



Calvert County, Maryland Historic District **DESIGN GUIDELINES**



ADOPTED NOVEMBER 29, 2022

Cover Images (clockwise from top left):

Drum Point Lighthouse, Solomons

Barn, Owings

Linden (also known as the John Gray House), Prince Frederick

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1. Glossary of Terms

Any term not defined in the glossary below shall follow the definitions in § 57-3 of the Calvert County Code of Public Law. Refer to [Appendix A](#) for a link to the ordinance.

Americans with Disabilities Act (ADA) – A 1990 civil rights law that prohibits discrimination based on disability and imposes accessibility requirements for public buildings and sites. Codes prescribe the minimum approaches to meet ADA requirements.

Archeological Resource – Material remains of human life or activities more than fifty years of age that provide scientific or humanistic understanding of past human behavior. All historic sites have potential for archeological resources below the earth.

American Society for Testing and Materials – A standards organization that develops and publishes technical standards for many different materials, products, and systems throughout the world. Commonly referred to as “ASTM”.

Baluster – A vertical element that supports a railing.

Balustrade – A railing system including top rail and supporting balusters.

Bargeboard – Trim boards fastened along the edge of a gable roof.

Brick Bond – The pattern in which bricks are laid to form a wall or paved surface.

Calvert County Board of County Commissioners – A board comprised of five elected officials by Calvert County; the Board of County Commissioners are responsible for designating Historic Districts within Calvert County.

Calvert County Historic District (Historic District) – A local designation that recognizes historic properties, sites, buildings, structures, objects, or districts for their significance in the county and/or American history, archeology, architecture, engineering, or culture and identifies them as worthy of preservation.

Calvert County Historic District Commission (Commission) – A committee of seven citizens who are interested and active in historic preservation appointed by the Board County Commissioners to advise on the protection, enhancement, and perpetuation of Historic Districts of Calvert County.

Casement Window – A casement window has sash that are attached to the frame with hinges on the side and operate by swinging in or out.

I. Glossary of Terms

- Character-Defining Feature** – A visual or tangible element that contributes to the unique quality of an historic building or site; if removed or inappropriately altered the architectural character would be compromised.
- Chinking and Daubing** – Materials used to fill in the joints between logs. Chinking, installed first, is made of larger pieces, usually sticks and rocks. Daubing is the smooth outer layer made from a mixture of clay and lime.
- Corbel** – A projecting block, usually of stone or brick, used to support a horizontal member.
- Cultural Landscape** – A geographic area, including both cultural and natural resources, associated with an historic event, activity, or person.
- Dormer** – A small projection from the sloping side of a roof used to create a window opening in the roof plane.
- Double-hung Window** – A double-hung window has an operable top sash and an operable bottom sash, both move vertically (see also Single-hung Window).
- Eave** – The horizontal part of a roof that projects beyond the wall surface.
- Exterior Insulation and Finishing System** – A modern cladding system with a smooth exterior surface that can mimic the appearance of stucco. Commonly referred to as “EIFS”.
- Elevation** – An exterior face of a building or a scale drawing thereof.
- Fanlight** – A semi-circular window over a door, typically with radial muntins.
- Flashing** – Material used at joints and other surfaces to prevent the passage of water into a building.
- Historic Area Work Permit (HAWP)** – A document affirming that proposed work is appropriate to the historic nature of a site and meets the local ordinances for historic preservation.
- Historic Setting** – The area, environment, or surroundings in which a property is located and experienced, its context.
- In-kind** – Replacement of a building element to match the original in material, size, profile, texture, and color.
- Landform** – A natural geomorphic feature on the Earth’s surface that is part of the terrain.
- Maryland Historical Trust (MHT)** – A state agency, part of the Maryland Department

of Planning, dedicated to preserving and interpreting the legacy of Maryland's past through research, conservation, and education. MHT serves as Maryland's State Historic Preservation Office.

Molding – A decorative trim piece milled into a particular shape.

Mullion – A vertical post that divides units of a window.

Muntin – A narrow member between panes of glass of a window.

National Park Service – An agency of the federal government that manages and preserves national parks, national monuments, and other conservation and historical properties.

National Register of Historic Places – The federal government's list of districts, site, buildings, structures, and objects deemed worthy of preservation for their historical significance.

Ordinary Maintenance – That which does not alter the exterior features of an historic site or resource within an Historic District. Exterior features include the architectural style, design and general arrangement of the exterior; the color, nature and texture of building materials; and the type and style of all windows, doors, light fixtures, signs and similar items found on or related to the exterior of an historic site or resource within an Historic District. Basically, ordinary maintenance is that which will have no material effect on the historical, architectural, cultural or archaeological value of the historic site or historic resource within an Historic District.

Pantile – A roofing tile, typically made of clay, that has a curved profile.

Parapet – A wall extension that forms a barrier at the edge of a roof, balcony, or other structure.

Parging – An exterior coat of plaster applied to a masonry wall, often used for waterproofing foundation walls.

Pediment – A triangular shaped element found in classical architecture that forms the end of a roof or a cap over a doorway.

Primary Façade – The exterior elevation of a building which contains the principal entrance and is typically oriented toward the street.

Repair – To reduce the long-term deterioration of a building's fabric by remedying the cause of any defects.

Resource – Evidence of past human activity, such as a building, structure, site, or object, that is part of or constitutes an historic property. Also known as "cultural resource" or "historic resource."

I. Glossary of Terms

Ridge – The top line of a sloped roof.

Sash – the movable part of a window that holds the glass panes together.

Secretary of the Interior – The head of the United States Department of the Interior. The *Secretary of the Interior's Standards for the Treatment of Historic Properties* are common sense historic preservation principles that are regulatory for federal historic tax credits.

Sidelight – A vertical window located on the side of a door.

Single-hung Window – A single-hung window has a fixed top sash and an operable bottom sash that moves vertically (see also Double-hung Window).

Spalling – The chipping or flaking of a masonry surface often due to weathering.

Terne Plate – Iron plate dipped in an alloy of lead and tin. It was a popular metal roofing material in the 19th and early 20th centuries.

Transom – A horizontal glazed opening directly over a doorway or storefront.

Truss – An assembly of structural elements, typically arranged in triangular sections, forming a framework for a rigid structure.

Valley – The intersection of two sloping roof surfaces.

Veneer – A thin layer of material used as decorative facing that is not load bearing.

Vernacular – Architecture that is characterized by the use of local materials and craftsmanship rather than a particular style.

Wythe – A vertical section of brick or masonry that is one unit thick.

2. Introduction

A. Purpose of Design Guidelines

Design guidelines are created by communities concerned with the appearance of their buildings as well as how that appearance contributes to their economic health and civic pride. Over twenty-two hundred cities, towns and counties across the country have adopted design guidelines as part of their historic preservation efforts. Most are designed to protect and enhance the quality of buildings, landscapes, and public spaces and to encourage historic preservation. All should be designed to provide a basis for objective decision making about

the appropriateness of proposed changes to the environment by the local historic commission.

The Calvert County Historic District Design Guidelines (Guidelines) have been created to provide guidance in best practices for rehabilitation and to assist owners and tenants of historic buildings to maintain, preserve, and enhance the character of their property. The Guidelines are also intended to assist architects, engineers, contractors, and others involved in maintaining and enhancing the buildings, open spaces, and landscapes within the historic



Log Barn at Morgan Hill Farm, Lusby. Image courtesy of Calvert County.

2. Introduction

districts to plan and implement projects that preserve and enhance the character of those districts. In addition, the Guidelines provide assistance when undertaking new construction, both additions to existing buildings as well as entirely new buildings, within the historic districts.

B. Historic Resources of Calvert County

Since its founding in 1654, Calvert County's settlement patterns and cultural development have been driven by its geography and use of the land and water. Even in pre-history, the climate, topography, and marine environment left a unique and valuable imprint that remains today. This imprint can be seen in the County's broad array of historic resources, from buildings to boats and archeological sites.

The wealth of archeological resources that contribute to the County's history are significant. Jefferson Patterson Park and Museum, for example, protects over 75 sites representing 12,000 years of human history. On-going research and exploration of the archeological resources throughout the County continually broadens the potential areas that merit assessment, conservation, and protection. The recorded archeological sites in Calvert County provide critical information about natural and Native American history as well as contribute to our understanding of the lifestyles and culture of the County's European and African inhabitants.

More easily recognized but not always clearly understood are the buildings, engineering works, boats, landscapes, and other historic resources of Calvert County. Historic resources are recognized, invento-



Lower Marlboro Hall (also known as Lower Marlboro United Methodist Church), Lower Marlboro.

ried, and protected in different ways at the federal, state, and local levels, though the designations are not mutually exclusive.

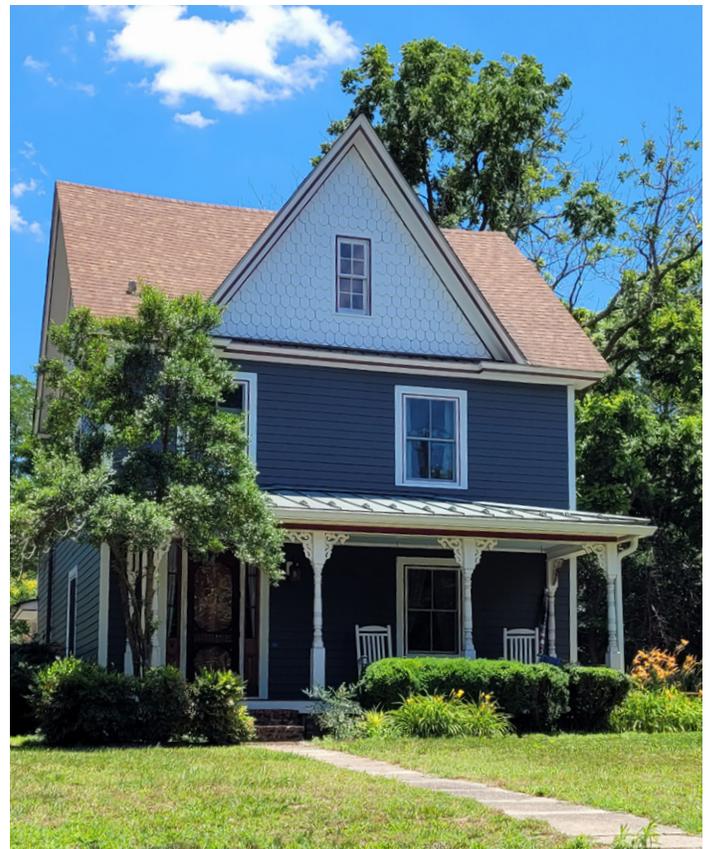
Federal designations include National Historic Landmarks, which represent resources most significant to our nation's history, and the National Register for Historic Places. The national designations are largely honorary and do not impose restriction on what private property owners can do with their property. They do require that federal action or funded activity (such as building a highway) consider the effects that these activities may have upon National Register eligible or listed properties. Federally listed property owners are eligible for state and federal historic tax credits. Refer to [Appendix A](#) (Directory of Resources) for more information about national designations.

The Maryland Historical Trust (MHT), Maryland's state historic preservation office, provides support for federal designations and offers a number of financial incentives, including tax credits, grants, and loans for historic preservation, that often require that property be listed in or eligible for listing in the National Register. Refer to [Appendix A](#) for more information about MHT and state designations.

Local designations protect historic resources with preservation ordinances that are tailored to the local community. Calvert County's preservation ordinance falls under Chapter 57 Historic Districts of the Code of Public Local Law. Refer to [Appendix A](#) for a link to the ordinance. Property owners or other citizens, with the owner's consent, may apply for designation as a Calvert County Historic District (Historic District). Generally, the applicant will provide information on design, development, and history of the

resource, including prominent people or events associated with the site.

An application for a property to be designated as a Calvert County Historic District is made to the Calvert County Historic District Commission (Commission). Staff from the Calvert County Department of Planning and Zoning will answer questions and can guide applicants through the process. The Commission will consider the application, typically making a site visit as part of the review process and holding a public hearing for comment as part of the application process. After review and a favorable recommendation by the Commission, the application is presented to the Board of County Commissioners for final review, hearing and vote. Refer to [Appendix A](#) for more information about the local designation process and links to the County website.



Hinman House, Lower Marlboro.

2. Introduction

Owners of local Historic Districts agree to obtain approval from the Commission prior to undertaking any exterior work on their property, including additions and new construction, other than ordinary maintenance. Ordinary maintenance does not alter the exterior features of a site or resource and does not require an Historic Area Work Permit (refer to pg. 9); examples include reattaching a sagging roof gutter, repairing paving with like materials and like design, and repairing broken glass.

Local designation provides a level of protection for properties and provides local preservation tax credits and other financial incentives to assist owners with maintaining them. Further, the property owner will receive a bronze plaque to display on the building or at the site acknowledging that it is a Calvert County Historic District. These Guidelines are the policy of Calvert



Front porch of the Linden House, Prince Frederick.

County for all designated Calvert County Historic Districts and serve as a reference for historic preservation best practices.

C. Calvert County Historic District Commission

Calvert County's historic district program and the Historic District Commission were initiated in 1974. The intent of the Calvert County Ordinance for the Designation and Preservation of Historic Districts is to maintain or improve the quality of life and economic benefit to the citizens of the County. Article One delineates the six main goals of the ordinance:

- 1) Preserve the county's heritage;
- 2) Stabilize and improve property values, and strengthen the local economy;
- 3) Foster civic beauty;
- 4) Promote historic districts for the education, welfare and pleasure of residents;
- 5) Develop an awareness of the value of preserving, protecting and restoring the county's heritage; and
- 6) Enable the County to identify and officially designate structures and sites of importance making them eligible for specific benefits.

The Commission is made up of seven members who are appointed by the County Commissioners because they have special interest or training in architecture, preservation, history, design, or other relevant disciplines. All commission members must be Calvert County residents. The primary tasks of the Commission are reviewing Historic District applications for inclusion on the County's list of historic resources and forwarding comments and recommendations to the Board of County Commissioners for action, as well as reviewing all proposed changes to Historic Districts

through the Historic Area Work Permit process and adjudicating applications for historic tax credits for eligible work. The Commission is also empowered to accept preservation easements and appropriate donations to carry out its mission. The Commission meets monthly at open, public meetings.

D. Historic Area Work Permit

The property owner or authorized designee must complete an application for an Historic Area Work Permit (HAWP) including photographs, maps, plans or any other requested material. If the work being proposed requires a building permit, or a clearing or grading permit, those permits will not be issued until the Commission has reviewed and approved the applicant's HAWP. Refer to [Appendix A](#) for more information about the local des-

ignation process and links to the County website for applications.

The Commission reviews plans for any type of alteration, addition to, or demolition of any building, structure, fence, roadway, healthy tree, or other important feature of a historic resource that is more than ordinary maintenance and that modifies, alters, or otherwise affects the exterior features of a designated Historic District. The review includes any plans to remove materials or features used on any part of an historic resource, changes of roofing, gutters, shutters, windows, porches, and the like, as well as changes to landscapes and visible paving.

E. Local Historic Tax Credits

All designated Calvert County Historic District owners are eligible to apply for



J.C. Lore Oyster House, Solomons.

2. Introduction

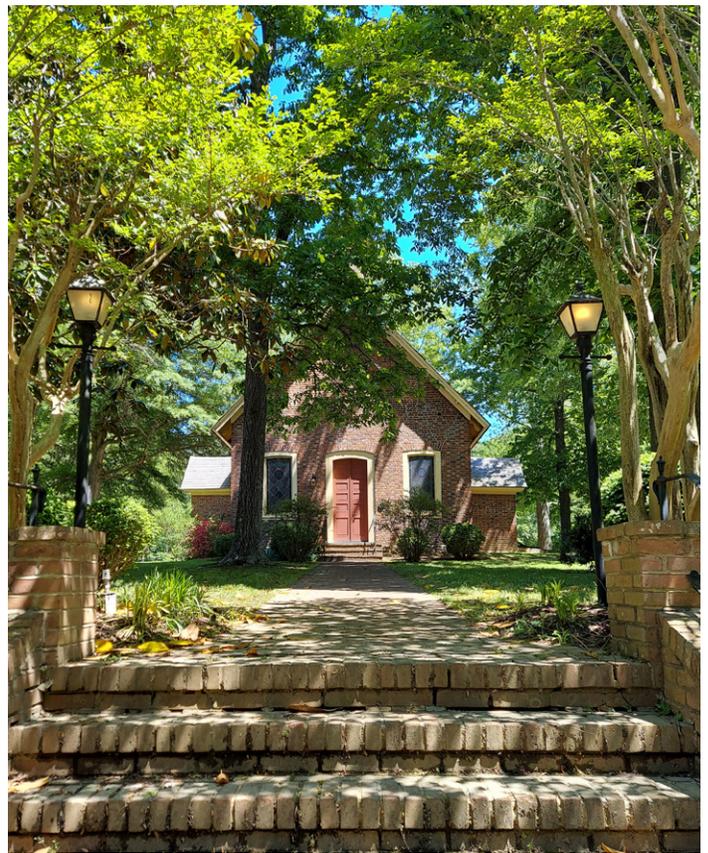
local historic tax credits to assist with property maintenance. The local tax credits may be combined with state tax credits. Please note that the processes and reviews for state and local tax credits are different, and it is not guaranteed that property owners who qualify for local credits will qualify for state credit. Refer to [Appendix A](#) for more information about applying for local historic tax credits.

F. Standards for Review

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* was established as part of the National Historic Preservation Act of 1966 to promote historic preservation best practices and protect our nation's cultural resources. Its framework for responsible preservation practices can be applied to a broad scope of historic resources, including buildings, sites, structures, objects, and districts.

The *Standards* recommend four approaches to the treatment of historic properties – preservation, rehabilitation, restoration, and reconstruction. *Preservation* is intended to maintain the existing form, integrity, and materials of a building or site, *restoration* is intended to return a property to a specific period through the removal of later work, and *reconstruction* is the rebuilding of a property that no longer exists. *Rehabilitation* allows for carefully considered repairs, alteration, and additions to an historic property so that it may be compatible for contemporary use.

The Calvert County Historic District Commission uses the *Secretary of the Interior's Standards for Rehabilitation* as the basis for determining the appropriateness of proposed changes to buildings and landscapes within an Historic District. The *Standards for Rehabilitation* have become the basis to judge



Middleham Chapel, Lusby.

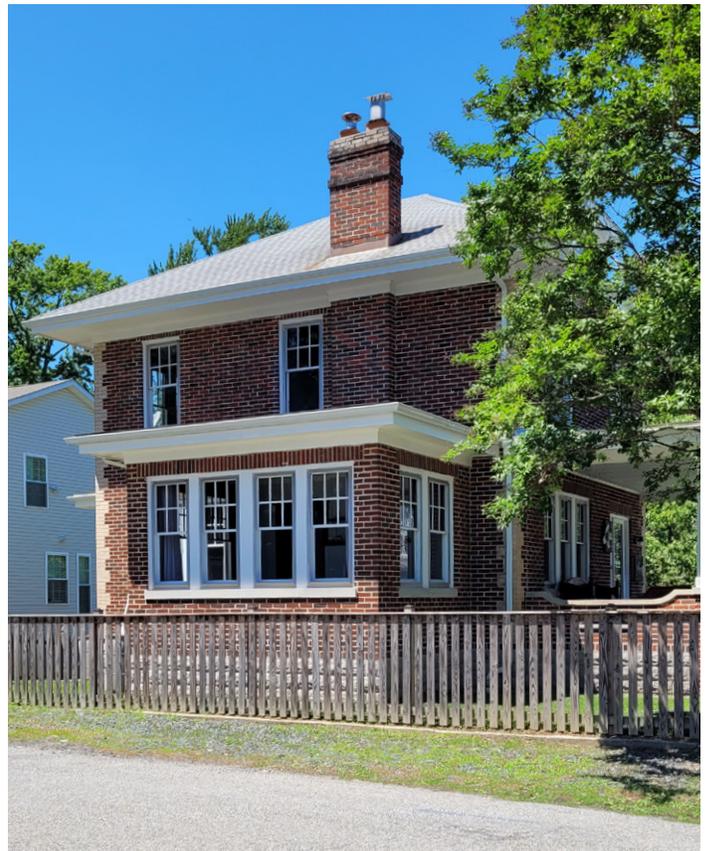
changes to existing buildings, landscapes, public spaces, and new construction in almost every historic district in the country.

If a different treatment would be more appropriate for a specific property, the Commission shall require application of the standards and guidelines developed by the Secretary of the Interior for preservation, restoration, or reconstruction.

Revised in 1983 and 1992, the County uses the most recent edition published by the National Park Service. These ten standards summarize the more detailed guidelines to be found in *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings* found on [nps.gov](https://www.nps.gov).

The current *Secretary of the Interior's Standards for Rehabilitation* are:

- 1) A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
- 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.
- 3) Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
- 4) Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
- 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 feature, 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.
- 7) Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
- 8) Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measure shall be undertaken.
- 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 integrity of the property and its environment.
- 10) New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.



American Four Square style house on Dayton Avenue, North Beach.

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3. Historical Context of Calvert County



Tobacco Barn on Solomons Island Road, Stoakley. Image courtesy of the Library of Congress.

A. History of Calvert County

The Maryland Colony was founded in 1634. People of color were reported on the first ship that sailed to settle the colony: Mathias de Sousa sailed on the *Ark* in 1634. De Sousa was an indentured servant of the Jesuits, and served a period of four years before he was freed. He voted in the legislative body after that.

The first people described as slaves arrived in 1644, according to Roland McConnell in *350 Years, A Chronology of the Afro-Americans in Maryland*.

Calvert County was established in 1654. The first county seat was called Calverton, sometimes Battle Town, and was located

on the north shore of Battle Creek near where it flows into the Patuxent River. The business of the county was transacted here until Prince Frederick was named the county seat in 1724. None of Calverton remains above ground today.

The Europeans moved onto lands that had been occupied by Native peoples. A map drawn by John Smith early in the 17th century shows Native settlements along the rivers and the bay. Later maps show the settlements replaced by tobacco farms, or plantations, most of which depended upon bound labor. By the end of the 17th century, enslavement for life was the expectation for African people brought to the Maryland Colony. The first slave ship doc-

3. Historic Context of Calvert County

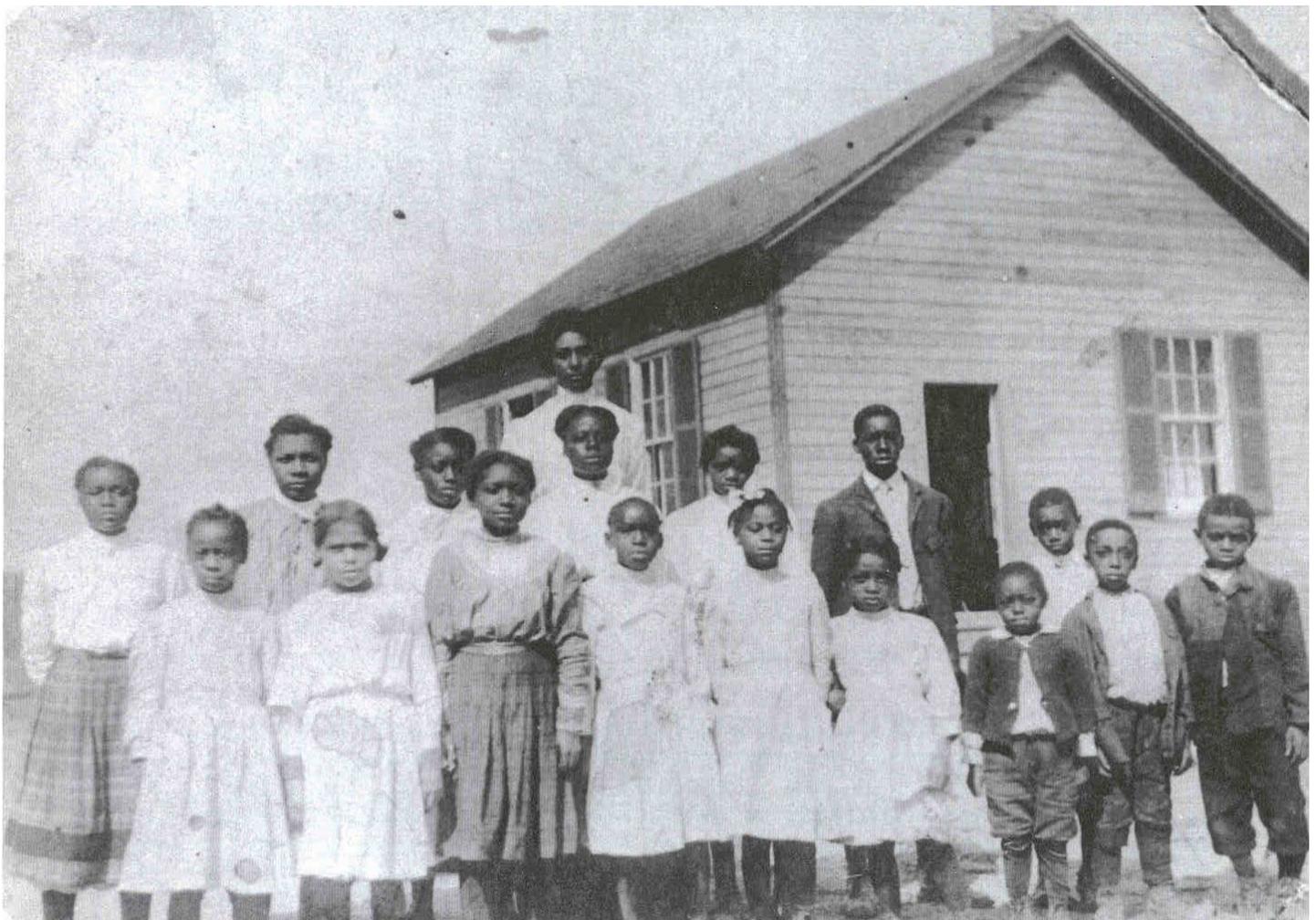
umented in Calvert County was the Ffly, recorded in St. Leonard Creek in 1697. We may certainly assume that there were others earlier than that. We conjecture an association of the Ffly with Captain Richard Smith, who built on his father's plantation in 1711, was a merchant, a legal representative of the Royal African Company (English slave traders), a captain in the Calvert County militia, and a founding member of the vestry of Christ Church. Evidence of African people have been found at the site of his plantation.

During the 19th century, settlements had shifted toward the center of the County, though the water was still the primary means of transportation between Calvert County and other parts of the state. The

main crop in the predominantly agricultural County was tobacco, which was heavily dependent on slave labor.

After the end of slavery, some families made their first homes as free people on the land where they had formerly been enslaved - though on different parts of it. Archeology on one of these late 19th century home sites, Sukeek's Cabin Site, showed evidence of home schooling, slate pencil and writing slate fragments, and an alphabet plate, for example. The site was occupied during a period when Calvert County did not support the public education of African Americans.

By the end of the Civil War, the landscape in Calvert County was formally segre-



Dare's School, Prince Frederick circa 1909. Photo courtesy of Frances Stewart King.

gated. Churches became the community centers for African American and served as schools and more. The African American church was the primary public arena where African Americans could exercise full civic responsibility and privilege.

The early schools were established by the communities themselves, usually utilizing church buildings. When the county was forced to extend public education to African American children, the Board of Education purchased the community school buildings and incorporated them into the public school system. The schools were typically one-room structures and grades 1 through 7 were instructed together in the same room - the older students would assist the younger ones. Teachers played all roles in the schools from instructor to administrator to custodian. The teachers were also advocates for the children, making do with little - the schools were equipped with castoffs from the white schools. The teachers were also resourceful and some were activists.

Modern landscapes reflect changes in uses - and in the ways people value different settings. Until the mid 20th century, an area on St. Leonard Creek supported tens

of small African American landholdings where people lived by seasonal economies: working the water, farming tobacco, and carpentry, for example. Now there are no African American landowners here. In-migration, movement into the county has been overwhelmingly white.

Tobacco remained the crop of choice until the 1990s when Maryland legislators instituted the Tobacco Buyout program, offering financial incentives to farmers who agreed to remain in agricultural production, but no longer grow tobacco. Slow but steady population growth and improvements in agricultural technology fostered this continual expansion of settlement throughout the County.

Water-based trades, such as commercial fishing, canning, and boat building were important to the County's waterside communities, both along the Patuxent River and the Chesapeake Bay. Commercial fisheries and passenger steamboats became common sights during the latter half of the century. Siltation of the waterways and improvements in automotive transport finally brought travel by commercial steamboats to an end in the mid 20th century.



Old Wallville School, Prince Frederick, ca. 1880-1934 is the oldest standing one-room schoolhouse for African American students in Calvert County.



W.S. Brooks High School, Prince Frederick, 1938 is the first public high school for African Americans in Calvert County. It is now the Board of Education building.



Archeological exhibit of the King's Reach Site at Jefferson Patterson Park and Museum, near St. Leonard.

By the second half of the 20th century, modern infrastructure, such as toll bridges and highways, allowed for easier inland travel and connection to adjacent counties.

B. Evolution of Villages and Towns in Calvert County

1. Inland Towns

Some of the early town centers in Calvert County, such as Prince Frederick and Huntingtown, were developed along creeks and streams as port towns for tobacco trade. The towns provided a central location that were convenient to the surrounding large plantations. The towns were once bustling hubs.

The development of modern highways fueled growth in Calvert County but impacted the historic downtown areas of small villages and towns. Route 4, a four-lane highway that runs nearly the full length of the County, was constructed to bypass downtown areas. This main artery has

drawn businesses away from the cores of the historic villages and towns to allow for visibility and access from the highway. Many of the historic downtowns have little commercial industry remaining, though the residential density is still evident along the early crossroads.

2. Coastal Towns

Coastal towns, such as Solomons at the southern tip of the County, developed around fishing, canning, and boat building industries. The early coastal towns had limited access by road to the inland towns and were isolated.

Unlike the inland towns of Calvert County, the coastal towns, particularly Solomons, have continued to develop with marinas and commercial areas along the water.

3. Resort Towns

Beach resort towns, like Chesapeake Beach, developed around the turn of the



Chesapeake Beach Railway Station and the railroad passenger car “Delores”, Chesapeake Beach.

20th century to appeal to the growing middle class. Railroads, like the Chesapeake Beach Railroad, provided direct travel routes to the resort towns from places like Baltimore and Washington DC.

The socio-economic circumstances brought on by the Great Depression and World War II led to a decline in recreation at resort towns. Towns like Chesapeake Beach have transitioned to mostly year-round residential communities.

C. Historic Building Materials and Types

The earliest European buildings in Calvert County, as in the rest of southern Maryland, were predominantly earth-fast construction. Common in England, earth-fast construction means that building frames were attached to posts that were set directly into the ground. These post-in-ground structures were very vulnerable to rot and

insect invasion and usually only lasted for thirty years or so. This construction type was used in Calvert County throughout the 17th century. Rare examples of this type still survive in southeastern Maryland, notably the house at Sotterley in St. Mary’s County. These early houses in Calvert did leave distinctive patterns in the ground, however, and complexes of 17th century buildings and plantations are the subjects of ongoing archeological investigations. A few of these 17th century plantations have been studied and material remains are on exhibit at Jefferson Patterson Park and Museum on the Patuxent near St. Leonard.

As settlements became more permanent, and as people could afford more, post-in-ground design began to be replaced by more substantial frame houses with more durable foundations by the 18th century. Stone is not a naturally occurring material in the coastal plain region that comprises Calvert County and therefore was not used

3. Historic Context of Calvert County



Patuxent Manor, Lower Marlboro. Image courtesy of Calvert County.

in early construction. Locally available stone substitutes were unstable ferruginous sandstone and naturally occurring concrete-like sediment containing fossils and fine aggregates. Foundations and chimneys containing these materials are still evident today.

A small number of 18th century houses and public buildings were constructed of brick. There are several Calvert County Historic Districts made of brick, including Cedar Hill, Cornehill, and Patuxent Manor, for example. These early structures often featured relatively significant detailing such as dark glazed header bricks, high-style bond patterns and dates or other ornamental patterns formed by the bricks. The brick for buildings may have been made of local clays and fired near construction sites, as archeological evidence indicates at Christ Church on Broome's Island Road. Brick was used as a weather and fire-resistant material for chimneys

and foundations throughout the 18th and 19th centuries, particularly in areas where native stone was not found.

Wood, however, remained the predominant exterior material for Calvert County homes, churches, businesses, and agricultural buildings. Wood construction took a number of forms in addition to the previously described post-in-ground. In the 18th century, post and beam and log construction were popular. In the 19th century the "modern" balloon-frame construction was used. There were nearly as many styles of covering for wood structures as there were construction methods: wide weather board siding, shiplap, German, and board-and-batten to name a few. Current research indicates that saw mill operations were probably established on-site, serving each plantation, farm or settlement group. Also of note were the species of trees employed in construction. Some of those woods are still used today, such as cedar, oak, and pine. Others, such as chestnut, were frequently used in early periods of Maryland history but due to disease or other circumstances are no longer surviving in the area. One wood of some interest was the local use of cypress. Calvert County claims some of the northernmost known stands of native cypress in its swamps and wetlands. Use of this wood has already been documented in several of the county's historic resources.

Acknowledgements

The section above was provided courtesy of Calvert County Planning and Zoning.

4. Historic Settings

Setting refers to the area, environment, or surroundings in which a property is located and experienced, its context. Region and town are examples of broad context, while neighborhood and streetscape are examples of more immediate context; both are important in considering characteristic features of an Historic District. The historic properties of Calvert County are found in a variety of settings; most are rural, though there are a few more densely developed villages and towns such as Solomons and Prince Freder-

ick. Rural settings, such as farms, have very different characteristics and densities than those of villages and towns.

Natural features often influenced the original context of the historic resources in Calvert County. Some historic buildings are located on the tops on hills, giving the owners views in all directions. Others are oriented toward the many streams and rivers, reminding one of the time when waterways were the main transportation



View toward Our Lady Star of the Sea Roman Catholic Church from the water, Solomons.

4. Historic Settings



View from Chaneyville Road along the Patuxent River, Lower Marlboro.

routes. Others are located close to rural roads, evoking an era of horse drawn, not mechanical transportation.

However sited, the context of many of the historic resources in Calvert County has changed over time. Landforms, features and plantings have been removed or added over time. New accessory buildings have been constructed and original ones have been removed. New subdivisions have sprung up, blocking historic viewsheds. Roads have been straightened and widened. Sometimes these changes have enhanced the significance of the resource, while other times they have detracted from its appearance. A clear understanding of how a historic resource is sited and how its context contributes to its significance are very important for all of the historic districts in Calvert County.

A. Circulation Systems

Circulation systems for pedestrians and vehicles, including roads, streets, driveways, parking areas, walkways, paths, and sidewalks, are important characteristics of a setting. For historic circulation systems, their width, paving materials, and other characteristic features should be retained and preserved. The expansion or construction of new circulation systems will affect historic settings, and care must be taken



View toward Grahame Farm (also known as Springfield), Owings.

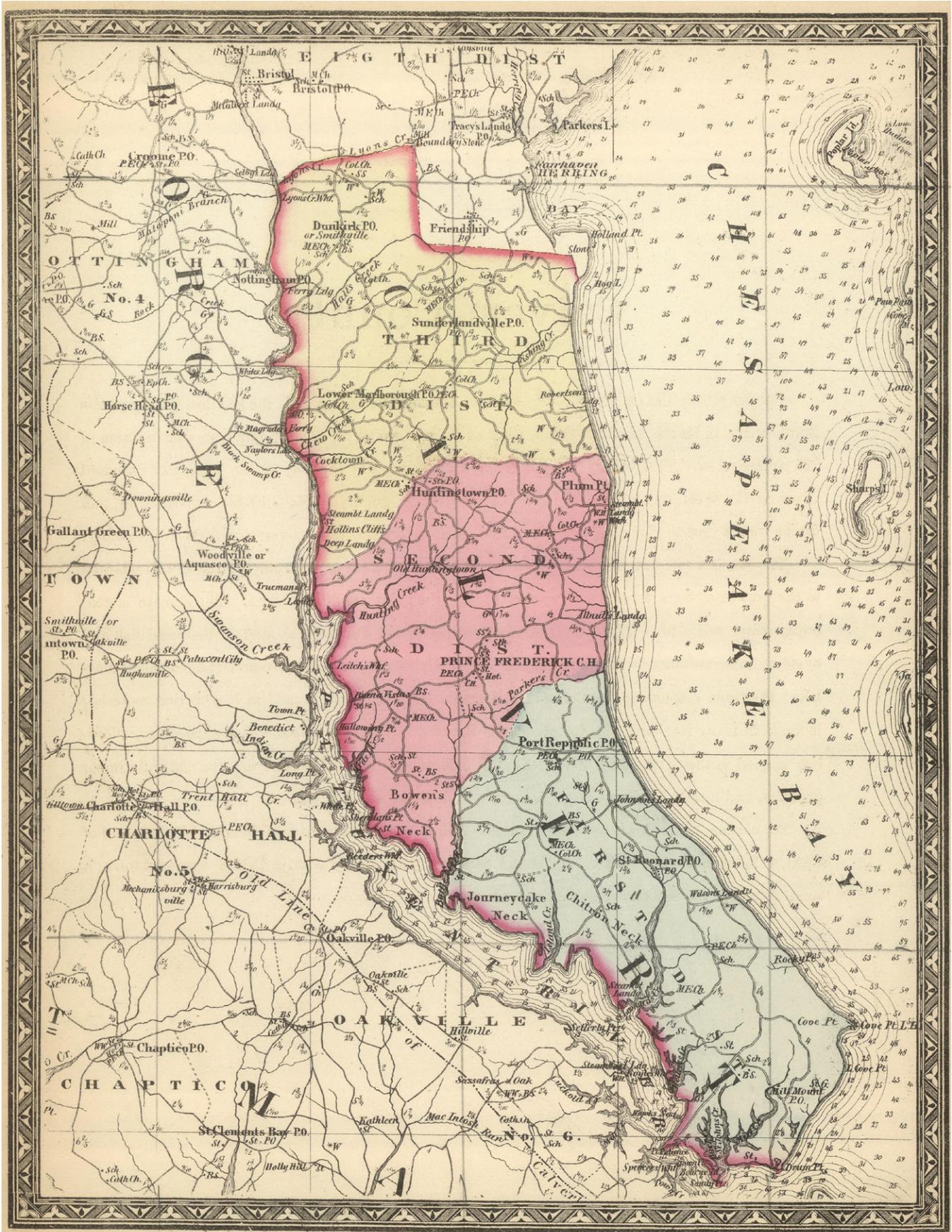
to ensure that it does not destroy historic materials or elements that characterize an Historic District. New work should be differentiated from the old, but must be compatible with the massing, size, scale, and materials to protect the historic integrity of the property.

In rural settings, vehicular circulation systems are usually narrow, winding roads and buildings are often set back from the public right-of-way. Building entrances may not face the public right-of-way on large rural properties and within farm complexes, instead facing onto internal circulation systems.

Within villages and towns, the relationship of buildings to streets changes. The buildings in villages and towns are often located closer to and face the main thoroughfare; they have developed a denser pattern of built space with less open space between properties. In more urban settings, streets typically form a pattern of vehicular circulation, and the larger thoroughfares are often wider than the secondary streets. Sidewalks typically line the streets in urban areas for pedestrian circulation.

B. Viewsheds

A viewshed is the view a person has to or from a resource, typically described as a



1865 Martenet's Map of Calvert County. Image courtesy of the Maryland State Archives.

4. Historic Settings

60-degree cone of vision of a stationary observer. The views to and from historic resources within an Historic District, particularly those located in rural areas, contribute significantly to their character. In some cases, the view of a resource may be framed by rows of trees along a driveway, in other cases the view may be of the resource set within fields and pastures. Views from a resource are just as varied, ranging from views of the Patuxent River from the front porches of historic houses to views of a distant woods across open fields from significant accessory buildings.

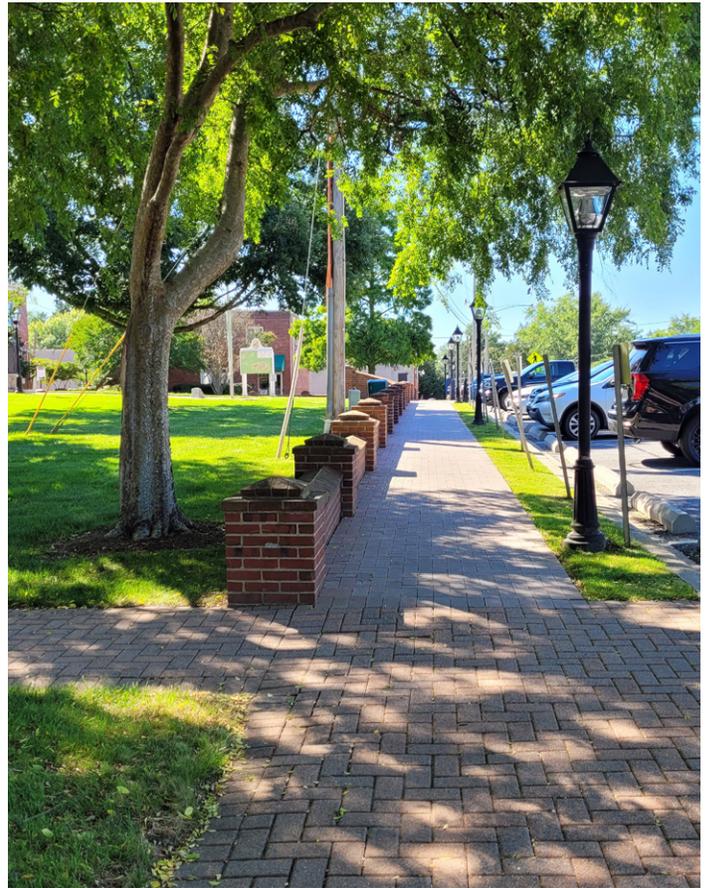
C. Preserving Historic Settings

The setting of historic properties should be preserved by:

- 1) Carefully considering new construction, including buildings, driveways, parking lots, and landscape improvements, so that the historic character of a property is not altered; refer to Chapter 7 for more on new construction.
- 2) Maintaining existing or restoring historic circulation routes, their width, and surface materials.
- 3) Maintaining major patterns of vegetation.
- 4) Maintaining neighborhood building setbacks from public right-of-way, side, and rear yards.
- 5) Maintaining spatial relationships be-

tween buildings, such as yard space between neighboring houses and primary buildings to garages or other outbuildings.

- 6) Maintaining historic viewsheds to and from historic buildings and structures, particularly those related to the primary elevations of the resource.
- 7) If possible, removing or marking with appropriate vegetation intrusions into viewsheds.



Sidewalk in front of the Calvert County Courthouse, Prince Frederick.

5. Landscape and Site Features



All Saints' Episcopal Church with the cemetery in the foreground, Sunderland.

Historic properties often include significant features beyond a single primary building, and in some cases, an Historic District may have no buildings or structures on it, but instead be significant as a cultural landscape. Cultural landscapes can include natural landforms, designed landscapes and landscape features, vernacular landscapes, outbuildings, earthworks, archeological sites, cemeteries, and rural roads. The Commission reviews all exterior changes to local Historic Districts, including landscape and site features.

A. Landforms and Features

Landforms and features include hills, valleys, streams, rivers, woods, and open fields as well as human-made forms and

features such as road embankments and cuts, railroad bridges, dams, and the like. Collectively, landforms and features help define the context of the historic resources.

Landforms and features should be preserved by:

- 1) Maintaining historic landforms and features as much as possible.
- 2) Ensuring any changes made to landforms and features surrounding an historic resource is compatible with the existing forms and features. An archeological assessment should be made prior to any changes. Refer to Section F below for more about archeological resources.

B. Plantings and Landscapes

Trees, hedgerows, shrubs, cultivated fields, and formal and informal gardens are among the historic plantings and landscapes that are important historic features in Calvert County. Along with landforms and features, they provide the setting for the majority of the historic resources in the county. Unlike most materials used in historic buildings and structures, plantings and landscapes are subject to change from season to season and from year to year. Existing plantings should be maintained by fertilizing, pruning, treating for disease or in other appropriate ways. Dead and diseased plants should be removed and replaced with healthy specimens. Working landscapes should be preserved as much as possible, particularly within the viewsheds of the buildings.

While it is always best to maintain and preserve existing landscape and plantings, it is not always possible to do so. Sometimes, the historic plant materials and design of yards, gardens and landscapes have been altered so that they are now incompatible with the historic resource. If so, the owner of the historic property may wish to restore the original design using historic plant materials. In other cases, it may be necessary to

introduce new plant materials or landscape design adjacent to the historic buildings or within their immediate viewsheds.

Plantings and landscapes should be preserved by:

- 1) Retaining plantings and landscapes that are significant to defining the character of an historic resource.
- 2) Replacing diseased or deteriorated plantings and landscapes that are significant to defining the character of a historic resource with healthy specimens of identical or similar species.
- 3) Re-creating historic landscapes using documentary, archeological, or other verifiable sources for its design, plant materials, structure, walkways, pathways and the like. If historic plant materials are not available, use ones that are similar in growth patterns, size, and shape at maturity.
- 4) Selecting new plantings and designing new landscapes adjacent to historic properties to be compatible with the design of the buildings. Locating new plantings so that they maintain or enhance the properties historic character and its context.



This labyrinth is an example of a formal landscape at All Saints' Church, Sunderland.



Entrance to Morgan Hill Farm, Lusby, has plantings along the fence line to shield it from the main road. Image courtesy of Calvert County.



Worm, also known as zigzag fencing that has been preserved at Morgan Hill Farm, Lusby. Image courtesy of Calvert County.



This brick wall in front of the Calvert County Courthouse, Prince Frederick is in keeping with the character of the building.

- 5) Protecting existing plantings to be retained during restoration or developing of the new landscape design.

C. Fences and Walls

A variety of fences and walls are found defining the boundaries of many of the Historic Districts in Calvert County. While some are merely decorative, most are functional, confining livestock and pets, protecting fields, and providing security and privacy. Wood and brick are the most common fence and wall materials. Others are constructed of stone, either dry stacked or mortared. Stylistically, the design of fences and walls are often related to the principal structures on the property. Distinctive gates and corner posts are also distinguishing features of many historic fences and walls.

If a new fence or wall must be added to a historic property, careful consideration should be given to its materials, design, and location. New fences or walls should be sympathetic with the character of the existing features of the historic resource. New walls and fences should be designed to be as unobtrusive as possible.

Fences and walls should be preserved by:

- 1) Retaining and preserving fences and walls that are significant in defining the overall character of an Historic District.
- 2) Repairing deteriorated fences and walls, including their decorative features and ornamentation.
- 3) Repainting previously painted fences and walls in colors that are appropriate to their design and to the design of the principal buildings on the property.
- 4) Siting a new fence or wall to be compatible with the overall character of the historic resource and the design and materials of existing fences and walls as well as that of the historic buildings on the property.
- 5) Designing new fences and walls to be compatible with the character of the historic buildings and structures in materials, height, configuration, scale, and detailing.
- 6) Where there is photographic or textual evidence of fences or walls in the Historic District's history, the design of the historic wall or fence is preferred over other designs.

D. Paved Surfaces

The design of paved surfaces such as driveways, walkways and parking areas in town centers tend to be dramatically different than those found in rural areas. Within the historic town centers, driveways are typically short, straight and paved in concrete or asphalt. The public walkways usually parallel the streets and are separated from private walks by a step or change in grade. Parking areas are either on-street or in asphalt parking lots.

On the other hand, driveways in rural areas are typically long, often curved, and paved in gravel. Often gateposts flank the entry to the drive and trees line the driveway. Walkways that connect the driveway or parking area to the primary building are made of a variety of materials including gravel, concrete, brick and stone. Parking areas may be formal if designed as a motor court fronting a garage, or informal when associated with accessory buildings such as barns.



Some of the sidewalks along Main Street, Prince Frederick are paved in brick.

If a new walkway, driveway, or parking area is added to a historic resource, its design and materials should be compatible with historic walkways, driveways, and parking areas.

Paved areas should be preserved by:

- 1) Retaining and preserving walkways, driveways, and parking areas that are significant in defining the overall character of a property.
- 2) Repairing minor cracks, heaving, or settlement of paving materials that may become trip hazards by lifting and relaying materials on a new sand and gravel base.
- 3) Avoiding excessive use of de-icing salts on historic paving materials.
- 4) Repairing deteriorated surfaces of walkways, driveways, and parking areas using the same materials, colors, textures, and designs, to duplicate the appearance of the original.
- 5) Using appropriate historic materials, or compatible new materials, for new walkways, driveways, and parking areas.
- 6) Designing new walkways, driveways, and parking areas so that they are unobtrusive and compatible with the overall character of the historic resource.
- 7) Breaking up large expanses of parking with landscaped areas. Consider using one 200 square foot landscaped area for every 40 parking spaces.
- 8) Screening all parking areas from view by using landscaping.
- 9) Locating large parking areas so that they are not within the primary viewsheds to and from a historic resource.

E. Accessory Structures

In rural areas, accessory structures devoted to a variety of domestic and agricultural uses complement most of the residential buildings. Historically, barns, storage sheds, kitchens, wells, and privies were located near the main house, while tobacco barns and other agricultural structures were scattered across the landscape. Sometimes accessory structures are clustered around a central open space or parking area; other times they are informally arranged, conforming to topographic features. Many accessory buildings are significant in their own right due to their siting, scale, design, materials of construction, detailing or function.

Some accessory buildings may be distinguished by the presence of historic signs. Agricultural product signs, tobacco advertisements and the like were sometimes displayed on visually prominent buildings. In cases where fading, painted, historic mural

signs – “ghost signs” – are present they should be left as found. Their presence contributes to the context of the historic rural environment.

Accessory structures should be preserved by:

- 1) Retaining and preserving accessory structures that significantly contribute to the principal structure or are significant in their own right, including their siting, orientation, design, scale, materials of construction and detailing.
- 2) Repairing deteriorated accessory structures, and their distinctive features and details using the same materials or ones that are similar in scale, form, texture, and color.
- 3) Replacing accessory structures only if they are deteriorated beyond repair. Replacements structures should resemble the original in siting, scale, proportion, fenestration, materials, and color as closely as possible.



There are ten accessory structures at Linden (also known as the John Gray House), Prince Frederick, including an ice house, smoke-house, servant quarters, corn crib, and poultry house.



These four accessory structures at the Wilson-Digges House, Owings were constructed after the house was relocated to this site in the 1970s, but they are in keeping with the scale and design of the primary building on the site.

- 4) Designing proposed new accessory structures to complement the massing, scale, form, orientation, materials, and details of the other historic buildings and structures on the property.
- 5) Locating new accessory structures in rear yards or areas of the site that are less visible from a public right-of-way.

F. Patios, Decks, and Other New Features

Patios, decks, and other new features such as fountains, garden ponds, and swimming pools are sometimes added to historic resources. While making the building more functional or comfortable, improper design and location of these new features will detract from the historic character of the resource.

New site features should be:

- 1) Designed so that they are compatible with the form, scale, proportions, materials and details of the principal building.
- 2) Located so that the existing significant visual and spatial characteristics of the historic resource are maintained.

- 3) Located so that significant viewsheds are maintained or enhanced.

G. Archeological Resources

All historic sites have potential for material remains of human life, known as archeological resources. Archeological resources include foundations of destroyed buildings, old wells, cisterns, privies, walkways, driveways, refuse piles, and artifacts remaining from human habitation and use of a property. Archeological artifacts include crockery, glassware, fittings of farm machinery, arrowheads and any other manufactured or shaped material. Archeological resources yield information about the past inhabitants and use of a property that may not be obtainable from written or other documentary sources. These resources are an irreplaceable part of the heritage of Calvert County, and every effort should be made to identify, protect, and preserve them.

Archeology is an important tool in researching African American sites, in part because the documentary record in Calvert County is so sparse, narrow, or non-existent. It is also important because it may be used to challenge written histories and common assumptions about the past. Recent evidence uncovered at the Smith's St. Leonard Site, the 18th century home of Richard Smith, is intriguing. Cowry shells are strongly associated with people arriving directly from Africa.

Leaving archeological resources undisturbed is the best preservation method. Whenever a property is altered, whether through agriculture, adding site features such as walkways or driveways, or constructing new buildings, known and unknown archeological resources may be disturbed. To help ensure that this will not occur, a professional archeologist should conduct an assessment and/or survey of the area for the new construction.



Archeological monitoring during construction projects can recover important historical data aiding in the restoration of the historic resource. Images courtesy of the Maryland Archaeology Conservation Laboratory Photograph Collection at Jefferson Patterson Park and Museum.

The Commission encourages all property owners to consider including an archeological assessment for projects they are undertaking. An assessment will determine if archeology should be done before a project is started. The assessment includes a detailed review of historical, environmental, and previous survey data. Currently, projects in Prince Frederick or St. Leonard Town Centers, those requiring either state permits or utilizing public funding, and multi-family projects throughout the county are required to include a plan for archeological resource investigation and/or pro-

tection as part of the permitting process. County planning staff can lend support to property owners who either need or wish to include an archeological assessment as part of their project. In most cases, staff can perform the assessment at no cost to the property owner.

Archeological resources should be preserved by:

- 1) Engaging a professional archeologist to conduct a survey prior to undertaking any ground disturbing projects.
- 2) Retaining and preserving known archeological sites and resources using appropriate methods and techniques.
- 3) Locating new construction so that archeological resources are not disturbed.
- 4) If protecting archeological resources during construction is not feasible, conduct archaeology and recordation using best practices before construction begins.
- 5) If locating new construction so that archeological resources are not disturbed is not feasible, protect the resources during construction using best practices.

H. Cemeteries

Cemeteries are important sources of information about the history of Calvert County and are protected by State laws. Tombstones may provide information on the lifespan, gender and occupation, as well as other information, about the people who lived in the county. The tombstones themselves, along with fences that surround graves and cemeteries, may be significant architectural features in their own right. Whether large or small, these burial places provide a record of a local community and are important to a cultural landscape. The Commission reviews work proposed in



Cemetery at Largent's Chapel (also known as Lower Marlboro United Methodist Church), Owings.

cemeteries that are part of a local Historic District.

Grave markers, monuments, and memorial structures are the most prominent features of a cemetery and should be maintained and preserved. Many memorial structures are noteworthy for their craftsmanship. Grave markers vary greatly and may be simple, single elements, multiple elements, or more complex structures. Typical grave marker materials include stone, brick, concrete, metal, and wood. Grave markers should be repaired rather than replaced.

Cemeteries should be preserved by:

- 1) Retaining and preserving tombstones, fences, gateways, and other significant features of cemeteries.
- 2) Righting and re-anchoring toppled tombstones using techniques and tools appropriate to the type of historic stone

comprising the marker.

- 3) Repairing deteriorated fences, gateways, and other significant features of cemeteries using the same materials or materials that are similar to the original in scale, texture, design and color.

I. Rural Roads

Rural roads are lightly traveled roads in rural areas that are often valued for their scenic qualities. They frequently have gravel surfaces, although roads with tar and chip or asphalt surfaces may also be considered rural roads. Rural roadways are mostly unchanged in their width and alignment from their early development. They are located throughout rural and agricultural areas of Calvert County. They are important legacies of the County's rural heritage and should be maintained and preserved.

6. Rehabilitation of Existing Buildings

This chapter provides guidance for the rehabilitation and maintenance of all existing historic buildings, including accessory buildings that are part of designated Historic Districts in Calvert County. In most cases, the buildings have been altered over time. In all likelihood, they will continue to be changed to meet the needs of owners and tenants. These guidelines and the *Secretary of the Interior's Standards for Rehabilitation* recognize this inevitability. They do not discourage change; rather they

encourage appropriate changes that do not significantly alter the historic character of a building. Thus, before considering any change to a building, it is first necessary to understand the materials, forms, features, details, and other aspects that are important to defining its character.

Prior to making changes, a property owner or tenant should consult with the Commission to understand the elements and features of their historic resource that are



The John R. Lankford House, Solomons has complex roof forms typical of the Queen Anne style.

significant to its character. This will help ensure that proposed changes are appropriate and are compatible with the guidelines as well as the *Secretary of the Interior's Standards of Rehabilitation*.

The façades of historic buildings, particularly the front façade, are among the most important character-defining features of buildings. The design and materials of the façade, the location, proportion and scale of windows and doors, massing and rhythm of features such as bays and porches, and the details and ornamentation used all contribute to that character. Alterations, repair or replacement of elements and features of front façades must be carefully considered so as not to detract from the building's and the district's character.

A. Roofs

1. Overview

Roof Systems

The roof is one of the most critical elements of a building and its form and detail-

ing impact the building's overall character. The roof system is comprised of framing, sheathing, roofing material, flashing, and water drainage elements, such as roof drains, gutters, downspouts, and boots. The roof system should be addressed holistically when considering repairs or changes.

Proper maintenance to ensure a weather-tight roof is critical in the preservation of a building and to help prevent damage that can impact all parts of a building. Water infiltration can go unnoticed and result in rot of roof and wall structures, rust of metal elements, masonry deterioration, paint deterioration, and damage to interior elements. The subsequent repair work will quickly become cost prohibitive.

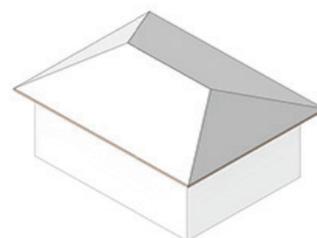
Temporary patching to historic roofs should be carefully considered to prevent inadvertent damage to historic building fabric. It is important to understand the value of the historic materials of the roof and inspect the entire roof system for causes of failure prior to undertaking repair or replacement work.



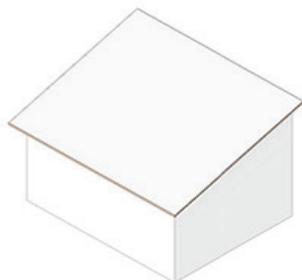
GABLE



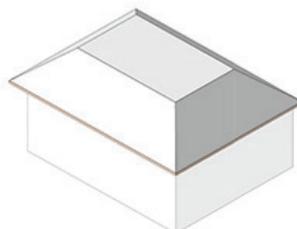
GAMBREL



HIPPED



SHED



MANSARD



FLAT

Examples of common roof forms.

Roof Forms

Many different roof forms are exhibited on the historic buildings of Calvert County. Smaller-scale residential buildings, utilitarian structures, and outbuildings often had simple roof forms, such as a gable or shed, while larger, more intricately designed homes tended to have elaborate roof forms with dormers, towers, and other appendages. Similarly, for non-residential buildings, modest churches, schoolhouses, and commercial buildings often had straightforward roof forms, while the larger examples sometimes had complex roof structures. There are fewer examples of flat roofs, typically used on larger buildings like manufacturing and industrial facilities.

The overall roof form of an historic building should not be altered.

2. Associated Elements

Chimneys

Chimneys are characteristic elements of many historic buildings. Chimneys are made of masonry construction, often brick



Brick chimney at Christ Episcopal Church, Port Republic.

or stone, and sometimes finished in stucco. A chimney can intersect a roof in different ways, such as at the end of a gable or projecting through a roof slope. The flashing at the chimney-roof intersection is critical for preventing leaks.

It is important to address signs of chimney cracking, movement, or leaning as unstable masonry can be hazardous. Ornamental brickwork and corbeling are decorative features of a chimney that are often unique to a building and should be retained when repair work is needed.

Dormers, Cupolas, & Other Appendages

A dormer is a small projection from the sloping side of a roof used to create a window opening in the roof plane; dormers essentially allow attics to be habitable space. A dormer can have a variety of roof forms independent of the main roof. Dormers break up the overall roof plane and bring visual interest to the building composition.

A cupola is a small structure that projects from the ridge line of a roof or sits on top of a dome; it is often used to let light and air



Prominent dormers of the Swift House, Solomons.



Largent's Chapel (also known as Lower Marlboro United Methodist Church), Owings has a distinctive steeple with open bell tower.

into the building. Other building appendages at or near the roof line include towers and decorative elements like finials and cresting.

Dormers, cupolas, towers, finials, and cresting are all important character-defining features of an historic building; if original, they should not be removed. If photographic evidence indicates that a dormer, cupola, or other element has been removed in the past, it may be recreated using compatible materials.

Flashing

Roof flashing is used where different roof slopes meet or where an element projects through the roof surface; its purpose is to divert water away from the joints where the elements connect. Lead was commonly used for flashing on historic buildings.

When flashing fails, often due to thermal stresses, metal deterioration, or poor installation, it can be a major undertaking to repair or replace. Areas of roofing material must be removed in sections to install new

flashing. Take care to retain and reinstall the original roofing material. Quality materials should be used for new flashing, and attention must be paid to ensure that the flashing and fasteners are compatible with the other roofing materials to avoid corrosion.

Gutters & Downspouts

Gutters and downspouts are used to carry water from the roof away from the building and to the ground, though not all historic buildings used them. Gutters mounted at the roof edge connect to downspouts that are mounted to the surface of the building. Less typically, gutters can be built into the perimeter of the roof and hidden from view; built-in gutter systems can drain within the walls into the ground, through scuppers in the parapet wall, or connect to downspouts on the wall surface. The shape and design of gutters are important to the overall appearance of the building.

Original built-in gutters that are failing should be repaired or rebuilt; replacing built-in gutters with an exposed edge-mounted type of gutter should not be done.



The half-round gutters and smooth round downspouts of Linden (also known as the John Gray House), Prince Frederick are in keeping with the character of the Historic District.

Prior to the 1950s, edge-mounted gutters, if used at all, were typically half-round shaped. Half-round gutters were made of galvanized steel, zinc, and copper, and prior to 1900, cast iron. In the 1950s, K-style gutters, which have an ogee profile on the outside and are typically made of aluminum, became the predominant style of gutters used in America.

When edge-mounted gutters are beyond repair and must be replaced, care should be taken to select a shape that is historically appropriate to the building. Modern K-style gutters should only be used on buildings constructed after 1950. K-style gutters are designed to be installed up against a flat fascia board and will not function properly if hung freely beneath a roof edge. Half-round gutters are typically more stylistically appropriate on historic buildings. Plain round or rectangular shaped downspouts are preferred for historic buildings over the corrugated type.

Many rural buildings in Calvert County were built without gutters or other means of diverting rainwater away from the building. Gutters or other water management systems may be introduced to an historic building in order to protect it from water damage. The gutters should be in keeping with the design and materials of the historic building.

Skylights

Skylight technology existed as early as the middle of the eighteenth century and original or early skylights are an important character-defining feature of a building. They should be retained whenever possible. If replacement of a skylight is necessary, it is important to retain the size, shape, and location of the historic element.

New skylights on an historic building should not be located on a primary roof ele-

vation if the roof is pitched or visible. New skylights should sit flush with the roof plane and have frames to match the color of the roof material. Bubble-type skylights should not be used.

3. Roofing Materials

As there are many different roof forms found throughout Calvert County, there are also many roofing materials. Wood shingles were commonly used on early buildings. Slate became a common roofing material in the nineteenth and early twentieth centuries. Metal roofing became more widely available with technological advances in the nineteenth century. Other roofing materials include clay tiles, asphalt shingles, and built-up roofing on flat surfaces. The material with which a roof is constructed is often an important character-defining feature.

Wood Shingles

Wood shingles were commonly used on early buildings because they are lightweight, made with simple tools from readily available trees, and easily installed. Due to fire risks and developing technology of



Wood shingle roof of Middleham Chapel, Lusby.

6. Rehabilitation of Existing Buildings

metal roofing, they became less abundant. The size, shape, detailing, and installation of wood shingles all influence the overall style and appearance of the roof. Many details reflect craft practices at the time of construction, while other details were specific to reducing moisture penetration. It is important to understand these details specific to a building before repair work is undertaken.

Wood shingles can last from 15 to more than 60 years; their longevity is greatly dependent on the shingle material and the manner with which it is installed. Wood shingles were originally hand split, but the advent of the steam-powered saw mill in the nineteenth century made machine-sawn types readily available, though sawn shingles usually have shorter lifespans due to the wood's pores being opened by sawing. Historically, all wooden roofing products were called shingles. Shake is a modern term used to differentiate a sawn product from a wood shingle that is hand split.

Routine maintenance to extend the life of a wood roof includes the following:

- 1) Keeping the roof clean and free of debris, inspecting the shingles, flashing, sheathing, and gutters for damage, and taking care when walking on the surface.
- 2) Leaves, branches, and moss can trap moisture in the wood and rot the shingles. Loose or damaged shingles should be selectively repaired or replaced with in-kind materials.
- 3) Roof treatments, like fungicide, stain, and revitalizing oil need to be regularly re-coated every few years.

Replacement of the roofing should be considered if more than twenty percent of the shingles are eroded, cracked, or split or if there is pervasive moisture damage. Before



Slate tile roof of the Emmanuel United Methodist Church, Huntingtown.

replacement, it is important to establish the original shingle material, configuration, and detailing to preserve the character of the building; refer to Section 4 below for more on roof replacement.

Slate Tiles

By the early nineteenth century slate was becoming an abundant and popular material for roofing in Calvert County. The color, pattern, shape, and detailing of the slate tiles are important features of historic buildings that should be preserved.

Slate tiles are extremely durable, lasting from 60 to more than 100 years. Natural weathering can cause slate to delaminate and flake; the resulting deteriorated tiles can hold moisture and lead to rotting of the roof structure. Failure may also occur at the anchor points of the tiles if the metal fasteners become corroded. Slate tiles can be damaged by hail or tree limbs. Broken, cracked, or missing tiles should be repaired promptly by someone who has experience with slate roofing.

Routine maintenance should include the following:

- 1) An annual inspection of the overall roof

condition as well as the flashing, gutters, and downspouts.

- 2) Gutters should be regularly cleaned of leaves and debris. It is recommended to keep foot traffic off the roof tiles.

If more than twenty percent of the roof tiles are damaged or missing and the roof is generally in good condition repair may still be advantageous over replacement. It is likely that the roof flashing will wear out before the slate, in which case repairs can be made. If, however, the roof is approaching the end of its serviceable life, replacement may be required.

Clay Tiles

Clay tiles are a distinctive and decorative roofing material that greatly impact the character of an historic building and should be preserved. Clay tiles have been used for roofing for thousands of years and were popular in Colonial America because of their fire resistance.

Clay tile roofs can last for more than 100 years and come in many shapes, colors, profiles, patterns, and textures. Clay tiles can be categorized into two kinds of shapes: pantiles and flat tiles. Pantiles have a curved profile, including “S” tiles, Barrel tiles, and many other variations. Flat tiles are similar to slate shingles. Specialty shapes are used in conjunction with field tile to cover odd-shaped spaces, like ridges, valleys, and eaves.

Clay tile roofing most commonly fails at the fastening system when metal nails or clips have corroded. Another weak point can be the metal flashing and gutter system. Tree limbs, hail, or walking across an unprotected surface can crack roofing tiles and lead to water infiltration. Water infiltration can deteriorate the roof battens, sheathing, or rafters eventually leading to structural failure, particularly due to the weight of the clay tiles.

Routine maintenance should include the following:

- 1) An annual inspection of the overall roof condition as well as the flashing, gutters, and downspouts.
- 2) Gutters should be regularly cleaned of leaves and debris. Roof tiles should be properly protected prior to walking on the roof surface.

Repairs should be performed by a roofer who has experience working with clay tiles. If the fastening system is failing, it is not uncommon to remove all the tile roofing and reinstall to make the necessary repairs. Care should be taken to label and organize the roofing as it is removed. Due to the durability of the material, it is rarely necessary to replace all the clay tiles of a roof. Replacement tiles should be carefully selected or custom fabricated to match the historic tiles in shape, color, thickness, and texture.

Metal Roofing

Metal roofing was not widely used in the United States until the nineteenth century when manufactured iron sheet metal became available. The appearance of a metal roof depends on the type of metal used,



The metal roof of this tobacco barn at Cedar Hill, Prince Frederick has been patched and repaired. Image courtesy of Calvert County.

6. Rehabilitation of Existing Buildings

its finish, and the way the metal is joined. Copper is very ductile and has a high resistance to corrosion but is more costly than other metals; often copper roofing was left unfinished to patina to a green color. Conversely, iron is less costly, but corrodes quickly. Galvanizing with zinc tin plating, and terne plating were common methods for protecting the iron; galvanized, tin, and terne roofing were typically painted for an extra layer of protection. Sheet metal roofing is seamed together, and the seams are either flattened or raised, known as standing-seam metal roofing. Embossed galvanized or tin metal shingles were commonly used to imitate the appearance of tile roofing.

Metal roofing can deteriorate over time from chemical action from rain and pollutants, can rust if not properly coated, and can fatigue.

- 1) If metal roofing has a painted finish it is important to maintain it and regularly inspect the roofing, flashing, gutters, and downspouts for damage and debris.
- 2) Individual metal panels can be replaced if damaged; it is important to replace the metal in kind and the seaming and installation of the replacement panel should match the original. Metal

roofing has a distinctive appearance that is an important character-defining feature of an historic building.

Asphalt Shingles

Asphalt shingles were used as early as the 1890s and have since become the most commonly used residential roofing material. Asphalt shingles come in a variety of colors and shapes, though they are rarely considered architecturally significant to an historic building.

Asphalt shingle roofing is subject to damage from puncture, abrasion, and lifting from wind, and has a significantly shorter life than other traditional roofing materials, approximately twenty years. Replacement asphalt shingle roofing should match the original in shape, color, and pattern.

Built-Up Roofing

Flat roofing made of layers of felt and tar were used as early as the mid-nineteenth century and are known as built-up roofing. The flat roof system has a slight slope to allow water to drain. Built-up roofing is subject to cracking and delamination of the roofing layers, which will quickly lead to water infiltration and damage to the roof structure.

Flat roofs are typically surrounded by parapet walls and are not highly visible from the public right of way. Built-up roofing can be repaired with the application of roofing tar, but if full replacement is required, a modern built-up roofing system or other synthetic membrane roofing systems are acceptable when the roof is not visible from the right of way.

4. Maintenance, Repairs, Replacement

It is better to selectively repair deteriorated sections of historic building fabric than to replace the roof. Problems may be detected early by performing an annual inspection of the roof to ensure all surfaces,



The roof of the main house at Cedar Hill, Prince Frederick has new asphalt shingle roofing to replace the previous asphalt shingle roof. Image courtesy of Calvert County.

flashing, and gutter systems are water-tight and draining. Regular maintenance should include cleaning gutters to remove leaves and debris and checking the flashing at parapets, chimneys, dormers, and at valleys where roof slopes intersect.

If historic roofing cannot be repaired and replacement is necessary, replace the historic roofing with materials that match the existing roofing, whenever possible. Physical samples of materials are encouraged and may be required during the Commission review process. In cases where the original material is no longer available, or the existing material is not original, alternative materials should be carefully considered; refer to Chapter 8.B for more on alternative materials.

During roof replacement, take care to protect adjacent historic features from damage, such as cornices, windows, trim, and chimneys.

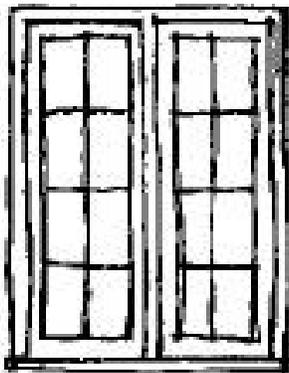
B. Openings

The design, location, and material of windows and doors as well as other openings, such as storefronts, louvers, and grilles, significantly contribute to the character of historic buildings.

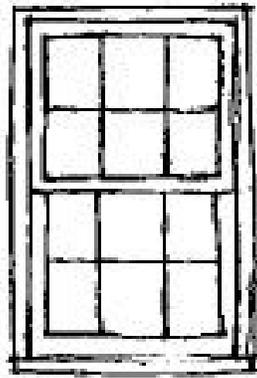
1. Window Overview

Windows are functionally important, particularly to historic buildings, for admitting natural light to the interior spaces, providing fresh air and ventilation, and providing a link to the outside. There are many different window types, which are categorized by how they operate; some examples include casement, double-hung, awning, and fixed. A window's detailing dramatically impacts the overall building appearance. Windows are important character-defining elements and should be preserved.

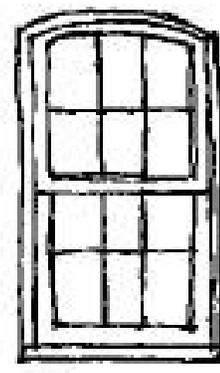
A window unit is made up of several components, typically including a frame, the



CASEMENT



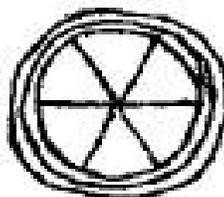
DOUBLE
HUNG



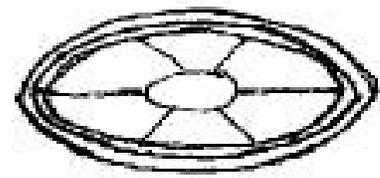
ROUNDED
TOP SASH



HALF-CIRCLE

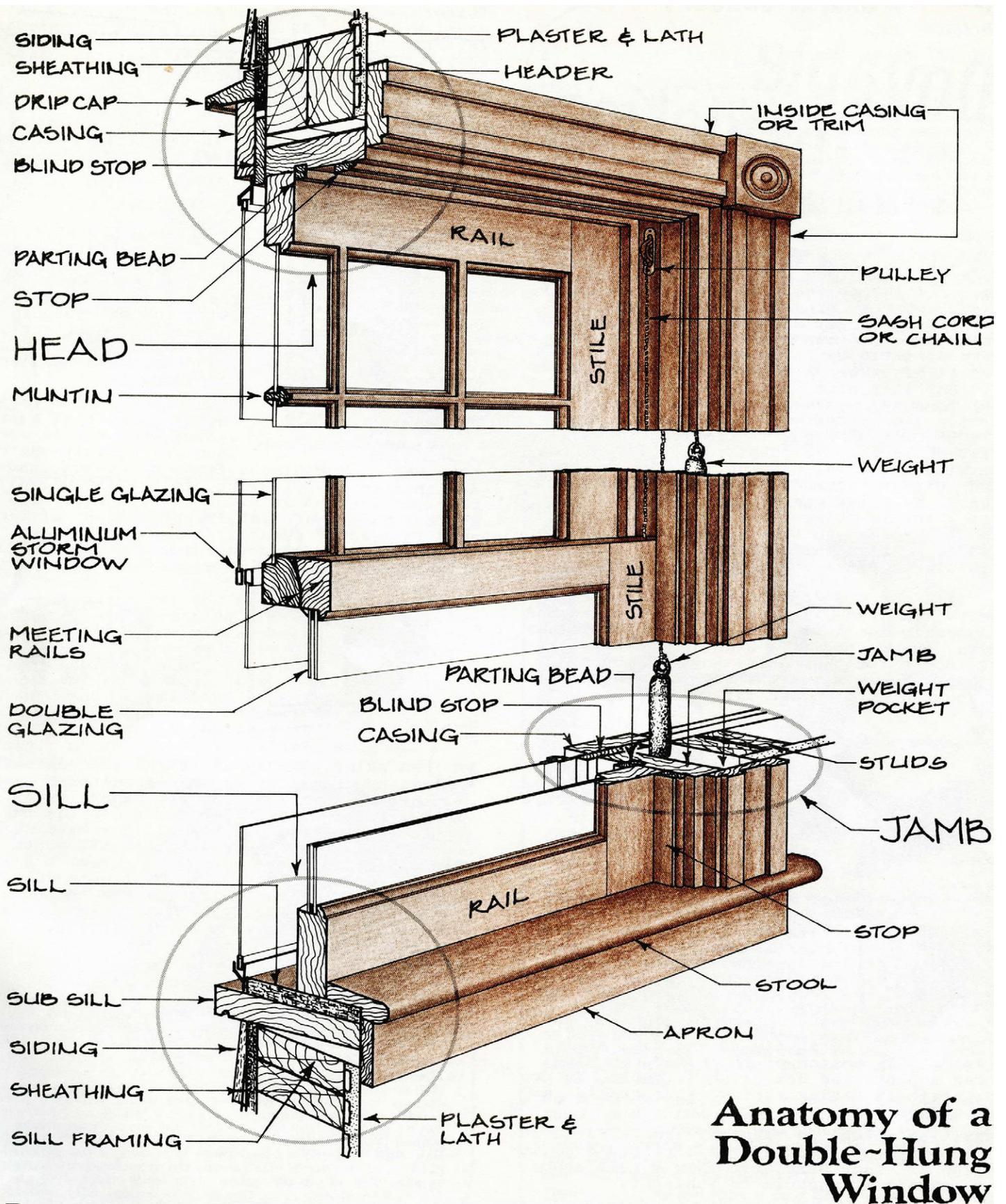


BULLSEYE



OVAL

Popular window shapes and sash types. Image courtesy of Calvert County.



Anatomy of a Double-Hung Window

"Anatomy of a Double-Hung Window" reprinted courtesy of Old House Journal, November 13, 2015.



Historic wood windows from around Calvert County.

operable pieces called the sash, the glass panes within the sash, and the hardware used to operate and secure the windows. The number of moving sash and the way in which they move vary. Casement windows were the first type used in early residential architecture in the United States. Casements have sash that are hinged at the sides and swing out. Double-hung windows have two operable sash that slide up and down. An awning window is hinged at the top of the sash and tilts out.

The glass panes of a sash, or lights, are held in place with narrow strips of wood or metal called muntins. A sash can be divided into any number of glass panes. Muntins were often necessary in historic windows due to the limited size of available glazing.

Window hardware contributes to the historic character of a window. Examples include sash locks and handles. Historic double-hung windows used counterweights supported on cords or chains hidden inside the jambs of the window to help raise and lower the sash.

While many factors contribute to the deterioration of windows, including lack of maintenance, insect damage, and poor design, moisture damage is the primary reason for window decay, particularly in wood windows. Metal windows are subject to corrosion. Because historic windows were often well constructed of individual parts, it is possible and advisable to repair individual window components rather than replacing the entire window.

2. Window Materials

Wood Windows

Windows were largely made of wood until the early twentieth century. In a framed building, the window surround was typically made of wood, whereas in a masonry building, the surround was typically made of masonry. Wood windows were one of the first building components to be manufactured in a factory, rather than constructed on site. Even factory made, wood windows were available in a wide range of shapes, sizes, and configurations. The advent of machine-drawn glass circa 1900 allowed for larger pieces of glazing and the num-

6. Rehabilitation of Existing Buildings

ber and configuration of divided lights in a sash became more stylistic rather than based on functionality.

Historic wood windows were constructed out of old growth wood, which is more resistant to rot than wood that is available today. Therefore, historic wood windows have a significantly longer life than replacement wood windows and should be repaired and protected rather than replaced. Refer to Section iii below for more on window repairs and replacement.

Historic wood windows should be preserved by:

- 1) Inspecting wood windows regularly and performing routine maintenance to increase their longevity.
- 2) Examining the paint finish of wood windows to identify issues related to moisture. Paint will blister, crack, flake, or peel if moisture is present in the wood, though this does not necessarily indicate that the wood is in poor condition or irreparable.
- 3) Carefully examine each window independently.

- 4) Routine maintenance of historic wood windows should include some degree of paint removal, and repair of sash as needed, repairs to the window frame, weatherstripping and reinstallation of the sash, and finally repainting.

Steel Windows

Steel windows became popular in the United States after 1890 when rolled steel technology allowed them to be cost competitive with wood windows. Another reason for their popularity was because of strict fire codes for commercial buildings after devastating fires in major cities. Steel frames, sash, and wire glass resulted in fire-resistant windows.

Steel window frames are strong and durable, allowing for larger windows, and the large expanses of glass impacted the design of industrial and commercial buildings of the late nineteenth and early twentieth centuries. Historic steel windows are important character-defining features, particularly in more minimally detailed industrial buildings, and should be retained.

Historic steel windows should be preserved by:



Replacement windows at the Schultz Cabin, Port Republic. Image courtesy of Calvert County.

- 1) Carefully evaluating individual steel windows for corrosion and deterioration. Corrosion of the metal can range from superficial and repairable, to severe rust that leads to structural damage. A thorough evaluation will indicate if repairs in place are feasible.
- 2) Inspecting the paint finish of steel windows; the condition of the paint finish is important in protecting the material beneath.
- 3) Routine maintenance of historic steel windows should include the removal of light rust and excessive paint, priming of the exposed metal, replacement of broken glazing or glazing compound, replacement of missing screws or fasteners, cleaning of hinges, repainting of steel, and finally caulking of the masonry surround.

3. Window Repair or Replacement

Every effort should be made to repair deteriorated historic windows rather than replace them. Replacement should only be considered when the windows are deteriorated beyond repair. Because historic windows were made of individual components, repairs can include in-kind replacement of parts and pieces. If substitute materials are necessary for repairs, the material must match the appearance of the original window and be chemically compatible.

Window replacement may be considered if the existing historic window is deteriorated beyond repair or does not contribute to the historic character or the building. Replacement windows should match the original in size, type, configuration, detailing, material, and overall appearance and must fit properly in the original opening.

Replacement windows should replicate the material of the historic windows. Snap-on muntins, removable grilles, and grilles



Entryway to the Langley House, Solomons.

between the glazing should not be used, but simulated divided light windows may be considered. Simulated divided light muntins should match the historic muntin profile and depth, include an interior space bar to visually divide the grilles, and be integral to the window sash. Replacement windows will be reviewed by the Commission on a case-by-case basis.

4. Door Overview

Doors and entryways are important character-defining features of an historic building. Entryway features may include transom lights or fanlights over the door, sidelights, pilasters, entablatures, and door hardware. There are many different types of doors and door detailing; typically, primary entrance doors were more elaborately designed than side and back doors. Most historic doors were made of wood though historic doors may also be made of metal. Doors and entryway elements should be repaired and retained, rather than replaced.

6. Rehabilitation of Existing Buildings

Historic documentation should be referenced when reconstructing a missing door feature. If sufficient documentation is unavailable, the new door feature should be compatible with the architectural character of the building.

Doors are subject to damage from constant use, and like windows, are susceptible to moisture penetration that can lead to rot or corrosion.

Regular inspections and maintenance should be performed including cleaning, rust removal on metal doors, limited paint removal, glass repairs, weatherstripping repairs, and new finish coats of paint or other protective coatings.

5. Door Repair or Replacement

Deterioration of doors due to moisture infiltration is often most noticeable at wood thresholds and lower portions of the door and door surround. Minor rot and insect damage can be repaired using a wood consolidant. More extensive damage may require patching or replacement of some

elements; the patches or replacement parts should be made of the same material and sized and profiled to match the existing feature. Every effort should be made to repair a door rather than replace it.

If an historic door is deteriorated beyond repair, replacement may be considered. The replacement door should replicate the original in material, size, style, and paneling and glazing configuration. The original size and shape of the doorway should be maintained.

6. Opening Alterations

Openings contribute to the overall scale, proportion, order, and rhythm of a building elevation and are generally carefully arranged to create a balanced composition. Changing the size, location, or shape of a window or door opening undermines the historic character of an historic building and should not be done. On primary building elevations, original openings should not be covered up and new openings should not be created. When required, new openings should be located on a secondary elevation



Doors from around Calvert County.

and not visible from a public right-of-way. The Commission will consider all proposed alterations to openings on a case-by-case basis.

New floors and suspended ceilings should not be located on the interior of a building where they obstruct the glazed area of historic windows or doors. If floors or ceilings are required within the vertical height of an historic opening, they should be designed to be set back from the window.

Historic window and door frames, sills, or associated trim should not be covered over with siding materials. Original window sash and frames should not be altered to accommodate modern mechanical units or other building systems. Window and door screens and storm windows and doors may be installed. Refer to Chapter 8.C below for additional information regarding storm windows and doors.

Historic documentation should be referenced when reconstructing a missing window or door or associated feature. If sufficient documentation is unavailable,

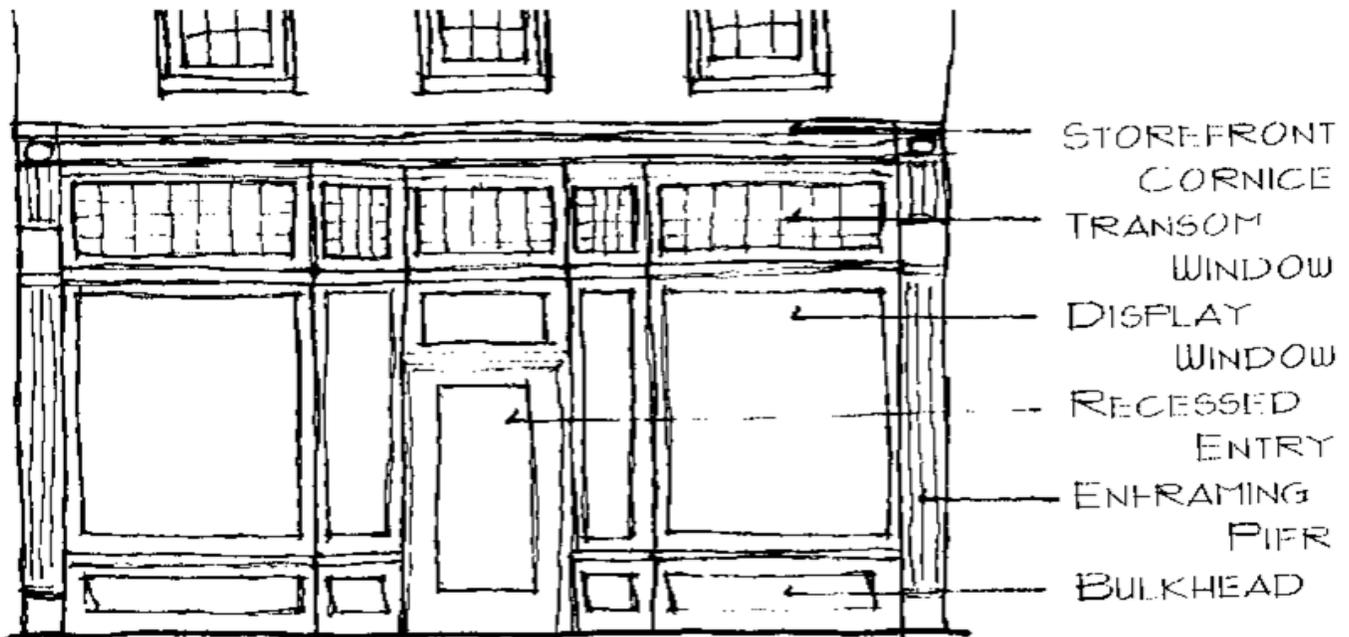
the new window or door should be compatible with the architectural character of the building.

C. Storefronts

1. Storefront Overview

Commercial storefront design, with large expanses of glass for exhibiting merchandise, came about in the 1850s due to the simultaneous developments in plate glass and architectural cast iron. These display windows quickly gained popularity in downtowns and along commercial streets. Iron craftsmen experimented with designs and ornate architectural styles became popular; cast iron storefronts could be selected from catalogs. Later in the 1870s sheet metal storefront systems were developed.

Typical storefront arrangements of the nineteenth century included a single or double recessed entrance door flanked by display windows. Often transom windows were set above the windows and door. The windows were usually set on wood or cast iron panels, raising them off of the ground.



Elements of historic storefronts. Image courtesy of Calvert County.

6. Rehabilitation of Existing Buildings

Awnings and canopies of varying types and materials were popularly used to shade the storefronts.

It became common to upgrade existing buildings at the ground floor level with iron storefronts, thereby altering their original appearance. In many cases these altered storefronts have become part of the character-defining features of the building.

New materials were introduced to storefront systems in the 1920s and 1930s, such as aluminum and stainless steel, pigmented structural glass, mirrored glass, glass block, and neon lights. In many cases these modern features are now considered historically significant and should be retained.

2. Storefront Repair or Replacement

In rehabilitating a commercial storefront, it is important to evaluate the physical condition of the storefront as well as the architectural character of the storefront to determine if it is a character-defining feature of the building to which it is attached. One should assess the role of the storefront to the overall building design, and the con-

struction materials of the storefront system can provide some clues. It can be helpful to look at neighboring commercial buildings to help determine the significance of the storefront to the overall streetscape.

Even if not original to the building, if the storefront has gained architectural significance, it should be retained as part of the historical evolution of the building. Mild deterioration, such as flaking paint and rusting metal, can be repaired with minor maintenance-level work. Moderate deterioration may require patching with new pieces to match the existing material. More severe deterioration may require replacement of storefront elements.

Full storefront replacement should only be considered if deterioration of the historic storefront is beyond repair. There are two courses of action for the design of a replacement storefront: design a contemporary storefront that is compatible with the historic character of the rest of the building, but does not mimic historic details, or design an historically accurate restoration of the original storefront using thorough



Commercial storefronts along Main Street in Prince Frederick.

research and documentation of physical evidence.

D. Exterior Walls

1. Wall System Overview

Exterior walls are both aesthetically and structurally important to a building. The cladding materials, detailing, and arrangement of window and door openings all contribute to the historic character of a building. The walls carry the weight of the roof and floors down to the building foundations. The detailing of the wall-to-roof connections and the wall-to-foundation connections are important character-defining features.

Historic buildings in Calvert County generally have walls made of wood or masonry. Wood walls have a wood structural frame and are finished with an exterior cladding material, most typically wood boards. Before the twentieth century, masonry walls of brick or stone were constructed as load bearing walls, where the structure of the wall and the finish are one in the same. Sometimes masonry walls have a stucco finish. In the twentieth century, veneer masonry evolved, where the structure of the building is made of a steel frame and the brick or stone masonry becomes the building cladding.

While solid masonry walls are inherently insulative, generally keeping the interior spaces cooler in summer and warmer in winter, framed walls of historic buildings were not designed with insulation in the wall cavities as they are today. Refer to Chapter 8.C for more on improving thermal efficiency in walls.

2. Foundations

Foundations are the structural base of a building that support the walls and con-

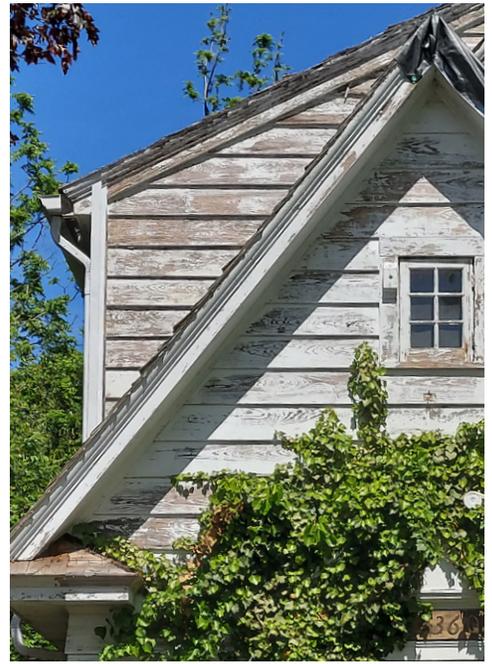
nect them to the earth. Historic building foundations, typically made of masonry walls, extend below the earth forming either a full basement or a partial crawl-space below the first floor. Above grade, foundation walls are usually partially exposed where they connect to the walls above.

Historically foundation walls were made of stone or brick, sometimes cast concrete. Often the foundation walls were coated in a layer of exterior plaster known as parging to help prevent moisture infiltration. The material and finish of the foundation walls are character-defining features of a building.

Foundation walls should be maintained and properly preserved in order to prevent structural damage that could telegraph up through the walls of a building. Water should be effectively directed away from foundation walls. Gutters that are free of debris and downspouts that maintain a positive slope away from the building will aid in water removal. Sometimes French drains were used at the base of foundation walls to help prevent water from infiltrating the basement or crawl space.



This log home near Port Republic is constructed on stone pier foundations.



Different types of wood siding from around Calvert County.

3. Wood

Wood is a resilient and easily malleable material that can be used on a building for structural framing, exterior siding, and many different types of detail elements. Wood details include shutters, steps and handrails, cornices, brackets, and finials. Wood windows and doors are addressed in Section B above. Wood siding and decorative detailing are some of the most unique aspects of historic buildings and contribute to the overall character of a building. Wood siding and details should be repaired rather than replaced whenever possible.

Wood Siding

Wood siding can be found in many forms such as horizontal boards, vertical board and battens, and shingles, though horizontal boards are the most prevalent. Horizontal boards and shingles are designed to be installed in overlapping rows, from the bottom of the wall up, to ensure that water drains away from the surface of the wall. There are many different profiles for wood siding, they are often associated with particular architectural styles or building

periods. Wood siding is a character-defining feature of a building and should not be removed or replaced with a different style.

Though wood is durable, it was typically stained or painted to resist deterioration. The wood finish must be regularly maintained. Architectural details close to the roof line that are difficult to access are most susceptible to decay. When a paint finish blisters, cracks, flakes, or peels, it needs to be refinished.

Wood Painting and Repairs

Lead-based paint was used prior to 1978; before repainting an historic building, samples should be tested for lead. If lead is present in the paint, it should be removed by a qualified professional prior to performing any other work. If the deteriorating paint is free of lead, loose paint should be carefully removed by hand scraping and sanding, which can be a time-consuming process. Sandblasting should not be performed on historic wood elements. The new paint coating system should be compatible with the existing materials and applied following manufacturers' recommendations.

Wood elements should be preserved by:

- 1) Inspecting wood elements for rot, fungus, and insect infestation.
- 2) Performing repairs using appropriate patching, piecing-in, and consolidation techniques.
- 3) Replacing wood siding or architectural features only when they are beyond repair; wood elements should be replaced in-kind.
- 4) Replicating missing features based on historic documentation and physical evidence.

When in-kind replacement for wood elements is not possible, alternative materials may be considered by the Commission. Physical samples of materials are encouraged and may be required during the Commission review process. In cases where the original material is no longer available, or the existing material is not original, alternative materials may be considered; refer to Chapter 8.B below for more on alternative materials.

4. Masonry

Brick and stone were commonly used for masonry wall construction, though other types of masonry like terra cotta and concrete block exist. In addition to wall construction, masonry was regularly used for other architectural elements, such as foundations, chimneys, steps, and landscape features. Masonry walls were often structural, but brick and stone veneers were used increasingly in the twentieth century with the availability of structural steel.

Stone Walls

Stone is not a naturally occurring material in Calvert County and was therefore not used in early construction. Locally avail-



Distinctive brick pattern and colors at Middleham Chapel, Lusby.



One of the few historic masonry homes in North Beach on Dayton Avenue.

able stone substitutes, such as unstable ferruginous sandstone and naturally occurring concrete-like sediment were used for wall foundations and chimneys. The way in which stones are cut, finished, stacked, and arranged give walls their distinctive appearance.

Brick Walls

Bricks are found in a variety of colors, shapes, sizes, and textures, and depending on how they are made, bricks can vary in durability. Prior to the 1870s, bricks were hand made; these early bricks were typically more porous and vulnerable to moisture infiltration. By the 1880s, pressed

6. Rehabilitation of Existing Buildings

bricks and machine-made bricks were fired in high temperature gas-fueled kilns, resulting in harder, more durable bricks.

Structural brick walls have multiple layers, or wythes, often interlocking, to give the wall stability. Brick veneer is typically only one wythe thick. A typical brick has three different dimensions, a short side, a long side, and a height. Bricks are laid in courses and depending on which side of the brick faces out, different patterns, or bonds, are achieved on the surface of the wall. There are many different types of brick bonds that were used on historic masonry buildings, some of the most popular being Common bond, English bond, and Flemish bond.

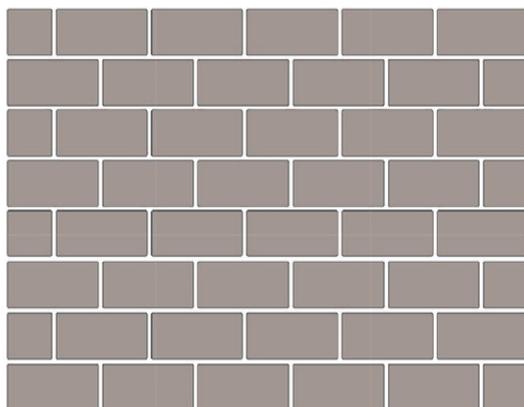
Often at the base of a wall where it intersects the foundation, brick water tables

were used both for function and aesthetics. A water table is a projection of the brick or other masonry from the face of the wall, which helps delineate the ground plane, but also deflects water away from the foundation wall below. Brick bonds and other brick detailing are important character-defining features of a building that should be retained.

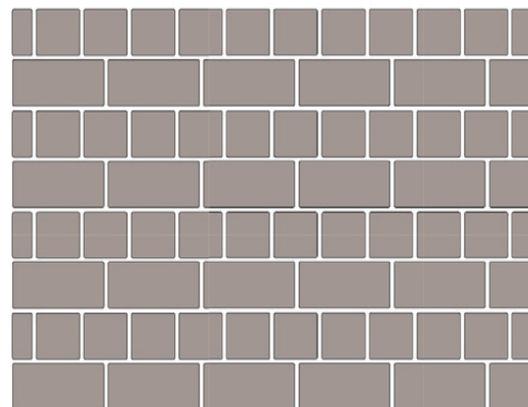
Stucco Walls

Stucco is a plaster material that was applied over top of stone, brick, and sometimes log construction to refine the appearance of the building; it is a character-defining feature of a building. Stucco also served as a protective coating from the weather and provided an extra layer of insulation. Early stucco was made from hydrated lime mixed with sand, straw,

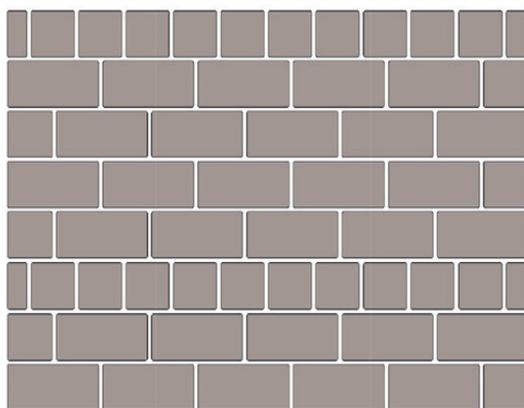
Examples of common brick bonds.



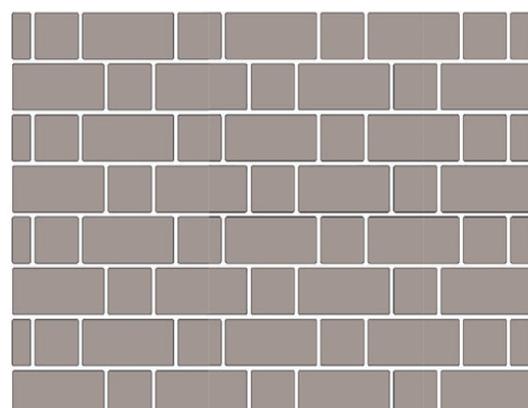
RUNNING BOND



ENGLISH BOND



COMMON BOND



FLEMISH BOND



The brick walls of Christ Church, Port Republic were stuccoed over in 1906.

and sometimes animal hair. Later, natural cements and then Portland cement were added to the mix increasing the durability of the stucco.

Stucco typically had a smooth finish, though the amount of sand in the mixture influenced the texture. The stucco finish could be scored to resemble large ashlar stones. Original stucco should not be removed from an historic wall to reveal the brick or stone beneath.

Stucco is not a long-lasting finish material and regular maintenance and repairs are necessary to prevent deterioration on historic buildings. Stucco is particularly susceptible to water infiltration and should be inspected regularly to note cracking, staining, or hollow areas. When repairing stucco, only the damaged material should be removed, and repairs should be made with stucco that matches the existing in strength, composition, color, texture, and finish. Modern exterior insulation finish systems should not be used as a replacement for historic stucco.

Mortar

Mortar has been used in masonry construction for thousands of years to join masonry units together and protect masonry walls

from weather. Mortar joints can be un-tooled, meaning the mortar is left protruding between the joints, or tooled, meaning struck in various ways to a uniform profile between bricks. Properly tooled joints help shed water from the surface of the wall. The variation in mortar color and joint detailing contribute to the overall appearance of a building.

Early mortar was made with lime and mixed in different ratios with water and sand as well as other added ingredients. The advent of Portland cement had a great impact on mortar mixtures. Portland cement was first created in 1824, though not widely used in the United States until the early twentieth century. Portland cement strengthens mortar and quickens the drying time.

In repointing and repairing historic masonry, it is critical to identify the correct mortar mixture that is compatible with the masonry as well as the original mortar. Using mortar that is too rich in Portland cement on historic masonry can lead to the deterioration of the masonry unit. The mortar mixture should always be more permeable and softer than the masonry units. This allows the wall to expand and contract along the mortar joints rather than at the bricks, which would cause spalling and cracking. It also allows moisture to escape through the joints rather than the masonry units, which would lead to masonry deterioration.

Selecting a Mortar Mixture

Mortars for repointing historic masonry are typically custom mixes in order to match the physical and visual qualities of the original. Preblended masonry cement that is available at most hardware stores is generally not recommended for historic masonry as it contains a large amount of Portland cement, giving it a high compress-

6. Rehabilitation of Existing Buildings

sive strength. As noted above, new mortar that is harder than the masonry units can be detrimental to the historic fabric. Modern chemical additives are also not recommended for historic masonry and may have detrimental effects.

Materials used in a repointing mortar mix should be specified to conform to the American Society for Testing and Materials (ASTM). ASTM designates five mortar types. In decreasing order of strength, they are Type M, Type S, Type N, Type O, and Type K, with Type K having the highest lime content. Mortar mix ratios are listed in order of cement-lime-sand. For example,

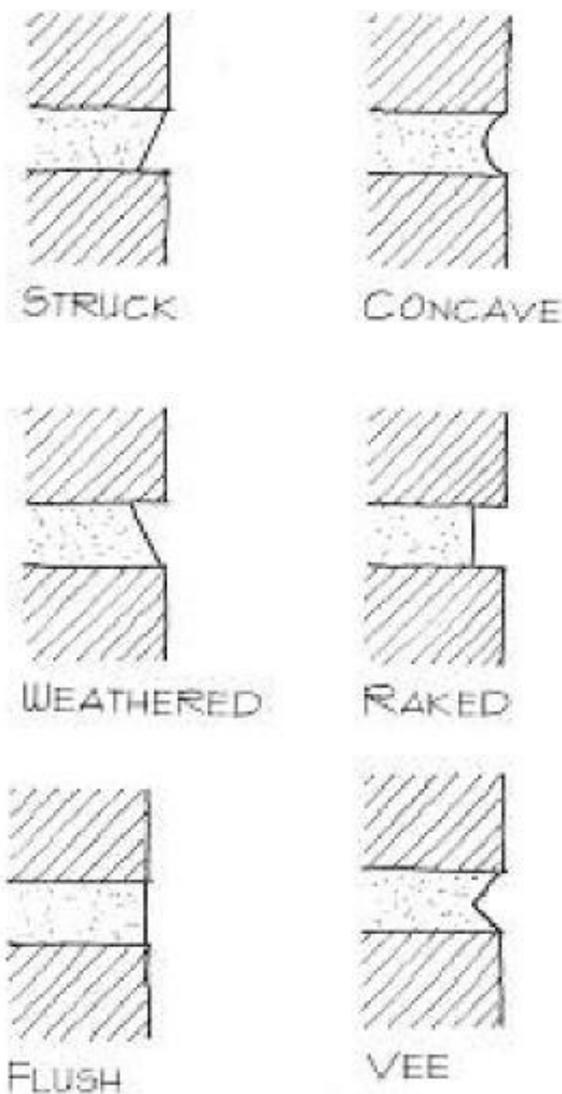
a mortar mix of 1-3-10 means one part cement to three parts lime to ten parts sand. The ratio of these ingredients determines the strength of the mortar as well as its texture and workability.

Masonry Cleaning and Repairs

Masonry walls and mortar joints should be regularly inspected for signs of deterioration, like cracking, spalling, open joints, and interior dampness. Roof, wall, and site drainage should be maintained to prevent water intrusion through the masonry. Cleaning should be performed if the building is soiled, the dirt is damaging the masonry, or a clean surface is needed for repairs or surveying. If mortar is severely eroded, repointing should be done prior to cleaning.

Masonry should be preserved by:

- 1) Cleaning masonry using extreme care to avoid damaging historic fabric.
- 2) Cleaning should be undertaken with the gentlest means possible; test methods in small areas starting with the gentlest method. Sandblasting of historic masonry should not be done. Power washing and chemical cleaning should only be done if the gentler means does not work.
- 3) Avoiding waterproofing or other surface coatings over historic masonry that are not original; historic masonry walls were designed to breathe and release moisture.
- 4) Maintaining painted finishes on masonry only if they were historically painted in colors that are sympathetic to the historic color scheme.
- 5) Avoiding modern waterproofing that can discolor masonry and trap moisture within the wall, leading to deterioration.



Examples of different mortar joints. Image courtesy of Calvert County.

- 6) Periodically repointing mortar joints, which deteriorate faster than the masonry units.
- 7) Only repointing deteriorated joints rather than the whole wall surface.
- 8) Carefully removing unsound mortar to a one-inch depth, preferably by hand, to avoid damaging masonry units.
- 9) Using a replacement mortar that is chemically compatible with the historic masonry and the original mortar mix; it should match the original mortar in color, texture, and tooling.

A common cause of masonry spalling, or chipping off at the surface, is the presence of moisture. Water that seeps into the masonry units then freezes and thaws prior to escaping will lead to deterioration. Often this is most prevalent at the foundation walls due to rising dampness. Patching can be done to repair lightly spalling masonry, but more severe damage will require replacing the masonry units in-kind. The replacement brick or stone should be carefully chosen to match the existing in color, size, and texture; the replacement brick should not be stronger than the original. Historic masonry walls should not be removed or rebuilt unless there are concerns with structural integrity.

5. Log Buildings

Log buildings were typically constructed of locally available timber. A traditional log floor plan is based around a single room enclosure, called a single pen. The single pen could be sub-divided with interior partitions or multiple pens grouped together to create rooms. Most log buildings were one or one-and-one-half story cabins. More refined or second-generation log buildings sometimes had two stories, or a second story was added later.



Log repair work at the Schultz Cabin, Port Republic. Image courtesy of Calvert County.

Log buildings were typically constructed of hewn logs stacked horizontally and locked in place at the ends with corner notching. Corner notching provided structural stability and rigidity and is a characteristic feature of most log buildings. The corner notching details vary depending upon the skill level of the builder and construction time. Examples include a simple “saddle” notch, a “V” notch, and “full dovetail.”

Chinking and daubing were used to fill in the joints between logs, which helped seal the exterior from weather and vermin, and helped shed rain. Chinking and daubing were made from materials found at hand. Chinking, installed first, included stones, wood pieces, moss, sand, and oakum. Daubing is the smooth outer layer, typically a mixture of clay and lime.

It was common for log buildings to be covered in exterior cladding, which was sometimes added later as money allowed, or after additions were added to the building.

Log Maintenance and Repairs

The most common areas of deterioration of a log building are at the foundations where settling may occur, at the sill logs located close to the ground, and at window and

6. Rehabilitation of Existing Buildings

door sills and corner notches, which are susceptible to rain runoff. Measures should be taken to direct water away from the structure, including gutter repair or installation and sloping the exterior grade away from the foundations.

Log buildings should be preserved by:

- 1) Regularly inspecting, patching, and replacing the chinking and daubing, which are the least durable part of a log building.
- 2) Patching and replacing the chinking and daubing only after the logs are inspected and, if needed, repaired.
- 3) Matching the chinking and daubing mixtures to the original as closely as possible.
- 4) Carefully inspecting the building for decay and insect infestation and probing the logs for rot.
- 5) Repairing log decay rather than replacement, if possible.
- 6) Repairing logs by piecing-in new pieces of wood or using epoxies, or both.
- 7) If full log replacement is necessary, the replacement should match the original log in species, to the extent possible, size, and appearance. It is recommended that an experienced crafts-person carry out the work.

6. Metal

Metal is a versatile material that is used in a variety of building elements including railings, cornices, roofing and decorative roof elements, columns, piers, and windows and doors. Metal roofing is addressed in Section A.3 above and metal windows and doors are addressed in Section B.2 above. With changes in technology, metal architectural elements have transformed consid-



This bungalow on 7th Street, North Beach is clad in aluminum siding.



Exposed metal structure of the Drum Point Lighthouse, Solomons.

erably from how they were first designed in the eighteenth century.

Prior to the nineteenth century, wrought iron was used in architecture as minor structural elements and some decorative elements. During the nineteenth century, the development of cast iron played an important role in the Industrial Revolution in the United States. Unlike wrought iron, cast iron could be fabricated quickly and affordably and into mass-produced

interchangeable parts. It became a popular material, particularly in large cities, for commercial building fronts, serving as both structure and decoration. In the 1870s, advances in steel manufacturing made it affordable and widely available. Other metals used in architectural elements include lead, tin, zinc, copper, nickel, and aluminum, and their associated alloys.

Metal is inherently durable, but weathers, oxidizes, and corrodes when exposed to water. Metal elements that are located near or on the roof are particularly vulnerable as they are often difficult to access. Metal elements should be regularly inspected, properly maintained, and preserved, rather than replaced.

Metal Maintenance and Repairs

Before treating deteriorated metal, it is important to determine its metallic composition, which could be challenging if the metal is severely corroded or coated in layers of paint.

Metal elements should be preserved by:

- 1) Cleaning metal using the gentlest means possible; a small area should be tested with the cleaning method prior to treating the entire surface.
- 2) Carefully removing corrosion and paint build up on metal surfaces.
- 3) Repairing metal elements techniques appropriate to the specific type of metal.
- 4) Replacing portions of metal elements only if they are deteriorated beyond repair.
- 5) Matching the existing metal in chemical composition, size, form, texture, and appearance when making repairs.
- 6) Replacing metal with a substitute material that is chemically compatible with the existing metal elements if in-kind replacement is not possible.
- 7) Maintaining painted surfaces that were originally painted; paint coating should not be applied to surfaces that were historically exposed.



Distinctive front porch detailing on the Mills House, Lower Marlboro.



The large roof overhang of the Chesapeake Beach Railway Station, Chesapeake Beach creates a covered gathering space.

- 8) Reconstructing a missing metal feature using historic documentation or physical evidence.
- 9) Designing new features that are compatible with the architectural character of the building. If sufficient documentation is unavailable.

E. Porches

1. Overview of Porches

Porches, arcades, and other exterior building appendages, like balconies, are important in defining a building's historic character. They are also key elements along a streetscape because they help create a sense of rhythm and continuity. For vernacular buildings, the porch is likely the most decorative building feature. Sometimes a porch may have been added to a building in a later style to replace an earlier porch but has become a character-defining feature.

Porches provide a transition between inside and out and offer protection from the weather. Providing a place to sit and gather, porches are a link between the public and private realms. Porches are made up of a variety of components, including structural members like beams and columns, floor decking, stairs, railings, decorative elements, and roof. Each component may be made of a different material. Though porches often have independent foundations they are most often connected to the main structure. Those connections are important details when considering repair work.

2. Porch Elements

In assessing the condition of a porch, the structural members should be addressed first. Porch foundations may be a continuous wall of masonry, individual piers, or a combination of both, and they may be independent of or connected to the foundation of the main building. The porch foundations support the floor framing and porch



The porch and balustrade at Linden (also known as the John Gray House), Prince Frederick was an early addition.

columns above. The porch columns or posts support the porch roof above, which may be an extension of the main building roof or independent. A visual inspection of the porch structure should note any crumbling masonry, areas where the sill or joists no longer rest on the foundation, the appearance of mold, and open cracks or gaps at structural connections.

Porch decking is subject to deterioration due to heavy use and because the horizontal surface is more exposed to weather. Porch balustrades, brackets, column capitals and bases, and other decorative elements are typically more delicate and therefore prone to deterioration. Blistering, cracking, peeling, or flaking of finish coatings indicates maintenance or repairs are needed.

Porch elements should be preserved by:

- 1) Repairing rather than replacing deteriorated porch elements whenever possible; in most cases even severe deterioration can be remedied.



The brick steps at Middleham Chapel, Lusby.

- 2) Only replacing elements that are deteriorated beyond repair.
- 3) Photographing a deteriorated porch element before replacing it.
- 4) Replacing porch elements with in-kind replacements that match the material, size, texture, and finish of the original element.
- 5) Replicating a missing porch feature using historic documentation or physical evidence.
- 6) Designing a contemporary feature that is compatible with the historic characteristics of the building, if historic documentation is not available.

3. Steps and Railings

Steps for accessing a porch or building entrance are generally made of wood, stone, or brick and can be important character-defining features of an historic building. Often the steps have railings, typically made of wood or metal. If railings are required to meet current building codes and they did not originally exist, new railings should be designed simply and in keeping with the historic character of the building; they should not mimic historic fabric.

Steps and railings often extend beyond the roof line of a porch and are more exposed to weather; the most exposed elements will likely deteriorate the faster.

Steps and railings should be preserved by:

- 1) Repairing rather than replacing historic steps and railings whenever possible.
- 2) Replacing steps and railings using in-kind replacements if they are deterioration is beyond repair.
- 3) Using historic documentation or physical evidence to replicate missing steps and railings.

4. Porch Alterations

If it is necessary to replace deteriorated or missing porch elements alternative materials may be considered for approval by the Commission if the historic material is no longer available. The alternative material proposed must be compatible with the original materials remaining on the porch and should match the size, form, texture, and general appearance of the historic material. The Commission will review alternative porch materials on a case-by-case basis. Product literature and physical samples of the material are encouraged and may be required during the review process. Refer to Chapter 8.B for more on alternative materials.

Historic porches should not be removed from a building entirely. If removal of a porch is necessary, it should be replaced in-kind. Character-defining porches should not be modified or enclosed. In some cases, enclosing a porch that is not important to the historic character of the building, on a rear or secondary elevation, may be considered by the Commission. The proposed materials for enclosing the porch should be compatible with the other historic materials.

F. Signage

Business signs are important elements of commercial buildings. Well-designed business signs contribute to the appearance of a building as well as attract customers and clients. Business signs that are poorly designed, on the other hand, detract from the appearance of a building as well as the image of a business. The most common types of business signs are storefront signs, hanging signs, display window and entry signs, and awning signs.

In cases where fading, painted, historic mural signs – “ghost signs” – are present

they should be left as found. Their presence contributes to the historic context of the streetscape.

Commercial signage should be designed and installed to preserve the character of an Historic District by:

- 1) Mounting storefront signs flush on the signboard. Typically, they are centered in the signboard area. No more than 65% of the signboard area should be devoted to the sign.
- 2) Mounting hanging signs perpendicular to the façade with a minimum clearance of 8' – 0" above the sidewalk. Illuminating hanging signs externally and shield to protect pedestrians and motorists from glare.
- 3) Avoiding obscuring visibility into the ground floor of a building with signs on display windows and entry doors. Signs on display windows should occupy no more than 25% of the total glass area



Appropriate signage at the J.C. Lore Oyster House, Solomons.

to which they are displayed. Display window signs may be painted, of gold leaf, or attached to Plexiglas, glass or other transparent material, and hung inside the display window.

- 4) Avoiding occupying more than 50% of the slope or 65% of the return or valance with awning signs.

Please note that all signage in Calvert County is regulated by the Zoning Ordinance; refer to § 6-8 of the Calvert County Zoning Ordinance for additional regulations not specifically related to historic districts.

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7. Additions and New Construction

In order for historic properties to function for contemporary users and meet their changing needs, additions and new construction may be necessary. If designed inappropriately, new additions and construction can diminish the integrity of an historic property and cause damage to historic fabric. Carefully considered design that is sensitive to the historic character of a property is essential.

A. Additions

The design of an addition shall not compromise the historic character of an existing building, its site, or its neighborhood; character-defining features of the existing building shall be retained. Additions should contribute to the character of an historic resource. The design of building additions shall be compatible and sympa-

thetic to the character of the existing building in massing, form, scale, detailing, and materiality.

Architectural compatibility may be achieved in many ways. It is based on an understanding of the character-defining elements of the existing buildings, landscape, and other features of the district. Typically, this understanding involves an analysis of how design principles (discussed Section C below) are used in the existing buildings and landscapes and then interpreting them in today's design philosophy, materials and construction techniques.

Compatibility does not mean exact duplication. The new addition should be seen as a product of its own time and easily distinguishable from the historic building. To exactly copy a style of the past will create



The apse added to the rear of Middleham Chapel, Lusby is in keeping with the historic building, but is distinct.



The addition (right) at Calvert Manor, Lower Marlboro is detailed much like the original building. Image courtesy of Calvert County.

7. Additions and New Construction

a false sense of history of the existing resource. A building addition should seek to contribute to the resource's future evolution just as the existing building shows its past development.

The location of an addition is critical to its compatibility. Additions should be located on rear or secondary building elevations and out of view from a public right-of-way. Additions on public-facing elevations are discouraged.

Additions should appear subordinate to the main building and not overpower it. The elements and features of an addition should be scaled proportionately to the overall building. When reviewing proposed additions in an Historic District, the Commission will consider the visibility of the addition as well as the impact to historic building fabric and reversibility.

B. Site Design

1. Villages and Towns

Careful consideration to site design for new construction projects will help preserve the character of a neighborhood or streetscape. Elements of site design include building setbacks, orientation on the site, site features, landscaping, and relationships to other buildings on the site. The buildings in historic towns and villages are typically sited in a similar fashion, creating a visual rhythm and repetition that is characteristic of a neighborhood. New construction in an historic neighborhood will contribute to, and impact that overall rhythm. The design of new construction in an historic district should be in keeping with the siting established by the historic buildings and reinforce the pattern of open landscape to built space.

New construction in towns or villages should address the street or public right-



These non-historic homes in North Beach are designed at a similar scale as the historic homes in the neighborhood and maintain a rhythm along the street.

of-way in a similar fashion as the neighboring existing buildings and maintain the same site setback lines. The design of a new building should not obscure important views along a street. New construction should be carefully and thoughtfully designed to respond to contemporary requirements in an historic context.

Prior to designing new construction in an historic town or village, the following should be considered:

- 1) New construction shall be sited to avoid the demolition of historic buildings or landscapes.
- 2) Retain established property setbacks at front and side yards.
- 3) Site new construction to preserve important views along a streetscape.
- 4) Orient the primary building similarly to existing buildings along the same street, typically with the main entrance facing the public right-of-way.
- 5) Local secondary structures and out-buildings similarly to existing secondary structures in the neighborhood. Sheds

and garages are typically sited at the rear of the property on historic sites.

- 6) Reinforce visual rhythms and patterns with consideration to vehicular and pedestrian circulation, fences, walls, yards, and landscaping.

2. Rural Properties

The siting of new structures on rural properties is not dependent on neighboring buildings, which are typically not within view range, or the relationship of the buildings and structures to the public right-of-way. The siting of new construction on a rural property, typically a farmstead, should consider the buildings, structures, and landscapes on the property that contribute to the historic character of the site. Often, the contributing buildings and structures are concentrated near one another on the site with direct relationships to accommodate functionality for working farms.

Prior to designing new construction on a rural historic site, the following should be considered:

- 1) New construction shall be sited to avoid the demolition of historic buildings or landscapes.
- 2) Site new construction to preserve important views across the site.
- 3) Reinforce established patterns with consideration to vehicular and pedestrian circulation, fences, walls, yards, and landscaping.
- 4) On historic farm complexes, new construction should be located and concentrated away from the historic farm complex so as not to detract from the historic farm complex. If after considering all possible alternatives, it is determined that new structures must be located within the historic

farm complex, they shall be designed to reflect the architectural features, masses, forms, styles, and materials of the historic farm buildings.

C. Form and Features

In designing a new building or structure to fit within an Historic District, rather than focusing on a particular architectural style, it is often better to consider design principles, particularly massing, scale, proportion, order, and rhythm. An analysis of these design principles will ensure that a new building is compatible with those nearby, along a streetscape, or within a neighborhood, regardless of whether the property is located in a rural area or within a village or town.

New outbuildings and secondary structures on a rural property should fit into the context of the other historic structures. Similarly, new construction in an historic neighborhood should be approximately the same height as its neighbors; this applies to both roof cornices and roof peaks.

The form, pitch, and complexity of new roofs should be consistent with those nearby. For example, a new flat roof or low sloping shed roof on a house in a neighbor-



The vinyl siding and large window of this modern garage are not in keeping with the earlier Spicknall House, Lower Marlboro, but it is set back from the public right-of-way.

hood with gable roofs detailed with dormers would stand out rather than enhance the character of the streetscape.

Garages, sheds, and other outbuildings should be designed in keeping with others in the neighborhood. If the neighborhood typically has separate garage structures at the rear of the properties, a new design should not locate a garage attached to the front of the primary building.

Window and door openings, porches, roof elements, and other features of new buildings should be designed to be compatible with historic buildings found nearby. The design principles described below will help ensure that a new design is in harmony with the historic fabric of Calvert County.

1. Massing

Massing refers to the overall form and size of a building or structure. It may be simple in form but very large, like many barn structures, or it may have various wings and appendages and still be modest in size; complexity of form and size are independent features.

The roof is often the most prominent visual feature of a building or structure when viewing it from a distance. The form, pitch, and height of the roof all contribute to the overall character of the building or structure and often evoke a feeling. For example, intersecting roof forms with steep pitches and other visual elements often denote grandeur.

New construction in an historic district should be designed to relate to the patterns of massing found nearby. For example, a new building in a town or village should not tower over its neighbors, nor should it be significantly shorter; its overall mass should be in keeping with the neighborhood.

2. Scale

Scale describes the relationship of parts to the whole. This principle applies to individual buildings as well as streetscapes. It is important for individual elements to be in keeping with the whole, such as the size of a front door compared to the overall building elevation. Similarly, buildings within a neighborhood should be generally in keeping with each other.

Often buildings are designed in relation to the scale of a human body. Typically, residential buildings have features scaled appropriately for human use; the tops of doors and windows are often set within a few feet of human height. Conversely, sometimes buildings are designed at a monumental scale, much larger than human size, to evoke the feeling of importance. Typically, monumental scale is associated with governmental and religious buildings.

The scale of a new building should respect the prevailing scale of surrounding buildings. In a few cases, a new building's use and symbolic importance may make it appropriate for its scale to differ from that of its neighbors.



The tall windows are scaled appropriately to the overall size of the Prince Frederick High School building.

3. Proportion

Proportion describes the relationship of building parts to each other. For example, porch columns are typically sized in relation to the overall building and that of the porch. Excessively wide columns on a relatively small building would give the porch the appearance of being squat or heavy. Building elements that are sized and detailed proportionately will give the impression of a well-considered design. Often proportions are expressed as mathematical ratios, drawn from the architectural theories of ancient Greece and Renaissance Italy.

The design of a new building should respect the proportions of historic buildings nearby.

4. Order

Order describes the arrangement of parts in an overall composition. A balanced visual composition is pleasing to the eye. An asymmetrical building façade may still have a balanced overall appearance if the various elements have similar visual weight. For example, a porch that is set to one side of a house may be counter-balanced with a projecting roof element on the opposite side.

Sometimes elements are ordered in relation to the ground. For example, one way



The window openings create a rhythm along the main facade of the Post Office, Prince Frederick.

to order a multi-story building is to design taller windows at the first floor and shorter windows at the upper floors.

5. Rhythm

Rhythm describes the spacing and repetition of elements in an overall composition. Rhythm can apply to individual buildings, such as the windows and doors of an elevation, and to streetscapes, such as the open space between freestanding buildings along a street. Maintaining the rhythm of a building or neighborhood is important to the appearance of the whole.

D. Materials and Detailing

Exterior building materials and the ways in which they are detailed add texture and visual interest to a building composition. The materials and detailing of new construction should complement those found in the neighborhood or other buildings on a property. Doors and windows are impactful to the overall design of the façade and should be compatible in character with existing historic windows and doors.

Roof and wall materials should complement those used on surrounding buildings in size, texture, scale, quality, and finish. If a particular material is used predomi-



This non-historic house in North Beach is detailed with simple traditional elements that do not mimic historic fabric.

7. Additions and New Construction

nantly in an area, it should be incorporated into the new building design. Traditional materials are preferred for new buildings designed in historic districts. Refer to the discussion of alternative materials in Chapter 8.B.

Detailing and ornamentation of new buildings are important to make them compatible with historic resources. The design of a new building should consider the amount, location, and elaborateness of details and ornamentation found on adjacent historic buildings. Existing details and ornamentation may be used as the basis for those on a new building, but they should not be copied exactly.

E. Protecting Archeological Resources

Leaving archeological resources undisturbed is the best preservation method. Whenever a property is altered, whether through agriculture, adding site features such as walkways or driveways, or constructing new buildings, known and unknown archeological resources may be disturbed. To help ensure that this will not occur, a professional archeologist should conduct an assessment and/or survey of the area for new construction. Contact Calvert County Planning and Zoning personnel to have a preliminary consultation with staff archeologists.

Archeological resources should be preserved and protected by:

- 1) Engaging a professional archeologist to conduct a survey of the areas for new construction, construction equipment, and materials storage early in the design process.
- 2) Locating new construction so that archeological resources are not disturbed.
- 3) If protecting archeological resources during construction is not feasible, conduct archeology recordation using best practices before construction begins.
- 4) If locating new construction so that archeological resources are not disturbed is not feasible, protect the resources during construction using best practices.



Archeological site at Jefferson Patterson Park and Museum, near St. Leonard.

8. Considerations for Contemporary Use



Accessible parking and ramp at the Swift House, Solomons.

A. Accessibility

Historically, buildings and landscapes were not designed with accessibility in mind, but with thoughtful design and careful planning, historic properties can be made accessible without compromising the integrity of their historic character. In 1990, the passage of the Americans with Disabilities Act (ADA) made access to public properties a civil right, and building codes allow for creative solutions to address accessibility. Refer to the *Maryland Accessibility Code Guidelines for Buildings and Facilities* found here: <https://www.dllr.state.md.us/labor/build/comar091253.pdf>, as well as the most current editions of the federal accessibility codes, *ICC A117.1*

Accessible and Usable Buildings and Facilities and *ADA Standards for Accessible Design*.

ADA requirements apply to public accommodations, commercial facilities, and government buildings. Even when compliance with ADA requirements is not mandatory, barrier-free access may be beneficial for private use as well.

While historic buildings are not exempt from ADA requirements, the Act recognizes that compliance may threaten or destroy significant architectural spaces, features, materials or finishes. To resolve this inherent problem, the Act establishes a process that may allow alternative minimum requirements or allow alternative methods

8. Considerations for Contemporary Use

of compliance to be used. The site-specific resolution of these alternatives must be certified by MHT, the Commission, as well as county code and enforcement officers.

Path of Travel

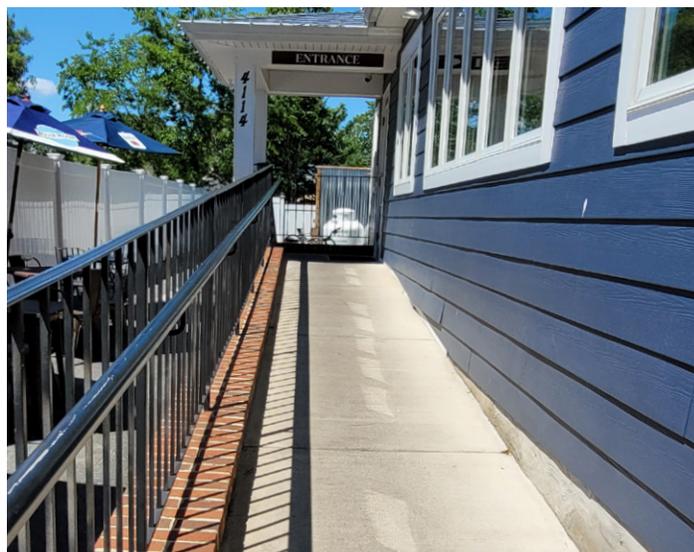
In creating barrier-free access to an historic property, the path of travel from a parking lot, sidewalk, or public street to the entrance of a building should consider the following:

- 1) The path of travel should be as short and direct as possible.
- 2) The path of travel should be appropriately graded, with curb cuts appropriately located.
- 3) The path of travel should have a firm and slip-resistant surface.
- 4) The path of travel should be of adequate width.
- 5) Care should be taken to modify existing paths to meet these requirements without destroying significant landscape features or historic materials.

An accessible pedestrian path through an historic landscape should be considered and designed in a similar manner to an accessible path to a building entrance. Whenever possible, without destroying the character-defining features of a landscape, a pedestrian route should be made barrier free. This may include modifying the width of a walkway, considering pavement pattern, texture, and joint details, and regrading for gentler slopes. Sometimes full access to an historic landscape may not be feasible, but care should be taken to provide access to the predominant public features.

Building Entrance

A barrier-free entrance to an historic building typically involves a change in eleva-



This ADA ramp provides access to the side entrance at this restaurant in North Beach.

tion. Steps, narrow doorways, high thresholds, and even doorknobs (rather than levers or pulls) can be difficult for a person with a disability to navigate. The primary public entrance should be made accessible whenever possible. If the primary entrance to an historic building cannot be made accessible without damaging character-defining features, one other entrance used by the public should be made accessible and directional signage to that route should be provided.

Solutions to making entrances accessible typically include:

- 1) Regrading the site around the entry point.
- 2) Installing a ramp or wheelchair lift.
- 3) Creating a new entrance or entry addition that is barrier free.
- 4) Modifying doors, door hardware, and thresholds.

Ramps and lifts should be located to minimize the loss of historic building fabric. Railings at ramps and lifts should be distinguishable from the historic details of the building rather than mimic them. Ramp



Examples of synthetic materials that are not a good match for traditional materials. Upper left, synthetic shingles are too thin and flat; middle, synthetic siding profile is too narrow and the applied texture does not replicate wood boards well.

materials should be of the same quality and sympathetic to those of the historic building.

An accessible pedestrian path through an historic landscape should be considered and designed in a similar manner to an accessible path to a building entrance. Whenever possible, without destroying the character-defining features of a landscape, a pedestrian route should be made barrier free. This may include modifying the width of a walkway, considering pavement pattern, texture, and joint details, and regrading for gentler slopes. Sometimes full access

to an historic landscape may not be feasible, but care should be taken to provide access to the predominant public features.

B. Alternative Materials

There is a long history in the United States of utilizing alternative materials and construction methods to replicate the appearance of traditional materials and methods in a more efficient or less costly way. New materials are constantly being developed. Many materials once developed as alternatives are now considered important historic building fabric; for example, metal roofing tiles were developed as alternatives to slate roofing but are now important character-defining features of historic buildings. It is impossible to compile an exhaustive list of alternative materials that are open for consideration by the Commission, as new materials and methods are always being created.

1. Alternative Materials for Historic Buildings and Accessory Structures

When reviewing a proposed rehabilitation project, alternative materials and construction methods may be considered for approval only if the original building fabric is deteriorated or flawed beyond repair, the historic material is no longer available, or current building codes no longer allow for that material. In some cases, the impact of substituting a material will be minimal; in other cases, if the element has a distinctly unique pattern or texture and is highly visible, an alternative material may seriously alter the character of a building or structure.

Alternative materials considered for approval by the Commission should be visually and physically compatible with the original material. For example, metals have different levels of resistance to cor-

8. Considerations for Contemporary Use

rosion, and if an alternative metal is used that is more resistant to corrosion than the original metal, it may cause the remaining metal on the building to corrode more quickly.

The appearance of the alternative material should match the original in color, texture, size, shape, and profile to maintain the historic character of the building. The Commission may consider the location of the feature and its visibility from the public right-of-way as well as the level of detail and significance of the feature to be replaced. The alternative material must also be compatible with the original materials remaining on the building or structure. Durability of the alternative material should be carefully evaluated.

The Commission may be more lenient toward the proposed use of alternative materials on accessory structures and secondary facades not visible from a public right-of-way. The Commission will review alternative materials on a case-by-case basis. Product literature detailing the expected lifespan and durability of the material and physical samples are encouraged and may be required during the review process.

2. Alternative Materials for New Construction

Alternative materials and construction methods proposed for additions and new construction should be compatible with the historic materials on the rest of the property or in the surrounding neighborhood and should be complimentary in size, shape, scale, texture, finish, and color. The quality of the materials should match those of the historic context and the construction methods should be durable and time tested.

The Commission will review alternative materials for new construction on a case-by-case basis. Product literature detailing the expected lifespan and durability of the

material and physical samples are encouraged and may be required during the review process.

3. Alternative Materials Typically Not Approved

Alternative materials that will typically not be approved by the Commission include anything made of vinyl or PVC. These materials are a poor alternative to traditional building materials for several reasons. Even the best vinyl or PVC that mimics the texture of more traditional materials like wood have a uniform appearance and will alter the historic character of a building. These materials are designed to be impervious to moisture and when applied to an historic wall can trap moisture inside the wall cavity leading to rot. Traditional materials allow a building to breathe, and when there is a moisture problem, it is typically quickly visible in the exterior materials. Vinyl and PVC will mask the problem and lead to much worse rot issues down the road. Vinyl and PVC window frames can warp and soften in the sun and typically cannot be custom fit to historic window openings like other traditional materials.



It would be preferable to locate equipment like satellite dishes on a secondary elevation.



Modern telecommunications and other equipment can be detrimental to historic sites if located with a viewshed.

New building materials are always being developed. This does not constitute an exhaustive list of inappropriate alternative materials.

C. Technology, Telecommunications, and Energy

1. Equipment

The location and installation of modern equipment, including but not limited to satellite dishes, security cameras, and air conditioning units, should be carefully considered and sensitive to historic building fabric. Equipment should be located in the least obtrusive place on a site or building and out of view from a public right-of-way.

It is preferable to install equipment on a non-historic building or addition if possible. If equipment is installed in a yard, it should be screened to minimize visibility. It should not alter any character-defining features of the landscape.

If equipment is installed on an historic building it should not be located on a primary elevation or in a highly visible location. Its installation should not damage the historic building fabric and its installation should be reversible. Equipment mounted to masonry should be attached through mortar joints rather than through the brick or stone.

2. Telecommunication Systems

Much like other modern equipment, telecommunication systems such as cell towers should be carefully planned and coordinated to ensure that the character of an Historic District is preserved. Section 106 of the National Historic Preservation Act of 1966 requires the Federal Communications Commission to assess the impacts of their undertakings on cultural resources and historic properties.

Generally, it is best to locate new telecommunication towers away from historic properties and historic buildings. Telecom towers should not impact the viewsheds of an historic site. If a telecom tower is to be constructed on top of an historic building, care should be taken to conceal it and its associated infrastructure from the public right-of-way and to prevent the damage of historic building fabric.

3. Improving Thermal Efficiency in Roofs

Roofs can be insulated to improve thermal efficiency, but the type of insulation material and installation location should be carefully considered. Historically, roof systems were designed to breathe. Installing insulation tightly beneath a roof system, such as between wooden rafters, can be detrimental to the natural ventilation, causing condensation-related moisture to damage the structure and roofing materials.



These exterior storm windows do not have any rails to obscure the view of the windows inside.

to deteriorate more quickly. Insulating the floor of the attic, if an attic exists, is preferable to insulating the plane of the roof.

Spray-in type insulation should not be applied to historic building materials as it is not reversible and there are numerous documented cases where it caused more damage than good. Loose fill or batt insulation can be added above the finish ceiling in attic spaces. Adequate ventilation in the attic should be provided to avoid moisture related problems.

4. Weatherization for Windows and Doors

Simple weatherization techniques can be performed to improve the energy efficiency of historic windows and doors, as most heat loss occurs around a leaky frame or window sash. Weatherization of windows can be substantially more cost-effective than window replacement and it has the added benefit of preserving the original windows, which are often important character-defin-

ing features of a building. Window repair work should be undertaken prior to weatherization.

Weatherstripping and caulking can be used around the window frame, window sash, and door to reduce air infiltration. Appropriate contemporary materials are acceptable for weatherstripping and caulking, so long as they are compatible with the historic window, door, and wall materials.

Storm windows can be installed on the exterior or interior of historic windows to improve their thermal performance. When properly installed, storm windows are thermally efficient, cost-effective, reversible, and preserve the original building fabric. The installation location of storm windows should be carefully considered; to avoid condensation between the windows and damage to historic fabric, the interior window must be the tighter of the two units.

If installed on the exterior side, storm window frames should match the color of the existing exterior trim and the configuration of the historic window should be clearly visible through the storm window. The stiles and rails cannot be wider than the window to be covered and the meeting rails must match. If installed on the interior side, consideration must be made to ventilating the original window and prevent condensation from forming. The installation of interior storm windows should be done by an experienced craftsman to avoid situations that lead to interior decay.

Storm doors can improve the thermal performance of historic doors, particularly those with glazing. Generally, storm doors are appropriate for residential buildings, although commercial and office buildings may have an airlock door that functions as a storm door. Historic airlock doors shall be retained; replacements shall be in keeping with the original. A storm door should

be simple in design, use clear glazing, and have trim painted to match the historic door. A storm door should complement the dimensions of the historic door and should not obscure the details of the historic door.

Screen doors may be installed on the exterior side of an historic door to keep insects out and allow for air flow. The design of the screen door should be simple and in keeping with the historic character of the entrance. Screen door frames should be painted to match the historic door. Storm doors may use interchangeable screen and storm panels that are changed out seasonally. Louvered doors are not appropriate unless original to the building or structure.

Shutters are appropriate for windows on residential buildings. If original shutters are missing or need to be replaced, their design and material should be based on documentary or photographic evidence. Even if the shutters are not operable, they should be sized to appear to cover the window if closed. Shutters are usually not appropriate on commercial buildings unless clear documentary or photographic evidence of their use exists.

5. Improving Thermal Efficiency in Walls

While solid masonry walls may have some inherent insulative value, framed walls of historic buildings were not designed with insulation in the wall cavities as they are today. Before adding modern wall insulation to historic buildings, weatherstripping should be installed around windows, doors, and any penetrations in the building envelope, and insulation should be installed in the attic and below the first-floor framing. In some cases, insulating walls may not be compatible with the historic structure. For instance, historic walls that do not have sheathing beneath the cladding should not be insulated; the insulation can trap mois-

ture in the wall cavity and cause deterioration and rot to historic materials.

Access to the wall cavity is also problematic and often requires removal of historic finishes. The challenges and benefits of adding insulation should be carefully considered prior to undertaking insulation of historic walls.

6. Sustainable Technology

Calvert County encourages the use of sustainable technology and energy efficiency measures such as solar panels, wind power, green roofs, and water collection devices, provided the character of an historic property is not compromised. Prior to implementation of sustainable technology, the existing energy-efficiency and sustainability of the historic property should be assessed. Sustainability improvements to an historic property should prioritize the most minimally intrusive treatments.

Historic buildings were often designed to maximize natural sources of heating and cooling, lighting, and ventilation and respond to individual site conditions. Good preservation practices are typically in keeping with sustainability.

Location

Sustainable technology should be located away from historic buildings and in an inconspicuous area of an historic property. If installed at ground level, equipment should be screened from view. When installed attached to a building, equipment such as photo voltaic panels and wind turbines should be located on a non-historic building or a new building addition.

If after first considering all other locations, the equipment or new technology is to be installed on an historic building, it should be out of view from a public right-of-way. For example, it is appropriate to consider a green roof on a flat-roofed area of a build-

8. Considerations for Contemporary Use

ing that is concealed behind a parapet wall and not visible from the public right-of-way.

The installation of sustainable technology should not damage historic building fabric and should be reversible. The installation must be compatible with the historic building systems. For example, a green roof should not exceed the bearing capacity of the existing building structure.

9. Mitigation for Climate Threats

The impacts of natural hazards caused by climate change should be carefully evaluated in a holistic manner when assessing historic properties. If loss, damage, or destruction can be reasonably anticipated, treatments should be undertaken to minimize the impacts of the threats. Mitigating efforts to reduce the risk from climate threats must be balanced with minimizing the impacts to the historic character of the resource. The least invasive treatments should be considered first.

Monitoring and maintaining an historic resource in good condition is the first step in mitigating loss or damage. Having historic

documentation as a record of the building or resource is an excellent way to guide future treatments or to address catastrophic loss. Documentation should include drawings as well as photographs. Refer to [Appendix A](#) for MHT's Standards and Guidelines for Architectural and Historical Investigations in Maryland for information about documenting and recording historic resources.

Implementing local and regional traditions in response to specific natural hazards may be appropriate if they are compatible with the historic character of the building or site.



J.C. Lore Oyster House, Solomons sits directly on the Patuxent River and is subject to flooding. The base of the walls up to the bottom of the first-floor windows are constructed of concrete to help withstand the effects of flood water.

A. Rising Ground Water

In Calvert County rising ground water can be a real and continual threat to historic properties. Rising groundwater impacts the condition of soil, which in turn impacts the integrity of building foundations, structural elements, landscape features, and archeological resources. Rising groundwater will result in increased dampness and water infiltration at building foundations, basements, and crawlspaces.

Rising ground water also has implications for new construction. Careful planning should include considerations for rising groundwater, such as where to locate the main floor of the building in relation to grade, waterproofing at the basement or crawlspace, accommodating septic systems and other below grade systems, and locating mechanical and electrical equipment in spaces such as an attic rather than in a basement.

Rising groundwater and flooding, another real threat in Calvert County, have similar impacts on historic properties, both resulting in water infiltration. Treatment considerations are addressed below in Section B.

B. Flooding

The Federal Emergency Management Agency (known as FEMA) has identified special Flood Hazard Areas as well as floodplains within Calvert County, which are closely regulated. The risk of flooding to an historic property should be determined based on mapped areas, such as the Federal Flood Insurance Rate Maps or other science-based projection. Calvert County has a Flood Mitigation Plan in place to improve the County's resistance to floods. Refer to the County's website, <https://www.calvertcountymd.gov/554/Floodplain-Management>, for more information about flood-

plain management as well as links to the FEMA website.

If flooding is an immediate threat to an historic property, County and Federal regulations must be followed, and adaptation treatments should be considered. As noted above, the treatment that has the least impact to the historic character of the property should be considered first. It is preferable to alter non-character-defining features of the property in mitigating flood risks. All treatment options should assess structural consideration, building system relocation to protect utilities, site drainage, and alterations to historic building fabric.

First Steps

First steps in addressing climate related threats include assessing and analyzing the risk as well as the historic resource. Prior to determining a treatment to address the risk of flooding, it is important to assess the risk in relation to the specific historic property and identify known vulnerabilities. For example, the direction of water flow, the speed and depth of the expected water, the duration of the flood, and the cleanliness of the water all impact a property in different ways.

As noted above, the first step in treating a property at risk of flooding should be care-



Stone revetment along the shoreline of the Chesapeake Bay at Chesapeake Beach.

fully documenting the historic resources and monitoring them closely. This includes identifying the materials, features, and elements that are character-defining.

Temporary Treatments

Temporary treatments are materials or systems that are installed or activated when flooding is predicted and removed when flood waters have receded. Temporary measures are typically the most affordable treatment and the least impactful on the historic character of a resource. However, usually owners or tenants are required to be on site to deploy the treatment and temporary measures are not well suited to areas that are subject to frequent flooding or areas that get very high flood waters.

Temporary measures may include sandbags, dams, floodgates, and flood-wrapping systems that are non-permanent. These temporary measures should be used in conjunction with pumps and emergency generators.

Site and Landscape Treatments

Site and landscape treatments can be implemented on the historic property or off-site, when possible. Depending on the nature of the historic resource and its vulnerabilities to flood waters, site and landscape treatments can be done away from the historic resource and have little impact on its character-defining features. Care should be taken to avoid damaging historic landscape features or archeological resources when implementing site and landscape treatments.

Treatments may include site regrading, berms, engineered structures (like flood walls), and infrastructure projects. These treatments may be implemented on an individual site or on a larger scale to protect multiple properties or neighborhoods.

Floodproofing

There are two types of floodproofing, dry and wet. Dry floodproofing is designed to create a watertight seal at the exterior of a building below the established flood risk level to keep water out of a building. Wet floodproofing is designed to allow flood waters to enter a building and drain out as waters recedes; wet floodproofing is not recommended where flooding is expected to exceed 24 hours duration.

Dry floodproofing can have a significant impact on the historic fabric of a building and may require significant alterations. All openings, including utility penetrations, that are within the flood risk level must be sealed. Foundation walls must be impervious to water, which typically involves excavating around the perimeter of the building and installing waterproof coatings or membranes. Waterproofing interventions should be carefully researched before applying to historic materials. These types of coatings can trap moisture in the wall and cause unintended damage and deterioration. Dry floodproofing is not recommended if flooding is anticipated at more than three feet or above the level of the foundation walls, as it will impact the structural integrity of the building foundation.

Wet floodproofing is recommended where flood risk levels are below the finished spaces of a building, as flood waters that enter the building will cause damage to materials, finishes, and utilities. Wet floodproofing requires water to move in, through, and out of a building, largely controlled by vents. Wet floodproofing may require structural reinforcing or anchoring to withstand the force of flood waters. Extensive cleaning and drying will be required after the waters recede, which can have a significant impact on historic materials.

Elevating the Building

This treatment involves lifting the building from its existing foundations, constructing new, higher foundations, and resetting the building on the new foundations. If the height of the new foundations is significantly higher than the original, this can impact the historic character of the building considerably. Generally, this treatment is recommended for frame buildings that are constructed over a crawlspace or on top of pier foundations. The new foundations should be designed with consideration to floodproofing as discussed above.

Moving the Building

This treatment involves lifting the building from its existing foundations and relocating it to a new site and foundations. Moving a masonry building is more difficult, generally, than moving a framed building. Relocating an historic building is not recommended and should only be considered if the property is expected to flood repeatedly, succumb to shoreline erosion, or is subject to permanent inundation due to sea level or ground water rise.

Addition Information

These Guidelines do not contain an exhaustive list of treatment options for flooding and related climate threats. Other unconventional treatments are being developed regularly as climate change is threatening historic resources worldwide. It is strongly recommended that historic property owners consult with qualified professionals, including architects and engineers, in early stages of project planning. The National Park Service created a document to address the threat of flooding on historic buildings called “Guidelines on Flood Adaptation for Rehabilitating Historic Buildings”. Refer to [Appendix A](#) for a link to the document for more information related to flooding.



The steep slopes at Calvert Cliffs are subject to severe erosion. Photograph by Bella White.

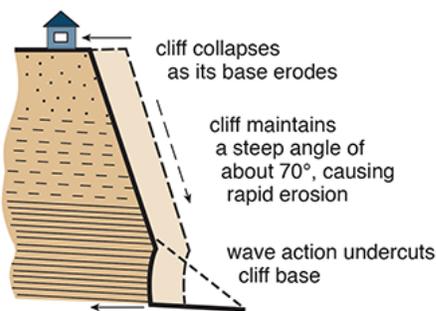
C. Erosion

Though a natural process, land erosion is a serious threat to some Historic Districts in Calvert County, and the built environment can exacerbate the natural processes. Calvert County experiences both beach/marsh shoreline erosion as well as rapid cliff-side erosion.

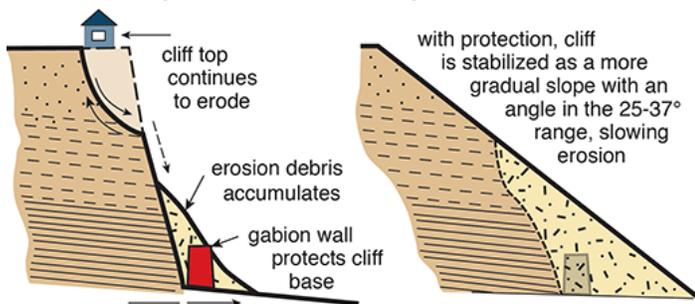
Shoreline erosion at properties that are located near streams and rivers can lead to increased risk of flooding as sediment from erosion is deposited in streams, thus reducing their capacity.

The rock-faced cliffs, such as at Calvert Cliffs, were formed by steady erosion, resulting in an abundance of exposed fossils. However, as the erosion continues at an increased rate, houses and other historic resources located at the cliff edge are at risk of being lost to the water.

Cliff Collapse (no erosion control)



Cliff Stabilization and Slope Formation (with erosion control)



Problems related to soil stabilization. Image courtesy of Chesapeake Quarterly.

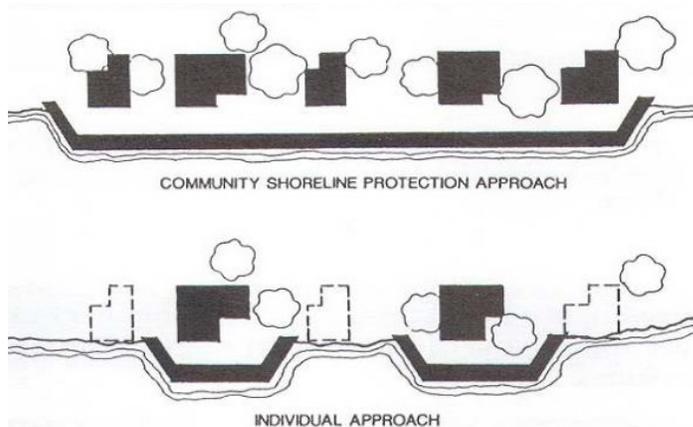
Most of the Historic Districts located close to cliff edges were built prior to zoning laws and Critical Area Programs that now limit construction in those areas. Modification to soils on properties in Calvert County is regulated closely. Federal and state permits are typically required prior to undertaking any shoreline protection measures.

First Steps

The first step in addressing the issue of erosion is to analyze the risk to the historic property; erosion is very site specific. The historic property and its cultural resources should be documented thoroughly, and monitored for changes.

Challenges with Controlling Erosion

Controlling soil erosion is a challenge that can have unintended consequences, particularly in areas like Calvert Cliffs. These steep cliffs are character-defining natural



The problem with an individual approach to shoreline erosion is that it can result in greater erosion for your neighbor. Image courtesy of Maryland Department of the Environment Water Management Administration.

features of the area and can also house important fossils. Implementing stabilization techniques, such as gabions at the base of the cliffs, will slow erosion by decreasing the slope of the cliffs, but it will alter the characteristics of the area and cover the exposed fossils.

Shoreline erosion can be problematic when addressed by individual property owners, rather than at a community level. When shorelines are reinforced along a single property, it leads to greater erosion at adjacent properties, refer to the diagram above. Shore erosion control measures can also be detrimental to aquatic plants, fish, and wildlife.

Generally, erosion control can be divided into three main types: non-structural practices, structural practices, and relocating the threatened building, structure, or resource. Non-structural practices include slope regrading and plantings. Structural practices can include shoreline revetments, offshore breakwaters, and jetties. Every site is unique and erosion control should be carefully studied by a professional civil engineer or other soils professional to address individual concerns.

9. Mitigation for Climate Threats

For more information, refer to the *Shore Erosion Control Guidelines for Waterfront Property Owners* written by Maryland Department of the Environment Water Management Administration; it is available at the following website <https://mde.state.md.us/programs/Water/WetlandsandWaterways/Documents/www.mde.state.md.us/assets/document/wetlandswaterways/Shoreerostext.pdf>.

Appendix A - Directory of Resources

Calvert County Department of Planning and Zoning

- Historic Preservation home page: <https://www.calvertcountymd.gov/1252/Historic-Preservation>
- Historic District Commission: <https://www.calvertcountymd.gov/558/Historic-District-Commission-HDC>
- Historic Preservation Forms and Documents: <https://www.calvertcountymd.gov/603/Forms-and-Documents>

National Park Service - Preservation Briefs

- Technical information for preserving, rehabilitating, and restoring historic buildings. The briefs assist historic building owners recognize and resolve common problems prior to undertaking work on their property: <https://www.nps.gov/tps/how-to-preserve/briefs.htm>

National Park Service

- National Register Bulletins: <https://www.nps.gov/subjects/nationalregister/publications.htm>
- The Secretary of the Interior's Standards for the Treatment of Historic Properties: <https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf>

Maryland Historical Trust

- Home website: <https://mht.maryland.gov/>
- Medusa - an interactive database of architectural and archeological sites throughout Maryland: <https://mht.maryland.gov/secure/medusa/>

Books

- *Old-House Dictionary: An Illustrated Guide to American Domestic Architecture (1600-1940)* by Stephen J. Phillips, 1992
- *A Field Guide to American Houses* by Virginia Savage McAlester, revised 2018