Sotterley: The Search for Access

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Abstract

The incorporation of the needs of the disabled into the uses of historic properties is not a new concept, but it is an ever-evolving one. As the public understanding of disabilities becomes greater, professionals in the field of historic preservation must remain educated and involved in the discussion. According to the U.S. Department of Justice, a disability is anything that alters, temporarily or permanently, a major life function of an individual, including “performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.” A disability may include a person with a physical or mental impairment, or a person with limited sight, shortness of breath, or an illness like diabetes. These challenges must be taken into account when considering the use of an historic property, particularly one that serves a public function.

The focus of this paper will be Sotterley Plantation in southern Maryland, a site operated as an historic house museum and outdoor educational and recreational public facility. Barriers to both physical and programmatic access will be identified and recommendations will be given for better incorporation of accessible use. Sotterley faces challenges similar to any historic site- how can the defining characteristics that make it so unique be protected while at the same time providing a fair opportunity for those with disabilities to experience it?

It is vital for the longevity of our valued historic resources that the public use and appreciate these sites, and our disabled population deserves the same privilege. And yet poorly planned designs and lack of participation from interested parties in the past have met with less than successful results; designs that serve neither the user nor the resource. Keeping the discussion open between preservation and accessibility professionals is the first step in overcoming errors in access. The next is to follow a process of identifying access barriers and proposing solutions, with the goal in mind of protecting the historic resource to the greatest degree possible. This paper provides a model for how to strategically plan for access at a site like Sotterley.

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Acknowledgments

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Introduction

Over 50 million Americans have a disability that precludes them from using historic resources without special accommodations. Disability, as defined by the U.S. Department of Justice, is “a physical or mental impairment that substantially limits one or more of the major life activities of such an individual.”\(^2\) Major life activities include “functions such as caring for one’s self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.”\(^3\)

Disabilities can span a range of issues including permanent physical and mental needs, temporary illness or physical ailment, loss of sensory use, and obesity. People may also be faced by challenges that in some way impact their use of a resource. These can include foreign visitors, the elderly, visitors with young children, and those with a limited amount of time and energy. Incorporating all of these conditions into the use and interpretation of an historic property presents a difficult challenge- how does a site provide complete access for disabled users while preserving the integrity and character-defining elements of the resource?

Historic structures can pose significant barriers to accessibility, including narrow doorways and halls, elevated entrances, staircases, and landscapes that vary in grade and surface materials. It is these defining qualities and details that make historic resources so unique, often the very reason they’re worth preserving. But they are also the characteristics that make it nearly impossible for 18% of the population to access them. As preservationists, we ultimately protect the physical cultural history in order to educate the public. So where should the priority lie- with the resource or the person? Is it possible to allow for access for those with disabilities and maintain and interpret what makes our historic resources so significant? The reality is we must serve both. Preservation is a field that relies on both a resource and public interest; one would be of little use without the other. Without public participation, there are fewer reasons to save a building or landscape, no one to appreciate its contribution to our collective history and culture. And without the resource, we lose a very important connection to our past that cannot be replaced.

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This paper will examine the challenges and opportunities created when accessibility is introduced into the preservation equation. The focus of this study will be Sotterley Plantation in southern Maryland. A National Historic Landmark dating to the 18th century, Sotterley is a paradigm of the complexities of accessible use. It presents both physical and programmatic barriers and has yet to tackle the question of how to include disabled visitors in its programming.

This paper will begin with a brief look at the history of Sotterley, and then provide an assessment of its primary, secondary and noncontributing features. This will be followed by a discussion of current policies and practices regarding historic preservation and accessibility, including examples of both successful and poorly designed modifications to properties in the United States. Barriers to accessibility at Sotterley will then be identified and recommendations will be given for the best possible solutions for physical and programmatic access at the site. Finally, suggestions for financial assistance and training opportunities for access modifications at Sotterley will be included.

Figure 1. Sotterley Plantation, main house, west elevation (Photo by author).
Section 1. History of Sotterley

Sotterley Plantation is an early 18th-century property located in St. Mary’s County, Maryland. Originally seated on approximately 4,000 acres, Sotterley is presently owned and operated by Historic Sotterley, Inc. as a 90-acre house museum and plantation, offering both educational and recreational services. Contained within those acres is the main house, constructed in 1710, outbuildings supporting domestic and agricultural services (dating from the 18th, 19th and 20th centuries), cultivated fields, gardens, pastures, nature trails, prehistoric and historic archaeological sites, boat access, and panoramic views of the Patuxent River.

The land known as Sotterley was once inhabited by the Patuxent chiefdom, an Algonquin speaking group of Indians. They resourced the floodplains for agriculture and the Patuxent River for fish and wildlife. In 1651, the land was granted to Sir Thomas Cornwallis and was named “Resurrection Manor.” The 4,000 acre property had several owners throughout the late 17th century, however no evidence survives of dwellings from this period. In 1710, James Bowles purchased 890 acres from George Plowden, and between 1710-1717 “constructed a one-story frame house, the core of the main building.
at present-day Sotterley Plantation.” Bowles made several changes and additions to the main house and surrounding landscape throughout the time of his ownership.4

Figure 3. Elevation and floorplan of 1710-1717 structure (Historic Sotterley, Inc., www.sotterley.org/evolution.htm).

Seven distinct periods of significance have been identified in the National Landmark Nomination; c. 1717, c. 1727, 1750s, 1760s, 1780s, 1840s, and 1910s. The periods mark major alterations made to the property, often followed by new ownership. Appendix A gives an illustrated narrative of the periods of building significance and the accompanying changes to the main house.

After James Bowles passed away in 1727, his wife remarried George Plater II, who became the new owner of Sotterley until his death in 1755. The property then passed to George Plater III. It was Plater III who gave Sotterley its name, after Sotterley Hall in Suffolk, England (the Plater ancestral home). The Platers retained ownership through the 19th century when the property was passed to a stepbrother of George Plater V, William Clarke Somerville. Somerville promptly sold the property without making any improvements.

Figure 4. George Plater II and George Plater III (Historic Sotterley, Inc. Brochure).

The next owner to hold Sotterley for any length of time was Emeline Dallam Briscoe, who inherited it in 1826 and remained there for sixty years. The last family to own and make significant changes to the plantation was the Satterlees. Herbert L. Satterlee was an enthusiast of history and had the main house and gardens renovated in the 1910s to reflect a colonial aesthetic. Satterlee even acquired 1,550 acres of surrounding land to recreate the original scale of “Resurrection Manor.” The property passed to Herbert Satterlee’s daughter, Mabel Satterlee Ingalls, in 1947, and it was Mrs. Ingalls who created the non-profit Sotterley Mansion Foundation in 1961 to hold the estate in trust as a public facility. Mrs. Ingalls was the President of the Foundation and its largest benefactor until her death in 1993.5

Faced with “no established endowment, a weak revenue, and mounting restoration work” after the passing of Mrs. Ingalls, the Foundation struggled to maintain the site as an active public resource. It was listed as one of “America’s Most Endangered Historic Sites” by the National Trust for Historic Preservation in 1996. The newly renamed Sotterley Foundation worked with the National Trust, the State of Maryland, local government agencies, and private organizations to establish a funding base and a strategic plan for the long-term preservation of the property.6

A Preservation Plan was developed in 1999 by Ann Beha Architects and experts from Colonial Williamsburg. Phase 1 of the plan was completed in 2001 and included work to the main house. The Sotterley Foundation was renamed Historic Sotterley, Inc. in August 2007. A new Strategic Plan was developed in 2007 and addresses issues of the buildings, landscape, development, and education.7 Currently, access has not been included to any great detail in the strategic plans for overall improvements to Sotterley, although Historic Sotterley, Inc. and the Board of Trustees have begun to consider short and long term access goals.8

Sotterley is a multi-functional facility that serves not only visitors with an interest in the history of a southern Maryland plantation but also hosts monthly events, such as

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8 Lane, Michael. e-mail interview. 21/10/2008.
the July Independence Day Concert and the October Riverside WineFest. With its numerous buildings and landscapes as well as its national significance, Sotterley faces many challenges when considering modifications for accessible use. First and foremost, Sotterley is protected by a Preservation Easement held jointly by the Maryland Historical Trust and Maryland Environmental Trust. The Easement protects changes and alterations to the historic core of the property, and all decisions regarding access must first be approved by the Easement Committee.

**Significance**

Sotterley houses some of the most significant examples of 18th- and 19th-century building technology in the country, as well as a collection of important outbuildings and landscape resources. Its protection is vital to the study of architectural and cultural history, agricultural practices, landscape architecture and archaeology in Maryland. The main house is “one of the only two surviving examples of post-in-ground framing extant in the Chesapeake region of Maryland, Delaware, and Virginia.” Its contribution to the study of this particular constructing method is enormous. In addition, the property offers visitors the opportunity to tour one of the only remaining publicly viewable slave cabins. Built in the 1830-1850’s, the cabin retains a great deal of significance for its building method and its visual and physical relationship to the main house, fields and farm buildings.

Other buildings and landscape features of particular importance include a brick stable (warehouse) constructed in 1757, an early 19th century privy, a smokehouse built in the 1840’s, a mid-19th-century corn crib, a Colonial Revival flower and herb garden, a formal entry court flanked by gatehouses, a turkey house built in 1922 and a spinning cottage from the 1930’s. These resources make up the contributing structures and elements to the historic core of Sotterley, and are protected under the Preservation Easement. Additional agricultural and domestic buildings, mostly early to mid-20th century, are situated within the core.

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Figure 5. Slave cabin (Photo by author).

Figure 6. Map of historic core of Sotterley (Marylin Arrigan, www.sotterley.com/sitemap.htm).
In the *National Historic Landmark Nomination Form* for Sotterley Plantation, 25 buildings, sites and structures were identified as contributing resources to the overall significance of the property. Noncontributing buildings were identified as well and number eleven in total. These noncontributing resources will be of particular importance to this study, as they have the most potential for future accessible programming venues and exhibit space. Alterations have been made to several of Sotterley’s contributing resources over the years, and these buildings may provide opportunities as well for accessible use. Table 1 identifies the primary, secondary, and noncontributing features of the site.

Table 1: Primary, Secondary, and Noncontributing Features at Sotterley Plantation.

<table>
<thead>
<tr>
<th></th>
<th>Main House Exterior</th>
<th>Main House Interior</th>
<th>Outbuildings</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary</strong></td>
<td>Front entrance (east elevation), Pathway (east elevation)</td>
<td>All interior</td>
<td>Slave cabin, smokehouse, privy</td>
<td>Colonial Revival garden, main property entrance, entry court, rollway road</td>
</tr>
<tr>
<td><strong>Secondary</strong></td>
<td>Side entrances (west elevation)</td>
<td></td>
<td>Corn crib, custom warehouse, turkey house, gatehouses, Spinning cottage, ice house, creamery, sheep barn, Knott farmhouse and adjacent buildings</td>
<td>Pathways to outbuildings, pathway from parking lot to main house, driveway south of entry court</td>
</tr>
<tr>
<td><strong>Noncontributing</strong></td>
<td>Pathways (west and south elevation)</td>
<td></td>
<td>Gift shop, employee office, storage sheds, gardener’s house, tenant house, Brink cottage and shed</td>
<td>All other pathways, parking lot, bathrooms</td>
</tr>
</tbody>
</table>
Section 2. Current Policies and Practices

In 1965, with growing concerns that equal opportunities were being denied to Americans with disabilities, Congress began looking at the ways in which building and landscape design practices were inhibiting the daily lives of those with special needs. The Civil Rights Act had been passed the year before and there was a growing sentiment in the country not to deny minority groups the same benefits afforded to the rest of the population. Accessibility in the workplace and in the public and private sector became an issue of constitutional rights.

In September of that year, Congress created the National Committee on Architectural Barriers to the Rehabilitation of the Handicapped. The Committee was charged with the task of determining the extent to which architectural barriers, physical building constraints like curbs, doorways, bathrooms, and stairways, prevented access to public facilities. A report was produced on what measures were being taken to correct these barriers and new ways were proposed to eliminate and prevent access barriers. Out of this process came the Architectural Barriers Act of 1968, which requires that any building constructed or altered for federal use or with the use of federal funds be made accessible. Although this legislation was a landmark for disabled civil rights, enforcement of the law was uneven and there were no guidelines established for accessible design.

In an effort to standardize design principles and guarantee the enforcement of the law, the Architectural and Transportation Barriers Compliance Board, known today as the United States Access Board, was created in 1973 under Section 504 of the Rehabilitation Act. Where the Architectural Barriers Act was designed to prevent physical barriers in federal buildings, the Rehabilitation Act refers to the activities within those buildings. Its goal is to prevent discrimination on the basis of disability in programs conducted by federal agencies, in programs receiving federal monies, and in federal employment.10 The U.S. Access Board was established as a way to standardize the process of providing access to buildings and programs, and enforce the laws pertaining to

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it. As an independent federal agency, the Board develops and maintains design criteria and offers technical assistance and training.

**Accessibility Standards**

Currently, there are two major governing standards for access as applied to historic properties- the Uniform Federal Accessibility Standards (UFAS), created in 1984 by the U.S. Access Board, and the Americans with Disabilities Act Accessibility Guidelines (ADAAG), established in 1991 by the Board. In addition, state and local governments have adopted their own building codes pertaining to access, but the ADAAG and UFAS are the most widely referenced.

*Uniform Federal Accessibility Standards*

The UFAS was intended for use by all federal agencies and agencies, state and local government, public cultural organizations and private organizations, receiving federal financial assistance. When it comes to historic properties that fall under the scope of UFAS, it is recognized that certain alternatives must be made available to prevent the loss of irreplaceable architectural and cultural material. Under Section 4.1.7 of the UFAS, resources that qualify as “historic” are given case-by-case review by the Advisory Council on Historic Preservation. Modifications for improved access are generally based on the following priorities: 1) Making the main or a prominent public entrance and primary public spaces accessible, including a path to the entrance; 2) Providing access to goods, services, and programs; 3) Providing accessible restroom facilities; and, 4) Creating access to amenities and secondary spaces.11 “Qualified’ buildings or facilities are those buildings and facilities that are eligible for listing in the National Register of Historic Places, or such properties designated as historic under a statute of the appropriate state or local governing body.”12

The Advisory Council determines whether the standards required for exterior and interior circulation routes, ramps, entrances, bathrooms, parking lots, and signage would

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threaten the significance of the building or site. If the Council finds that the property
would be harmed should standard access be applied, then alternatives outlined in Section
4.1.7(2) may be utilized following written confirmation from the Advisory Council. The
special provisions are as follows:

- At least one accessible route complying with 4.3 from a site access point to an
  accessible entrance shall be provided.
  a. EXCEPTION: A ramp with a slope no greater than 1:6 for a run not to exceed
  2 feet may be used as part of an accessible route at an entrance.

- At least one accessible entrance which is used by the public complying with 4.14
  shall be provided.
  a. EXCEPTION: If it is determined that no entrance used by the public can
  comply with 4.14, then access at any entrance not used by the general
  public but open (unlocked) with directional signs at the primary entrance
  may be used.

- If toilets are provided, then at least one toilet facility complying with 4.22 and
  4.1.6 shall be provided along an accessible route that complies with 4.3. Such
  toilet facility may be “unisex” in design.

- Accessible routes from an accessible entrance to all publicly used spaces on at
  least the level of the accessible entrance shall be provided. Access should be
  provided to all levels of a building or facility in compliance with 4.1 whenever
  practical.

- Displays and written information, documents, etc., should be located where they
  can be seen by a seated person. Exhibits and signage displayed horizontally, e.g.,
  books, should be no higher than 44 inches above the floor surface.13

It is the intention of these access alternatives to satisfy public need for fair use while protecting federally-funded historic resources. In making the decision on whether a property would be irreparably harmed if it were to comply with disability codes, the Advisory Council often consults with a variety of organizations and experts to determine a practical solution. Architectural historians and preservationists are tasked with identifying primary, secondary, and noncontributing elements to the historic context. Accessibility advocate groups and people with a range of disabilities will then distinguish the access constraints of the building or site. And finally, design and engineer experts in the field of accessibility will offer solutions on the best way to allow for universal use of the resource, based on what features need to be saved in order to maintain the significance. This process is known as an assessment for accessibility and it is used in one form or another by groups like the National Park Service, State Historic Preservation Offices, Department of Justice, individual property owners, and accessibility interest groups.14

**Americans with Disabilities Act Accessibility Guidelines**

The second set of standards that governs accessible design practice is the ADAAG. The Accessibility Guidelines are intended for private non-profit and for-profit cultural organizations (groups that do not receive federal funding). Five titles define the areas of concern for equal access—Employment, Public Service (including state and local institutions), Public Accommodations, Telecommunications and Miscellaneous. Sotterley falls under Title III of the ADAAG—Public Accommodations. According to the Department of Justice *Code of Federal Regulations*, a place of public accommodation means “a facility, operated by a private entity, whose operations affect commerce and fall within at least one of the following categories:

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1. Inn, motel, hotel or place of lodging
2. Restaurant or bar
3. Theater, concert hall or stadium
4. Auditorium, convention center or lecture hall
5. Bakery, grocery store, clothing center, hardware store or shopping center
6. Laundromat, dry cleaner, bank, barber shop, health service provider, drug store, funeral home or any service establishment
7. Terminal or depot
8. Museum, library or gallery
9. Park, zoo, amusement park or any place of recreation
10. Private schools, grade school through high school, or private college or university
11. Day care center, senior citizen center, shelter, food bank, adoption agency
12. Gymnasium, health spa, bowling alley or golf course

Under Title III, access barriers in public facilities must be removed where removal is readily achievable, which is defined as “easily accomplishable and able to be carried out without much difficulty or expense.” When a public accommodation, like an historic house museum, demonstrates that barrier removal is not readily achievable, the facility must find alternative ways to offer its services. Examples of access alternatives may include video tours, photograph guidebooks, or relocating activities to an accessible location. These alternatives hold particular relevance when considering the opportunities and constraints of access at Sotterley.

When concern arises over modifications to an historic property serving a public function (public accommodation), the State Historic Preservation Office (SHPO) is often consulted. Similar to the Advisory Council, the SHPO is asked to determine if barrier removal would cause irreparable harm to the historic fabric of the facility or incur too great a cost to the property owner. In most situations, a design solution can be reached with the help of the SHPO and his or her consultants. Site visits to the property are

conducted prior to work and an assessment is made of the most significant features and the greatest threats to access. By following a framework whereby only secondary and non-contributing features are altered while still allowing for temporary and permanent access changes, design solutions can be created that respect both goals. Careful planning is the key to successful access improvements. Projects that fail to take into consideration the entire property, alternative options and the advice of the SHPO and related parties prior to work often fall short of accommodating both the disabled visitor and the resource.

An example of a poorly planned access solution can be seen in downtown Rockville, Maryland. Figures 7 and 8 show the impracticality of the ramp on the side entrance of the Jenkins/Miller/McFarland House. While the ramp itself appears to be compatible with the design of the building, objects like a gutter downspout and furniture have been improperly placed and obstruct the access route. The design efforts have been overshadowed by the impossible use of the ramp for anyone requiring assistance. Proper maintenance of access features is as vital to users as the design and placement of the feature.

Figure 7. Exterior ramp at Jenkins/Miller/Mcfarland House, Rockville, Maryland (Photos by author).

Figure 8. Ramp provides limited accessibility due to poor maintenance.
The SHPO plays an important role in the integration of access to historic properties, and even more so in the case of Sotterley because of its easement status. A preservation easement is a contractual agreement between the property holder (Historic Sotterley, Inc.) and an advisory organization or group of organizations (Maryland Historical Trust and Maryland Environmental Trust). The easement manages development and change and protects features that make the property significant. The land remains under the ownership of the grantor of the easement and is supervised and protected by the advisory group. The preservation easement on Sotterley protects 50.892 acres, including the interior and exterior of most of the buildings, scenic views, the garden and landscape, and archaeological resources.\(^{16}\) It is important to note the easement requirements for Sotterley as it presents an added level of review for Historic Sotterley, Inc. when considering physical changes to the property.

The easement holding entity, the Maryland Historical Trust, is also the State Historic Preservation Office. A committee composed of employees from the Trust, with knowledge in the fields of architectural history, the National Register, state and federal rehabilitation tax credits, easement administration, archaeology, and grant funds must approve all changes and alterations to Sotterley’s buildings and landscape. Physical access modifications are included in this review. Given that easement properties have particular significance to the state of Maryland, yet are not excluded from access requirements, the SHPO has a weighted interest in finding the best possible solution for providing universal use.

Sotterley has received federal and state financial assistance over the years, which makes it an investment as a cultural, recreational and educational resource for the public. Not only does the SHPO carry the responsibility of providing the public, including disabled users, the opportunity to utilize one of Maryland’s outstanding resources, but is expected and legally bound to protect the character-defining elements that make it so outstanding. Historic Sotterley, Inc. faces a similar dilemma of public use vs. stewardship of the property as they begin to plan for access.

Preservation Standards

The standards used by property owners and federal, state, and local governing bodies when making preservation decisions are called The Secretary of the Interior’s Standards for the Treatment of Historic Properties. There are four sets of standards depending on the treatment and condition of the historic resource—preservation, rehabilitation, restoration and reconstruction. The Standards most applicable to accessibility and Sotterley are Preservation Standards 2 and 5 and Rehabilitation.
Standards 2, 5, 9 and 10. These are not governing principles, but rather guidelines that provide a framework for making consistent decisions regarding preservation projects. As stated by the National Park Service,

_The Standards are neither technical nor prescriptive....they cannot, in and of themselves, be used to make essential decisions about which features of the historic building should be saved and which can be changed. But once a treatment is selected, the Standards provide philosophical consistency to the work._\(^{17}\)

The UFAS and ADAAG likewise do not legislate access. Rather they provide a profile on which to base decisions and interpret access according to the needs of the site and its users. It is this level of interpretation of both historic preservation standards and accessibility standards that allows for creative access solutions for historic properties, based on the particular conditions of each property.

Section 3. The Visitor Experience and Access at Sotterley

Attention to the overall visitor experience is lacking at Sotterley; a study of current use, interpretation, site conditions, employee services, tour content, web content, and programming events would benefit all guests of the property. It would help to clarify short term and long term goals for Historic Sotterley, Inc. and ensure the longevity of the property as a public place of interest. While accessibility studies are geared towards identifying barriers for disabled users, they also highlight needed areas of improvement for the overall enjoyment by all visitors and viability of the site. The following issues have been identified as needing improvement to enhance the visitor experience at Sotterley. These are items that should be addressed when planning for access-

- Parking and Pathways
  - Surfaces- soft, uneven, discontinuous
  - Drainage- poor drainage throughout the site, especially the parking lot
  - Distance from buildings- parking is 150 feet from gift shop and bathrooms

- Signage
  - Inconsistent- only several signs directing visitors and even fewer exhibit panels/displays

- Use of Buildings
  - Gift shop (tickets and information)- far from parking lot, poorly marked, difficult to reach
  - Underutilized spaces- custom warehouse, corn crib, sheep barn, Spinning cottage, Knott farmhouse

- Services
  - Bathrooms- poorly marked, outdated
  - Very few benches, trash cans, water fountains provided

- Tours
  - Docent tours- includes only first floor of main house, not outbuilding or garden
- Self-guided tours- not well marked, not well structured
- Website
  - Photos- very few provided of buildings and site
  - No map of property
  - No mention of site conditions
- Staff
  - Difficult to find when needed

The most challenging barriers to access will be architectural elements of the main house and outbuildings, specifically the slave cabin, privy, smokehouse, spinning cottage and gatehouses. Table 2 identifies barriers to site and program access. The section below outlines these issues further and identifies opportunities within these five categories for future improvements.

Table 2: Barriers to Access at Sotterley Plantation.

<table>
<thead>
<tr>
<th>Main House Exterior</th>
<th>Main House Interior</th>
<th>Outbuildings (mostly unaltered)</th>
<th>Site</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walkways</td>
<td>Elevated thresholds</td>
<td>Slave cabin</td>
<td>Pathways</td>
<td>Website</td>
</tr>
<tr>
<td>Elevated entrances</td>
<td>Narrow doorways</td>
<td>Smokehouse</td>
<td>Garden</td>
<td>Docent and self-guided tours</td>
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<tr>
<td>Narrow doorways</td>
<td>Staircase</td>
<td>Gatehouses</td>
<td>Parking</td>
<td>Signage</td>
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<td>Privacy</td>
<td>Drainage</td>
<td>Bathrooms</td>
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<td></td>
<td></td>
<td>Turkey house</td>
<td>Benches, fountains, trash cans</td>
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<td></td>
<td>Spinning Cottage</td>
<td>Gift shop/ Ticket office</td>
<td></td>
</tr>
</tbody>
</table>
Main House

As shown in Table 2, the main house has several major barriers that prevent total access to the interior and limited access to the exterior. Barriers include elevated thresholds to the entrances, level changes between rooms on the first floor, narrow doorways, and discontinuous and narrow pathways surrounding the building. The only rooms in the main house currently open to visitors are the West wing, the drawing room, the stair hall, Madam Bowles room, and the dining room. The second floor does not present an access issue at this time as it is not included in the regular tour. However, if it is opened to visitors in the future it must be reconsidered in the study for overall access.

Figure 10. East elevation entrance (Photos by author).
Figure 11. Interior threshold.
Figure 12. West elevation pathway, main house.
Figure 13 shows the tour route conducted by docents of the main house. Visitors enter from the West wing and through the doorway into the stair hall. They are then led north into the drawing room, back through the stair hall to Madam Bowles room, south to the dining room, and exit out the dining room door to the east elevation. There are six thresholds in total the visitor must be able to cross in order to complete the tour, several of which change in elevation. A total of six doorways must be navigated by visitors, most of which appear too narrow for those with walkers, wheelchairs, and strollers.

To widen doorways or raise the level of the floors would irreversibly alter the character and construction of the building. As Preservation Standard 10 states,

*New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment could be unimpaired.*

Given the significance of the main house to the site and the irreplaceable nature of the entrances and doorways, only non-structural changes are recommended for interior access. Temporary ramps could be installed on the west elevation entrances.

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Once inside, beveled or ramped thresholds could be fixed to the entryways in order to level floor changes. Narrow wheelchairs and walkers (supplied by Historic Sotterley, Inc.) would allow for non-mobile visitors to navigate the narrower passages. Alternatives to be discussed in Section 5 should also be considered for ways to allow visitors to visually view the interior if physical experience is not feasible.

The pathways surrounding the building could be improved to allow for easier movement around the main house. At present, the pathways are composed of brick and stone pavers. Portions on the west elevation are too narrow for access purposes and have become loose and uneven.

The north and south elevations have flagstone paths, unevenly spaced and of varying sturdiness. The porch on the east elevation provides the most stable circulation route with large fixed stone pavers. This section would not require any improvements, only regular maintenance. The pathways on the north, west, and south elevations carry little significance to the context of the main house. They could quite simply be widened to the appropriate width of 36” and laid with a stable, non-slip surface; one that is
compatible with the pathways throughout the property. Interpretive panels around the exterior or a docent-led guide for visitors who can’t access the interior could be provided to enhance the experience.

Outbuildings

The outbuildings present their own challenges to access. None of the buildings have suitable pathways to their entrances, some are grass and others are gravel. In addition, most of the entrances to the buildings are elevated. It is important to note that visitors are not permitted to tour the interiors of the smokehouse, privy, slave cabin, Spinning cottage or gatehouses. Therefore the question of ramps and interior access is of no concern at this point in time.

Slave Cabin

Visitors are permitted to walk to the slave cabin from the rollway road near the gift shop, or from a set of stairs near the main house. The distance from the gift shop to the slave cabin is approximately 150 feet. Once at the cabin, access for all visitors is limited to the exterior of the building. Exhibit panels are situated nearby to narrate the
history of the cabin and the road on which it sits. The largest barrier to accessing the cabin is the dirt and gravel rollway road.

Figure 17. Slave cabin and interpretive panels along Rollway Road (Photos by author).

Figure 18. Trailhead of Rollway Road, with gift shop restrooms to left.

Given the high significance of the structure, the road, and the visual setting, no major improvements or alterations are recommended for this site. One minor suggestion would be to extend the trailhead of the rollway road to the bathrooms. This portion of the property has already been altered with the construction of the bathrooms and extending the pathway would allow visitors with movement and sight challenges an easier route.

Once on the rollway road, the ground is less firm than desired to fulfill UFAS or ADAAG standards. However, grading of the road or installation of a material that would visually or compositionally alter the surface should be avoided given the significance of the feature. One compromise would be to maintain the road as much as possible to smooth any uneven spots and keep the ground compacted. Another option is to place an exhibit panel with a narrative of the slave cabin and rollway road at the beginning of the trail for visitors with mobile or visual challenges.
Smokehouse

Improving the pathway to the entrance of the smokehouse would be the only necessary alteration. Similar to the slave cabin, access for visitors is restricted to the exterior, which eliminates the challenge of altering the elevated entrance. By constructing a more solid walkway and displaying informative panels, complete access could be achieved.

Figure 19. Exterior view of smokehouse (Photos by author).

Figure 20. Interior view of smokehouse.
Privy

Providing interpretive panels and a clearly-designated pathway would be the best possible option for allowing access to the privy. As visitors are not regularly allowed inside the structure, all visitors could benefit from a narrative panel and solid ground for circulation. Paving would not be recommended for the pathway, as the garden is a grass surface only. But short cut grass and appropriate drainage would accommodate most users. Another alternative for the pathway leading to the privy (and other clearly-defined walkways throughout the garden) would be to utilize technology like Grasspave. Discussed further in Section 5, Grasspave provides a more solid surface and looks and performs the same as standard grass.

Figure 21. Looking north to privy, from main house (Photos by author).

Figure 22. Front elevation of privy.
**Custom warehouse**

The warehouse currently serves as an exhibit space and lecture room. Built in the 18th century, the building was altered in the 1910’s and 1930’s\(^\text{19}\) and now has a ramped entrance on the south elevation. One of four buildings on-site with a ramp, the warehouse could provide a useful space for accessible events and displays. However, the gravel walk leading to the warehouse entrance is difficult to maneuver and there is a lack of signage indicating the accessibility of the building. These are relatively small and inexpensive improvements that can help to enhance the use of the building. As part of a long term goal, Historic Sotterley, Inc. may want to consider moving the gift shop services to the warehouse. It is one of the closest buildings to the parking lot, is a close distance to the bathrooms in the sheep barn, and already has a ramp in place.


Figure 23. Custom warehouse (Photo by author).
Corn crib

Similar to the warehouse, and situated adjacent to the parking lot, the corn crib has a ramp on the south elevation. The building is also used as exhibit space. The largest obstacle to access is the lack of a continuous route from the lot to the ramp. This all but eliminates the usefulness of the ramp, as one would have to cross a grassy open space before reaching it. Again, this is an easy adjustment to make to provide complete access.
Sheep barn

The sheep barn on the south end of the property provides the greatest opportunity for accessible space. A large, single level building, it has newer bathrooms (some with grab bars, others that can be easily modified), a ramped entrance, and unused parking in the rear. The only obstacles to access at the barn are the lack of a solid circulation route from the current parking lot and the absence of signage directing visitors. Corrections to both barriers could be addressed when improvements are made to overall site circulation and signage. The possible uses for the barn include exhibit space, lecture hall, programmed events, performances, rental space, and visitor services. With just a few minor improvements, the building could serve a variety of functions while at the same time providing full access.
An assessment of the overall site identifies the pathways and parking lot as major access barriers. The parking lot is located approximately 150 feet from the gift shop, which is the starting point for all tours. The path of travel from the lot to the gift shop descends down a steep hill and back up to the entrance. The route would be challenging for a visitor with even the slightest difficulty walking steeper slopes. The other option would be to follow the gravel road to the main house and take a set of stairs down to the gift shop, a route twice as long as Figure 30. Pathway from parking lot to gift shop (Photo by author).
the previous one. The pathway to the house and most of the outbuildings is a mix of loose
gravel, dirt and grass. This presents a particular issue after a rain event, as the property
drains poorly and the pathways and parking lot become muddy.

Figure 31. Poor site drainage (Photos by author).  
Figure 32. Poor site drainage.

Garden

The Colonial Revival garden presents a particular obstacle because it lacks
pathways of stable material. Visitors are permitted to walk through the garden on its
grassy surface. This would be a challenge to anyone that requires harder footing to move
comfortably or must travel with a wheelchair, walker or stroller. As suggested previously
with the privy, using a surface treatment such as Grasspave on clearly-marked pathways
through the garden would give visitors a solid, stable surface to travel with the same
aesthetic and function as regular grass.


Services

The next issue is the restroom facilities. There are restrooms on the basement level of the gift shop, but they are outdated and difficult to reach. Newer bathrooms in the sheep barn are not currently ADA or UFAS accessible but could be easily modified. These facilities are unmarked however and quite a distance (approximately ¼ mile) from the historic core.

Figure 33. Colonial Revival garden (Photos by author).

Figure 34. Grass pathway through garden.
It is also worth noting the apparent lack of benches, water fountains, handrails, and trash cans. Though these may seem like arbitrary features, they go a long way in providing a comfortable and pleasant visit. And since these features would be new improvements to the site, they could easily be designed to accommodate accessible use.
**Signage**

When assessing barriers in visitor services, one of the first priorities is signage. There are less than ten interpretive panels throughout the site and only several signs directing visitors to the restrooms, gift shop, and slave cabin. Signs should show universal symbols for access and should be standardized with a non-glare finish and a dark background and white font or white background and dark font. They should be placed in a location that can be easily viewed by all visitors and should be maintained (painted or replaced) regularly.

**Website**

The website is another often-overlooked tool to providing alternate access. Web videos and interior and exterior photographs of the buildings and landscape allow visitors the visual experience without the physical challenges. Likewise, providing tour material online is another way to give disabled visitors the chance to read or listen to the same information they would have received from a docent. Lastly, the docent-led tours of the main house and self-guided tour of the grounds are one dimensional. These are no alternatives for those that cannot participate in a verbal and visual walking tour.
Section 4. Case Studies

The case studies presented below have all addressed alternative access with varying solutions. The properties have interpreted UFAS, ADAAG, and state and local access standards in the best way possible for the resource, given its significance and physical and programmatic barriers. The solutions have been outlined in this study to provide Sotterley with potential alternatives to become a more accessible site.

Hillwood Mansion

Hillwood Mansion in Washington, D.C. has embraced the opportunity to provide alternative access for visitors, by offering a variety of tours, brochure materials and assistance for the disabled visitor. Built in the 1920’s, the 13-acre estate was purchased in 1955 by Marjorie Merriweather Post, heir to the Postum Cereal Company. The property overlooks Rock Creek Park and contains the Mansion, gardens designed by landscape architect Willard Gebhart (later re-landscaped by Mrs. Post), a greenhouse and cutting garden, program space, a café, administrative buildings and Visitor Center, and an art

Figure 38. Hillwood Mansion (Photo by author).
research library. Nearly all the buildings, including the Mansion and gardens, are accessible to disabled visitors.

Docents are trained to shape the tour to each particular group, depending on their needs. In addition, Visitor Services provides wheelchairs, baby holders, interpreters, Braille and large print guide books, audio tours, and assistive listening devices at no extra charge to the visitor. They do ask that special requests are made several days in advance, and a thorough list of services and contact information is provided on their website. Photographs, maps and gift shop items are also available for view and purchase online.

The physical modifications made to Hillwood Mansion for access do not provide an exact model for Sotterley given the differences in age, size, location, organizational and funding structure, and type and use of the resource. The ramps and elevator provided in the Visitor Center, for example, would not be necessary or feasible for Sotterley. However, the assistance, training, and tour services offered by Hillwood provide a great prototype for Sotterley to begin planning its own visitor services. Access has as much to do with eliminating physical barriers as it does with providing alternatives to reading material, verbal walking tours, and exhibit content.
Ladew Topiary Gardens

Another model for Sotterley would be the efforts at Ladew Topiary Gardens in Jarrettsville, Maryland. Ladew Gardens was built in the late 1920’s by Henry Ladew. Opened to the public in 1971, it is owned and operated by Ladew Topiary Gardens, Inc. Guided tours are provided of the manor house and the 15 thematic gardens designed by Mr. Ladew are open for visitors from March-October. The site also contains a restored barn, used for exhibit space and educational activities, a café, a 1.5 mile nature trail, and hosts programming events like outdoor concerts and holiday workshops.

Figure 41. Ladew Gardens, main house (Photo by author).

Figure 42. View of garden (Weblog Ladew Gardens, http://travel.webshots.com/album/361270809mPzoVC?vhost=travel).
Like Sotterley, Ladew Gardens is a preservation easement property held by the Maryland Historical Trust and has a range of buildings, structures, and landscapes to consider when making access decisions. The approach they have taken is to provide minimal access to the manor house, but full access to the gardens and accessory buildings. Golf cart tours of the garden are available by appointment for visitors with impairments. Walkways around the buildings are solid surface and signage directs guests to accessible bathrooms and entrances. Parking spaces for cars and vans are provided near the visitor building and manor house.

Figure 43. Signage and pathway (Photos by author).

Figure 44. Signage.

Figure 45. Entrance ramp.
Access hasn’t been perfected at Ladew Gardens, and it doesn’t fit to UFAS and ADAAG standards in all circumstances. But the alternatives and services offered by the staff and in secondary buildings allow disabled users a similar experience without compromising the relevant features of the property.

**Frank Lloyd Wright Home and Studio**

A third example of an historic property incorporating accessible alternatives is the Frank Lloyd Wright Home and Studio in Oak Park, Illinois. Designated as a National Historic Landmark in 1976, the home has not been modified to allow for ADA-related access.

However, the studio is accessible and a videotape "takes guests who are unable to navigate the stairs to the house on a visual walking tour of Wright’s home." In addition, audio tapes and maps are available for self-guided tours through the surrounding historic district, a tour that can be taken by car, on foot, or in wheelchair. Furthermore, a public lecture series on Frank Lloyd Wright and his home and studio is given year-round at the

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Oak Park Library. This offers people with an interest in the subject a completely accessible space to receive the same information they might on a tour of the property.

By no means does a lecture afford the same experience as visiting the actual home, but it lets disabled visitors know that their concerns are being addressed in the best way possible given the circumstances. It also gives disabled and non-disabled visitors a choice to visit the home or attend the lecture. It must be remembered that offering alternatives can be helpful to the non-disabled user as well. Often the modifications made for access, such as larger bathrooms, harder surfaces, benches, signage, website photographs and videos, audio tours, etc., enhance the average visitor experience.
Section 5. Recommendations for Sotterley

The intent of this research project has been to find a balance between stewardship of historic Sotterley Plantation and improved access for the disabled visitor; the goal being to achieve the highest level of accessibility with the lowest amount of impact to the site. The recommendations outlined below are the result of careful examination of Sotterley’s primary, secondary, and noncontributing features, its physical and programmatic barriers to achieving access, and the opportunities for future improvements. Many of these suggestions have been inspired by the efforts discussed in the case studies as well as current material on the subject.

The recommendations have been grouped under priorities. Priority 1 recommendations are those that can be undertaken in the short term without much expense or physical change. Priority 2 recommendations are initiatives that can be achieved intermediately with some expense and change required. The long range goals under Priority 3 would require capital improvements to the property.

These priorities have been prepared in a format similar to what would be given in an accessibility study. Whether the recommendations given here are ultimately taken into consideration by the responsible parties, it is of first and foremost importance that an access study be conducted of Sotterley. The study should include 1) review of significance and character-defining elements; 2) assessment of Sotterley’s existing and required level of access; and 3) evaluation and list of solutions for short term, intermediate, and long term goals.21 The purpose of the study is to make clear to Historic Sotterley, Inc. what is required of them and in what time frame to achieve a more accessible site. The study will have the added benefit of clarifying access goals and future changes to interested parties, like the Maryland Historical Trust and Maryland Environmental Trust, grant programs and donors, advocate groups, and visitors.

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Priority 1- Short term goals for improved communication with disabled visitors and preparations for site modifications

- Create mission statement
- Update website
  - Photographs of interior and exterior of main house, outbuildings, and landscape
  - Information on site conditions
  - Maps of property
  - Brochure material
  - Contact information for those with disabilities
- Training for employees
  - U.S. Access Board
  - St. Mary’s County
- Create position in-house for access coordinator or establish contact with St. Mary’s County ADA Coordinator

The creation of a mission statement that voices Historic Sotterley, Inc.’s dedication to accessibility is an important initial step for the organization. It defines for all interested parties, especially the visitor, Historic Sotterley’s ultimate goals and shows their commitment and compassion towards those that require alternative use. Sotterley’s current mission statement reads,

*The mission of Historic Sotterley, Inc. is to preserve, research, and interpret Sotterley Plantation’s diverse culture and environments and to serve as a public educational and cultural resource.*

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The current mission statement could be reworded to include a message about visitor use and experience. Or it may be in the best interest of Historic Sotterley, Inc. to create a separate statement directed entirely at their commitment to universal use of the site. Posting the statement on the website and in brochure material allows for quick dissemination of the new mission.

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As mentioned previously, the website is a valuable tool for an historic site. It allows for all visitors, regardless of ability, to get their first experience of the property. The information provided on the website can often determine whether a person visits or not: Did the website capture the attention of the viewer? Was it user-friendly? Were photographs, maps of the site, and contact information readily available?

The website for Sotterley provides a good amount of detail on the background of the site and activities for guests. But it could benefit from more photographs of the interior and exterior of the main house and outbuildings, as well as maps of the site and descriptions of the conditions. It will help to educate and entice those already interested and will clarify what physical or mental capabilities are necessary to visit the property. Lastly, contact information should be provided for anyone needing additional assistance.

Figure 47. Example of website with accessibility map (English Heritage, www.sensorytrust.org.uk/resources.EAHL.pdf).
The employee contacted should be able to explain site conditions and constraints and offer any solutions available.

Staff training is another important step when modifying use of Sotterley for disabled visitors. Employees should be trained on how to anticipate and plan for visitors with various needs and how to accommodate those needs. In *Everyone’s Welcome: The Americans with Disabilities Act and Museums*, staff training is considered one of the nine essential steps toward achieving access. It states, “As many museums have found, good staff education is the single most cost-effective step toward fulfilling the goal of making the entire museum accessible.” Training should be conducted regularly for all existing and in-coming staff. It should be geared towards the visitor and his or her changing needs.

Goals of training should be 1) breaking down attitudinal barriers between employees and disabled visitors; 2) providing employees with specific and accurate information on the needs of those with disabilities; 3) the legal requirements of the site to provide non-discriminatory use; and 4) finding accessibility-related solutions. An additional goal would be staff preparedness for emergencies related to disabilities, such as heart conditions and diabetes.

Accessibility training seminars and materials are available through St. Mary’s County Department of Recreation, Parks, and Community Services. Training topics include: communication, inclusion, disability awareness, crisis intervention, conduct disorders, Attention Deficit and Hyperactivity Disorder (ADHD), and childcare and the ADA. Sessions could quite easily be incorporated into the current training routine for new and existing Sotterley employees and volunteers. In addition, the U.S. Access Board and other non-profit and advocate organizations offer material and classes on the subject of employee awareness, communication, and interaction with disabled visitors.

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Priority 2- Intermediate goals for non-capital and programmatic changes

- Update website
  - Video tour of interior of main house, outbuildings, and landscape
  - Gift shop online purchase order

- Update printed brochure and guide material
  - Braille
  - Large print

- Modify docent and self-guided tours
  - Audio tours
  - Specialized tours depending on need of visitor

- Continue exhibits and programmed events in current accessible spaces
  - Customs warehouse
  - Corn crib
  - Sheep barn
  - Knott farm house/Educational building

- Create traveling exhibits and programmed events
  - Local libraries, schools and community centers

Priority 2 recommendations are program modifications that could be implemented after planning and funding availability have been explored. Creating a video tour of the property, one that highlights buildings and features discussed during docent-led tours and in brochure material, is something many museums have done. A video tour can be geared toward all visitors, not just those with disabilities, as an introduction to the site upon arriving. It has the added beneficial use for individuals or groups with limited physical mobility. The video should be offered in an accessible location on-site and eventually linked to Sotterley’s website and perhaps included in a traveling exhibit.

Other modifications at the program level would be to update brochure material and docent and self-led tours. Hillwood Mansion, for example, offers guests the options of large print and Braille, as well as audio tours and assistance from an interpreter. Hillwood Mansion’s annual budget allows for use of three to five interpreters a year, though often guests will be accompanied by their own guide.25

Lastly it is recommended that all existing accessible (or partially-accessible) space be utilized to the greatest degree possible. This includes the following buildings at Sotterley- custom warehouse, corn crib, sheep barn, and Knott farmhouse.

These buildings should be advertised on the website as providing (to some degree) for physical access needs and programs should be listed with date and time of event. Programs may include, but are limited to, exhibits, lectures, performances, fundraising events, holiday events, and private parties. In addition, Historic Sotterley, Inc.
may want to consider holding events and exhibits at another location in St. Mary’s County. It would serve to draw more awareness to the site and its history, has the potential to attract a greater attendance if held in a fully-accessible location, and would connect Sotterley to greater southern Maryland.

Priority 3- Long term goals for capital projects and site changes

- Temporary modifications to exterior and interior of main house
  - Temporary ramps on west elevation
  - Beveled thresholds or ramps on first floor interior

- Improved pathways
  - Firm surface with proper drainage
  - Widen pathways where necessary (no resurfacing required)
  - Resurface pathways where necessary

- Improved facilities
  - Modifications to existing bathrooms at gift shop and sheep barn
  - Standardized design for new and existing benches, picnic tables, water foundations, and trash cans

- Additional and improved parking
  - Firm surface with proper drainage
  - Improved parking on current lot
  - Additional parking near garden and sheep barn

- Improved signage
  - Standardized format, size, and location
  - Located appropriately to direct visitors to main house, outbuildings, pathways, bathrooms, parking, visitor services, exhibit space, etc.

- Improved informative panels
  - Standardized format, size, and location
  - Additional panels around exterior of main house and primary and secondary outbuildings and landscape features

- Purchase access supplies and services
  - Narrow wheelchairs, walkers, strollers, and baby carriers
  - Audio device
  - Interpreters

Priority 3 recommendations are physical modifications to the site; long term goals that require a careful look at what can be done given site constraints, approval needed
from appropriate agencies, and funding availability for large-scale projects. The recommendations below have been suggested as possible compromises given the dual goals of preservation and access. By no means is this a final list but is intended to provide ideas for further discussion and study on overall access to Sotterley.

The first recommendation is to provide interior access to the first floor of the main house. Modifications to the exterior and interior would be temporary in nature; no structural or architectural changes should be made given the high significance of the house. All visitors are currently guided through the house by a docent and this element of control by employees will prove advantageous for visitors requiring additional assistance. Docents can install the necessary equipment and modify the tour depending on the group. When assistance isn’t needed, temporary materials can be removed and stored.

To get visitors with movement challenges (wheelchairs, walkers, etc.) inside the house, a ramp could be placed at the door to the West wing (entrance point for all visitors) with an exit ramp at the dining room (east or west elevation). The exterior doors are approximately 36-38” in width, which would accommodate most wheelchairs and walkers. Narrow models could be provided by staff if further study shows that passageways and doors on the interior are too narrow for most assistive equipment (doorways must be at least 32” in width).26

Once inside, there are several level changes and raised thresholds that must be navigated. Level changes less than ¼” do not require adjustments. Changes between ¼” - ½” must be beveled with a slope no greater than 1:2 and level changes greater than ½” must be ramped.\textsuperscript{27} It appears that most of the interior (and all exterior) thresholds are greater than ¼”, and therefore would require some type of adjustment.

\textbf{ImagEv ROWED}

![Figure 53. Example of ramped threshold](Mobility-Advisor.com, www.mobility-advisor.com/mobility-ramps.html).

![Figure 54. Example of beveled threshold](Preservation Brief 32, National Park Service, www.nps.gov/hps/tps/briefs/brief32.htm).

Interior thresholds can be beveled or ramped as needed, installed in a way that can be easily removed and do not threaten or destroy historic fabric. All access materials, though temporary, should be stable and safe for visitors. Employees should be trained how to assist visitors with access needs and how to properly install and remove materials. It is important to note that if further study concludes that interior access would be dangerous to disabled visitors or would irreplaceably alter the main house, access should be considered only for the exterior with alternative viewing options for the interior (video tour, photographs).

The next major improvement to the property, one that would benefit all visitors, is a better pathway system. As mentioned previously, the pathways are uneven, discontinuous, and difficult to maneuver in certain locations. Where pathways are

constructed of an appropriate material for access (stone, brick, concrete) they should be widened (if necessary), fixed in place, and maintained to avoid loose or missing material. Pathways that require only minimal modifications include those surrounding the main house and smokehouse.

Figure 55. Pathways requiring minimal improvements (Photos by author).

Figure 56. Pathways requiring minimal improvements.
The remaining pathways are a mix of stone, dirt, gravel, and grass. Access standards require a solid, stable surface that drains properly and can be navigated by visitors with movement and visual challenges. The following surfaces and treatments would be compatible with the visual characteristics of Sotterley, each with their own advantages and disadvantages.

- **Stone or brick paving**
  - **Pros** - fits in with current paving around main house, solid surface when maintained
  - **Cons** - requires regular maintenance for stable, non-slip surface, material can be costly

![Figure 59. Stone paving (Photo by author).](image1)

![Figure 60. Stone paving (English Heritage, www.sensorytrust.org.uk/resources/EAHL.pdf).](image2)
➢ Tar and Chip surface- stone aggregate laid on asphalt, then pressed onto gravel surface
  ▪ Pros- non-slip, low maintenance, less costly than asphalt, solid surface, any color/shape of aggregate can be used.
  ▪ Cons- chips can break away exposing blacktop surface, makes snow removal difficult

IMAGE REMOVED

Figure 61. Tar and chip surface.
(Elleplant Groundworks, www.elleplant.co.uk/ShingleDrives.tardrives02.html).

➢ Grasspave- plastic subsurface paving underneath grass surface
  ▪ Pros- maintains look of grass, permeable surface, solid
  ▪ Cons- requires minimal excavation (2”), expensive, longer installation period

Examples: National Archives, fire lane and jogging trail; Lincoln’s New Salem, picnic areas
Gravelpave- plastic subsurface paving with a gravel surface

- Pros- strong enough for cars, permeable, solid surface for access, any color/shape of gravel surface can be used
- Cons- requires minimal excavation, expensive, longer installation period

*Example:* National Garden at the U.S. Botanical Garden, path/trail reinforcement
The pathways on-site that would require new surface material include the main route from the parking lot to the main house, the road from the lot to the custom warehouse and sheep barn, the path to the Spinning cottage, and the entry court.

Figure 66. Main pathway from parking lot to main house (Photos by author).

Figure 67. Pathway from parking lot to sheep barn.

Figure 68. Entry court.

Figure 69. Entry court pathways.
The path from the lot to the gift shop can be maintained with its current stone pavers, but consideration should be given to re-grading the walk in order to decrease the slope. The brick walk to the gift shop restrooms would need only to be widened and maintained. The rollway road, as mentioned previously, should be maintained as is, with the trailhead extended to connect with the brick pathway near the restrooms.
Further study is needed to determine the appropriate treatment and surface material for each pathway, with consideration given to visual significance to the site, archaeological resources, use by visitors, drainage, installation method, and cost of the project.

The next set of access modifications would be improved restroom facilities at both the gift shop and sheep barn. The restrooms are noncontributing features to the site and can be fully altered according to access standards. Other service features that could be modified or constructed to code include benches, picnic tables, water fountains, handrails, and trash cans.
Another large scale project recommendation is to resurface the existing parking lot and construct two additional satellite lots for disabled visitors. Similar to the pathways, surface material for the existing and additional lots should be considered based on visual characteristics, drainage capability, installation method, and cost of project. The first additional lot would be designated behind the sheep barn, which would allow disabled visitors closer access to the restroom facilities and special events. The second lot on the north end of the property would allow closer access to the garden, main house, and...
nearby outbuildings. Signage should be posted designating the lots for disabled guests only and the location of the lots should be identified on the Sotterley website.

Figure 78. Map of existing and potential parking lots (Ann Beha Associates, Inc., Sotterley Preservation Plan, 1999).

Figure 79. Existing main parking lot (Photos by author).

Figure 80. Potential lot behind sheep barn.

Figure 81. Potential lot north of garden.
And finally, signage and informative panels should be added throughout the site to establish better communication with the visitor. As with all of the recommendations given in this paper, proper signage and exhibit panels increase the level of professionalism and quality of the site. Signs should clearly direct visitors to their intended destination, displaying standardized symbols for accessible features, and panels should be well-composed, succinct, and positioned appropriately for all viewers (located where they can be seen from a seated position).²⁸

Figure 82. Standard access symbols (Graphic Artists Guild, www.gag.org/resources/das.php).


Figures 83-85. Examples of signage throughout Sotterley (Photos by author).
**Conclusion**

Sotterley Plantation is a place with great potential for use and enjoyment by a variety of visitors, disabled and non-disabled. It is a cultural landmark for the state of Maryland and should be appreciated for all of its rich history. The future of Sotterley as a vital public resource depends on the appreciation and participation of the public. Now is the time for accessibility to be integrated into strategic plans for Sotterley’s many buildings, landscapes, and activities. Historic Sotterley, Inc. has a responsibility to provide for both the resource and the visitor, and it is the hope that this paper has given them the tools to begin that process.
**Bibliography**

**Accessibility**


**Accessibility and Historic Preservation**


**Historic Preservation**


Images


Historic Sotterley, Inc. Brochure, available on location


Website Resources


Center for Universal Design <http://www.design.ncsu.edu/cud/>

Department of Justice ADA <http://www.ada.gov/>

Ladew Topiary Gardens <http://www.ladewgardens.com>

Maryland Historical Trust <http://www.marylandhistoricaltrust.net>
# Appendix A - Funding Opportunities for Sotterley

<table>
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<tr>
<th>Access Study/Consultant</th>
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<td>Museum Assistance Grant, Maryland Historical Trust</td>
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<td>Museums for America</td>
</tr>
<tr>
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<td>Museums for America</td>
<td>National Recreation Trails, State Highway Administration</td>
</tr>
<tr>
<td>ADA Coordinator, St. Mary's County</td>
<td>St. Mary’s County, Dept. of Recreation, Parks, and Services</td>
<td>Local, Corporate Sponsors, and Donors</td>
</tr>
<tr>
<td></td>
<td>U.S. Access Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Local, Corporate Sponsors, and Donors</td>
</tr>
</tbody>
</table>

**Heritage Areas Non-Capital Grant**
- Southern Maryland Heritage Area
- Sotterley has received mini-grants in the past
- Projects may include funding for accessibility study and print material

**Museums for America, Institute of Museum Services**
- Grants between $5,000- $150,000
- Match required
- Flexible use of funds including on-going museum work, research, planning, new programs, purchase of equipment and services, upgrading technologies
- Competitive grant, innovative ADA solutions would be needed

**Museum Assistance Grant, Maryland Historical Trust**
- Education and program planning, projects, and enhancement
- Eligible for Museum Enhancement Challenge Grant (organizations with operating budgets over $250,000)
- Matches required
- Funding opportunities include ramps, video tour, photographic albums, print material, pathways, signage, accessibility study
Museum Assessment Program, Institutional Assessment
- Consultation that focuses on mission, composition and skills of board, financial analysis, accessibility, customer service, and museum's place in the competitive environment

National Recreational Trails Program, State Highway Administration
- Matches federal funding with local or in-kind funds
- Funds up to 80% of project cost, matched by at least 20% from project sponsor
- Must meet ADA requirements
- Projects can include maintenance and restoration of existing trails, development of trail linkages and trailside facilities, purchase or lease of trail construction equipment, construction of new trails, acquisition of property for trails, implementation of programs to promote intrinsic qualities, safety, and environmental protection
Appendix B- Significant Building Periods
National Historic Landmark Nomination, Sotterley, August 1999.

The Evolution of Sotterley
From 1717-present

Drawings not to scale (front elevation faces east)

**Period I (c. 1717)**
- two room earthfast dwelling with east side facing Patuxent River

**Period II (c. 1727)**
- addition of wing on west side of dwelling
- consists of a passage and "new roome"
- note clustered chimney stack

**Period III (c. 1750s)**
- addition on south side of dwelling
- features crude finishes (used for domestic purposes?)
- paneling installed in new room, hall, and parlor

**Period IV (c. 1760s)**
- roof raised on east side of main block only
- gives appearance of a full second story

**Period V (c. 1780s)**
- addition on north side of building
- drawing room and stair passage created
- larde constructed on south side of building
- cupola added to hide awkward roof connection

**Period VI (c. 1840s)**
- addition of east wing probably a kitchen
- construction of porches that nearly encircle the house
- possible reorientation of house towards the land or west side

**Period VII (c. 1910s)**
- demolition of east wing and construction of new kitchen on south side
- porch partially reconstructed
- gable ends all replaced with Flemish bond brick
- larde encased and one bay addition built on south end
- breezeway built to connect kitchen to main house
Appendix C- Uniform Federal Accessibility Standards

4.1.7 ACCESSIBLE BUILDINGS: HISTORIC PRESERVATION.

(1) APPLICABILITY.

(a) As a general rule, the accessibility provisions of part 4 shall be applied to "qualified" historic buildings and facilities. "Qualified" buildings or facilities are those buildings and facilities that are eligible for listing in the National Register of Historic Places, or such properties designated as historic under a statute of the appropriate state or local government body. Comments of the Advisory Council on Historic Preservation shall be obtained when required by Section 106 of the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 and 36 CFR Part 800, before any alteration to a qualified historic building.

(b) The Advisory Council shall determine, on a case-by-case basis, whether provisions required by part 4 for accessible routes (exterior and interior), ramps, entrances, toilets, parking, and displays and signage, would threaten or destroy the historic significance of the building or facility.

(c) If the Advisory Council determines that any of the accessibility requirements for features listed in 4.1.7(1) would threaten or destroy the historic significance of a building or facility, then the special application provisions of 4.1.7(2) for that feature may be utilized. The special application provisions listed under 4.1.7(2) may only be utilized following a written determination by the Advisory Council that application of a requirement contained in part 4 would threaten or destroy the historic integrity of a qualified building or facility.

(2) HISTORIC PRESERVATION: MINIMUM REQUIREMENTS.

(a) At least one accessible route complying with 4.3 from a site access point to an accessible entrance shall be provided.

\textit{EXCEPTION: A ramp with a slope no greater than 1:6 for a run not to exceed 2 ft (610 mm) may be used as part of an accessible route at an entrance.}

(b) At least one accessible entrance which is used by the public complying with 4.14 shall be provided.

\textit{EXCEPTION: If it is determined that no entrance used by the public can comply with 4.14, then access at any entrance not used by the general public but open (unlocked) with directional signs at the primary entrance may be used.}

(c) If toilets are provided, then at least one toilet facility complying with 4.22 and 4.1.6 shall be provided along an accessible route that complies with 4.3. Such toilet facility may be "unisex" in design.

(d) Accessible routes from an accessible entrance to all publicly used spaces on at least the level of the accessible entrance shall be provided. Access should be provided to all levels of a building or facility in compliance with 4.1 whenever practical.

(e) Displays and written information, documents, etc, should be located where they can be seen by a seated person. Exhibits and signage displayed horizontally, e.g., books, should be no higher than 44 in (1120 mm) above the floor surface.

4.1 MINIMUM REQUIREMENTS.
4.1.6 ACCESSIBLE BUILDINGS. ALTERATIONS.

(1) GENERAL. Alterations to existing buildings or facilities shall comply with the following:

(a) If existing elements, spaces, essential features, or common areas are altered, then each such altered element, space, feature, or area shall comply with the applicable provisions of 4.1.1 to 4.1.4 of 4.1, Minimum Requirements.

(b) If power-driven vertical access equipment (e.g., escalator) is planned or installed where none existed previously, or if new stairs (other than stairs installed to meet emergency exit requirements) requiring major structural changes are planned or installed where none existed previously, then a means of accessible vertical access shall be provided that complies with 4.7, Curb Ramps; 4.8, Ramps; 4.10, Elevators; or 4.11, Platform Lifts; except to the extent where it is structurally impracticable in transit facilities.

(c) If alterations of single elements, when considered together, amount to an alteration of a space of a building or facility, the entire space shall be made accessible.

(d) No alteration of an existing element, space, or area of a building shall impose a requirement for greater accessibility than that which would be required for new construction. For example, if the elevators and stairs in a building are being altered and the elevators are, in turn, being made accessible, then no accessibility modifications are required to the stairs connecting levels connected by the elevator.

(e) If the alteration work is limited solely to the electrical, mechanical, or plumbing system and does not involve the alteration of any elements and spaces required to be accessible under these standards, then 4.1.6(3) does not apply.

(f) No new accessibility alterations will be required of existing elements or spaces previously constructed or altered in compliance with earlier standards issued pursuant to the Architectural Barriers Act of 1968, as amended.

(g) Mechanical rooms and other spaces which normally are not frequented by the public or employees of the building or facility or which by nature of their use are not required by the Architectural Barriers Act to be accessible are excepted from the requirements of 4.1.6.

(2) Where a building or facility is vacated and it is totally altered, then it shall be altered to comply with 4.1.1 to 4.1.5 of 4.1, Minimum Requirements, except to the extent where it is structurally impracticable.

(3) Where substantial alteration occurs to a building or facility, then each element or space that is altered or added shall comply with the applicable provisions of 4.1.1 to 4.1.4 of 4.1, Minimum Requirements, except to the extent where it is structurally impracticable. The altered building or facility shall contain:

(a) At least one accessible route complying with 4.3, Accessible Route, and 4.1.6(a);

(b) At least one accessible entrance complying with 4.14, Entrances. If additional entrances are altered then they shall comply with 4.1.6(a); and

(c) The following toilet facilities, whichever is greater:

(i) At least one toilet facility for each sex in the altered building complying with 4.22, Toilet Rooms, and 4.23, Bathrooms, Bathing Facilities, and Shower Rooms.
(ii) At least one toilet facility for each sex on each substantially altered floor, where such facilities are provided, complying with 4.22, Toilet Rooms; and 4.23, Bathrooms, Bathing Facilities, and Shower Rooms.

(d) In making the determination as to what constitutes "substantial alteration," the agency issuing standards for the facility shall consider the total cost of all alterations (including but not limited to electrical, mechanical, plumbing, and structural changes) for a building or facility within any twelve (12) month period. For guidance in implementing this provision, an alteration to any building or facility is to be considered substantial if the total cost for this twelve month period amounts to 50 percent or more of the full and fair cash value of the building as defined in 3.5.

**EXCEPTION:** If the cost of the elements and spaces required by 4.1.6(3)(a), (b), or (c) exceeds 15 percent of the total cost of all other alterations, then a schedule may be established by the standard-setting and/or funding agency to provide the required improvements within a 5-year period.

**EXCEPTION:** Consideration shall be given to providing accessible elements and spaces in each altered building or facility complying with:

(i) 4.6, Parking and Passenger Loading Zones,

(ii) 4.15, Drinking Fountains and Water Coolers,

(iii) 4.25, Storage,

(iv) 4.28, Alarms,

(v) 4.31, Telephones,

(vi) 4.32, Seating, Tables, and Work Surfaces,

(vii) 4.33, Assembly Areas.

(4) Special technical provisions for alterations to existing buildings or facilities:

(a) Ramps. Curb ramps and ramps to be constructed on existing sites or in existing buildings or facilities may have slopes and rises as shown in Table 2 if space limitations prohibit the use of a 1:12 slope or less.

<table>
<thead>
<tr>
<th>Slope*</th>
<th>Maximum Rise</th>
<th>Maximum Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steeper than 1:10 but no steeper than 1:8</td>
<td>3 in 75 mm</td>
<td>2 ft 0.6 m</td>
</tr>
<tr>
<td>Steeper than 1:12 but no steeper than 1:10</td>
<td>6 in 150 mm</td>
<td>5 ft 1.5 m</td>
</tr>
</tbody>
</table>

* A slope steeper than 1:8 not allowed.

(b) Stairs. Full extension of stair handrails shall not be required in alterations where such extensions would be hazardous or impossible due to plan configuration.

(c) Elevators.

(i) If a safety door edge is provided in existing automatic elevators, then the automatic door reopening devices may be omitted (see 4.10.6).
(ii) Where existing shaft or structural elements prohibit strict compliance with 4.10.9, then the minimum floor area dimensions may be reduced by the minimum amount necessary, but in no case shall they be less than 48 in by 48 in (1220 mm by 1220 mm).

(d) Doors.

(i) Where existing elements prohibit strict compliance with the clearance requirements of 4.13.5, a projection of 5/8 in (16 mm) maximum will be permitted for the latch side door stop.

(ii) If existing thresholds measure 3/4 in (19 mm) high or less, and are beveled or modified to provide a beveled edge on each side, then they may be retained.

(e) Toilet rooms. Where alterations to existing facilities make strict compliance with 4.22 and 4.23 structurally impracticable, the addition of one "unisex" toilet per floor containing one water closet complying with 4.16 and one lavatory complying with 4.19, located adjacent to existing toilet facilities, will be acceptable in lieu of making existing toilet facilities for each sex accessible.

EXCEPTION: In instances of alteration work where provision of a standard stall (Fig. 30(a)) is structurally impracticable or where plumbing code requirements prevent combining existing stalls to provide space, an alternate stall (Fig. 30(b)) may be provided in lieu of the standard stall.

(f) Assembly areas.

(i) In alterations where it is structurally impracticable to disperse seating throughout the assembly area, seating may be located in collected areas as structurally feasible. Seating shall adjoin an accessible route that also serves as a means of emergency egress.

(ii) In alterations where it is structurally impracticable to alter all performing areas to be on an accessible route, then at least one of each type shall be made accessible.

4.14 ENTRANCES.

4.14.1 MINIMUM NUMBER. Entrances required to be accessible by 4.1 shall be part of an accessible route and shall comply with 4.3. Such entrances shall be connected by an accessible route to public transportation stops, to accessible parking and passenger loading zones, and to public streets or sidewalks if available (see 4.3.2(1)). They shall also be connected by an accessible route to all accessible spaces or elements within the building or facility.

4.14.2 SERVICE ENTRANCES. A service entrance shall not be the sole accessible entrance unless it is the only entrance to a building or facility (for example, in a factory or garage).

4.22 TOILET ROOMS.

4.22.1 MINIMUM NUMBER. Toilet facilities required to be accessible by 4.1 shall comply with 4.22. Accessible toilet rooms shall be on an accessible route.

4.22.2 DOORS. All doors to accessible toilet rooms shall comply with 4.13. Doors shall not swing into the clear floor space required for any fixture.
4.22.3 CLEAR FLOOR SPACE. The accessible fixtures and controls required in 4.22.4, 4.22.5, 4.22.6, and 4.22.7 shall be on an accessible route. An unobstructed turning space complying with 4.2.3 shall be provided within an accessible toilet room. The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap.

**EXCEPTION:** In toilet rooms with only one water closet and one lavatory, a clear floor space of 30 in by 60 in (815 mm by 1525 mm) may be used in lieu of the unobstructed turning space.

4.22.4 WATER CLOSETS. If toilet stalls are provided, then at least one shall comply with 4.17; its water closet shall comply with 4.16. If water closets are not in stalls, then at least one shall comply with 4.16.

4.22.5 URINALS. If urinals are provided, then at least one shall comply with 4.18.

4.22.6 LAVATORIES AND MIRRORS. If lavatories and mirrors are provided, then at least one of each shall comply with 4.19.

4.22.7 CONTROLS AND DISPENSERS. If controls, dispensers, receptacles, or other equipment is provided, then at least one of each shall be on an accessible route and shall comply with 4.27.

4.3 ACCESSIBLE ROUTE.

4.3.1* GENERAL. All walks, halls, corridors, aisles, and other spaces that are part of an accessible route shall comply with 4.3.

4.3.2 LOCATION.

(1) At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking, and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve.

(2) At least one accessible route shall connect accessible buildings, facilities, elements, and spaces that are on the same site.

(3) At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements and with all accessible dwelling units within the building or facility.

(4) An accessible route shall connect at least one accessible entrance of each accessible dwelling unit with those exterior and interior spaces and facilities that serve the accessible dwelling unit.

4.3.3 WIDTH. The minimum clear width of an accessible route shall be 36 in (915 mm) except at doors (see 4.13.5). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as shown in Fig. 7.

4.3.4 PASSING SPACE. If an accessible route has less than 60 in (1525 mm) clear width, then passing spaces at least 60 in by 60 in (1525 mm by 1525 mm) shall be located at reasonable intervals not to exceed 200 ft (61 m). A T-intersection of two corridors or walks is an acceptable passing place.

4.3.5 HEAD ROOM. Accessible routes shall comply with 4.4.2.

4.3.6 SURFACE TEXTURES. The surface of an accessible route shall comply with 4.5.
4.3.7 SLOPE. An accessible route with a running slope greater than 1:20 is a ramp and shall comply with 4.8. Nowhere shall the cross slope of an accessible route exceed 1:50.

4.3.8 CHANGES IN LEVELS. Changes in levels along an accessible route shall comply with 4.5.2. If an accessible route has changes in level greater than 1/2 in (13 mm), then a curb ramp, ramp, elevator, or platform lift shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. Stairs shall not be part of an accessible route.

4.3.9 DOORS. Doors along an accessible route shall comply with 4.13.

4.3.10 EGRESS. Accessible routes serving any accessible space or element shall also serve as a means of egress for emergencies or connect to an accessible place of refuge. Such accessible routes and places of refuge shall comply with the requirements of the administrative authority having jurisdiction. Where fire code provisions require more than one means of egress from any space or room, then more than one accessible means of egress shall also be provided for handicapped people. Arrange egress so as to be readily accessible from all accessible rooms and spaces.
Appendix D- Accessibility Checklist

Checklist for Existing Facilities version 2.1

To obtain additional copies of this checklist, contact your Disability and Business Technical Assistance Center. To be automatically connected to your regional center, call 1-800-849-4ADA. This checklist may be copied as many times as desired by the Disability and Business Technical Assistance Centers for distribution to small businesses but may not be reproduced in whole or in part and sold by any other entity without written permission of Adaptive Environments, the author.

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Barrier Free Environments, Inc.

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Checklist for Existing Facilities version 2.1

Introduction

Title III of the Americans with Disabilities Act requires public accommodations to provide goods and services to people with disabilities on an equal basis with the rest of the general public. The goal is to afford every individual the opportunity to benefit from our country's businesses and services, and to afford our businesses and services the opportunity to benefit from the patronage of all Americans.

The regulations require that architectural and communication barriers that are structural must be removed in public areas of existing facilities when their removal is readily achievable—in other words, easily accomplished and able to be carried out without much difficulty or expense. Public accommodations that must meet the barrier removal requirement include a broad range of establishments (both for-profit and nonprofit)—such as hotels, restaurants, theaters, museums, retail stores, private schools, banks, doctors' offices, and other places that serve the public. People who own, lease, lease out, or operate places of public accommodation in existing buildings are responsible for complying with the barrier removal requirement.

The removal of barriers can often be achieved by making simple changes to the physical environment. However, the regulations do not define exactly how much effort and expense are required for a facility to meet its obligation. This judgment must be made on a case-by-case basis, taking into consideration such factors as the size, type, and overall financial resources of the facility, and the nature and cost of the access improvements needed. These factors are described in more detail in the ADA regulations issued by the Department of Justice.

The process of determining what changes are readily achievable is not a one-time effort; access should be re-evaluated annually. Barrier removal that might be difficult to carry out now may be readily achievable later. Tax incentives are available to help absorb costs over several years.

Purpose of This Checklist

This checklist will help you identify accessibility problems and solutions in existing facilities in order to meet your obligations under the ADA. The goal of the survey process is to plan how to make an existing facility more usable for people with disabilities. The Department of Justice (DOJ) recommends the development of an Implementation Plan, specifying what improvements you will make to remove barriers and when each solution will be carried out: “...Such a plan...could serve as evidence of a good faith effort to comply...”

Technical Requirements

This checklist details some of the requirements found in the ADA Standards for Accessible Design (Standards). The ADA Accessibility Guidelines (ADAAG), when adopted by DOJ, became the Standards. The Standards are part of the Department of Justice Title III Regulations, 28 CFR Part 36 (Nondiscrimination on the basis of disability... Final Rule). Section 36.304 of this regulation, which covers barrier removal, should be reviewed before this survey is conducted.

However, keep in mind that full compliance with the Standards is required only for new construction and alterations. The requirements are presented here as a guide to help you determine what may be readily achievable barrier removal for existing facilities. The Standards should be followed for all barrier removal unless doing so is not readily achievable. If complying with the Standards is not readily achievable, you may undertake a modification that does not fully comply, as long as it poses no health or safety risk.

In addition to the technical specifications, each item has a scoping provision, which can be found under Section 4.1 in the Standards. This section clarifies when access is required and what the exceptions may be.

Each state has its own regulations regarding accessibility. To ensure compliance with all codes, know your state and local codes and use the more stringent technical requirement for every modification you make; that is, the requirement that provides greater access for individuals with disabilities. The barrier removal requirement for existing facilities is new under the ADA and supersedes less stringent local or state codes.
What This Checklist is Not

This checklist does not cover all of the requirements of the Standards; therefore, it is not for facilities undergoing new construction or alterations. In addition, it does not attempt to illustrate all possible barriers or propose all possible barrier removal solutions. The Standards should be consulted for guidance in situations not covered here.

The Title III regulation covers more than barrier removal, but this checklist does not cover Title III’s requirements for nondiscriminatory policies and practices and for the provision of auxiliary communication aids and services. The communication features covered are those that are structural in nature.

Priorities

This checklist is based on the four priorities recommended by the Title III regulations for planning readily achievable barrier removal projects:

Priority 1: Accessible approach and entrance
Priority 2: Access to goods and services
Priority 3: Access to rest rooms
Priority 4: Any other measures necessary

Note that the references to ADAAG throughout the checklist refer to the Standards for Accessible Design.

How to Use This Checklist

✓ Get Organized: Establish a time frame for completing the survey. Determine how many copies of the checklist you will need to survey the whole facility. Decide who will conduct the survey. It is strongly recommended that you invite two or three additional people, including people with various disabilities and accessibility expertise, to assist in identifying barriers, developing solutions for removing these barriers, and setting priorities for implementing improvements.

✓ Floor Plans: It is very helpful to have the building floor plans with you while you survey. If plans are not available, use graph paper to sketch the layout of all interior and exterior spaces used by your organization. Make notes on the sketch or plan while you are surveying.

✓ Conduct the Survey: Bring copies of this checklist, a clipboard, a pencil or pen, and a flexible steel tape measure. With three people surveying, one person numbers key items on the floor plan to match with the field notes, taken by a second person, while the third takes measurements. Be sure to record all dimensions! As a reminder, questions that require a dimension to be measured and recorded are marked with the ruler symbol. Think about each space from the perspective of people with physical, hearing, visual, and cognitive disabilities, noting areas that need improvement.

✓ Summarize Barriers and Solutions: List barriers found and ideas for their removal. Consider the solutions listed beside each question, and add your own ideas. Consult with building contractors and equipment suppliers to estimate the costs for making the proposed modifications.

✓ Make Decisions and Set Priorities: Review the summary with decision makers and advisors. Decide which solutions will best eliminate barriers at a reasonable cost. Prioritize the items you decide upon and make a timeline for carrying them out. Where the removal of barriers is not readily achievable, you must consider whether there are alternative methods for providing access that are readily achievable.


✓ Make Changes: Implement changes as planned. Always refer directly to the Standards and your state and local codes for complete technical requirements before making any access improvement. References to the applicable sections of the Standards are listed at the beginning of each group of questions. If you need help understanding the federal, state, or local requirements, contact your Disability and Business Technical Assistance Center.

✓ Follow Up: Review your Implementation Plan each year to re-evaluate whether more improvements have become readily achievable.

To obtain a copy of the Title III regulations and the Standards or other technical information, call the U.S. Dept. of Justice ADA Information Line at (800) 514-0301 Voice, (202) 514-0361 TDD, or (800) 514-0383 TDD. For questions about ADAAG, contact the Architectural and Transportation Barriers Compliance Board at (800) USA-ABLE.
## QUESTIONS

### 1 Accessible Approach/Entrance

People with disabilities should be able to arrive on the site, approach the building, and enter as freely as everyone else. At least one route of travel should be safe and accessible for everyone, including people with disabilities.

**Route of Travel (ADAAG 4.3, 4.4, 4.5, 4.7)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a route of travel that does not require the use of stairs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the route of travel stable, firm and slip-resistant?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the route at least 36 inches wide?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Can all objects protruding into the circulation paths be detected by a person with a visual disability using a cane?**

In order to be detected using a cane, an object must be within 27 inches of the ground. Objects hanging or mounted overhead must be higher than 80 inches to provide clear head room. It is not necessary to remove objects that protrude less than 4 inches from the wall.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do curbs on the route have curb cuts at drives, parking, and drop-offs?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ramps (ADAAG 4.8)

**Are the slopes of ramps no greater than 1:12?**

Slope is given as a ratio of the height to the length. 1:12 means for every 12 inches along the base of the ramp, the height increases one inch. For a 1:12 maximum slope, at least one foot of ramp length is needed for each inch of height.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**possible solutions**

- Add a ramp if the route of travel is interrupted by stairs.
- Add an alternative route on level ground.
- Repair uneven paving.
- Fill small bumps and breaks with beveled patches.
- Replace gravel with hard top.
- Change or move landscaping, furnishings, or other features that narrow the route of travel.
- Widen route.
- Move or remove protruding objects.
- Add a cane-detectable base that extends to the ground.
- Place a cane-detectable object on the ground underneath as a warning barrier.
- Install curb cut.
- Add small ramp up to curb.

---

*Checklist for Existing Facilities version 2.1 © revised August 1995, Adaptive Environments Center, Inc. for the National Institute on Disability and Rehabilitation Research. For technical assistance, call 1-800-949-4ADA (voice/TDD).*
### QUESTIONS

<table>
<thead>
<tr>
<th>Ramps, continued</th>
<th>Yes</th>
<th>No</th>
<th>POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do all ramps longer than 6 feet have railings on both sides?</td>
<td>☐</td>
<td>☐</td>
<td>☐ Add railings.</td>
</tr>
<tr>
<td>Are railings sturdy, and between 34 and 38 inches high?</td>
<td>☐</td>
<td>☐</td>
<td>☐ Adjust height of railing if not between 30 and 38 inches.</td>
</tr>
<tr>
<td>Is the width between railings or curbs at least 36 inches?</td>
<td>☐</td>
<td>☐</td>
<td>☐ Secure handrails in fixtures.</td>
</tr>
<tr>
<td>Are ramps non-slip?</td>
<td>☐</td>
<td>☐</td>
<td>☐ Relocate the railings.</td>
</tr>
<tr>
<td>Is there a 5-foot-long level landing at every 30-foot horizontal length of ramp, at the top and bottom of ramps and at switchbacks?</td>
<td>☐</td>
<td>☐</td>
<td>☐ Widen the ramp.</td>
</tr>
<tr>
<td>Does the ramp rise no more than 30 inches between landings?</td>
<td>☐</td>
<td>☐</td>
<td>☐ Remodel or relocate ramp.</td>
</tr>
</tbody>
</table>

### Parking and Drop-Off Areas (ADAAG 4.6)

<table>
<thead>
<tr>
<th>Are an adequate number of accessible parking spaces available (8 feet wide for car plus 5-foot access aisle)? For guidance in determining the appropriate number to designate, the table below gives the ADAAG requirements for new construction and alterations (for lots with more than 100 spaces, refer to ADAAG):</th>
<th>Yes</th>
<th>No</th>
<th>POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total spaces</td>
<td>Accessible</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>1 to 25</td>
<td>1 space</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>26 to 50</td>
<td>2 spaces</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>51 to 75</td>
<td>3 spaces</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>76 to 100</td>
<td>4 spaces</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Are 8-foot-wide spaces, with minimum 8-foot-wide access aisles, and 98 inches of vertical clearance, available for lift-equipped vans? | ☐ | ☐ | ☐ Reconfigure to provide van-accessible space(s). |

At least one of every 8 accessible spaces must be van-accessible (with a minimum of one van-accessible space in all cases).
<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking and Drop-Off Areas, continued</td>
<td></td>
</tr>
<tr>
<td>Are the access aisles part of the accessible route to the accessible entrance?</td>
<td>□☐</td>
</tr>
<tr>
<td>Are the accessible spaces closest to the accessible entrance?</td>
<td>□☐</td>
</tr>
<tr>
<td>Is there an enforcement procedure to ensure that accessible parking is used only by those who need it?</td>
<td>□☐</td>
</tr>
<tr>
<td>Entrance (ADAAG 4.13, 4.14, 4.5)</td>
<td></td>
</tr>
<tr>
<td>If there are stairs at the main entrance, is there also a ramp or lift, or is there an alternative accessible entrance?</td>
<td>□☐</td>
</tr>
<tr>
<td><strong>Do not use a service entrance as the accessible entrance unless there is no other option.</strong></td>
<td></td>
</tr>
<tr>
<td>Do all inaccessible entrances have signs indicating the location of the nearest accessible entrance?</td>
<td>□☐</td>
</tr>
<tr>
<td>Can the alternate accessible entrance be used independently?</td>
<td>□☐</td>
</tr>
<tr>
<td><strong>Does the entrance door have at least 32 inches clear opening (for a double door, at least one 32-inch leaf)?</strong></td>
<td>□☐</td>
</tr>
<tr>
<td>Is there at least 18 inches of clear wall space on the pull side of the door, next to the handle?</td>
<td>□☐</td>
</tr>
<tr>
<td>A person using a wheelchair or crutches needs this space to get close enough to open the door.</td>
<td></td>
</tr>
</tbody>
</table>

Checklist for Existing Facilities version 2.1 © revised August 1995, Adaptive Environments Center, Inc. for the National Institute on Disability and Rehabilitation Research. For technical assistance, call 1-800-549-4ADA (voice/TDD).
### QUESTIONS

<table>
<thead>
<tr>
<th>Entrance, continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>Is the threshold edge 1/4-inch high or less, or if beveled edge, no more than 3/4-inch high?</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If provided, are carpeting or mats a maximum of 1/2-inch high?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Are edges securely installed to minimize tripping hazards?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is the door handle no higher than 48 inches and operable with a closed fist?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

The "closed fist" test for handles and controls: Try opening the door or operating the control using only one hand, held in a fist. If you can do it, so can a person who has limited use of his or her hands.

<table>
<thead>
<tr>
<th>Can doors be opened without too much force (exterior doors reserved; maximum is 5 lbf for interior doors)?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

You can use an inexpensive force meter or a fish scale to measure the force required to open a door. Attach the hook end to the doorknob or handle. Pull on the ring end until the door opens, and read off the amount of force required. If you do not have a force meter or a fish scale, you will need to judge subjectively whether the door is easy enough to open.

<table>
<thead>
<tr>
<th>If the door has a closer, does it take at least 3 seconds to close?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
<tr>
<td>![Checkmark]</td>
</tr>
</tbody>
</table>

### POSSIBLE SOLUTIONS

| **Yes** | **No** |
|---------------------|
| ![Checkmark] | ![Checkmark] |
| ![Checkmark] | ![Checkmark] |

- If there is a single step with a rise of 6 inches or less, add a short ramp.
- If there is a threshold greater than 3/4-inch high, remove it or modify it to be a ramp.
- Replace or remove mats.
- Secure carpeting or mats at edges.
- Lower handle.
- Replace inaccessible knob with a lever or loop handle.
- Retrofit with an add-on lever extension.
- Adjust the door closers and oil the hinges.
- Install power-assisted or automatic door openers.
- Install lighter doors.
- Adjust door closer.
## Questions

**Priority 2 Access to Goods and Services**

Ideally, the layout of the building should allow people with disabilities to obtain materials or services without assistance.

<table>
<thead>
<tr>
<th>Horizontal Circulation (ADAAG 4.3)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the accessible entrance provide direct access to the main floor, lobby, or elevator?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Are all public spaces on an accessible route of travel?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is the accessible route to all public spaces at least 36 inches wide?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is there a 5-foot circle or a T-shaped space for a person using a wheelchair to reverse direction?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Doors (ADAAG 4.13)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do doors into public spaces have at least a 32-inch clear opening?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>On the pull side of doors, next to the handle, is there at least 18 inches of clear wall space so that a person using a wheelchair or crutches can get near to open the door?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Can doors be opened without too much force (5 lbf maximum for interior doors)?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Are door handles 48 inches high or less and operable with a closed fist?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Are all threshold edges 1/4-inch high or less, or if beveled edge, no more than 3/4-inch high?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

For a general accessible building, these basic accessibility points should be considered for progress in making the facility accessible. The choice of solutions is left up to the owner. However, it is communicated that the goal should be to assist people with disabilities to obtain materials or services without assistance. Solutions for each question are below:

- Add ramps or lifts.
- Make another entrance accessible.
- Provide access to all public spaces along an accessible route of travel.
- Move furnishings such as tables, chairs, display racks, vending machines, and counters to make more room.
- Rearrange furnishings, displays, and equipment.
- Install offset (swing-clear) hinges.
- Widen doors.
- Reverse the door swing if it is safe to do so.
- Move or remove obstructing partitions.
- Adjust or replace closers.
- Install lighter doors.
- Install power-assisted or automatic door openers.
- Lower handles.
- Replace inaccessible knobs or latches with lever or loop handles.
- Retrofit with add-on levers.
- Install power-assisted or automatic door openers.
- If there is a threshold greater than 3/4-inch high, remove it or modify it to be a ramp.
- If between 1/4- and 3/4-inch high, add bevels to both sides.
<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>POSSIBLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rooms and Spaces (ADAAG 4.2, 4.4, 4.5)</strong></td>
<td></td>
</tr>
<tr>
<td>Are all aisles and pathways to materials and services at least 36 inches wide?</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Is there a 5-foot circle or T-shaped space for turning a wheelchair completely?</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Is carpeting low-pile, tightly woven, and securely attached along edges?</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>In circulation paths through public areas, are all obstacles cane-detectable (located within 27 inches of the floor or higher than 80 inches, or protruding less than 4 inches from the wall)?</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Egress (ADAAG 4.28)</strong></td>
<td></td>
</tr>
<tr>
<td>If emergency systems are provided, do they have both flashing lights and audible signals?</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td><strong>Signage for Goods and Services (ADAAG 4.30)</strong></td>
<td></td>
</tr>
<tr>
<td>Different requirements apply to different types of signs.</td>
<td></td>
</tr>
<tr>
<td>If provided, do signs and room numbers designating permanent rooms and spaces where goods and services are provided comply with the appropriate requirements for such signage?</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Signs mounted with centerline 60 inches from floor.</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Mouted on wall adjacent to latch side of door, or as close as possible.</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Raised characters, sized between 5/8 and 2 inches high, with high contrast (for room numbers, rest rooms, exits).</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>Brailled text of the same information.</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>If pictogram is used, it must be accompanied by raised characters and braille.</td>
<td></td>
</tr>
<tr>
<td>□ Yes □ No</td>
<td></td>
</tr>
<tr>
<td>QUESTIONS</td>
<td>POSSIBLE SOLUTIONS</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Directional and Informational Signage</strong></td>
<td><strong>Yes No</strong></td>
</tr>
<tr>
<td>The following questions apply to directional and informational signs that</td>
<td>□ Review requirements and replace signs as needed, meeting the requirements for</td>
</tr>
<tr>
<td>fall under Priority 2.</td>
<td>character size, contrast, and finish.</td>
</tr>
<tr>
<td>If mounted above 80 inches, do they have letters at least 3 inches high,</td>
<td>□ Review requirements and replace signs as needed.</td>
</tr>
<tr>
<td>with high contrast, and non-glare finish?</td>
<td></td>
</tr>
<tr>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Do directional and informational signs comply with legibility requirements?</td>
<td>□ Replace controls.</td>
</tr>
<tr>
<td>(Building directories or temporary signs need not comply.)</td>
<td></td>
</tr>
<tr>
<td>□</td>
<td></td>
</tr>
<tr>
<td><strong>Controls (ADAAG 4.27)</strong></td>
<td><strong>Yes No</strong></td>
</tr>
<tr>
<td>Are all controls that are available for use by the public (including</td>
<td>□ Relocate controls.</td>
</tr>
<tr>
<td>electrical, mechanical, cabinet, game, and self-service controls) located</td>
<td></td>
</tr>
<tr>
<td>at an accessible height?</td>
<td></td>
</tr>
<tr>
<td>□ Reach ranges: The maximum height for a side reach is 54 inches; for a</td>
<td></td>
</tr>
<tr>
<td>forward reach, 48 inches. The minimum reachable height is 15 inches for a</td>
<td></td>
</tr>
<tr>
<td>front approach and 9 inches for a side approach.</td>
<td></td>
</tr>
<tr>
<td>Are they operable with a closed fist?</td>
<td>□ Replace controls.</td>
</tr>
<tr>
<td>□</td>
<td></td>
</tr>
<tr>
<td><strong>Seats, Tables, and Counters (ADAAG 4.2, 4.32, 7.2)</strong></td>
<td><strong>Yes No</strong></td>
</tr>
<tr>
<td>Are the aisles between fixed seating (other than assembly area seating)</td>
<td>□ Rearrange chairs or tables to provide 36-inch aisles.</td>
</tr>
<tr>
<td>at least 36 inches wide?</td>
<td></td>
</tr>
<tr>
<td>□</td>
<td></td>
</tr>
<tr>
<td>Are the spaces for wheelchair seating distributed throughout?</td>
<td>□ Rearrange tables to allow room for wheelchairs in seating areas throughout the</td>
</tr>
<tr>
<td>□</td>
<td>area.</td>
</tr>
<tr>
<td>Are the tops of tables or counters between 28 and 34 inches high?</td>
<td>□ Remove some fixed seating.</td>
</tr>
<tr>
<td>□</td>
<td>□ Lower part or all of high surface.</td>
</tr>
<tr>
<td>Are knee spaces at accessible tables at least 27 inches high, 30 inches</td>
<td>□ Provide auxiliary table or counter.</td>
</tr>
<tr>
<td>wide, and 19 inches deep?</td>
<td>□ Replace or raise tables.</td>
</tr>
<tr>
<td>□</td>
<td></td>
</tr>
<tr>
<td>QUESTIONS</td>
<td>POSSIBLE SOLUTIONS</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>Seats, Tables, and Counters, continued</td>
<td></td>
</tr>
<tr>
<td>At each type of cashier counter, is there a portion of the main counter that is no more than 36 inches high?</td>
<td>□ Yes □ No □ Provide a lower auxiliary counter or folding shelf.</td>
</tr>
<tr>
<td>□ Yes □ No □ height</td>
<td>□ Arrange the counter and surrounding furnishings to create a space to hand items back and forth.</td>
</tr>
<tr>
<td>Is there a portion of food-ordering counters that is no more than 36 inches high, or is there space at the side for passing items to customers who have difficulty reaching over a high counter?</td>
<td>□ Yes □ No □ Lower section of counter. □ Arrange the counter and surrounding furnishings to create a space to pass items.</td>
</tr>
<tr>
<td>□ Yes □ No □ height</td>
<td></td>
</tr>
<tr>
<td>Vertical Circulation (ADAAG 4.1.3(5), 4.3)</td>
<td></td>
</tr>
<tr>
<td>Are there ramps, lifts, or elevators to all public levels?</td>
<td>□ Yes □ No □ Install ramps or lifts. □ Modify a service elevator. □ Relocate goods or services to an accessible area.</td>
</tr>
<tr>
<td>On each level, if there are stairs between the entrance and/or elevator and essential public areas, is there an accessible alternate route?</td>
<td>□ Yes □ No □ Post clear signs directing people along an accessible route to ramps, lifts, or elevators.</td>
</tr>
<tr>
<td>Stairs (ADAAG 4.9)</td>
<td></td>
</tr>
<tr>
<td>The following questions apply to stairs connecting levels not serviced by an elevator, ramp, or lift.</td>
<td></td>
</tr>
<tr>
<td>Do treads have a non-slip surface?</td>
<td>□ Yes □ No □ Add non-slip surface to treads.</td>
</tr>
<tr>
<td>Do stairs have continuous rails on both sides, with extensions beyond the top and bottom stairs?</td>
<td>□ Yes □ No □ Add or replace handrails if possible within existing floor plan.</td>
</tr>
<tr>
<td>Elevators (ADAAG 4.10)</td>
<td></td>
</tr>
<tr>
<td>Are there both visible and verbal or audible door opening/closing and floor indicators (one tone = up, two tones = down)?</td>
<td>□ Yes □ No □ Install visible and verbal or audible signals.</td>
</tr>
<tr>
<td>Are the call buttons in the hallway no higher than 42 inches?</td>
<td>□ Yes □ No □ Lower call buttons. □ Provide a permanently attached reach stick.</td>
</tr>
<tr>
<td>□ Yes □ No □ height</td>
<td>□ Yes □ No □ Install raised lettering and braille next to buttons.</td>
</tr>
<tr>
<td>Do the controls inside the cab have raised and braille lettering?</td>
<td></td>
</tr>
</tbody>
</table>
**QUESTIONS**

**Elevators, continued**
- Is there a sign on both door jambs at every floor identifying the floor in raised and braille letters? [Yes] [No]
- If an emergency intercom is provided, is it usable without voice communication? [Yes] [No]
- Is the emergency intercom identified by braille and raised letters? [Yes] [No]

**Lifts (ADAAG 4.2, 4.11)**
- Can the lift be used without assistance? If not, is a call button provided? [Yes] [No]
- Is there at least 30 by 48 inches of clear space for a person in a wheelchair to approach to reach the controls and use the lift? [Yes] [No]
- Are controls between 15 and 48 inches high (up to 54 inches if a side approach is possible)? [Yes] [No]

**Priority**

**3 Usability of Rest Rooms**
When rest rooms are open to the public, they should be accessible to people with disabilities.

**Getting to the Rest Rooms (ADAAG 4.1)**
- If rest rooms are available to the public, is at least one rest room (either one for each sex, or unisex) fully accessible? [Yes] [No]
- Are there signs at inaccessible rest rooms that give directions to accessible ones? [Yes] [No]

**Doorways and Passages (ADAAG 4.2, 4.13, 4.30)**
- Is there tactile signage identifying rest rooms? [Yes] [No]
- Mount signs on the wall, on the latch side of the door, complying with the requirements for permanent signage. Avoid using ambiguous symbols in place of text to identify rest rooms.

**POSSIBLE SOLUTIONS**

- Install tactile signs to identify floor numbers, at a height of 60 inches from floor.
- Modify communication system.
- Add tactile identification.
- At each stopping level, post clear instructions for use of the lift.
- Provide a call button.
- Rearrange furnishings and equipment to clear more space.
- Move controls.
- Reconfigure rest room.
- Combine rest rooms to create one unisex accessible rest room.
- Install accessible signs.
- Add accessible signage, placed to the side of the door, 60 inches to centerline (not on the door itself).
### QUESTIONS

<table>
<thead>
<tr>
<th>Questions</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doorways and Passages, continued</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Are pictograms or symbols used to identify rest rooms, and, if used, are raised characters and braille included below them?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Is the doorway at least 32 inches clear?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Are doors equipped with accessible handles (operable with a closed fist), 48 inches high or less?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Can doors be opened easily (5 lbf maximum force)?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Does the entry configuration provide adequate maneuvering space for a person using a wheelchair?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>A person in a wheelchair needs 36 inches of clear width for forward movement, and a 5-foot diameter or T-shaped clear space to make turns. A minimum distance of 48 inches clear of the door swing is needed between the two doors of an entry vestibule.</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Is there a 36-inch-wide path to all fixtures?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Stalls (ADAAG 4.17)</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Is the stall door operable with a closed fist, inside and out?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
<tr>
<td>Is there a wheelchair-accessible stall that has an area of at least 5 feet by 5 feet, clear of the door swing. OR is there a stall that is less accessible but that provides greater access than a typical stall (either 36 by 69 inches or 48 by 69 inches)?</td>
<td>![☐]</td>
<td>![☐]</td>
</tr>
</tbody>
</table>

### POSSIBLE SOLUTIONS

- If symbols are used, add supplementary verbal signage with raised characters and braille below pictogram symbol.
- Install offset (swing-clear) hinges.
- Widen the doorway.
- Lower handles.
- Replace knobs or latches with lever or loop handles.
- Add lever extensions.
- Install power-assisted or automatic door openers.
- Adjust or replace closers.
- Install lighter doors.
- Install power-assisted or automatic door openers.
- Rearrange furnishings such as chairs and trash cans.
- Remove inner door if there is a vestibule with two doors.
- Move or remove obstructing partitions.
- Remove obstructions.
- Replace inaccessible knobs with lever or loop handles.
- Add lever extensions.
- Move or remove partitions.
- Reverse the door swing if it is safe to do so.
**QUESTIONS**

<table>
<thead>
<tr>
<th>Stalls, continued</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the accessible stall, are there grab bars behind and on the side wall nearest to the toilet?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the toilet seat 17 to 19 inches high?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lavatories (ADAAG 4.19, 4.24)</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does one lavatory have a 30-inch-wide by 48-inch-deep clear space in front?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A maximum of 19 inches of the required depth may be under the lavatory.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the lavatory rim no higher than 34 inches?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there at least 29 inches from the floor to the bottom of the lavatory apron (excluding pipes)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can the faucet be operated with one closed fist?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are soap and other dispensers and hand dryers within reach ranges (see page 7) and usable with one closed fist?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the mirror mounted with the bottom edge of the reflecting surface 40 inches high or lower?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POSSIBLE SOLUTIONS**

- Add grab bars.
- Add raised seat.
- Rearrange furnishings.
- Replace lavatory.
- Remove or alter cabinetry to provide space underneath.
- Make sure hot pipes are covered.
- Move a partition or wall.
- Adjust or replace lavatory.
- Adjust or replace lavatory.
- Replace with paddle handles.
- Lower dispensers.
- Replace with or provide additional accessible dispensers.
- Lower or tilt down the mirror.
- Add a larger mirror anywhere in the room.
- Clear more room by rearranging or removing furnishings.

**Priority**

**4 Additional Access**

*Note that this priority is for items not required for basic access in the first three priorities.*

When amenities such as drinking fountains and public telephones are provided, they should also be accessible to people with disabilities.

**Drinking Fountains (ADAAG 4.15)**

- Is there at least one fountain with clear floor space of at least 30 by 48 inches in front?
**Drinking Fountains, continued**

- Is there one fountain with its spout no higher than 36 inches from the ground, and another with a standard height spout (or a single "hi-lo" fountain)?
  - Yes [ ] No [ ]
- Are controls mounted on the front or on the side near the front edge, and operable with one closed fist?
  - Yes [ ] No [ ]
- Is each water fountain cane-detectable (located within 27 inches of the floor or protruding into the circulation space less than 4 inches from the wall)?
  - Yes [ ] No [ ]

**Telephones (ADAAG 4.31)**

- If pay or public use phones are provided, is there clear floor space of at least 30 by 48 inches in front of at least one?
  - Yes [ ] No [ ]
- Is the highest operable part of the phone no higher than 48 inches (up to 54 inches if a side approach is possible)?
  - Yes [ ] No [ ]
- Does the phone protrude no more than 4 inches into the circulation space?
  - Yes [ ] No [ ]
- Does the phone have push-button controls?
  - Yes [ ] No [ ]
- Is the phone hearing-aid compatible?
  - Yes [ ] No [ ]
- Is the phone adapted with volume control?
  - Yes [ ] No [ ]
- Is the phone with volume control identified with appropriate signage?
  - Yes [ ] No [ ]
- If there are four or more public phones in the building, is one of the phones equipped with a text telephone (TT or TDD)?
  - Yes [ ] No [ ]
- Is the location of the text telephone identified by accessible signage bearing the International TDD Symbol?
  - Yes [ ] No [ ]

**POSSIBLE SOLUTIONS**

- Provide cup dispensers for fountains with spouts that are too high.
- Provide accessible cooler.
- Replace the controls.
- Place a planter or other cane-detectable barrier on each side at floor level.
- Move furnishings.
- Replace booth with open station.
- Lower telephone.
- Place a cane-detectable barrier on each side at floor level.
- Contact phone company to install push-buttons.
- Have phone replaced with a hearing-aid compatible one.
- Have volume control added.
- Add signage.
- Install a text telephone.
- Have a portable TT available.
- Provide a shelf and outlet next to phone.
- Add signage.
Properties

Standards for Preservation

2. The historic character of a property will be retained and preserved. The replacement of intact or repairable historic materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

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

Standards for Rehabilitation

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

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

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

10. New additions and adjacent or related new construction will be undertaken in a such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.