

Accessibility for Historic Buildings: A Field Guide

(Second Edition)



Illustrated Solutions for Common ADA Compliance Issues

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Introduction..... i

Vermont Access Rules iii

Glossary vi

Accessibility for Historic Buildings: A Field Guide

 Multiple Building Access1

 Entrances.....4

 Interior Alterations.....17

 Upper Floor Access.....20

 Restrooms22

Accessibility Planning Checklist23

Resources25

References.....27

Preface to Second Edition

This second edition of *Accessibility for Historic Buildings: A Field Guide* attempts to bring the guide up-to-date by including additional information about the Vermont Access Rules and recently implemented policies of the Vermont Access Board, as well as sources of information and funding for increasing the accessibility of historic buildings. This edition also includes new examples of innovative solutions to access problems common to historic buildings in Vermont. This new edition was made possible by the support of the Vermont Division for Historic Preservation and the Vermont Department of Public Safety, Division of Fire Safety. The reviser would like to acknowledge the efforts of David Provost, author of the first edition, and thank Nancy Boone, Bob Howe, and Bob McCullough for their assistance and guidance in this undertaking.

Front Cover Photo: Kimball Public Library, Randolph, Vermont

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Vermont has a remarkable inventory of historic buildings, including thousands listed in the National Register of Historic Places. These buildings are not only important for their architectural and historic significance, but in many communities, historic buildings remain in active service. From government offices to public libraries, commercial buildings to houses of worship, our historic resources are used every day, and everyone should be able to make equal use of these buildings, including people with disabilities.

As human beings, we develop our concept of "self" by a series of interactions with our environment. When we cannot make full use of a space, our self-image is negatively impacted. Human society has built wonderful and enduring landmarks, and all the members of our society should be able to use and be encouraged, educated and inspired by our historic buildings and sites.

In 1990, the Americans with Disabilities Act, 42 U.S.C §12182 *et seq.* (ADA), was passed to ensure that discrimination against people with disabilities was not permitted under the law. "No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation by any private entity who owns, leases (or leases to), or operates a place of public accommodation." (28 CFR §36.201.) The best way to ensure the full and equal enjoyment of the built environment is to remove the architectural barriers that present problems for individuals with disabilities. According to the federal regulations implementing the requirements of the ADA, barrier removal includes, but is not limited to: creating designated accessible parking places;

installing ramps and making curb cuts; widening doorways and removing high pile, low density carpeting; and installing accessible hardware on doors and in bathrooms. (See 28 C.F.R §36.304(b).) To provide further instruction and exact requirements for accessible spaces, the Americans with Disabilities Act Accessibility Guidelines (ADAAG) were promulgated. (See 28 C.F.R. Pt. 36 Appendix A.) These guidelines, which have also been adopted in Vermont law, provide dimensional and geometric specifications for accessible building features.

Realizing that removing architectural barriers from historic buildings might be expensive and could damage the historic significance of these properties, ADAAG provides an alternative standard for historic buildings and sites. (See §4.1.7 of ADAAG.) Historic properties must comply with ADAAG to the maximum extent feasible, but when full compliance would threaten or destroy the historic significance of the building, alternative minimum standards may apply. They allow a short section of steeper ramp, use of a marked, secondary entrance, one unisex toilet, and consideration of the practicability of making public spaces on upper floors accessible.

The ADA provides this important consideration for historic structures so that accessibility measures can be carefully planned and carried out without damage to historic buildings. The National Park Service video *Entrances to the Past* suggests that accessibility planning follow the following steps:

1) Identify Significant Features

The features and attributes of the historic building must be evaluated for their significance. These significant features can then be assigned different levels of importance to give priority to the most important features. A preservation consultant can assist in this effort.

2) Determine Access Needs

The ideal way to ensure that a property meets the requirements of the ADAAG is to use a team made up of design professionals including people with disabilities. If enlisting a team of accessibility experts is not feasible, following a checklist can be a thorough and less-expensive option. Several accessibility checklists are available, and a simple one has been included in this Field Guide. Always consider the needs of people with disabilities from their car (or the sidewalk) all the way through your building. Too often people focus on the front door, when there may be many other architectural barriers at your site.

3) Understand Accessibility Products

What are the available technologies? What technologies are currently under development? Consult early in the planning stages with the Division of Fire Safety, the Division for Historic Preservation, architects, builders, other building owners, and people with disabilities to discover new products that may simplify your access problems.

4) Evaluate Options

Consider the Vermont Access Rules and the Secretary of the Interior's Standards for the Treatment of Historic Properties before planning renovations. Try to develop

creative solutions that can solve other problems in addition to providing accessibility. For example, interior lifts and elevators can often open up previously unused space in the basement or attic for possible expansion.

Solving an historic facility's access problems is not only a legal obligation, but is also socially responsible, and can often act as a way to spark thought and planning about how space in the building is used by all users, improving and enlarging useable space and creating a more integrated, fluid way to use the historic building.

The Vermont Access Rules

Vermont law has included accessibility requirements for over twenty-five years. Originally, all publicly-funded new construction was required to meet the standards set by the American National Standards Institute (ANSI) 117.1, entitled "Providing accessibility and usability for physically handicapped people." Later, all new construction had to meet those requirements, and in 1987 all major renovations and alterations were covered.

When the U.S. Congress passed the ADA in 1990, the act contained some provisions that conflicted with the existing Vermont law. In 1996, Vermont passed Public Law 187, which was intended to eliminate those portions of Vermont law that did not meet or exceed ADA requirements. This law created "Accessibility in Public Buildings; Rules for New Construction and for Alterations to Existing Buildings" (the Vermont Access Rules), which adopts the federal ADAAG standards and supplements them, where necessary. Therefore, Vermont's requirements for accessible construction are slightly different from the national standards. One major difference is the types of buildings to which the Vermont Access Rules apply. In Vermont, churches and private clubs are required to comply with the Vermont Access Rules, as are places of public accommodation located within a private residence. Only the portions of the facility used by customers or clients must be accessible, however. In addition, the Vermont Access Rules provide an exemption from the requirement to install an elevator in newly constructed or altered buildings in the case of buildings of three stories or less containing dwelling units, and two or three story retail establishments having less than 15,000

square feet of floor space unless any such retail establishment houses a shopping center, shopping mall, professional medical office or transportation terminal.

For existing buildings, accessibility requirements are triggered when there is an alteration to the building. According to the ADA, "an alteration is a change to a place of public accommodation or a commercial facility that affects or could affect the usability of the building or facility or any part thereof." Examples of alterations "include, but are not limited to, remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement in structural parts or elements, and changes or rearrangement in the plan configuration of walls and full-height partitions. Normal maintenance, reroofing, painting or wallpapering, asbestos removal, or changes to mechanical and electrical systems are not alterations unless they affect the usability of the building or facility." (28 CFR §36.403(b).) This means that any time one alters the usability of one's historic building, one must comply with the Vermont Access Rules, regardless of the value of the alteration or the value of the building.

The entire text of the Vermont Access Rules is available from the Vermont Division of Fire Safety, and can be found on the Division's website at:
<http://www.dps.state.vt.us/fire/access498/accessrules797.htm>.

The Vermont Access Board

The Vermont Access Board is the body that oversees the application of the Vermont Access Rules. It is possible for building owners to apply for a variance from access

requirements, to the extent that those requirements exceed the standards set by federal law. The Access Board does not have the authority to grant variances from federal requirements. Variances may be granted on the basis of excessive cost or possible harm to a building's significant historic features. To request a variance hearing, contact the Vermont Division of Fire Safety.

Prohibitively Costly Policy

The Vermont Access Rules allow an applicant to obtain an exemption or variance from specific access requirements where compliance with required technical standards "would be prohibitively costly in relation to the normal cost of the total project." To obtain a variance, applicants must demonstrate to the Access Board that (1) the access requirement in question is not required by federal law, and (2) compliance with the specific access requirement is "prohibitively costly", meaning that the cost of compliance exceeds 20% of the costs of the project.¹ The Applicant must provide to the Access Board written documentation of the expenditures made or to be made, and demonstrating that the 20% threshold has been or will be met.

¹ Costs included in this calculation relate to the building alteration project that triggered the requirements of the access rules and exclude costs of re-roofing, normal maintenance, painting, asbestos removal, lead paint hazard reduction, or changes to electrical or mechanical systems unless they directly affect the usability of the building. The costs include all alterations made within a three-year period before or after the year in which the variance is sought.

Even if the cost of access improvements is less than 20% of the costs of the project, the Access Board may still consider one or more of the following extenuating circumstances in deciding whether to grant a variance based on the "prohibitively costly" criteria:

- unusual financial constraints on the project;
- the amount of space that would be made accessible if the access requirement were met is small in comparison to the total area of the space affected by the renovations;
- the building already provides, or after the alterations are completed will provide, accessible space for employees and other users of the space to have alternate equal access elsewhere in the building to the jobs, goods, and services provided in the space affected by the alterations; and
- the building has separate functions on each floor and there is separate at-grade access to each level of the building available when the building is occupied.

Policy on Vertical Platform Lifts in Existing Buildings

In certain instances, the Vermont Access Rules permit the use of a platform lift in lieu of an elevator to provide access to upper or lower floors of public buildings. In order to encourage projects improving accessibility to these areas of buildings, the Vermont Access Board has adopted a policy of permitting Division of Fire Safety officials to approve substitutions of vertical platform lifts for full elevators without requiring a variance from the Access Board in instances where the substitution is clearly appropriate, and the full elevator is not required by federal law.

Under this Access Board Policy, Division of Fire Safety officials may approve a platform lift in lieu of an elevator in existing buildings when each of the following conditions is satisfied:

1. there is or will be upon completion of the project, an accessible route to and into the building; and
2. the platform lift is a vertical lift; and
3. either (a) the proposed project consists only of access improvements, all of which meet technical accessibility standards or (b) the costs of installing a full elevator would exceed 20% of the proposed project (as defined in the Board's Prohibitively Costly Policy); and
4. the platform lift meets the technical accessibility standards of ASME A18.1 (1999 or most recently adopted version), including, but not limited to:
 - the weight capacity of the platform lift is a minimum of 750 pounds
 - interior dimensions of the platform lift are a minimum of 12 square feet
 - the width of the door of the platform lift is a minimum of 32 inches clear
 - the rise of the platform lift is a maximum of 12 feet, or as otherwise approved in a variance from the Elevator Safety Board
 - there is an accessible route to and into the platform lift
 - the platform lift is capable of independent, keyless operation

require an Elevator and Lift Conveyance Permit from the Vermont Division of Fire Safety.)

Projects that do not satisfy these conditions, including inclined platform lifts, require an Access Board variance. (It should be noted that, whether or not a variance is necessary, platform lifts

(The following definitions are helpful for understanding the requirements of the ADA, as well as the solutions discussed in this Field Guide. They are derived from ADAAG and common usage in the field of historic preservation.)

- Accessible** An accessible building or feature is one that can be used with a minimum of inconvenience or difficulty by all users, including those with disabilities.
- ADA** The Americans with Disabilities Act (42 U.S.C. §12182 *et seq.*) was passed in 1990 to ensure that people with physical, mental, visual, and hearing disabilities are not discriminated against in public accommodations.
- ADAAG** The Americans with Disabilities Act Accessibilities Guidelines For Buildings and Facilities (28 C.F.R. Pt. 36, App. A) provide detailed dimensional and geometrical specifications to ensure ADA compliance.
- Berm** A raised ground path that slopes gradually to a raised entrance or platform
- Disability** A disability is a physical or mental impairment that substantially limits one or more major life activities. This includes hearing and visual impairments.
- Elevator** A hoisting and lowering mechanism equipped with a car or platform which moves in guides for the transportation of individuals or freight in a substantially vertical direction through

successive floors or levels of a building or structure.

Historic building

Any structure that is listed in or eligible for listing in the National Register of Historic Places or included in the state register of historic places.

Platform Lift

A platform that raises or lowers users to provide access to several floors. If possible, lifts should not require a key to enter or operate the lift. A lift does not need to be completely enclosed, requires no penthouse and a very shallow pit. Platform lifts are widely recommended for interior access, but exterior lifts rarely stand up to the Vermont climate.

Public Building

Public Buildings means state, county and municipal buildings, airport terminals, bus and railroad stations, school buildings, school and society halls, hotels as defined in 32 V.S.A. § 9202, restaurants, apartments churches and other houses of worship, factories, mills, office buildings and other buildings in which persons are employed, stores and other space wherein goods are offered for sale at wholesale or retail, nurseries, convalescent homes, homes for the aged and day care facilities. The term "public building" does not include family residences registered as day care homes under 33 V.S.A. Chapter 34, subchapter 3.... (see Vermont Access Rules for further information)

Vermont Access Rules

Formally known as "Accessibility in Public Buildings; Rules for New Construction and for Alterations to Existing Buildings," the Vermont Access Rules set forth the official laws delineating accessibility requirements in Vermont. The rules largely adopt the ADAAG, with some slight amendments. The entire text of the Vermont Access Rules can be found at: <http://www.dps.state.vt.us/fire/access498/accessrules797.htm> (where the Vermont variations are highlighted in different color text).

MULTIPLE BUILDING ACCESS



Issue Access to Multiple Buildings

Vermont Access Rules

4.3 Accessible Routes. ...

4.3.8 Changes in Levels "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

Building Main Street
Randolph, Vermont

Use Multiple Property Commercial

Notes

- 1) Provides full access only for new commercial block (Ben Franklin store), but also provides general access to raised sidewalk.
- 2) Makes future access solutions easier for all other properties along sidewalk.

MULTIPLE BUILDING ACCESS

Issue Access to Multiple Buildings

Vermont Access Rules

4.3 Accessible Routes. ...

4.3.8 Changes in Levels "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

Building The Basin Block
Vergennes, Vermont

Use Multiple Property Commercial

Notes

- 1) Ramp and stair access to raised sidewalk makes multiple storefronts easily accessible.



Before



After



MULTIPLE BUILDING ACCESS

Issue Access to Multiple Buildings

Vermont Access Rules

4.3 Accessible Routes. ...

4.3.8 Changes in Levels "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

Building Debevoise Hall, Vermont Law School
South Royalton, Vermont

Use Educational

Notes

- 1) Elevator located at ground level connection between two neighboring buildings permits handicapped access from one building to all floors of neighboring building.
- 2) Where an alternative accessible entrance is provided, signage directing persons from the inaccessible entrance to the accessible entrance must be provided. (See Section 4.1.6(1)(h)) of the Access Rules.)



Issue Access to Multiple Buildings; Raised Entrance; Addition Providing New Program Space and Access

Vermont Access Rules

4.3 Accessible Routes. ...

4.3.8 Changes in Levels "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

Building Town Offices
Thetford, Vermont

Use Municipal Offices

Notes

- 1) Historic town hall (left in photo) had raised entrance. In connection with the expansion of town offices, a new addition was built onto the rear/side of the historic building, and the main entrance to the building was relocated to the new addition at grade. The addition also connects to and provides grade level access to an adjacent historic building used by the local historical society.
- 2) A platform lift located in the addition provides access to new offices in the connector and to the historic town hall.
- 3) Historic facades are preserved.



Issue Raised Entrance; Addition Providing Access and New Program Space

Vermont Access Rules

4.3 Accessible Routes. ...

4.3.8 Changes in Levels "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

Building Tenney Memorial Library
Newbury, Vermont

Use Library

Notes

- 1) Historic library with grand entrance stairs was not handicap accessible. Addition constructed at the rear of the building provided an alternative accessible entrance and additional program space for the library.
- 2) The two entrances are roughly equidistant from the library parking lot. The entrance to the addition is reached by sloped pathway at grade and short ramp. (Note that where an alternative accessible entrance is provided, signage directing persons from the inaccessible entrance to the accessible entrance must be provided. (See Section 4.1.6(1)(h)) of the Access Rules.)
- 3) Appearance of historic facade is preserved.



Issue Raised Corner Entrance

Vermont Access Rules

4.3 Accessible Routes. ...

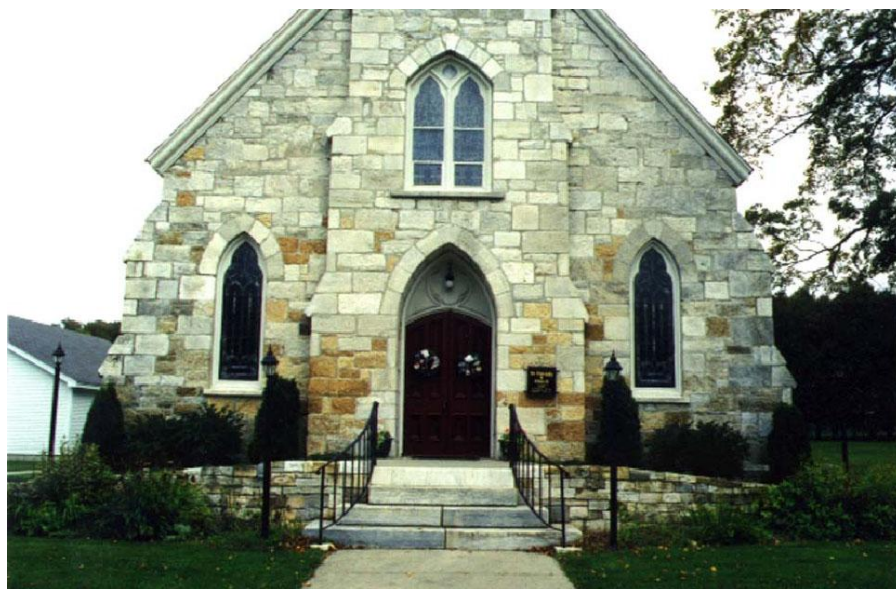
4.3.8 Changes in Levels "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

Building Gryphon Building
Rutland, Vermont

Use Retail

Notes

- 1) Raised corner entrance is easily reached by ramp with railing extending along one side of building.
- 2) Ramp incorporates steps at corner as well.
- 3) Municipality is a cooperating partner in ramps that occupy a portion of the public sidewalk.



Issue Raised Entrance

Vermont Access Rules

4.8 Ramps.

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

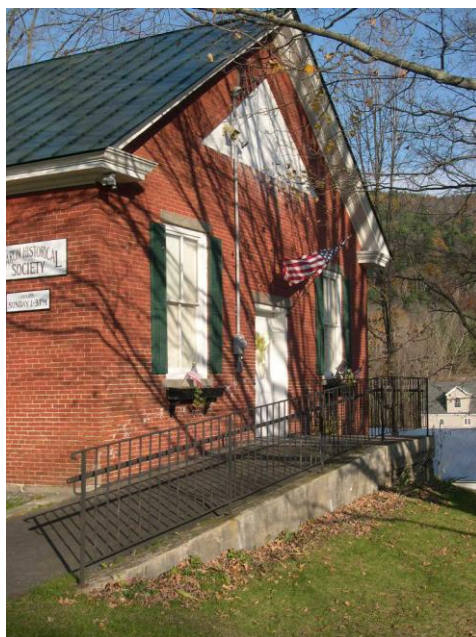
4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

Building Saint Patrick's Church
Wallingford, Vermont

Use Church

Notes

- 1) Historically significant front stairs were pulled away from building to allow space for a gently bermed ramp to each side.
- 2) Low walls support berms with masonry to match church.
- 3) 1:20 sloped ramp does not require handrails.



Issue Raised Entrance (Small Buildings); Railings

Vermont Access Rules

4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

Building Sharon Historical Society
Sharon, Vermont

Use Cultural Facility

Notes

- 1) Raised entrance reached by ramp with railing.
- 2) Thin railing does not obscure facade of building and both ramp and railing are in proportion to size of the building.
- 3) Because drop-off at side of ramp is greater than 30 inches, Vermont Fire & Building Safety Code requires guardrail in addition to handrail.
- 4) This railing was installed prior to changes in the Vermont Access Rules, which now require that handrail ends be either rounded or returned smoothly to floor, wall, or post. (See Section 4.8.5(6).)



Birthplace



Side Door to General Store

Issue Raised Entrance

Vermont Access Rules

4.8 Ramps

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm)"

4.1.7(3)(b) Historic Preservation: Minimum Requirements: "... 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 signage at the primary entrance may be used."

Building Birthplace & General Store
President Calvin Coolidge State
Historic Site
Plymouth Notch, Vermont

Use State Historic Site

Notes

- 1) Landscaped berm provides access to wooden platform, which provides access to two attached buildings.
- 2) Access to General Store building through window unobtrusively converted to door.



Issue Raised Entrance

Vermont Access Rules

4.8 Ramps

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

Building Bradford Town Offices
Bradford, Vermont

Use Municipal Offices/Offices

Notes

- 1) Front steps pulled away from building to create landing at top of ramp.
- 2) Graded ground path is 1:20 and does not require handrails
- 3) Very inconspicuous solution due to gentle grade.



Issue Raised Entrance

Vermont Access Rules

4.8 Ramps.

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2. Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

4.1.7(3)(a) Historic Preservation: Minimum Requirements: "... 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 run to an entrance."

Building Kimball Public Library
Randolph, Vermont

Use Public Library

Notes

- 1) Exterior access provided to lower level rather than raised first floor. (Note that, where an alternative accessible entrance is provided, signage directing persons from the inaccessible entrance to the accessible entrance must be provided. (See Section 4.1.6(1)(h)) of the Access Rules.)
- 2) Once inside, interior ramps and a platform lift provide access to main floor.



Issue Raised Entrance

Vermont Access Rules

4.8 Ramps.

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2. Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

4.1.7(3)(a) Historic Preservation: Minimum Requirements: "... 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 run to an entrance."

Building St. Johnsbury Athenaeum
St. Johnsbury, Vermont

Use Public Library/Gallery

Notes

- 1) Exterior access provided down to lower level rather than up to raised first floor. (Note that where an alternative accessible entrance is provided, signage directing persons from the inaccessible entrance to the accessible entrance must be provided.)
- 2) Elevator located at lower level opening provides access to main and upper floors.
- 3) Solution avoids obscuring building facade.



Issue Raised Entrance

Vermont Access Rules

4.8 Ramps.

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

Building Freight Depot
Randolph, Vermont

Use Transit Center

Notes

- 1) An exterior ramp up to the raised floor in this small building would have extended over 50 feet, with multiple switchbacks.
- 2) Door was lowered, and a transom window inserted above.
- 3) Just inside door, interior lift and stairs provide access to main floor level.



Issue Raised Entrance

Vermont Access Rules

4.8 Ramps.

4.8.1 General. "Any part of an accessible route with a slope greater than 1:20 shall be considered a ramp and shall comply with 4.8.

4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

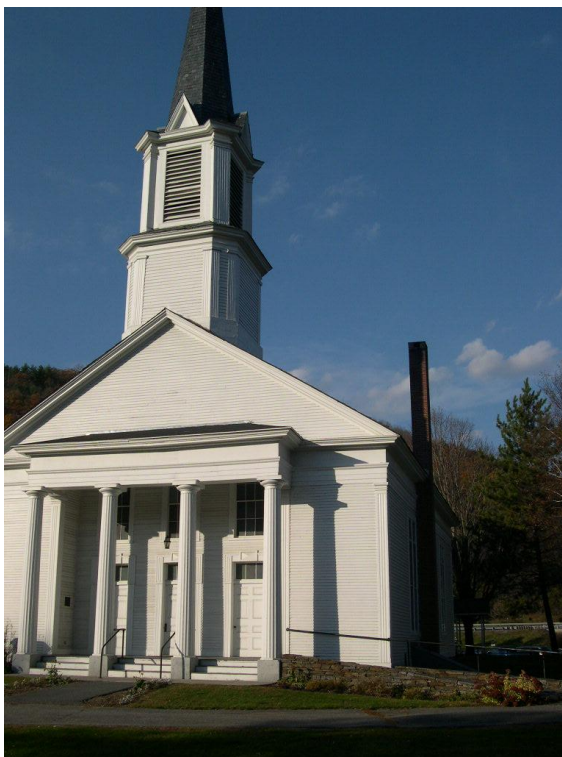
4.1.7(3)(a) Historic Preservation: Minimum Requirements: "... A ramp with a slope no greater than 1:6 for a run not to exceed 2 ft (610 mm) may be used as part of an accessible run to an entrance."

Building Buildings and General Services
Office
Montpelier, Vermont

Use State Offices

Notes

- 1) Wide historic porch provides ideal location to conceal wide access ramp.
- 2) This type of solution can be included as part of a general porch repair or reconstruction project.



Issue Raised Entrance; Railings, Curbs

Vermont Access Rules

4.8.2 Slope and Rise. "... The maximum slope of a ramp in new construction shall be 1:12. The maximum rise for any run shall be 30 in (760 mm) ... ramps to be constructed in existing buildings and facilities may have slopes and rises as allowed in 4.1.6(3)(a) if space limitations prohibit the use of a 1:12 slope or less."

4.8.7 Edge Protection. "Ramps and landings with drop-offs shall have curbs, walls, railings, or projecting surfaces that prevent people from slipping off the ramp. Curbs shall be a minimum of 2 in (50 mm) high."

Building Sharon Congregational Church
Sharon, Vermont

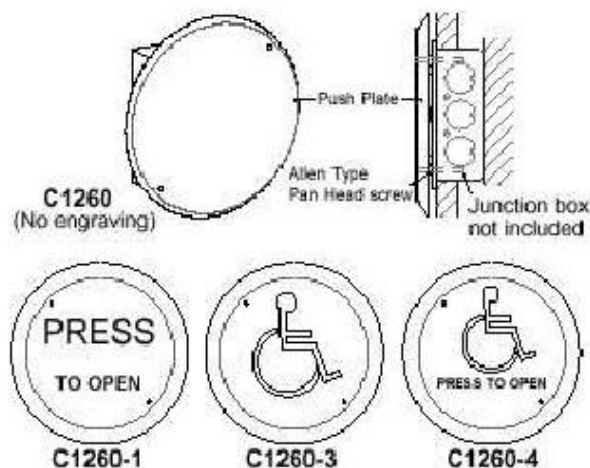
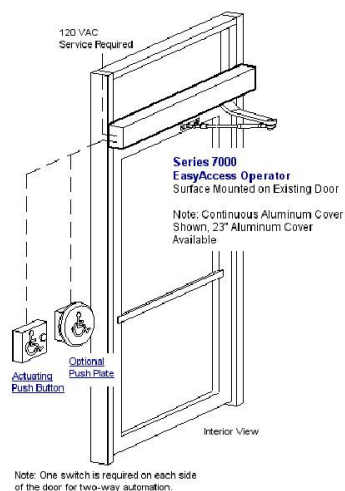
Use Church

Notes

- 1) Because the slope of the ramp is greater than 1:20, both a handrail and curbs at least 2 inches high are required along the ramp edges. Because the drop-off is less than 30 inches, however, no guardrail is required.
- 2) Fieldstone curb becomes an element of the landscaping and is not visually obtrusive.



176 –180 Main St. with close-up of automatic door opener at Dunkin Donuts entrance



Door opener and trigger plates (from Horton Automatics - <http://www.hortondoors.com/>)

Issue Narrow Double Doors

Vermont Access Rules

4.13 Doors. ...

4.13.12 Automatic Doors and Power-Assisted Doors. "If an automatic door is used, then it shall comply with ANSI/BHMA A156.10-1985...."

4.13.5 Clear Width. "Doorways shall have a minimum clear opening of 32 in (815 mm)"

Building 176 Main St.
Burlington, Vermont

Use Commercial

Notes

- 1) Accessible doors must open with less than 5 lbs. of pressure, and provide space next to door for wheelchair users to open door. Where this is not possible, an automatic door opener is an inexpensive, low-impact solution.
- 2) Automatic door opener trigger plate unobtrusively inserted into elaborate door surround.
- 3) Narrow historic double doors fitted with opening mechanism to open together to create adequately wide entrance.
- 4) A system like the Horton Series 7000 shown to the left (i.e. basic operation without electric strike latching) can be installed for approximately \$1600, plus any related electrical work required. (Price quoted in December 2005)



Issue Slight Interior Level Change

Vermont Access Rules

4.3 Accessible Routes. ...

4.3.8 Changes in Levels. "... If an accessible route has changes in level greater than 1/2 in. (13 mm), then a curb ramp, ramp, elevator, or platform lift (as permitted in 4.1.3 and 4.1.6) shall be provided that complies with 4.7, 4.8, 4.10, or 4.11, respectively. An accessible route does not include stairs, steps, or escalators...."

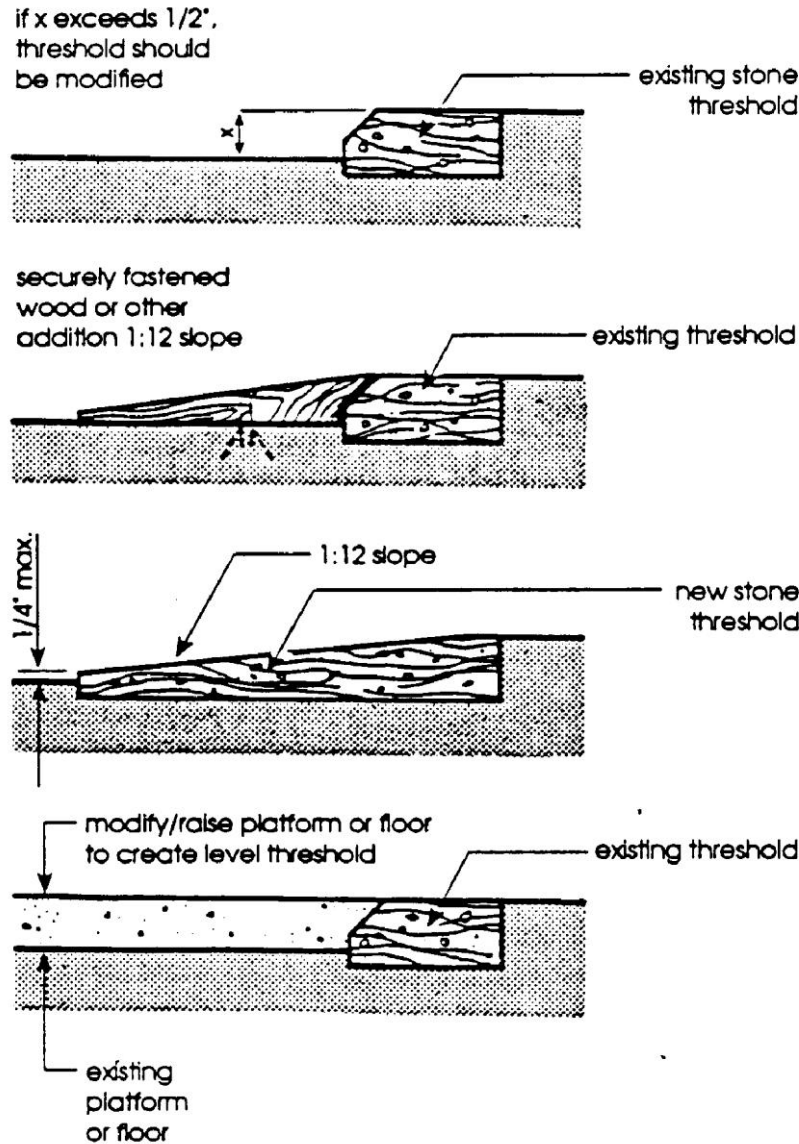
Building Aldrich House
President Calvin Coolidge State
Historic Site
Plymouth Notch, Vermont

Use State Historic Site

Notes

- 1) Turning a hallway into a ramp is an unobtrusive way to eliminate low steps.
- 2) Retain or match historic flooring material to minimize visual impact.
- 3) Interior ramps must also adhere to applicable design guidelines.

Threshold Modifications



Issue Thresholds

Vermont Access Rules

4.13 Doors. ...

4.13.8 Thresholds at Doorways. "Thresholds at doorways shall not exceed 3/4 in (19 mm) in height for exterior sliding doors or 1/2 in (13 mm) for other types of doors. Raised thresholds and floor level changes at accessible doorways shall be beveled with a slope no greater than 1:2"

Notes

- 1) There are several ways to alter thresholds to provide for easy accessibility.
- 2) Carefully consider visual impact of alterations and retain historic materials whenever possible.



Offset hinge (from www.dynamic-living.com)

Issue Door Width

Vermont Access Rules

4.2 Space Allowances and Reach Ranges.

4.2.1 Wheelchair Passage Width. "The minimum clear width for single wheelchair passage shall be 32in (815 mm) at a point and 36 in (915 mm) continuously"

Notes

- 1) When passage at a doorway is narrower than 32 in, "Swing-away" or "offset" hinges take door out of opening when open, increasing width up to 2 inches.
- 2) Easily installed, and cause little damage to historic materials.
- 3) Nearly invisible when door is closed.

UPPER FLOOR ACCESS



Issue Access to Upper Floors; Limited Use/
Limited Application (LU/LA) Elevators

Vermont Access Rules

4.1.7 Accessible Buildings: Historic Preservation. ...

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

Building Canal Street School
Brattleboro, Vermont

Use Day/Evening Care Center

Notes

- 1) Access to upper floor of historic building provided by a Limited Use/Limited Application (LU/LA) elevator. Solution avoids need to build elevator tower or penthouse marring building exterior, and limits amount of alteration to building interior.
- 2) Like traditional elevator, LU/LA has greater load capacity than platform lift, and it can reach up to 5 floors. However, LU/LA is smaller in size than traditional elevator (approximately the size of an average closet), requires less pit depth and overhead clearance, and is cheaper to purchase and install.



Exterior



First Floor



Second Floor

Issue Access to Upper Floors

Vermont Access Rules

4.1.7 Accessible Buildings: Historic Preservation. ...

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

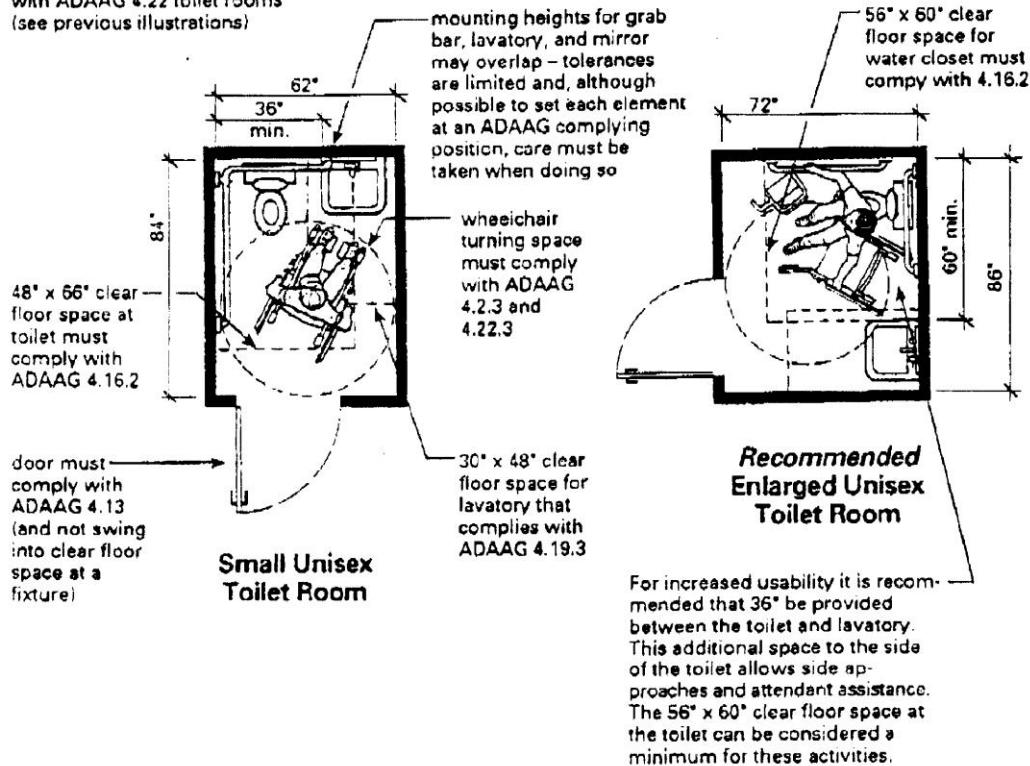
Building General Wait House
Waitsfield, Vermont

Use Offices & Visitor Center

Notes

- 1) Easy-to-use platform lift provides access to upper floor.
- 2) At upper level, half walls surrounding lift have minimal visual impact.
- 3) Less expensive than full elevator, and does not impact the historic building as much. While an elevator requires a full penthouse and pit, a platform lift requires no penthouse, and a very shallow pit.

Note: all elements of the unisex toilet room must comply with ADAAG 4.22 toilet rooms (see previous illustrations)



From U.S. Department of Justice

Issue Restrooms

Vermont Access Rules

A4.22 Toilet Rooms "... Where strict compliance to the guidelines for accessible toilet facilities is technically infeasible in the alteration of existing facilities, accessible "unisex" toilets are a reasonable alternative. ... In designing accessible single-user restrooms, the provisions of adequate space to allow a side transfer will provide accommodation to the largest number of wheelchair users."

Notes

- 1) The example layouts and dimensions here are considered a minimum; fixture size influences the location of clear floor spaces and may cause overall room dimensions to vary.
- 2) A turning circle or T-turn, the clear floor space at the lavatory, and maneuvering space at the door must be considered when determining the possible wall locations (see ADAAG 4.22 and A4.22).

This accessibility checklist is designed as a planning tool for owners and managers of historic properties. It is not an exhaustive checklist, but is intended to start the thinking and planning process. Please consult the appropriate guidelines for detailed requirements, and consult the *Accessibility and Historic Preservation Resource Guide*, compiled by Judith L. Hayward and Thomas C. Jester and published by Historic Windsor, Inc. for several accessibility checklists designed for historic properties.

SITE

- Does your site have designated accessible parking spaces? Do you have enough spaces (See ADAAG 4.1.2 (5)(a))?
- Is the accessible parking as close to the accessible entrance to the building as possible?
- Are there curb ramps at any sidewalks leading to your site (See ADAAG 4.7)?
- Do all ramps have a slope less than 1:12, or a slope of no more than 1:6 for a length of 2 feet or less?
- Carefully examine the path of travel from the accessible parking to the accessible entrance. Are there any obstacles or barriers to access along the way? For example, a cracked sidewalk can create almost insurmountable difficulties for wheelchair users. Is the surface of the path stable, firm and slip-resistant?

ENTRANCE

- Is there at least one accessible entrance?
- Are there signs at all inaccessible entrances that indicate the nearest accessible entrance?
- Is the threshold less than 1/4 inch high (level) or less than 1/2 inch high (beveled) at the accessible entrance?
- Is the doorway at least 32 inches across at the narrowest point?
- Are there 18 inches of clear wall space on the pull side of the door, next to the handle, to allow space for wheelchair users to open the door?
- Is the door handle no higher than 48 inches and operable with a closed fist?

PATH OF TRAVEL

- Is there an accessible route within your building from the entrance to all major features of your site (include restrooms, drinking fountains, public telephones, program spaces, etc.)?
- Is the path at least 36 inches wide continuously, with minimum width at certain points (i.e. doorways) no less than 32 inches?
- Is there a 5 foot circle or T-shaped area to allow wheelchairs users to turn around?

- Are all obstacles in public spaces "cane-detectable"?
This means located within 27 inches of the floor or protruding less than 4 inches from the wall.
- Do all stairs have a non-slip surface?
- Do all stairs have continuous handrails on both sides?
- Does all signage comply with the appropriate requirements (See ADAAG 4.30)?

RESTROOMS

- If there are public restrooms at your site, is there at least one accessible restroom (one for each sex or one unisex)?
- Are accessible restrooms designed according to the appropriate guidelines (See ADAAG 4.23)?

OTHER AMENITIES

- If your site has drinking fountains, are there fixtures useable by wheelchair users (See ADAAG 4.15)?
- If your site has public telephones, are there units useable by wheelchair users? Is there a TDD phone available for people with hearing impairments (See ADAAG 4.31)?
- Be sure that any projections from the wall (including drinking fountains and telephones) are "cane-detectable", as delineated under ADAAG A4.4.

Resources for further information:

Vermont Department of Public Safety
Division of Fire Safety
1311 U.S. Route 302 – Berlin
Suite 600
Barre, VT 05641-2351
Attn: Bob Howe
Phone: (802) 479-7566
E-mail: rhowe@dps.state.vt.us
Website: <http://www.vtfiresafety.org>

For general information regarding Federal ADA requirements, contact:

Disability Rights Section
Civil Rights Division
U.S. Department of Justice
P.O. Box 66738
Washington, D.C. 20035-6738
Phone: (800) 514-0301 (Voice)
Phone: (800) 514-0383 (TTY)

For questions regarding federal technical accessibility requirements, contact:

New England ADA Center
Phone: (800) 949-4232

For information and assistance on historic buildings, contact:

Vermont Division for Historic Preservation
National Life Building, Drawer 20
Montpelier, VT 05620-0501
Phone: (802) 828-3045
Website:
http://accd.vermont.gov/strong_communities/preservation

Funding Sources:

Owners of historic and non-historic buildings may be eligible for federal and state tax credits and deductions and federal and state grants:

See the publication: “**Funding Directory for Historic Preservation Projects in Vermont**” available from the Vermont Division for Historic Preservation and at: http://accd.vermont.gov/strong_communities/preservation/grants/funding_directory

Vermont Downtown Program – Tax Credits and Other Benefits Relating to Rehabilitation and Code Improvements for Income-Producing Buildings in Designated Downtowns and Designated Village Centers, including: Vermont Rehabilitation Investment Tax Credit, and Vermont Tax Credit for the Construction of Elevators, Lifts and Sprinkler Systems in Existing Buildings in Designated Downtowns

Contact: Vermont Downtown Program
Agency of Commerce and Community Development
National Life Building
Drawer 20
Montpelier, VT 05620-0501
Attn: Chris Cochran
Phone: (802) 828-3047
E-mail: chris.cochran@state.vt.us

Rehabilitation Investment Tax Credit (Federal)

Contact: Vermont Division for Historic Preservation
National Life Building
Drawer 20
Montpelier, VT 05620
Attn: Chris Cochran
Phone: (802) 828-3047
E-mail: chris.cochran@state.vt.us

Cultural Facilities Grants

Contact: Vermont Arts Council
136 State Street
Montpelier, VT 05633-6001
Phone: (802) 828-3778
E-mail: jressler@vermontartscouncil.org or jkors@vermontartscouncil.org
Website: www.vermontartscouncil.org

Community Development Block Grant Program—Accessibility Modification Grants

Contact: Vermont Department of Housing and Community Affairs
National Life Building
Drawer 20
Montpelier, VT 05620
Attn: Molly Dugan
Phone: (802) 828-5218
E-mail: josh.hanford@state.vt.us

Disabled Access Tax Credit; Tax Deduction to Remove Architectural and Transportation Barriers

Contact: The U.S. Internal Revenue Service or <http://www.usdoj.gov/crt/ada/taxpack.htm>

Bednar, Michael J., ed. *Barrier-Free Environments*. Stroudsburg, PA: Dowden, Hutchinson and Ross, 1977. **Available at Bailey-Howe Library, University of Vermont, Burlington, VT.**

Jester, Thomas C. and Sharon C. Park. *Preservation Brief 32: Making Historic Properties Accessible*. Washington, DC: National Park Service, Heritage Preservation Services, 1993. **Available online at www2.cr.nps.gov/tps/briefs/presbhom.htm.**

Hayward, Judith L., and Thomas C. Jester, compilers. *Accessibility and Historic Preservation Resource Guide*. Windsor, VT: Historic Windsor, Inc., 1992. **For more information, contact Historic Windsor, Inc., PO Box 1777, Windsor, VT 05089, (802) 674-6752.**

Includes:

ADA Title III (28 CFR Part 36). Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities. Published in the Federal Register by the Department of Justice on July 26, 1991.

Battaglia, David H. "The Impact of the Americans with Disabilities Act on Historic Buildings and Structures." Washington, DC: Hunton and Williams, 1992.

"Checklist for Existing Facilities: The Americans with Disabilities Act Survey for Readily Achievable Barrier Removal." Boston: Adaptive Environments, Inc. and Barrier Free Environments, Inc., 1992.

Preservation Assistance Division, National Park Service. "Accessibility Checklist for Historic Properties." 1992.

Public Law 101-336, Americans with Disabilities Act of 1990.

"Standards for Accessible Design: ADA Accessibility Guidelines (ADAAG)." Appendix A to 28 CFR 36 (ADA Title III). Published in the Federal Register by the Department of Justice on July 26, 1991.

Preservation Assistance Division, National Park Service. *Entrances to the Past*. Videocassette. 1993. **For more information, contact Historic Windsor, Inc., PO Box 1777, Windsor, VT 05089, (802) 674-6752.**

Vermont Access Board and the Department of Labor and Industry. *Accessibility in Public Buildings; Rules for New Construction and for Alterations to Existing Buildings* (also known as "Vermont Access Rules"), 1998. **Available online at** <http://www.dps.state.vt.us/fire/access498/accessrules797.htm>.