CHAPTER 3:
GENERAL REHABILITATION DESIGN GUIDELINES

INTRODUCTION
The following design guidelines are for use by property owners of older buildings when considering rehabilitation projects. They can also be used by property owners and their architects when developing designs for alterations to, and strategies for rehabilitation or repair of, historic houses and/or their features. The Historic Preservation Commission will use these guidelines, along with other adopted criteria for approval as outlined in the Historic Preservation Commission’s adopted Rules, Guidelines, and Procedures, in formal reviews of proposed changes to designated historic properties.

These general rehabilitation design guidelines address issues associated with the preservation of historic buildings and their settings. They include the best methods of preserving original materials, the sensitive treatment of character-defining features and how to deal with other important building elements, such as porches and the arrangement of windows.

Maintaining and repairing an original building, and its component features, is the desired preservation objective and method. In cases when repair of historic features is not an option, the next best step in preserving a building’s historical integrity is to reconstruct the damaged or missing building element.

Designing a new feature is appropriate in some circumstances but should be the last option. Historic evidence should be referenced in the design of a new feature. Ideally, photographic evidence exists that helps reconstruct the missing element. When photographs are not available, examining the building’s architectural style to create a simplified interpretation may be appropriate. The evidence should be used to create a plan for reconstruction that will be evaluated by county staff and the HPC. The plan should include all details, materials and finishes proposed for the reconstruction.

This hierarchy of steps is aimed at preserving the historical character of the building and should be followed whenever possible.

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Rehabilitation
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 Secretary of the Interior's Standards for the Treatment of Historic Properties
In-kind Replacement

In-kind replacement requires that the new feature exactly match the old in design, color, texture, and materials. Reference Appendix page APP-1 for the Secretary of the Interior’s Standards for Rehabilitation #6.

Guideline 1.1: A column bracket and associated moldings are character-defining features and should not be altered or removed.

Guideline 1.1: The wrap around front porch, uniquely designed balustrade, post brackets, and ornate barge board are all character-defining features of this structure that should be preserved.

1.0 Treatment of Character-Defining Features

Historic features contribute to the character of a structure and are referred to as character-defining features. They should be preserved when feasible, with continued maintenance as the best preservation method.

In some cases, original architectural details may be deteriorated. Horizontal surfaces, such as chimney caps and window sills, are likely to show the most deterioration because they are more exposed to weather. When deterioration occurs, repair the material and any other related problems. It is also important to recognize that all details weather over time and that a scarred finish does not represent an inferior material, but simply reflects the age of the building. Therefore, preserving and repairing original materials and features that show signs of wear is preferred to replacing them.

While restoration of the original feature is the preferred alternative, in-kind replacement may be an option in certain circumstances. In the event replacement is necessary, the new material should match that being replaced in design, color, texture and other visual qualities. Replacement should occur only if the existing historic material is beyond repair. In those limited situations where the use of original materials is not feasible, appropriate substitute materials closely resembling the design, color, texture and other visual qualities of the original may be considered.

Design Objective

Preserve historic architectural features and details.

1.1 Maintain significant stylistic and architectural features.

- Do not remove or alter architectural details that are in good condition or that can be repaired.
- The best preservation procedure is to maintain historic features from the outset so that intervention is not required. Employ preventive measures such as rust removal, caulking, limited paint removal and reapplication of paint. These should not harm the historic materials.
- Porches, turned columns, brackets, exposed rafter tails and jigsaw ornaments, if historic, are examples of architectural features that should not be removed or altered.
1.2 Avoid adding nonoriginal elements or details to the building.
   • For example, decorative millwork or shingles should not be added to a building if they were not original to the structure.

1.3 Protect architectural details from moisture accumulation that may cause damage.
   • Regularly check details that have surfaces which can hold moisture for long periods of time.

Design Objective
Deteriorated architectural details should be repaired rather than replaced.

1.4 Repair only those features that are deteriorated.
   • Patch, piece-in, splice, consolidate or otherwise upgrade existing materials, using recognized preservation methods.
   • Isolated areas of damage may be stabilized or fixed using consolidants. Epoxies and resins may be considered for wood repair, for example.
   • Removing damaged features that can be repaired is not appropriate.
   • Protect features that are adjacent to the area being worked on.

1.5 When disassembly of a historic element is necessary for its restoration, use methods that minimize damage to the original materials.
   • When temporary removal of a historic feature is required during restoration, document its location so it may be repositioned accurately. Always devise methods of re-installing disassembled details in their original configuration.

1.6 Use technical procedures for cleaning, refinishing and repairing architectural details that will maintain the original finish.
   • When choosing preservation treatments, use the gentlest means possible that will achieve the desired results.
   • Employ treatments such as rust removal, caulking, limited paint removal and reapplication of paint or stain.
Design Objective
Replace historic features in-kind when restoration is not an option.

1.7 **Replacement of a missing or deteriorated architectural element should be accurate.**
- The design should be substantiated by physical or pictorial evidence to avoid creating a misrepresentation of the building’s history.
- Use the same kind of material as the original. When use of the original material is not feasible, use of a substitute material may be acceptable on a case-by-case basis if the size, shape, texture and finish convey the visual appearance of the original.

1.8 **When reconstruction of an element is impossible, use a simplified interpretation of the original.**
- This approach is appropriate when inadequate information exists to allow for an accurate reconstruction of the original.
- The new element should be similar to comparable features in general size, shape, texture, material and finish.

Guideline 1.7: It is appropriate to replicate an original feature if it has deteriorated beyond repair.

Guideline 1.8: It is appropriate to reconstruct a missing architectural element. In this case the missing bracket can be reconstructed based on the existing bracket.
2.0 ORIGINAL MATERIALS

In Montgomery County, the predominant materials used to clad historic buildings included wood lap siding, shingles, brick, plaster, stucco and stone. Historic building materials and craftsmanship add textural qualities as well as visual continuity and character to the streetscape and should be preserved.

Nonhistoric materials, such as aluminum, vinyl, fiber-cement board or siding, and other synthetic materials are not appropriate for historic structures. However, these materials may be acceptable for additions, new construction or accessory structures in certain circumstances.

**Design Objective**
Preserve primary historic building materials whenever feasible.

2.1 Retain and preserve original wall and siding materials.
- Avoid removing original materials that are in good condition or that can be repaired in place. Avoid replacing a major portion of an exterior wall that could be repaired. Reconstruction may result in a building that has lost its integrity, and may cause maintenance problems in the future.
- In many cases, original building materials may not be damaged beyond repair and do not require replacement. Cleaning, repainting or restaining, ensuring proper drainage and keeping the material clean may be all that is necessary.
- Painting or staining wood surfaces is recommended.

2.2 Do not cover or obscure original facade materials.
- Covering of original facades not only conceals interesting details, but also interrupts the visual continuity along the street.
- Avoid covering historic materials. Introduction of any material or siding - such as vinyl, aluminum, fiber cement board, stucco, imitation brick or other synthetic material and even wood—to cover historic materials is inappropriate.
Guideline 2.6: Repoint only those mortar joints where there is evidence of moisture problems or when sufficient mortar is missing.

- Duplicate the old mortar in strength, composition, color, texture and joint width and profile.

Guideline 2.7: Protect wood siding and other wood surfaces with a stain or paint.

- If the building was painted historically, it should remain painted, including all trim. If the building was stained historically, it should remain stained.

Guideline 2.7: If the building was painted historically, it should remain painted, including all trim.
Design Objective
Original materials that have deteriorated over time should be repaired rather than replaced.

2.9 Repair deteriorated, primary building materials by patching, piecing-in, consolidating or otherwise reinforcing them.
- Avoid the removal of damaged materials that can be repaired.
- Use the gentlest means possible to clean a structure. Perform a test patch to determine that the cleaning method will cause no damage to the material’s surface. Many procedures, such as sandblasting and pressure washing, can actually result in accelerated deterioration or damage materials beyond repair.
- Use technical procedures for removal of hazardous materials that preserve, clean, refinish or repair historic materials and finishes.

Substitute Materials
National Park Service Preservation Brief #16 provides guidance on the use of substitute materials. Reference Appendix page APP-2 for more information.

Guideline 2.9: Use the gentlest means possible to clean a structure. It is inappropriate to sandblast as it is often too harsh and will damage original materials.

Design Objective
Replace original building materials in-kind when repair is not an option.

2.10 When replacement is needed, use materials similar to those employed historically.
- Match the original in composition, scale and finish when replacing exterior siding. If the original material is wood clapboard, for example, then the replacement should be wood as well. It should match the original in size, the amount of exposed lap and surface finish.
- If original material is painted, replacement material should be painted.
- Do not use synthetic materials, such as aluminum, vinyl siding, fiber-cement board, or other synthetic materials, as replacements for primary building materials.

Guideline 2.9: Repair deteriorated primary building materials by patching in pieces of wood rather than replacing entire wood members. (Norbeck, MD)
3.0 Porches

A porch is one of the most important character-defining elements of a facade, in part because it provides visual interest to a building. It can influence a facade’s perceived scale, protect entrances and pedestrians from rain and provide shade in summer.

Altering or removing an original porch - particularly one visible from the public right-of-way - is generally not recommended. Porches in need of maintenance should be repaired, rather than replaced altogether. This approach is preferred because original materials contribute to the character of both the porch and the historic building.

While replacing an entire porch is discouraged, it may be appropriate in some cases. For example, a property owner may wish to reintroduce a porch that was removed at some point in the past. The first step is to research the history of the house to determine the appearance and materials of the original porch. The most important aspects of a replacement design are its location, scale and materials. Historical documentation may provide some indication of the appearance of the historic porch, which should guide the design of the reconstruction. If no historical documentation is available, it is appropriate to turn to other source materials, such as a porch on a similar style house. In this case, the new porch details should be compatible with the style of the house, and generally simplified in design.
Design Objective
Preserve a porch in its original condition and form.

3.1 Maintain an original porch, when feasible.
- Do not remove an original porch from a building.
- Maintain the existing location, shape, details and structural elements (such as piers, columns, or posts) of the porch.
- Missing or deteriorated decorative elements should be replaced to match existing elements (e.g., match the original proportions and spacing of balusters when replacing missing ones).
- Avoid using a porch support that would be substantially different in size than other supports on the porch or than that seen historically.

3.2 Enclosing a porch with opaque materials that destroy the openness and transparency of the porch is inappropriate.
- Where a porch must be enclosed, use transparent materials (such as glass) and place them behind the balusters and balustrade to preserve the visual character of the porch.

Design Objective
Repair a deteriorated porch instead of removing or replacing it.

3.3 Repair those elements of a porch that are deteriorated.
- Removing damaged materials that can be repaired is generally inappropriate.

3.4 Consider restoring an altered porch back to its original design and configuration.
- If the historic design of the porch is unknown, then base the design of the restoration on other traditional porches of a similar architectural style.
- For example, if the original wood porch steps have been replaced with concrete, consider restoring them to their original, wood condition.

Preserving Historic Wooden Porches
National Park Service Preservation Brief #45 provides guidance on the preservation of historic wooden porches. Reference Appendix page APP-4 for more information.
Design Objective
Replace a missing porch with one that appears similar to that seen historically.

3.5 When porch replacement is necessary, it should be similar in character, design, scale and materials to those seen traditionally.
- The size of a porch should relate to the overall scale of the primary structure to which it is attached.
- Base the replacement design on historical documentation if available.
- Where no evidence of the historic porch exists, a new one may be considered that is similar in character to those found on a similar architectural style.

3.6 A porch should use materials similar to those seen historically.
- Wood decking (most often tongue and groove), steps, balustrades and brick or stone piers or wood porch supports were most common.
- Synthetic materials, used for columns, flooring, or railings, are generally not appropriate, particularly for porches visible from the public right-of-way.
- Do not replace a wood porch decking and steps with concrete or synthetic materials.

Existing Condition: Craftsman style house with an altered enclosed porch.

Preferred Approach, when historical documentation is available:
Craftsman style house with a replacement porch designed similar to that seen historically. Historic documentation may include historical photographs or detailed sketches of the original porch.

Acceptable Approach, when historical documentation is not available: Craftsman style house with a simplified interpretation of a traditional porch design. A simplified porch design may be based off a similar house of the same Craftsman style in the area.
4.0 Windows & Doors

Windows and doors are some of the most important character-defining features of a structure. They give scale to buildings and provide visual interest to the composition of individual facades. These features are sometimes inset into relatively deep openings in a building wall or they may have surrounding casings and sash components that have substantial dimensions. They often cast shadows that contribute to the character of the building.

The replacement of historic windows or doors represents the loss of character-defining historic features, and as such should not be undertaken. First, consider the repair of deteriorated windows or doors instead of replacement. Many repaired historic windows and doors will have a longer life span and be more durable than replacements. Older windows and doors typically were built with well seasoned wood from stronger, durable, more weather resistant old growth trees; many current wood windows and doors are constructed of new growth, kiln dried wood, which is much less durable, or of generally inappropriate synthetic materials.

Shutters are important parts of windows and they should be preserved and maintained. Their removal is inappropriate, as well.

Energy Conservation

A common misperception is that older windows are energy inefficient and contribute to uncomfortable rooms and increased heating costs in the winter. In fact, properly weather-stripped and caulked historic windows with a storm window perform approximately as well as modern, double-glazed windows and sometimes even better. Most heat loss is associated with air leakage through gaps in windows rather than loss of energy through the historic windows.

The most cost-effective energy conservation measures for most historic windows are to replace glazing compound, repair wood members and install weather stripping. These steps will dramatically reduce heat loss while preserving historic features.

If additional energy savings is a concern, consider installing an exterior storm window. It should match the historic window divisions such that the exterior appearance of the original window is not altered.
Design Objective
Preserve the size and shape of windows and doors because they significantly affect the character of a structure.

4.1 Preserve the functional and decorative features of original windows and doors.
- Repair frames, sashes, and shutters by patching, splicing or reinforcing.
- Use original windows, doors and their hardware when they can be repaired and reused in place.
- Ornamental and structural details, such as lintels and window hoods, should be preserved and repaired.

4.2 Maintain original window and door proportions.
- Altering the original size and shape is inappropriate.
- Reducing the size of an original opening to accommodate a smaller window is inappropriate.
- Restoring original openings which have been altered is encouraged.

4.3 Maintain the historic window arrangement and solid-to-void ratio.
- Large surfaces of glass are generally inappropriate on historic structures.
- Where large areas of glass are necessary, consider placing them on secondary facades. Also, divide them into several smaller windows that are in scale with those seen traditionally.

Guideline 4.3: Preserve the historic ratio of window openings to solid wall on a primary facade.
Design Objective
Repair a deteriorated window or door instead of replacing it or enclosing the opening.

4.4 Repair wooden window and door components by patching, piecing-in, consolidating or otherwise reinforcing the wood.
- Avoid the removal of damaged wood that can be repaired.
- Remove built-up paint on both the interior and exterior surfaces.
- Disassemble sash components and repair or stabilize the wood.
- Re-glazing, or replacement of the putty that holds in glazing, may also be necessary.
- Repair and refinish the frame as needed.
- Replace broken sash cords with new cords or chains.
- Repair and repaint window shutters.
- Install weather-stripping.
- Repaint the wooden members of the repaired and reassembled window or door.

4.5 Do not add new window or door openings on character-defining facades.
- This is especially important on primary facades.
- Greater flexibility in installing new windows or doors may be considered on secondary elevations.

4.6 If security is a concern, consider using wire glass, tempered glass or light metal security bars.
- These should be installed on the interior of the window or door whenever feasible.
- The use of heavy grade steel bars is inappropriate.
True-Divided Light (TDL)
Window construction in which multiple individual panes are assembled in the sash using muntins.

Simulated-Divided Light (SDL)
Window construction in which muntins are fixed to the inside and outside of the glass pane to simulate the look of true divided light. Snap-in muntins or muntins “sandwiched” between panes of glass are inappropriate.

Design Objective
Replace a window or door that is damaged beyond repair with one similar to that seen historically.

4.7 When window or door replacement is necessary, match the replacement to the original design as closely as possible.
• In most cases, wood, true-divided light (TDL) windows are recommended. In limited situations, wood, simulated-divided light (SDL) windows, undivided lights windows, or non-wood windows may be appropriate. Reference the table on page 62 for guidance.
• Replacement windows and doors that do not reflect the character of the building are inappropriate.
• If the original window is double-hung, then the replacement should also be double-hung. Match the replacement also in the number, dimension and position of glass panes.
• Match, as closely as possible, the profile of the sash and its components to that of the original window.
• Preserve the original casing.
• Consider using a salvaged historic door or window as a replacement.

4.8 A new opening should be similar in location, size and type to those seen traditionally.
• Windows should be simple in shape, arrangement and detail. Unusually shaped windows, such as triangles and trapezoids, are inappropriate.

4.9 New windows and doors should be finished with functional and decorative features similar to those used traditionally.
• This trim should have a dimension similar to that used historically.
• Shutters should have similar dimensions to that used historically. Typically, shutters are half the width of the window opening. Shutters should generally be made of wood and appear operable.

4.10 When their use is appropriate, SDL windows should have muntins that are permanently bonded to the interior and exterior of the insulating glass to simulate the appearance of TDLs.
• TDL windows are preferred.
• Fake wooden muntins should create a similar effect as TDLs.
Appropriate Actions for Windows
The table on the following page details the appropriate action for historic windows and new windows on historic resources, new additions, historic accessory structures, and non-historic accessory structures. The table also identifies the proper action for particular resource types, including a Master Plan Site, Outstanding, Contributing, or Non-Contributing resources. Additionally, best practice for windows on primary and secondary elevations is detailed.

Simulated-divided light windows have a single window pane “sandwiched” between muntins. In certain cases, fixed muntins attached to the inside and outside of a window are appropriate.

Determining an appropriate action may depend on the elevation of the window(s) under review and whether or not it is visible from the public right of way.
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<td><strong>Master Plan Site</strong></td>
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<td>Primary Elevation: Wood TDL appropriate for resource type/style</td>
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<td>Wood SDL appropriate for resource type/style</td>
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<td>Secondary Elevation: Repair historic windows; if beyond repair, wood TDL.</td>
<td>Secondary Elevation: Wood TDL appropriate for resource type/style</td>
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<td>Nonhistoric Windows: Wood SDL appropriate for resource type/style</td>
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<td><strong>Outstanding</strong></td>
<td>Primary Elevation: Repair historic windows; if beyond repair, wood TDL.</td>
<td>Primary Elevation: Wood TDL appropriate for resource type/style</td>
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<td>With historic windows: Repair historic windows; if beyond repair, wood TDL</td>
<td>Wood SDL appropriate for resource type/style</td>
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<td></td>
<td>Secondary Elevation: Repair historic windows; if beyond repair, wood TDL.</td>
<td>Secondary Elevation: Wood TDL appropriate for resource type/style</td>
<td>Not visible from PRW: Wood SDL appropriate for resource type/style</td>
<td>Nonhistoric Windows: Wood SDL appropriate for resource type/style</td>
<td>Wood SDL appropriate for resource type/style</td>
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<tr>
<td><strong>Contributing</strong></td>
<td>Primary Elevation: Repair historic windows; if beyond repair, wood TDL.</td>
<td>Primary Elevation: Wood SDL appropriate for resource type/style</td>
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<td>Wood SDL appropriate for resource type/style</td>
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<td></td>
<td>Secondary Elevation: Repair historic windows; if beyond repair, wood TDL.</td>
<td>Secondary Elevation: Wood SDL appropriate for resource type/style</td>
<td>Not visible from PRW: Wood SDL appropriate for resource type/style</td>
<td>Nonhistoric Windows: Wood SDL appropriate for resource type/style</td>
<td>Wood SDL appropriate for resource type/style</td>
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<tr>
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These are minimum standards. The majority of projects subject to HPC review involve light wood frame construction, which traditionally had wood windows. The window guidance above is specific to these types of resources. Other types of resources may traditionally have used windows constructed of materials other than wood, and in those cases the use of other window materials may be appropriate. Contact County staff for interpretation of rating a Resource Category.

- TDL: True Divided Light
- SDL: Simulated Divided Light
5.0 Roofs

Although the function of a roof is to protect a building from the elements, it also contributes to the overall character of the building. The roof is a defining feature for most historic structures. When repeated along the street or within a group of buildings, the repetition of similar roof forms contributes to a sense of visual continuity. In each case, the roof pitch, its materials, size and orientation are all distinct features that contribute to the character of a roof. Gabled and hip forms occur most frequently, although shed and flat roofs appear on some building types.

A variety of roof materials exist. Roof materials are major elements in the street scene and contribute to the character of individual building styles. However, they are susceptible to deterioration, and their replacement may become necessary.

Traditional roof materials include slate, wood shingle, standing seam metal, and tiles (and for 20th century resources, asphalt shingles). The use of traditional materials is recommended, as often the higher initial cost of these materials will be offset by the longevity and durability of the material.

Design Objective

Preserve the original form and scale of a roof.

5.1 Preserve the original roof form of a historic structure.

- Most roof forms are pitched, such as gable, hipped, mansard and gambrel roofs.
- Avoid altering the angle of a historic roof. Instead, maintain the perceived line and orientation of the roof as seen from the street.
- Retain and repair roof detailing.

5.2 Regular maintenance and cleaning is the best way to keep a roof in good shape.

- Look for breaks or holes in the roof surface and check the flashing for open seams.
- Watch for vegetation, such as moss and grass, which indicates accumulated dirt and retained moisture.
- Often, repairing a basically sound roof can be much less expensive than a complete replacement.
Guideline 5.3: Preserve the original eave depth of a historic roof.

A metal seam roof is a traditional roof material and should be preserved and maintained.

5.3 Preserve the original eave depth of a historic roof.

- The shadows created by traditional overhangs contribute to one's perception of the building's historic character and scale.
- Cutting back roof rafters and soffits or in other ways altering the traditional roof overhang is inappropriate.
- Boxing in exposed roof rafters is inappropriate.

Design Objective
Use roof materials in a manner similar to that seen historically.

5.4 Preserve original roof materials.

- Avoid removing roof material that is in good condition. Replace it with similar material only when necessary.

5.5 Replacement roof materials for a historic house should convey a scale and texture similar to those used traditionally.

- Replacement in-kind is encouraged. A roof replacement material should be in keeping with the original architectural style of the structure.
- New roof materials should match the original in scale, color and texture as closely as possible.

Slate is a traditional material used on roofs in Montgomery County.
6.0 CHIMNEYS
The chimney is an important element of many historic buildings. The size and materials of a chimney, most often brick or stone, should be maintained. The orientation and placement of the chimney on the building, whether interior or exterior, at a gable end or center of a building, should be preserved.

Design Objective
Preserve the original form, orientation, and placement of a chimney.

6.1 Preserve an original chimney.
• Maintain, repair and repoint a chimney as required.
• Retain the original height, details, profile and materials of a chimney.
• Avoid removing chimney materials that are in good condition. Replace with similar materials only when necessary.

Design Objective
Use chimney materials in a manner similar to that seen historically.

6.2 Replacement chimney materials should convey a similar scale and texture.
• A chimney replacement should be in keeping with the original architectural style of the structure.
• New chimney material should match the original in scale, color, and texture as closely as possible.
Large Dormers
Dormers are typically added to a structure to increase the amount of headroom in upper floors. They are traditionally designed as small elements. If significant increase in space is desired, do not consider oversized dormers. Rather, develop an addition to the rear of a structure.

Guideline 7.1: The number and size of new dormers should not overwhelm the historic building as they do in the middle sketch. Placement of dormers on the rear or side roof slopes is preferred.

7.0 Dormers
Dormers may be an appropriate way to add habitable square footage to attic or upper level spaces. Dormers should be designed to be in character with the structure.

Design Objective
A new dormer should not adversely affect the historic character of the structure.

7.1 A new dormer should be in character with the design of the primary structure.
- The style of the dormer should match the style and character of the primary structure.
- A dormer should be subordinate to the overall roof mass and should be in scale with those on similar historic structures.
- The number and size of dormers should not visually overwhelm the scale of the primary structure.
- The dormer should be located below the ridge line of the primary structure.
- Locating a dormer on a side or rear of a building’s roof is preferred.

Gabled dormers are appropriate for most architectural styles while hipped dormers are appropriate for only some architectural styles.
8.0 Skylights
Skylights can provide light to interior spaces that normally do not receive natural light. Skylights should be installed on rear- or side-facing roof planes to reduce visibility from the public right-of-way. Inserting a skylight into original roofs, especially those made of slate, is discouraged.

Design Objective
Minimize the visual impacts of skylights from the public right-of-way.

8.1 Design a skylight to avoid negative impacts on the historic character of a structure.
- Skylights should not interrupt the lines of a historic roof plane. They should be lower than the ridgeline.
- Flat skylights that are flush with the roof plane may be considered on the rear and sides of the roof.
- Locating a new skylight on a front roof plane should be avoided.
- Bubbled or domed skylights are inappropriate.
- Skylights will be reviewed on a case by case basis.
9.0 Solar Panels
Solar panels should be located in unobtrusive places. If it is necessary to mount solar panels on a historic building, rather than elsewhere on the site, it is essential that the panels are installed such that they do not change the character of the building. If solar panels are placed on a roof they should be designed and positioned to have a minimal effect on the character of the structure. Placement on rear facing roof planes of the primary structure should be considered first.

Design Objective
Solar panels should not adversely affect the historic character of the structure to which they are being added.

9.1 Reduce the visual impacts of solar panels as seen from the public right-of-way.
- Locate the solar panels away from public view when feasible.
- Solar panels should be mounted apart from the building or on secondary structures, such as a shed or garage, when feasible.
- Solar panels should be located on new construction, such as a new wing, when possible.
- Locate an attached solar panel in a manner such that it does not affect the primary roof facade elevations.
- Location on a primary or street facing roof plane is generally inappropriate.
- Where roof mounted, solar panels should be flush to the extent feasible.
- If not attached to the building, collectors should be located in side or rear yards. Exposed hardware, frames and piping should have a matte finish, and be consistent with the color scheme of the primary structure.
- Panels not attached to the building should be screened by landscaping to reduce their visibility. However, screening may diminish the effectiveness of the collectors to receive sunlight.
- Alternative technologies, such as photovoltaic shingles, may be appropriate in certain circumstances.
10.0 Landscaping & Trees

Mature Trees & Shrubs
Mature landscaping that is in character with historic site designs in the form of tree cover and shrubbery should be retained. Mature trees and shrubs may be dispersed throughout front, side, and rear yards of properties. They act as buffers between properties and often reduce the perceived scale of larger homes. It is also important to reference the Tree Technical Manual to determine if a tree is a champion or specimen. Proposals to remove trees six inches in diameter or greater require HPC review. Applicants may be required to submit a site plan noting the location and type of all trees with a diameter of six inches or greater.

Landscaping
Native and acclimated plant materials significantly contribute to the sense of “natural setting” in many of the historic districts within Montgomery County. While most historic plant materials have been replaced over time, some specimens do survive, and in other situations, the traditional planting patterns have been retained, even if new plants have been installed. Plant materials should be used to create continuity among buildings, especially in front yards and along the street edge. Plants should be selected that are adapted to Montgomery County’s climate and that are compatible with the historic context. In most cases, the HPC does not review minimal changes to the greenscape.

Streetscape
The streetscape contributes to the character of many historic districts and includes sidewalks, planting strips, and street trees. Street trees, often placed in the sidewalk planting strip, create a lush canopy over many streets. Sidewalk materials and design may vary from district to district. Materials include concrete, pavers, and bricks while the sidewalk designs include detached sidewalks with planting strips to sidewalks that are attached to the street curb. This variation in materials and design should be maintained. Landscape materials in the planting strip should not detract from the historic character of the district or impede pedestrian or vehicular travel. Often grass, flowers or small scrubs are placed in the planting strip. This tradition should be continued.

Tree Technical Manual
Produced by the County, the Tree Technical Manual, should be referenced for information on native tree species, planting specifications, tree protection specifications, and soil data. Reference http://www.mc-mnppc.org/environment/forest/trees/toc_trees.shtml

Register of Champion Trees
Maintained by the Montgomery County Forest Board, the Register includes information on location and size of the species champion trees.

Champion Trees
The largest of its specimen within the United States, the State, County or Municipality, as appropriate.

Specimen Tree
A tree that is a particularly impressive or unusual example of a species due to its size, shape, age or any other trait that epitomizes the character of the tree.

Certified Arborist
A certified arborist should be consulted to determine the health of a mature tree or shrub.
Design Objective
Preserve mature landscape and trees, and natural vegetation when feasible.

10.1 Maintain historic trees and shrubs.
• A champion, species, or mature trees should not be removed unless the tree is dying, dead, diseased or poses a safety hazard to the residents or public.
• If proposed new construction is adjacent to or within the drip line of any tree six inches in diameter or larger, an accurate tree survey must be filed with the application. The tree survey must indicate the size, location, and species of trees.
• Removal of trees of more than six inches in diameter require a permit and must be reviewed by the Historic Preservation Commission. Other county and municipal ordinances may also apply.
• If a tree is cut down, at least one replacement tree, of a similar kind should be replanted in its place, unless it would damage the house.
• Replacement plant materials should be similar in kind, size or equivalent massing to the plants removed (e.g., a cluster of smaller new trees may be used to establish a massing similar to one large tree).

10.2 Preserve historic landscape features.
• Existing native planting should be preserved in place. This particularly applies to historically significant trees, shrubs and garden designs.
• Existing historic landscape should be preserved, and should be protected during construction projects.

10.3 Preserve historic streetscape features.
• Street trees should be preserved in place.
• The design and materials of sidewalks should be preserved.
• Landscaping should not detract from the historic character of the street and the property.
10.4 In new landscape designs, use materials that are compatible with the historic property and the neighborhood.

- Minimize the amount of hard surface paving for patios, terraces, sidewalk planting strips and driveways in the front yard.
- The tradition of landscaping located along structural elements (such as foundations, walkways and fences or walls) should be continued.
- Avoid planting too close to a structure that will damage architectural features or building foundations. This also can cause moisture retention against the structure.

10.5 Consider using plant materials that are adapted to Montgomery County’s climate if water conservation is a concern.

- Use native, water conserving, and regionally appropriate landscaping.
- Group together plants with similar watering needs.
- The use of an automatic drip or low volume irrigation system to water shrubs and trees is encouraged.

Sidewalk materials vary in the historic districts of Montgomery County.
11.0 DRIVEWAYS

When parking was originally introduced to most historic areas, it was an ancillary use and was located to the rear of a site. This tradition should be continued, and in all cases, the visual impacts of parking - which includes driveways, garages, and garage doors - should be minimized.

Design Objective

Historic driveways should be preserved.

11.1 Preserve a historic driveway where it exists.
- The orientation of a driveway on a site should be preserved.
- The original driveway design should be preserved. For example, if the driveway has two paved driving strips with turf between the strips, when replacement is needed, a new driveway should take this design.
- The design and layout of bricks or pavers should be preserved.
- Original materials should be preserved and repaired when possible.

11.2 Replacement materials should be compatible with the original.
- For example, bricks replacing damaged ones should have similar colors and dimensions.

Guideline 11.1: It is inappropriate to alter the original orientation of a driveway. Additionally, large areas of paving are also discouraged as they cause rain water runoff to the street and adjacent properties.

Guideline 11.1: Historic driveways should be preserved.
Design Objective
New driveways should have compatible materials and a minimal square footage.

11.3 Use paving materials that will minimize a driveway’s impact.
- Decomposed granite, pea gravel, exposed aggregate concrete, gravel or chip and seal are appropriate paving materials.
- Consider installing two paved strips with turf between them instead of a single, wide paved surface.
- Large areas of paving are inappropriate.
- Plain asphalt or black top is discouraged.
- Use materials that are pervious to water to minimize rain water runoff into the street or onto adjacent properties.

11.4 Locate new driveways such that they will minimize the impact on the historic resource, its environmental setting, and the streetscape.
- New driveways should be sited to the side or rear of the primary structure.
- Installing new driveways in front of historic resources, such as a semi-circular drive, is generally inappropriate.

Guideline 11.3: Pervious materials, such as pavers, are appropriate.
Fences and site walls may be appropriate for historic properties. A fence should have a relatively transparent character to allow views into yards, while a site wall should be low in height and step to follow a site’s topography. Both fences and site walls should maintain the visual character of the historic setting.

Where historic fences and site walls survive, they should be preserved. The height and design of a replacement fence or wall should be in character with those used traditionally. A new fence or site wall may be appropriate, but it is important that it relate to the principal structure on the lot.

**Design Objective**

A fence, gate or site wall should be in character with those used traditionally and relate to the principal structure on a lot.

12.1 Preserve original fences, gates and site walls.
- Replace only those portions that are deteriorated. Any replacement materials should match the original in color, texture, size and finish.
- It is recommended that a historic wood fence or gate should be protected against the weather with paint or stain.
- Where no fence exists, keeping the yard open may be the best approach for a front yard.

12.2 Where a new fence, gate or site wall is needed, it should be similar in character to those seen historically.
- A new fence or site wall that defines a front yard or a side yard on a corner lot is usually low to the ground.
- A new fence or gate should be “transparent” in nature, such as picket.
- Solid privacy fences, forward of the rear plane of a house, are discouraged.
- The design and materials of a new fence, gate or site wall should be similar to those used historically.
- Chain link, plastic, fiberglass, rebar, plywood and mesh “construction” fences are inappropriate.
12.3 Front and side yard fences, gates, and site walls in front of the rear plane of the building should be no greater than 4’ in height.

12.4 Side and rear yard fences, gates, and site walls behind the rear plane of the building should be no greater than 6’6” in height.
• Consider a gradual increase in fence height from the front side yard to rear side yard.

12.5 A side yard fence should be set back from the primary facade of a house.
• Two types of side yard fences were seen traditionally: a fence that extends between two houses and a fence that runs between two houses.
• A side yard fence should be set back to provide the historic sense of open space between homes.
• Consider staggering the fence boards on either side of the fence rail, or using lattice on the upper portions of the fence, to give a semi-transparent quality to the fence.

12.6 A combination of fencing and screening vegetation may be appropriate.
• Painting or staining a wood fence or gate is recommended.
• Landscaping should be integrated with the design of the fence.

Historic masonry site walls and metal fences should be preserved.

Guideline 12.4: Consider a gradual increase in fence height from the front side yard to rear side yard.

Guideline 12.4: Rear and side yard fences can be built higher in order to provide the homeowner with greater privacy.
13.0 Retaining Walls
Retaining walls were used throughout Montgomery County. Many of these walls survive and are often important character-defining features of individual properties.

As retaining walls frequently align along the edges of sidewalks, they help to establish a sense of visual continuity along many streets. These walls also may have distinct mortar characteristics. Some joints are deeply raked, with the mortar recessed, creating strong shadow lines. Others have mortar that is flush with the stone surface, while some have a bead that projects beyond the stone face. The color and finish of the stone, as well as its mortar style, are distinct features that should be preserved.

In some cases, the mortar joint has eroded from the retaining walls. Such walls should be repointed using a mortar mix that appears similar in color, texture and design to that of the original. On occasion, some bricks or stones are badly deteriorated or may even be missing. New replacement stones should match the original when this occurs.

Replacement and new retaining walls should be designed to match the original or style of the property. The mortar style and joint should match those seen traditionally in the historic district and style of the primary structure.

Design Objective
Preserve, maintain, and repair original retaining walls.

13.1 Preserve original retaining walls.
• Replace only those portions that are deteriorated. Any replacement materials should match the original in color, texture, size and finish.
• If repointing a wall is necessary, use a mortar mix that is similar to that used historically and match the original joint design.
• Painting a historic masonry wall, or covering it with stucco or other cementious coatings, is inappropriate.
Design Objective
A retaining wall should be stepped, clad, finished or articulated to reduce its visual mass and scale.

13.2 Retaining walls should follow the natural topography and be articulated and finished to minimize visual impact.
- Use native rock or other masonry that conveys a sense of scale and blends in with the surrounding context.
- Where a taller retaining wall is needed, a series of terraced or stepped walls is preferred.
- Screen retaining walls with landscaping, such as trees and shrubs.
- Concrete retaining walls faced with stone are preferred over undressed concrete.

Guideline 13.2: Larger retaining walls should be terraced or stepped with the topography and be screened with landscaping.

New retaining walls should use traditional materials, such as stone.
14.0 ACCESSORY STRUCTURES & OUTBUILDINGS

Historically, accessory structures and outbuildings were divided into two types, domestic and agricultural. Domestic structures were generally smaller in scale and included building types such as: spring houses, smoke houses, wash houses, ice houses, and slave quarters. Other examples include garages, carriage houses, and sheds. Agricultural structures include English and German bank barns, corn cribs, granaries, loafing sheds, and others. Because accessory structures and outbuildings help interpret how an entire property was used and evolved, their preservation is strongly encouraged.

Many of the materials and building forms used traditionally in accessory and outbuildings were employed in the construction of the primary building. In preserving or rehabilitating accessory and outbuildings, it is important that the character-defining materials and building form be preserved. Most accessory and outbuildings had rectangular plans and gabled or shed roofs. Bank and dairy barns often had a gambrel roof form.

When a new accessory building is required it should be built in the rear yard and follow regulations set out by Montgomery County and in some cases, the municipality. The new structure should have a smaller mass and scale than the primary structure and be constructed of compatible materials. Additionally, it should be seen as new, meaning that it should be recognizably modern and not replicate a historic precedent.

Design Objective
Retain and restore original or early accessory structures and outbuildings.

14.1 Preserve historic accessory structures and outbuildings.

- Respect the character-defining features, such as the cladding materials, roof materials, roof form, window and door openings and any architectural or early construction details of a historic garage, accessory building or ancillary structures.
- Avoid moving a historic garage or accessory building from its original location wherever possible.
- Avoid the demolition of historically significant accessory structures and outbuildings.
Design Objective
New accessory structures and outbuildings should be compatible with the primary structure on a property.

14.2 New accessory structures and outbuildings should be compatible with the primary structure.
- New construction should be similar in style but recognizable as new.
- Architectural details, materials, and style should be compatible to the primary structure.
- The mass and scale should be in proportion to the primary structure.
- New accessory structures and outbuildings should be located in the rear yard and conform to Montgomery County and municipality zoning and building regulations.

By the early 19th century bank barns were widely used in central and upper Montgomery County. These barns are significant and should be preserved. (Poolesville, MD)
15.0 Signs
A sign typically serves two functions: first, to attract attention and second, to convey information. However, signs associated with a historic building should not detract attention from the important design features of the building. All new signs should be developed with the overall context of the building and historic district in mind, and in accordance with county and municipal ordinances and regulations. Signs should be constructed and mounted in a reversible manner that does not damage the historic fabric of the building.

Design Objective
Preserve, maintain, and repair historic signs.

15.1 Historic signs should be preserved, maintained and repaired where they exist.
• Original colors and materials should be preserved.
• Consider preserving historic signs even when the function or name of a building has changed.

Design Objective
A new sign should be compatible with the building to which it is attached.

15.2 Signs should be subordinate to the overall building and its site.
• Scale signs to fit with the facade of the building.
• Sign design must be consistent with county and municipal regulations.

15.3 A sign should be in character with the materials, color and detail of the building or site.
• Simple letter styles and graphic designs are encouraged.

15.4 Use indirect lighting on signage.
• Direct lighting at signage from an external, shielded lamp.
• A warm light, similar to daylight, is appropriate.
• Strobe lighting and internal illumination is inappropriate.

15.5 Avoid damaging or obscuring architectural details or features when installing signs.
• Minimize the number of anchor points when feasible.
• Mount signage to fit within existing architectural features.

Appropriate Sign Types
• Awning or Canopy signs
• Directory signs
• Projecting signs
• Symbol signs
• Window signs

Historic Signs
National Park Service Preservation Brief #25 provides guidance on preserving historic signs. Reference Appendix page APP-3 for more information.
16.0 STOREFRONTS

Although the majority of historic resources in Montgomery County are residential structures and accessory buildings, there are a few examples of commercial stores. The following storefront design guidelines will apply to these structures. Design guidelines for items such as windows, doors, and roofs may also apply and should be referenced for specific treatment techniques.

Many of the historic stores in Montgomery County took the form of a traditional house with a gabled roof and rectangular building footprint. Traditional materials such as wood lap siding were used. (Distinguishing the store building type from similar residential structures is the storefront on the at street level.) Also present are representative examples of various vernacular twentieth century commercial design as well as more high-style examples built in the Art Deco and other popular twentieth century architectural styles. A storefront may include character-defining elements such as: display windows, transom, kickplate, entry (sometimes recessed), cornice molding, and signage.

Preserving significant historic storefronts and restoring altered or missing storefront features are important preservation goals. When planning for the rehabilitation of a storefront, an evaluation of the building’s historic integrity should be conducted. Researching archival materials such as historic photos and building plans can be helpful in understanding the role of the storefront and its relationship to the street. Examining the existing building for any clues regarding the location of glass, window supports and transoms can also provide important information on the original design of a missing or altered storefront feature.
Design Objective
Preserve, maintain, and repair a historic storefront.

16.1 Preserve the historic character of a storefront when it is intact.
- Maintain the interest of pedestrians through an active street level facade.
- Preserve the storefront glass if it is intact.
- The use of reflective glass, or otherwise obstructing display windows, is inappropriate.

16.2 Retain the original shape of the transom glass in a historic storefront.
- Preserve the historic shape and configuration of the transom as it is important to the proportion of the storefront.
- Install new glass if the original transom glass is missing. However, if the transom must be blocked, use it as a sign panel or a decorative band, but be certain to retain the original proportions.
- Do not increase transom areas beyond their historic size and proportion.

16.3 Maintain historic storefront openings.
- Avoid altering the size and shape of storefront openings as they are important characteristics that contribute to the integrity of a historic commercial building.
- Consider restoring a storefront opening to its original condition.
- Consider developing a compatible and contemporary design when the original window is missing.

16.4 If a storefront is altered, consider returning it to the original design.
- Use historic photographs or a simplified interpretation of nearby storefronts if evidence of the original design is missing. The storefront should be designed to provide interest to pedestrians.
- Design new features to be subordinate to original historic features.
- Maintain the alignment of the front façade when altering or restoring a previously altered storefront.

The Darby Store, built in 1910, is a typical two-story front gabled store in Montgomery County. The transom windows, display windows, and entry are important storefront elements that should be preserved. (Beallsville, MD)
16.5 An alternative design that is a contemporary interpretation of a traditional storefront is appropriate.

- Consider a new design that uses traditional elements when the original is missing.
- Design new storefronts to convey the characteristics of typical storefronts, including the transparent character of the display windows, recessed entries and cornices.
- Do not alter the size of a historic window opening or block it with opaque materials.
- Preserve early storefront alterations that have taken on historic significance. In some cases, removing early alterations and reconstructing the original would be appropriate.

The Cedar Grove Store, built in 1909, is an example of a traditional store with a gabled roof, storefront at street level and upper story windows. (Cedar Grove, MD)

The Staub Building had a variety of uses over the decades, including a car dealership, post office, feed store, and restaurant. The storefront includes upper story windows and ground level display windows. (Beallsville, MD)