations. From the [Maryland Department of the Environment](#): "Maryland regulations do not allow dry scraping, sanding, or burning of lead paint, because these methods create health hazards. Do replace old windows and wood trim that have deteriorated." Montgomery County's Health Department reaffirms this guidance: "The best way to prevent lead poisoning is to remove the source of lead."

- As you saw today, our windows are chipping off lead paint and the recommended course of action from the state and county is removal, not remediation.

- The Montgomery County Historic Preservation Ordinance recommends approval when health risk is present (24-A8 (b)(4))

- We are spending tremendous resources to replace the window with a firm that has substantial experience with historic areas using windows specifically designed to retain our home's historic character. Each window will cost my family >$1,000.

I really appreciate you getting us on the docket for March 11th. And please let us know what further documentation is helpful as you build our case file.

Best,

Dave
Michael,

Since I sent you this information we had a lead inspection performed on our home. Perhaps unsurprisingly (20912 is a at risk zip in the MD guidelines, attached), the window sills, jambs, sashes were identified as containing lead. As the Montgomery Count health guidelines advise, removing the source of lead is the course of action (attached). In particular, the guidelines state, "Remove the lead source promptly and safely."

We'd ask that this information be considered alongside our already provided materials.

Best,

Dave

On Wed, Feb 5, 2020 at 11:43 AM David Bend <dave.d.bend@gmail.com> wrote:

Michael,

I appreciated speaking to you on 1/24 and your guidance for our application. I have attached a document with the requested information, a site plan (Ngan Truong at DPS said it could be hand drawn), the energy audit I cite in the document, and the window cut sheet for additional details.

Please let me know if any further information is needed for your review. As I mentioned on the call, we have reached out to window restoration companies. But, they have not responded to our inquiries. So, we see replacement as our available option to address the substantial leakiness of the existing windows.

Best,

Dave

On Fri, Jan 3, 2020 at 11:22 AM Kyne, Michael <michael.kyne@montgomeryplanning.org> wrote:

Hello,

We are in receipt of your Historic Area Work Permit (HAWP) application for window replacement at 7417 Maple Avenue; however, your application is currently incomplete and has been postponed from the January 22, 2020 Historic Preservation Commission (HPC) meeting. The following information is required to complete your application:
A complete window survey, which includes:
- Exact dimensions of each window to be replaced and its individual components (i.e., stiles, rails, lite openings).
- Exact dimensions of each proposed new window and its individual components for comparison.
- A full and accurate conditions assessment for each window to be replaced.
- Photographs of each window to be replaced, which are keyed to the window survey and a site plan.

This information can be provided to me directly via email.

Please be aware that, unless you can sufficiently demonstrate that the existing windows are not historic and/or are severely deteriorated, staff will not recommend approval of your proposal. The Commission typically exercises greater leniency for basement-level windows, but the proposed new windows have to be constructed from compatible materials. Generally speaking, vinyl windows are not considered compatible.

If you can demonstrate that the six existing first- and second-floor windows are deteriorated beyond repair, the HPC will require you to replace them in-kind with windows of the same style, dimensions, and materials, as documented by your window survey. If you would like to discuss appropriate and compatible alternatives to window replacement, please let me know. I would also recommend that you reach out to Historic Takoma to discuss your proposal, as they will be afforded an opportunity to comment on your application when it comes before the HPC, and they may be able to provide you with additional guidance regarding appropriate alternatives.

Thank you,

Michael Kyne
Planner Coordinator | Historic Preservation Section
Montgomery County Planning Department | M-NCPPC
8787 Georgia Avenue, Silver Spring, MD 20910 | 301-563-3403
Michael.Kyne@montgomeryplanning.org