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Henderson, Stacey

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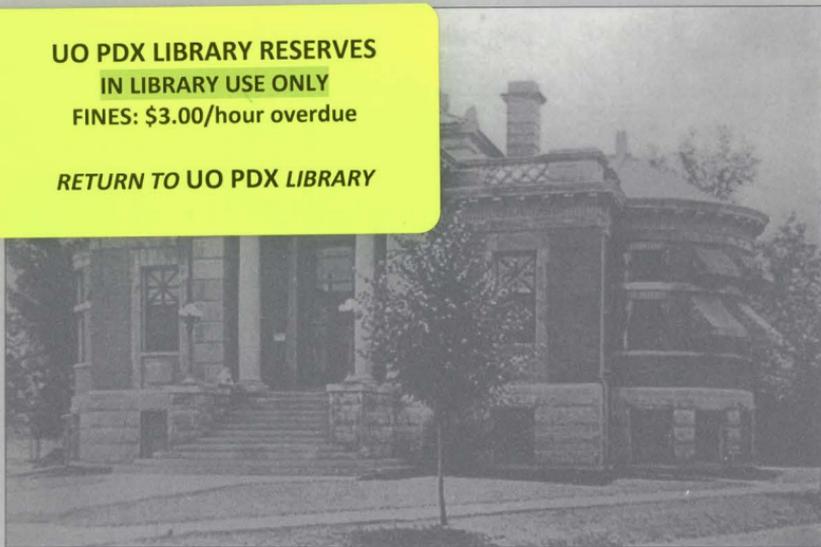
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RETRORFIT GUIDEBOOK:

A Resource for Carnegie Library Building
Owners to Meet ADA Requirements while
Preserving Historic Integrity.

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Stacey Renee Henderson
Final Masters Terminal Project

Spring 2013
Historic Preservation Program
University of Oregon





ACCESSIBILITY RETROFIT GUIDEBOOK:

A Resource for Carnegie Library Building
Owners to Meet ADA Requirements while
Preserving Historic Integrity.



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INTRODUCTION



Postcard of Bozeman, MT Carnegie library, grant awarded in 1902.¹

¹ Jackson, Mark. "Carnegie Library, Bozeman, Montana." Library Postcards. <http://librarypostcards.blogspot.com/2011/11/carnegie-librarybozeman-montana.html>.

Introduction

At the turn of the Twentieth century, public libraries were built in communities big and small around the United States as a result of donations from Andrew Carnegie. His philanthropic vision was to turn his "fortune into knowledge, thought, freedom, and power." and providing these libraries was his way of achieving that goal.² These buildings influenced the development of the public library system, library building design, and they were built in communities that otherwise would not of been able to afford one at the time. In total, there were 2,509 libraries originally built between 1885 and 1920 throughout the world, and many are still standing today.³ In order for these buildings to continue to support their communities and tell their stories, they need to be updated to comply with modern demands and building regulations. A common challenge Carnegie library buildings face is that their original designs are not compliant with current accessibility laws and codes such as the Americans with Disabilities Act (ADA). Although many of these buildings no longer operate as libraries, most still serve the public in one way or another; therefore, performing accessibility retrofits is essential and ensures that all building users are provided the same experience and services.

A Carnegie library owner or manager seeking accessibility updates may become overwhelmed with how to start this process, as there is no single instructional document or prescribed method to follow. Retrofitting these historic buildings is challenging, as alterations can be costly when working within the parameters of an existing building. There is little current literature addressing how to approach accessibility retrofits on historic buildings, and many challenges arise with said resources when considering the variances in building types, sizes, and local code requirements. The research conducted for this guidebook investigates the historical significance of Carnegie library buildings, accessibility laws and codes in the United States, and the various accessible design solutions that have been implemented on these buildings to make them compliant with the ADA.

Methodology and Organization of the Guidebook

Methodology

There were three main steps involved with the development of this guidebook, including research, site visits and data collection, and final organization of the information. The first step in addressing this challenge was to do contextual research on the libraries and accessibility laws and current building regulations. Research on the libraries included learning their historical context and significance through resources such as *A Book of Carnegie Libraries*, but also included investigating the current use and condition of these buildings through numerous public library and historical society websites.⁴ This

2 Koch, Theodore, *A Book of Carnegie Libraries* (White Plains N.Y and New York City: The University Press Cambridge Mass, 1917), 6.

3 Bobinski, George S., *Carnegie Libraries: Their History and Impact on American Public Library Development* (Chicago: American Library Association, 1969), 14.

4 (Koch 1917)

Introduction

information shed light to current needs of the buildings, why they should be preserved, and how to go about assessing their current aspects of historic integrity. It was also important to examine the resources that already address this issue, and what information they include. There are not many available resources that address accessibility retrofits and historic buildings, but amongst the few include *NPS Historic Preservation Brief 32*, and various short pamphlets such as *Adapting for Access: ADA Compliance in Historic Structures*.⁵ These pamphlets were brief, but influenced the overall organization of this guidebook with regards to the content that should be included, and how the information should be visually displayed.

Four libraries were chosen in Oregon based on the variety of their use, ownership, historic integrity, and the accessibility solutions that had been implemented on that building. Site visits to these libraries provided the necessary data to include examples in Chapter 4, *The Visual Field Guide*, of how other libraries have approached common accessibility challenges with their building. Methods of data collection included interviews with building managers and owners, as well as heavy photo documentation, sketches, notes, and the development of a checklist. The checklist was based on the ADA guidelines and standards, and was used to document each area of the building carefully in order to ensure thorough research.⁶

After the research and documentation, the most important step was to organize and present the information in a clear, and manageable format. As a result, this guidebook and website make the information accessible to Carnegie library owners across the country. The chapters are broken down into manageable parts on the website for quick and convenient reference, and additional resources are provided for building owners if they have further questions. This is a resource intended for preservationists, architects, or librarians in need of information on this accessibility retrofit process, and has been presented in an organized and concise way.

Organization

This guidebook is broken down into four main chapters of useful information applicable to the accessibility retrofit process, including: *Getting Started*, *Contextual History*, *Accessibility Laws and Codes*, and *The Visual Field Guide*. Understanding the contextual history of these libraries will help shed light to the major character defining features that should be preserved. In addition, presenting their historical significance to the community will help gain support for fundraising or other events. Chapter 2, *Contextual History*,

5 "Adapting for Access: ADA Compliance in Historic Structures" Utah State Department of Community and Economic Development, State History. http://history.utah.gov/historic_buildings/information_and_research/documents/ADABrochure.pdf.

6 "Checklist for Existing Facilities" Americans with Disabilities Act Official Website, <http://www.ada.gov/rachek.pdf>.

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provides background information on Carnegie libraries built in the United States.⁷ This research includes brief biographical information on Andrew Carnegie, his reasons for donating money for libraries, and the process of receiving a Carnegie grant. The important role these libraries played within the development of the public library system is discussed as well, as most were built between c. 1886 and 1920, and there had not been many publicly subsidized libraries before this time.⁸ These buildings are significant historic resources in the United States, and it is important to celebrate their history and preserve their integrity so they can continue to tell their stories.

Understanding and addressing accessibility regulations, codes, and laws can be a challenging task for any preservationist, architect, or building owner. Chapter 3, *Accessibility Laws and Codes*, is a compilation of information about the development of accessibility law in the United States, what the various laws and codes say, and how they apply to Carnegie libraries. It is necessary before starting this process to understand the development of these laws, whom they support, and why accessibility design is important. The ADA applies to every single building in the United States, so it is discussed in great detail in Chapter 3, to provide a better understanding of what is required for a Carnegie library building. Building code requirements can vary state-to-state and city-to-city, so although they are still relevant to look into, they will not be discussed in as great detail in this guidebook.⁹ Understanding the requirements of the laws and codes will help clarify to building owners the requirements applicable to Carnegie libraries, and what they need to achieve through the accessibility retrofit process.

In Chapter 4, *The Visual Field Guide*, the technical details of the ADA Accessibility Guidelines and standards are applied to Carnegie library buildings and visually displayed for convenient reference. Four Carnegie libraries were documented to help illustrate accessibility design scenarios and solutions by displaying: photographic documentation, the applicable ADA guidelines for further reference, and how these changes impacted the historic integrity of the building. The information is categorized and presented according to the main parts of a building that affect accessibility as outlined in the ADA, and they include building approaches, entrances, vertical circulation, floor materials, furniture, restrooms, and building additions. A page that addresses more general ADA design guidelines, and a range of possible solutions for other libraries follows each example. This section is valuable because it provides a quick and basic understanding of what needs to be done to the building, how to find more detailed information if necessary, and a range of possible solutions based on financial abilities.

7 Carnegie libraries were built throughout the English-speaking world, including Canada, New Zealand, and Australia. This project focuses on analyzing buildings built in the U.S. (Bobinski 1969, Viii)

8 (Bobinski 1969, vii)

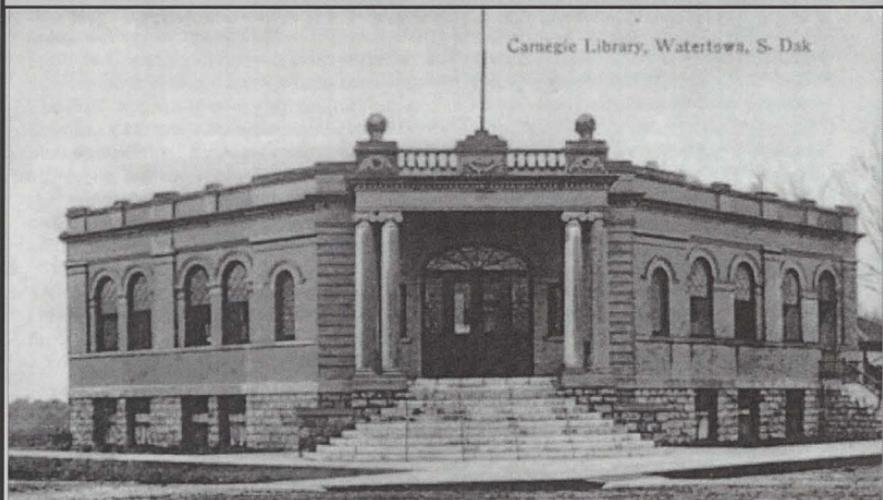
9 "Building Codes." U.S. Department of Homeland Security. <http://www.fema.gov/earthquake/building-codes>.

Introduction

Overall, this guidebook provides useful information throughout each chapter to help with the accessibility retrofit process. These library designs have a lot of similarities but also many differences, and building codes and requirements can vary state to state. The next chapter, *Getting Started*, provides a brief introduction to common preservation practices that should be followed, suggestions on how to go about locating local preservation professionals, and how to begin prioritizing accessibility needs. This is an important undertaking for any Carnegie library, as they are valued historic resources in many communities, and increasing their accessibility will help them continue to serve the public.



CHAPTER 1 GETTING STARTED



Carnegie Library in Watertown, South Dakota. Built 1906¹⁰

10 Baxter, Jacquelyn, "1906-1967: The Carnegie Library," Watertown Regional Library, <http://watweb.sdln.net/history-1906.html>.

Chapter 1

When looking to make accessibility adaptations to a historic building, it is recommended to do preliminary planning and research. There are always going to be some areas that need attention sooner than others, so it is important to prioritize the projects based on financial capabilities. Many of these libraries are on the National Register of Historic Places, so it is essential that those involved understand common preservation guidelines in order to ensure the project is completed in the best interest of the building.¹¹ This chapter begins the accessibility retrofit process by explaining resources such as The Secretary of Interior's Standards, and by providing suggestions on how to begin the projects.

Prioritize Work

Often times, an accessibility retrofit is brought to the attention of a building owner when patrons have recurring challenges or complaints regarding the use of a building. The first step is to gather information to figure out the main focal areas of the retrofit, which can be done by talking with employees, building users, and observing main foot traffic during business hours. Patterns of use become noticeable through comments people make about a slippery floor, steep stairs, or tiny restroom, shedding light on the areas of accessibility that should be addressed first.¹² It is also important to research general demographic information about the main users of the building to understand their needs. The needs can vary according to the use of the building and research should explore: if users are elderly; if they bring their young children (especially for libraries); or what percentage of users that are chair bound, ambulant disabled, or have visual or hearing impairments.¹³ Addressing these topics and understanding the users' basic needs will result in a better comprehension of the areas of the building that need to be rehabilitated first.

In an ideal world, when it comes to accessibility, a prioritization list would not be necessary, and all accessibility needs would be addressed. The reality with many Carnegie library buildings around the country is that those in charge (especially if it is still a public library) cannot afford large building alterations such as elevators, lifts, ramps, or new bathrooms. Prioritization allows the most severely limiting elements to be tended to first, while obtainable goals are set for future projects and fundraising. *The Visual Field Guide* chapter of this resource displays a range of possible solutions and adaptations building owners can use that cater to their financial and physical limitations.

11 To learn more about the National Register, follow this link: <http://www.nps.gov/history/nr/research/>.

12 This information was learned when interviewing the Albany library manager.

13 Goldsmith, Selwyn, *Designing for the Disabled* (London: RIBA Publication Limited, 1976), 22-23.

Chapter 1

This guidebook focuses on the accessibility requirements of the Americans with Disabilities Act (ADA) as they are applied to Carnegie libraries, because building code requirements can vary city to city.¹⁴ The ADA Standards outline their own prioritization list that should be considered in conjunction with those made by the building owner, and they are as follows:

- First, a public accommodation should provide accessible pathways and approaches into the building. This can include taking measures to incorporate accessible parking, level sidewalks, and stable path material.
- Second, the main goods and services in the building should be made available to the public. This includes rearranging the layout of tables and racks, providing brail signage, widening doors, and providing visual alarms.
- Third, any public accommodation should be sure to provide access to restroom facilities. This can mean retrofitting the spaces to allow for increased maneuverability, installation of grab bars, and adjusting paths of travel for easier access to the restrooms.
- Fourth, building owners should remove the remaining physical barriers to provide access to secondary goods, services, and spaces the building provides. This helps to ensure the same experience for all building users.¹⁵

Preservation Principles

Within the historic preservation profession, there are guidelines and standards that help guide the work that is done on historic buildings in a way that best preserves the character of the resource. The Secretary of the Interior has prepared standards and guidelines for preservation, rehabilitation, restoration, and reconstruction projects.¹⁶ Most accessibility work done on Carnegie libraries is considered to be rehabilitation, which is defined as “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.”¹⁷ The official Secretary of the Interior Guidelines can be found on the National Park Service website at <http://www.nps.gov/hps/tps/standguide/>. Many of these standards and guidelines focus on preserving the historic character of the property by identifying the significant character defining features, and repairing existing historic fabric before replacing, as demonstrated in Images 1 and 2. The information found in Chapter 2 of this guidebook will aid in understanding the historical significance of these libraries, and identifying the main character defining

14 (“Building Codes”)

15 “Americans with Disabilities Act Title III Regulations,” *Department of Justice*, http://www.ada.gov/regs2010/titleIII_2010/titleIII_2010_regulations.htm, pg 45.

16 Explanations of what this terminology means can be found at the end of the guidebook in *Additional Resources*.

17 Dickenson, Russell. “Archaeology and Preservation: Secretary of Interior’s Standards and Guidelines.” National Park Service. http://www.nps.gov/history/local-law/arch_stnds_10.htm (accessed May 31, 2013).

Chapter 1



These forms help define the interior space of the reading rooms. Glass was used as infill to not detract from the original character of the space. Image taken by Stacey Henderson.



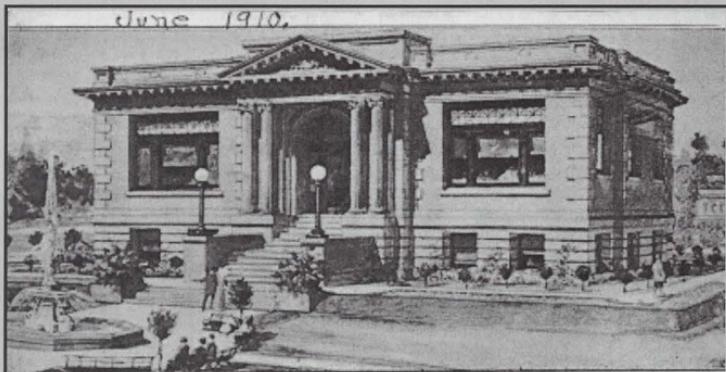
Areas of deterioration should be repaired before being replaced. Image taken by Stacey Henderson, 2013.

When planning an accessibility retrofit, seeking advice from local preservation professionals is advised. Many cities have preservation boards or committees who are in charge of design reviews and local historic buildings, and their contact information can usually be found by searching the city website. The State Historic Preservation Offices (SHPOs) handle preservation matters throughout their state, and usually have access to many helpful preservation resources and experts.¹⁸ Architects, building inspectors, or consultants can also assess the property and make suggestions, as these professionals are familiar with ADA and code requirements. This can be helpful, but it is important to ensure that those involved are familiar with common preservation practices in addition to accessibility laws and codes.

18 For a list of all the SHPOs: "National Register of Historic Places Program: State Historic Preservation Officers." National Park Service. <http://www.nps.gov/nr/shpolist.htm>.

CHAPTER 2

CONTEXTUAL HISTORY



CARNEGIE LIBRARY AT LIVERMORE.

Now being erected in Center of Block Bounded by Third and Fourth, J and K Streets.

From Drawing by W. H. Weeks, Architect

Hoyt Bros., Santa Rosa, Contractors

Carnegie Library in Livermore California. Built c. 1910¹⁹

19 "1910 Carnegie Library, Livermore California." Library Postcards. <http://librarypostcards.blogspot.com/2012/02/1910-carnegie-library-livermore.html>.

Chapter 2



Carnegie at Skibo Castle.

It is important to understand the history and significance of these Carnegie library buildings before accessibility retrofits can take place. Understanding the impact these libraries had on the development of the public library system will shed light to why they should be preserved, and will help gain community support for project fundraising. These libraries were built in communities big and small across the country and have many features in common with regards to their designs. This can be attributed to the fact that Carnegie closely monitored the entire process to ensure that his money was not being wasted on inefficient buildings. Learning about his various design intentions will highlight what elements of the building should be preserved throughout the accessibility retrofit. Furthermore, educating the community on these buildings will help them carry on as valued historic sites as they continue to tell their stories for decades to come.

The mid-nineteenth century in the U.S. was marked by the advancement of the industrial revolution and increased urbanization. Developments in technology and science, as well as growth in specialized occupations, all placed emphasis on the significance of reading, education, and self-improvement.²⁰ Early formations of the library (commonly called a Social Library) provided a place within this new urban environment of high moral regard for people to read and socialize. In the 1850's, as book publications and demands for libraries increased, social libraries soon gave way to public libraries that were more stable institutions supported by public taxation.²¹ In this time of growth and progress, many business owners were making more money than had ever been seen before, amongst the wealthiest being Andrew Carnegie. He dedicated the latter part of his life towards building libraries across the country because, he too, believed that an educated man was beneficial to society and that anyone who sought a better life could do so through education. This chapter introduces Andrew Carnegie, his inspirations for building libraries, and the development of the grant process.

20 (Bobinski 1969, 6)

21 (Bobinski 1969, 4)

Chapter 2

Andrew Carnegie

It is important to understand that Andrew Carnegie had many advantages when it came to obtaining his immense wealth, but he was not just handed this fortune from the start. He worked most of his life at various jobs before obtaining his final status as a wealthy steel magnate. Andrew Carnegie was born in his father's weaving cottage in Dunfermline, Scotland in 1835.²² Carnegie's formal education ended in 1846 when his family moved to America and settled in Allegheny, Pennsylvania.²³ His first job was as a bobbin boy, but he later worked for a telegraph company where he taught himself telegraphy and met many prominent people such as Thomas Scott, a Superintendent of the Pennsylvania Railroad.²⁴ Carnegie then became associated with the Pennsylvania Railroad from 1853 - 1865, where he invested in major oil development in western Pennsylvania.²⁵ His work in the steel industry first began at the Keystone Bridge Company but he later started his own business.²⁶ The Carnegie Steel Company quickly grew into one of the largest in the industry, and was purchased by J.P. Morgan in 1901 for \$500,000,000, at which point Carnegie retired and began building his libraries.²⁷

Philanthropic Goals

Conflict and debate arise between biographers of Andrew Carnegie, as some contribute his success to his intuition, intelligence, and work ethic, while others contribute it to greed, and ruthlessness. This chapter helps to form a better understanding of his intention behind the library donations, but does not focus on his business methods or other biographical events.²⁸

Many believe his love of literature began in Scotland in the land of "thinkers, scholars, powers, and romancers," where he was exposed to literary masters such as Shakespeare.²⁹ His exposure to literature helped to influence his later philosophies on how to help society. He fully believed that literature and education were one of the best ways to inspire a community and that educated people are of ample use and benefit to society.³⁰ This was a time of growth and progression, when businessmen were obtaining more wealth than ever before, and many were skeptical of what this wealth and power would do to these men. In 1889, Carnegie began to officially declare his philosophies on how those of his stature should use their wealth to better society, and these essays are commonly referred to as "The Gospel of Wealth."³¹ They are various writings on how the wealthy should budget their money, and what the "best fields of philanthropy" are to help the common man.

22 (Bobinski 1969, 9)

23 (Bobinski 1969, 9)

24 (Bobinski 1969, 9)

25 (Bobinski 1969, 9)

26 (Bobinski 1969, 10)

27 (Bobinski 1969, 10)

28 Andrew Carnegie has a controversial reputation when it comes to his business ethics. To learn more about his steel business and other events read: *Meet you in Hell*: by Les Standiford.

29 (Koch 1917, 5)

30 (Bobinski 1969, 11)

31 (Bobinski 1969, 11)

Breakdown of Donations

Carnegie's main gifts can be divided into two periods, the "retail" period (1886-1896) and "wholesale" period (1898-1919).³² In the retail period, Carnegie gave a total of \$1,860,869 for fourteen buildings that were distributed throughout six communities, mainly in Iowa and Pennsylvania. The idea behind these early gifts was more than just building a library, as most operated as a community center featuring art exhibition halls, lecture and recital rooms, and gymnasiums.³³ During the later wholesale period, Carnegie gave \$39,172,981 to 1,406 communities. The donations of the second period were spread further throughout the country and reached more communities to build more buildings.³⁴ This guidebook focuses on adapting the libraries made in the U.S., but it is important to note the other countries that also received library grants such as, Canada, South Africa, New Zealand, and Australia. In total, \$56,162,622 was donated to construct 2,509 libraries.³⁵

How to Obtain a Grant

Late in the "retail" period of Carnegie grants, word was spreading of his donations, and requests flooded in from all over the country. James Bertram was soon appointed as the head of the foundation to act as a buffer between Carnegie and the public, and Carnegie and Bertram requested all correspondence be handled through the mail to further limit public interaction.³⁶ Many letters tried to appeal to Carnegie by connecting to his personal interests or history, and one letter even stated that there are "twenty saloons in the town and not one place for a young man to spend his time away from the influences of alcohol."³⁷ The overwhelming increase of requests resulted in a more strenuous process to obtain the grant, and such requirements included:

- Completing a questionnaire about the town to demonstrate the need for a library.
- Grants were limited to English speaking countries.
- A building site needed to be claimed, and some sort of financial collateral represented to show they are invested in the project.

The building site was to be big enough to expand upon in the future.

- An annual maintenance pledge was made to show that the community was willing and legally able to tax itself in order to raise funds to take care of the building.

This amount needed to compensate for ten percent of the construction costs, and usually could not be under \$1,000.

- Grants were awarded based on the community population, generally \$2 per capita as determined by the census.
- Starting in 1908, building plans were required to be submitted for approval before construction.³⁸

32 (Bobinski 1969, 13)

33 (Bobinski 1969, 13)

34 (Bobinski 1969, 14)

35 (Bobinski 1969, 15)

36 James Bertram was born in Scotland, and worked for various railroads before becoming Carnegie's personal assistant. (Bobinski 1969, 24)

37 (Bobinski 1969, 36)

38 (Bobinski 1969: 38,39,45,47,58) Note: this includes information for all requirements listed.

Chapter 2

Carnegie Libraries within the Context of Library Development

It is important to understand the role these libraries played within the overall context of public library development, in order to appreciate their significance. This research focuses on public libraries in the United States, and discusses social events that influenced the needs for these libraries throughout the country.

Social Libraries

As the nineteenth century progressed, industrialization, urbanization, and rising prosperity influenced growth; and many people were moving to the city to work. The urban setting created a new cultural landscape for people to become accustomed to, and a common perception at the time was that these urban environments fostered increased alcoholism, crime, gambling, and prostitution.³⁹ As a result, the social library was developed as a space where men could converse, read, debate, and socialize, in what was considered a place of moral elevation.⁴⁰ Also referred to as subscription libraries, many of these were started by men's groups and were comprised of voluntary associations of people of similar background, income, and social level. Even though, they claimed to be "open" to the public, many excluded those who were not white; who did not speak English, and most were not open to women.⁴¹ These social libraries served a communal need as a new public space outside of the privacy of home or workplace, and it served as "neutral ground" for debate, discussion, and education.⁴²

Public Libraries

Around the 1850's, public libraries were beginning to take form as their ideals and intentions built upon that of the social library, the main difference being that public libraries were free to use because they were funded by the state.⁴³ An initial challenge with these libraries was figuring out how to achieve the public funding, as many states did not have laws to allow this kind of taxing. The places that initiated the movement towards legislation for public libraries include: in 1835 when New York enacted a state law permitting tax supported free library service; in 1848 Massachusetts passed an act authorizing Boston to levy a tax for a library building; and by 1851, this act was extended to all the cities in the state.⁴⁴ By 1887, there were 649 public libraries in the 29 states with public library enabling laws.⁴⁵

During this time of early public libraries, designing a building solely as a library was a new process to many American architects. Heavy collaboration between architects and librarians resulted in a design transition from community centers and social libraries,

39 (Bobinski 1969, 6)

40 (Bobinski 1969, 7)

41 Leckie, Gloria J. and John E. Buschman, *The Library as Place: History, Community, and Culture* (Westport, Connecticut, London: Greenwood Publishing Group, 2007), 42.

42 (Leckie and Buschman 2007, 50)

43 Some public libraries still excluded women, children, and those who were not white. (Bobinski 1969, 6)

44 (Bobinski 1969, 5)

45 (Bobinski 1969, 7)

Chapter 2

to public library buildings as they are recognized today.⁴⁶ Women and children were reluctantly allowed in many early public libraries as these establishments transitioned from being funded by various men's groups, to publicly funded entities. The women and children were usually provided separate reading rooms, as men often claimed that the women were too loud and "giggled".⁴⁷ Early public libraries supported the growing need amongst the middle class for self-improvement and education. Publically supported libraries were considered an instrument to achieve this enlightenment, and building them soon became the responsibility of the city and state.⁴⁸

Carnegie Libraries



Children's room, Flatbush Branch, Brooklyn.
(Koch 1917, 73)

The Carnegie library donations and grant system did not start until 1898 as public libraries were still developing, but weak. Carnegie was actively engaged in how his money was spent, and he regulated the donation process to ensure these buildings would become efficient and useful for the communities. At this time, there were not many architects familiar with designing a building for the sole purpose a library. Carnegie organized a group comprised of himself, and several librarians and architects to develop the "Notes on the Erection of Library Buildings." This pamphlet was intended to guide the development of the libraries towards more efficient designs.⁴⁹ Such requirements included stating that the form of the building should be rectangular and that windows should be above six feet high to allow for shelving. Carnegie's main intent was that these libraries be provided for the common man, because he felt that education was the most important tool for those who

46 (Koch 1917, 207-209)

47 (Leckie and Buschman 2007, 57)

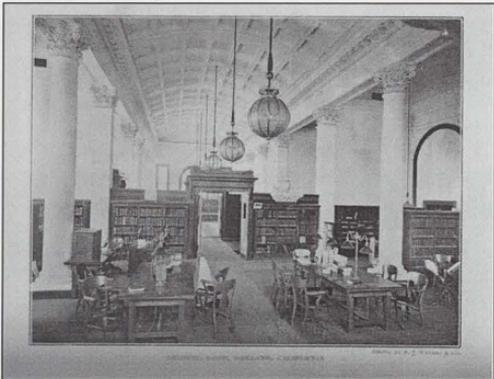
48 (Bobinski 1969, 9)

49 A scanned copy of the "Notes" can be found at the end of the guidebook in *Additional Resources*. (Bobinski 1969, 221)

Chapter 2

wanted to improve their lives.

The interiors of these libraries reconfigured how libraries operated, and how the public interacted with the books. Earlier public libraries operated under the closed stack system, which consisted of a long straight counter that acted as a physical barrier between the public and the books. Patrons would hand in request slips to the librarians who would then go retrieve the book. The designs of Carnegie libraries incorporated large open rectangular rooms to house the books with the main charging desk in the middle.⁵⁰ These charging desks were generally a “U” or circular shape, and this was where the librarian was expected to conduct work and monitor activity, opening the stacks for patrons to browse freely.⁵¹ The shift from a closed to an open stack system granted a new independence and privilege to the public to browse and pursue the books at their leisure.



Reading room, Oakland, CA.
(Koch 1917, 206)

The library designs also included adult's and children's reading rooms, all of which were arranged around the charging desk.⁵² This arrangement was intended to be an efficient design for the library when it came to accessing the books and the librarian. The furniture was almost always ordered through the Library Bureau, a commercial producer of library supplies run by Melvil Dewey.⁵³ The charging desks varied as they were custom fit to each library, and the design of the cubbies and drawers helped to maximize efficiency by providing space for common library supplies to reduce clutter.⁵⁴ It is important to note that when the original library furniture is still intact, it represents a vital addition to the interior of the space and is a character-defining feature important to preserve.⁵⁵

⁵⁰ Dubrow, Gial Lee, and Jennifer Goodman, *Restoring Women's history through Historic Preservation*. "On the Inside Preserving Women's history in American Libraries" (Baltimore and London: The Johns Hopkins University Press, 2003), 150.

⁵¹ (Dubrow and Goodman 2003, 150)

⁵² (Dubrow and Goodman 2003, 154)

⁵³ (Dubrow and Goodman 2003, 153)

⁵⁴ (Dubrow and Goodman 2003, 154)

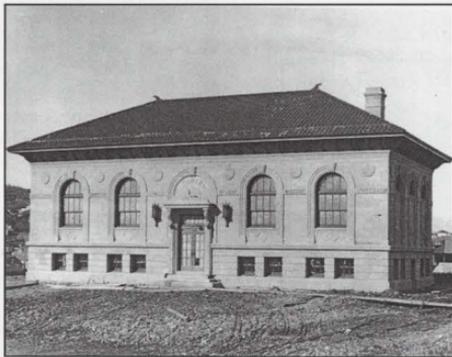
⁵⁵ Additional critiques on the interiors and furniture arrangements from other librarians at the time, can be found in Chapter 17, "Library Planning" from *A Book of Carnegie Libraries*. (Koch 1917)

Chapter 2

Preservation Goals and Character Defining Features

When approaching a rehabilitation project or major alterations on a historic building, learning about how and why the building was made will help determine which features should remain unaltered. According to common preservation practices as seen in *Preservation Brief 17*, character-defining features are the elements that speak to the historic and visual character of the building and contribute to its historical style, use, and original design intent.⁵⁶ Character defining features are important to determine before work is done on the building, as necessary alterations can conflict with major building features such as grand staircases, main entrances, or windows.

Carnegie, James Bertram, and a number of librarians developed the "Notes on the Erection of Libraries" in 1911, with the overall intention to guide grantees towards an efficient design of their library building.⁵⁷ The "Notes" were written with smaller libraries in mind, and six versions were issued from 1911-1917.⁵⁸ The pamphlet dictated the minimum standards for the accommodations the libraries should provide. Such requirements included the shape of the plan, window height, and suggestions on spatial arrangements. Understanding the influence this pamphlet had on the design of the libraries built after 1911 is helpful when determining the character defining features.⁵⁹ These standards influenced the main design of the building, and in result, can be translated into the character defining features that should be preserved to help tell the story of the building for future generations.



Carnegie library in Klamath County, OR.

56 Nelson, Lee. "Historic Preservation Brief 17: Architectural Character- Identifying the Visual Aspects of A Historic Building as an Aid to Preserving their Character." National Park Service. <http://www.nps.gov/tps/how-to-preserve/briefs/17-architectural-character.htm>.

57 (Bobinski 1969, 58)

58 (Bobinski 1969, 58)

59 It is important to note that these features are found in many, but not all, Carnegie Library buildings because the earlier buildings were designed with more freedom. (Bobinski 1969, 58)

Character Defining Features: As Determined by the “Notes”

Building Form



Image altered by Stacey Henderson, 2013.

Feature: Two stories tall and rectangular

Many buildings consist of an above ground basement with windows, and a first floor. The simple rectangular shape was recommended in “The Notes” to create the most efficient lay out and arrangement for furnishings.⁶⁰

Accessibility Aspects

A result of the above ground basement and first floor is that stairs are necessary to enter the building at any level. This level change is one of the most challenging aspects of the design to adapt in accessibility retrofits. It is important to ensure that adding elements such as elevators or ramps do not severely impact the existing stairs and building fabric.

Entrances

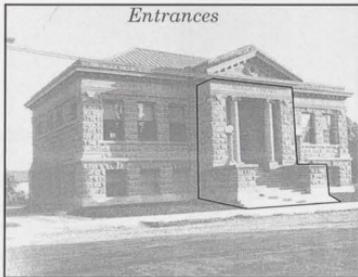


Image altered by Stacey Henderson, 2013.

Feature: Main Entrance and Portico

Most main entrances are met with stairs and flanked with lampposts. Upon entering, there are stairs that go to the first floor or basement, and a small area to set coats or wait for friends in a location that does not disturb those in the reading room.⁶¹

Accessibility Aspects

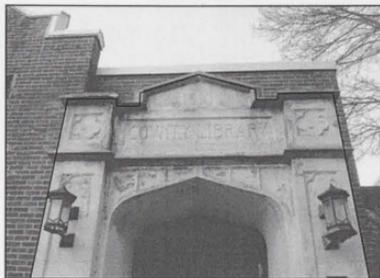
The stairs present an accessibility challenge for most Carnegie libraries, as they are usually steep and not compliant with current code. They are also difficult to retrofit with a ramp or wheelchair lift, resulting in accessibility adaptations to secondary entrances.

60 (Bobinski 1969, 221)

61 (Koch 1917, 217)

Chapter 2

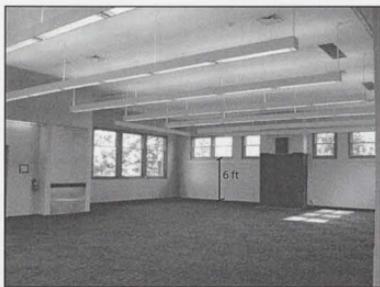
Material



Feature: Masonry Details

A big concern with libraries at this time was how to protect the books in the building. The pamphlet specifically requires that the libraries be made of masonry to increase fire protection. The masonry, and details as seen around the entrances are character-defining features that represent original design intent.

Windows



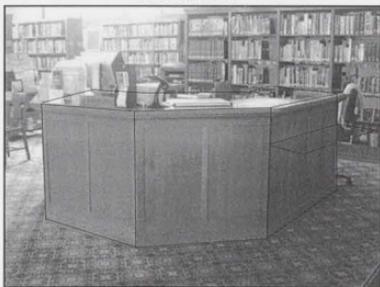
Feature: Window Height

Windows were required to be 6 feet or higher to allow room for bookshelves on the wall below. Original windows should be preserved because they contribute to the overall look and character of the building.

Accessibility Aspects

The design of these windows allows for an even quality light. This is helpful for all users, but especially those who have difficulty seeing.

Furniture



Feature: Charging desk

The charging desk (check out desk) was the librarian's "command post" as they monitored activity in the library. Many of these original desks have been removed, so if they are still intact, it is important to preserve them to the highest standard possible.

Accessibility Aspects

There are design guidelines in the Americans with Disabilities Act that dictate the heights of tables and counters.¹⁹

Images taken by Stacey Henderson 2013.

19 Slyck, Abigail A Van, *Free to All: Carnegie Libraries and American Culture* (Chicago and London: The University of Chicago Press, 1995), 222.

Conclusion

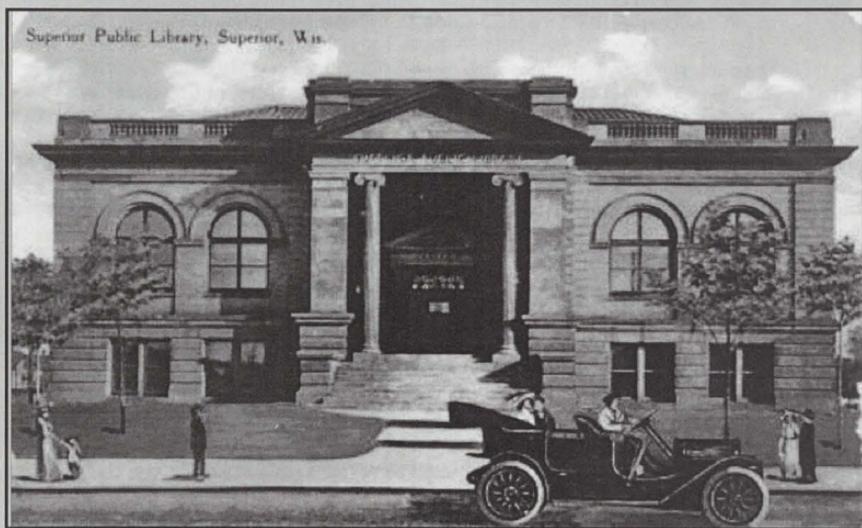
Overall, these libraries impacted the public library system in many ways including how libraries operate inside the building, and how they are funded. Andrew Carnegie truly believed that educated people could help serve and improve their community, and he supported this idea through building libraries across the country. There were requirements for obtaining a grant, but if these communities represented their ability to maintain the building and their need for a library, they were almost never refused the funding.²⁰ Carnegie wanted these libraries to be efficient, functional, and useful to the "common man" he was trying to help. Overall, he is a controversial individual when it comes to his business practices, but one thing is for certain, his library buildings reached many communities and people who would not had exposure to books otherwise.

²⁰ (Bobinski 1969, 3)

CHAPTER 3

ACCESSIBILITY LAWS

AND CODES



Carnegie Library in Superior Wisconsin.⁶⁴

⁶⁴ Nix, Larry. "Carnegie Libraries in Superior Wisconsin." The Library History Buff. <http://www.libraryhistorybuff.org/carnegie-libraries-superior.htm>.

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The built environment can often prohibit those with physical disabilities from accessing the goods and services in a building. This can happen when entrances are not accessible by wheelchair, when an elevator is hard to find or operate, or when furniture does not allow for proper mobility. Physical barriers in a building can be discouraging to those with disabilities, which in turn influences that person's (and the public's) opinion of the establishment. Whether it is a restaurant, retail, or government building, it is essential to make sure everyone has the same experience and access to the services provided.⁶⁵ This chapter addresses accessibility law and code development in the U.S., as well as details of the Americans with Disabilities Act (ADA) and various building codes. This information is important to understand when it comes to the accessibility retrofit process, as it will help ensure the building is serving the public to the fullest extent possible.

Accessibility Law and Code Development in the U.S.

In the past, working with those with disabilities has been treated as an "out of site out of mind" process; and in many places the disabled were viewed as different or even less than equal to those without disabilities. As time has progressed, various civil rights movements have advocated for minority groups in order to initiate change in how they are treated. It is important to understand the basics of the disability movement in the U.S. and the resulting laws, in order to recognize the necessity for changing a Carnegie library building. Following, is a brief history of the main laws that address creating equal rights for those with disabilities.

1961 ANSI A117.1

- The American National Standards Institute (ANSI) is the official U.S. representative to the International Organization for Standardization (IOS), and they oversee the creation, circulation, and use of thousands of norms and guidelines in the U.S.⁶⁶ ANSI A117.1 is the American Standard specification for making buildings and facilities accessible to, or usable by the physically handicapped. This law is concerned with: non-ambulatory disabilities, semi-ambulatory disabilities, sight disabilities, hearing disabilities, disabilities of coordination, and ageing. It was one of the first sets of guidelines addressing accessibility in buildings, and is later incorporated into the building codes that are still used today. (Note: it is not a law)

1968 Architectural Barriers Act (ABA)

- The Architectural Barriers Act is a law, not a building code, and it requires access to facilities designed, built, altered, or leased with federal funds.⁶⁷ Federal agencies are responsible for ensuring compliance with the accessibility standards when funding the design, construction, or alteration of facilities. The Access Board was created to enforce such ABA standards and it does so through investigation of complaints.⁶⁸ Four govern-

65 (Goldsmith 1976, 12)

66 "About ANSI." American National Standards Institute. <http://www.ansi.org/>.

67 "Home Page." United States Access Board. <http://www.access-board.gov/>.

68 Mayerson, Arlene, "The History of the ADA: A Movement Perspective." Disability Rights Education and Defense Fund. http://dredf.org/publications/ada_history.shtml.

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ment agencies were appointed to develop guidelines for the ABA including: The General Services Administration, Department of Housing and Urban Development, Department of Defense, and the U.S. Postal Service.⁶⁹

1973 Section 504 of the Rehabilitation Act

- The Rehabilitation Act is a law, and it bans discrimination on the basis of disability by recipients of federal funds. This law was modeled after previous laws banning race, ethnic origin, and sex based discrimination. For the first time, it addresses the segregation of those with disabilities as discrimination, and viewed the disabled as a minority group.⁷⁰ This class status concept has been important in the development of accessibility regulations, which have been built upon as the laws develop. May 4, 1977 is when official Section 504 regulations were issued, and these regulations formed the basis for the Americans with Disabilities Act.⁷¹

1973 Access Board Established

- The Access Board is an independent federal agency, which is responsible for enforcing the ABA through complaints. It was originally established to enforce access to federally funded sites, but is now a leading source of information on accessible design. They develop and maintain design criteria for the built environment, and provide assistance for training others on these requirements of accessible design.⁷²

1984 Uniform Federal Accessibility Standards (UFAS)

- The UFAS is the first officially authorized national standard that mandated accessibility application conditions as well as design standards.⁷³ The design requirements were developed under the ABA and for the most part, apply to facilities built with federal money. The UFAS can be enforced in two ways: one being the Access Board through complaints, and the other when it is used in place of the ADA by local government where it is enforced through private suit.⁷⁴

1988 Amendment to the Fair Housing Act

- An amendment was made to improve enforcement mechanisms and to include disability anti-discrimination provisions to the Fair Housing Act.⁷⁵

1990 Americans with Disabilities Act

- The first version of the ADA was introduced to Congress in 1988 and was prepared by the National Council on Disability.⁷⁶ The ADA builds upon Section 504 banning discrimination on the basis of disability.

69 Goldsmith, Selwyn, *Designing for the Disabled: The New Paradigm*. (Royal Institute of British Architects: London, 1997)..

70 (Goldsmith 1997)

71 (Mayerson)

72 (Access Board)

73 (Goldsmith 1997)

74 "The American's with Disabilities Act of 1990, as Amended." Access Board. <http://www.access-board.gov/about/laws/ada.htm>

75 (Mayerson)

76 (Mayerson)

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2010 Revisions on the ADA

- In 2010 the Department of Justice published revised regulations for Title II and III of the ADA.⁷⁷

Americans with Disabilities Act (ADA) of 1990

A more in depth explanation of the ADA will help to establish what is necessary during the accessibility retrofit process. The ADA applies to every building in the U.S. and mainly concentrates on design guidelines catering to those who are blind, deaf, or wheelchair bound. It is important to remember that the ADA is a civil rights law, not a building code, so the guidelines do not vary state to state and all buildings must adhere to the standards set forth according to United States law.

There are five main sections that make up the ADA, and they cover the key areas persons with disabilities have legal rights.

Title I: Employment

- According to the ADA Handbook, the purpose of Title I is to make sure that qualified individuals with disabilities are protected from discrimination on the basis of disability.

Title II: Public Services

- This Title addresses the right to equal access of public services by those with disabilities. The purpose is to prohibit discrimination on the basis of disability in all services, programs, and activities provided or made available by the local government or affiliate agencies. Services include but are not limited to: public houses, government buildings, public schools, universities, and libraries.

This can apply to Carnegie libraries, especially those that still operate as public libraries.

Title III: Public Accommodation

- No individual shall be discriminated against on the basis of disability in the enjoyment of public accommodations. This title mandates the accessibility of all services, even those privately owned, which can include restaurants, bars, movie theatres, places of lodging, retail stores, and social service centers.

This can also apply to Carnegie Libraries, as many of them have been adapted for new uses but still serve the public in one way or another.

Title IV: Telecommunications

- This title amends the Communications Act and states that the telephone companies must provide the speech impaired and hearing impaired with devices to aid their telephone use. This title also specifies that closed captioning must be included on TVs thirteen inches or larger.

⁷⁷ "2010 ADA Standards for Accessible Design." Department of Justice. <http://www.ada.gov/regs2010/2010ADASTandards/2010ADASTandards.pdf>.

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Title V: Miscellaneous Provisions

- This title covers supplemental regulations not specifically covered in the other titles. Examples include:

State Immunity: In most states, individuals cannot sue the state agencies or affiliates unless they agree to be “sue-able.” The ADA explicitly states that they cannot claim immunity from ADA related legal issues.

Retaliation: This protects individuals with disabilities who successfully sue a company, agency, or other entity. No threatening remarks can be made on either side.⁷⁸

Historic Buildings and the ADA

When it comes to “grandfathering” a historic building element into current ADA requirements, there are a few key dates that need to be remembered. Grandfathering can be defined as, for example, allowing a staircase to remain unaltered when it is too steep because it was built before the ADA Accessibility Guidelines took effect. Adapting historic buildings to become compliant with the ADA is not always as easy as grandfathering them in, but grandfathering to avoid building updates is not suggested or the best practice. The most important thing to remember is that all people deserve the same experience in the building and should not be limited by physical barriers. An important date to be aware of is January 26, 1992, when Title II’s accessibility requirements for new construction and alterations took effect. All buildings built after this date, need to be fully compliant and all buildings built before need to make alterations and adaptations to the furthest extent technically feasible.⁷⁹ The 2010 revisions of the ADA officially went into full effect March 15, 2011. These revisions address topics such as hotel reservation policies, new construction, alterations, program accessibility, and barrier removal are effective as of March 15, 2012.⁸⁰

Buildings built before January 1992 are referred to as “pre-ADA” facilities and are required to remove physical barriers to the best of their abilities using the ADA standards and guidelines or the UFAS. These pre-ADA buildings can also provide a modified program access, which allows building owners to move goods and services to an accessible location without making major architectural alterations. Buildings built after this date must be readily accessible and usable by persons with disabilities and must be in strict compliance with the ADA standards and guidelines.⁸¹ Historic buildings must comply with the ADA guidelines to the fullest extent possible by removing physical barriers. Only after they have tried all possible options, can they claim compliance would be “technically infeasible” and grandfather that element.

78 “Information and Technical Assistance on the Americans with Disabilities Act.” Department of Justice. <http://www.ada.gov/>.

79 “ADA Best Practices Tool Kit for State and Local Governments.” Department of Justice. <http://www.ada.gov/peatoolkit/toolkitmain.htm>.

80 (“2010 ADA Standards for Accessible Design”)

81 (“ADA Best Practices”)

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ADA Accessibility Guidelines (ADAAG) and the ADA Standards

The ADA Standards for accessibility design refer to the requirements necessary to make a building or facility physically accessible to those with disabilities. They identify what features need to be accessible and include all major requirements of the ADA that must be followed.⁸² The ADAAGs are similar in content to the Standards in many ways, but they are different when it comes to following the law. The United States Architectural Transportation Barriers Compliance Board issues the ADAAGs, and they lay out more technical accessibility design guidelines. It is important to note that the Standards are the parts of the ADA that are required, and guidelines are suggestions on how to achieve accessibility for that building element.⁸³

How is the ADA Enforced?

As stated, the ADA is legally required in every building in the U.S., but it is enforced on a case-by-case basis as issues arise. When buildings are remodeled, added to, or built as new construction, there are building codes and local ordinances that are followed that specify building requirements. Generally, the inspector approves the building according to code requirements and is not necessarily following specific ADA Standards. Lawsuits can arise if a building is not in compliance with the ADA, and this usually happens as issues surface because of existing physical barriers that prevent someone from accessing the goods and services of the building.⁸⁴ There is an official checklist provided in the appendix that walks through the building elements to ensure they are compliant and highlight possible areas that need improvement.⁸⁵

Building Codes

Building codes are technical documents that include more specific requirements and details with regards to dimensions, measurements, and other accessibility specifications. Major building codes, such as the International Building Code (IBC) and the Uniform Construction Code (UCC), provide regulations for the built environment including life safety and accessibility design guidelines.⁸⁶ These codes were created to help standardize regulations on how to build buildings. New construction, alterations, additions, and changes in use usually trigger the need for a new building inspection to ensure it is compliant with current local code. Building codes are addressed, in this guidebook, to make users aware that they are a part of the accessibility retrofit process as well, and to aid in understanding the difference between codes and the ADA.

82 ("2010 ADA Standards for Accessible Design")

83 ("ADA Best Practices")

84 ("2010 ADA Standards for Accessible Design")

85 ("ADA Best Practices")

86 ("Building Codes")

Chapter 3

Where are Local Codes Found?

There is no singular code used throughout the country that applies to every building. Most states have adapted either the IBC or UCC (or parts of both) to create a state specific code. For example, Oregon has modified the IBC to create the Oregon Structural Specialty Code (OSSC).⁸⁷ Most local ordinances can overrule or contain exceptions to the statewide code, which creates another layer of complexity to state codes such as the OSSC. Ultimately, local building code inspectors decide on appropriate modifications and decisions when it comes to exceptions for historic buildings.

Local codes and ordinances can usually be found on the city or state website where the building is located. When working on an accessibility retrofit, it is important to find the local codes, ordinances, and design review requirements that will apply to your building. Most building designs, proposals, or alterations must pass a code review and historic design review to ensure changes are in compliance. Most local building inspectors will help clarify what is required for that area, especially with regards to historic buildings such as these Carnegie libraries.

How the ADA and Building Codes Apply to Historic Buildings

The ADA and most codes roughly define historic buildings as those either on, or eligible for the National Register of Historic Places.⁸⁸ Accessibility laws and building codes accommodate for “designated historic” buildings and usually state that they must comply with regulations to the furthest extent technically feasible, allowing some for flexibility. Buildings that do not fall under the designated historic definition generally need to be fully compliant depending on local requirements. The ADA and most codes only require that designated historic buildings remove as many physical barriers as possible, as long as they provide alternative access to goods and services in the building. This, however, is not always the best practice, as making the building accessible is recommended so everyone can have the same experience and access to the building.

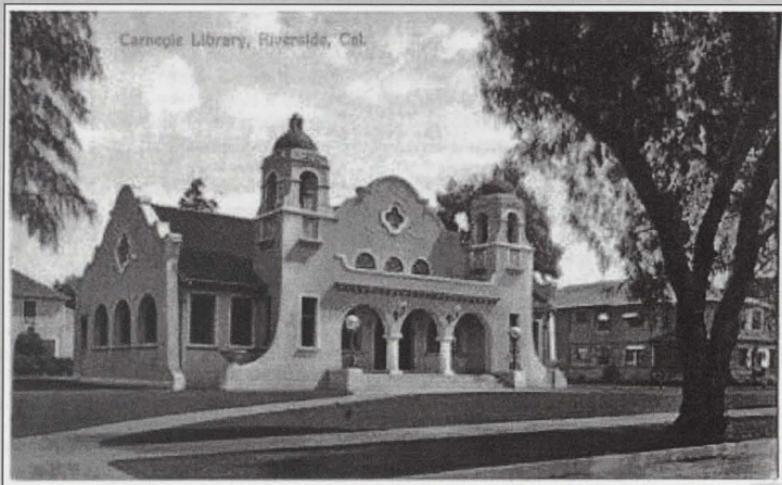
Conclusion

Overall, there is a lot involved when it comes to accessibility laws and building codes. This chapter teaches the basics addressing what the ADA is, how it works, and how accessibility laws differ from building codes. This is all important information, and is intended to introduce these complicated regulations to people who may not be familiar. In addition to reading this chapter, it is essential to clarify questions and consult professional architects, building inspectors, or preservationists to ensure full compliance before starting a project.

⁸⁷ “Building Codes Division.” The State of Oregon. <http://www.oregon.gov/Pages/index.aspx>.

⁸⁸ (“2010 ADA Standards for Accessible Design”)

CHAPTER 4 VISUAL FIELD GUIDE



Postcard of Riverside CA Carnegie library, grant awarded in 1901.⁸⁹

⁸⁹ "100 Years Carnegie." Carnegie Corporation of New York. <http://www.departments.bucknell.edu/history/carnegie/carnegie/otherbuild2.html>.

Introduction

This chapter contains the technical information necessary to understand how to make Carnegie libraries more accessible. Four libraries in Oregon were visited, documented, and analyzed to provide retrofit examples and solutions from other buildings. Interviews with building managers and owners also shed light on common challenges with regards to accessibility. Each library was chosen based on a variety of ownership, use, condition/integrity, and accessibility challenges. This criteria provided a wide range of examples that relate to many Carnegie libraries across the country.

Each example, whether it is a ramp or a bathroom remodel, displays information necessary for a retrofit. Such topics include applicable ADA Accessibility Guidelines (ADAAG) and ADA Standards, images as a visual aid, and the impact the changes had on the historic integrity of the building. Following each example is a general page of ADA requirements for that building element, and a range of possible solutions building owners can implement based on financial and spatial abilities.

Integrity

The integrity of each building described in this section was determined through analysis according to the National Park Service definition of the seven aspects of integrity. These aspects are explained in the appendix, and refer to the levels of original material, setting, and design intent still on the building.

Condition

The condition of each building was determined after visiting the site and analyzing the materials and various building elements. Both integrity and condition were rated as *poor, good, fair, or excellent*.

\$\$\$

The range of possible solutions building owners can implement are represented with a varying degree of dollar signs to indicate the relative cost of each option. These were determined through research, but need to be investigated further by the building owner. The intent is to give a general overview of the financial commitment for each option.

TTTT

Hammers are displayed next to the dollar signs to indicate the amount of construction and physical impact the alteration will cause. These are historic buildings, so considering the level of construction and impact a certain accessibility element will have on the resource is important before making final decisions. The number of symbols used were determined through basic research, and are intended to give a general overview of physical impact.

Example Library 1

Hood River Carnegie Library: Public Library



The Hood River Library. Taken by Stacey Henderson 2013

Date Built:

1913-1914

National Register Listed:

Yes- 1998⁹⁰

Use:

Special District Public
Library

Manager:

Hood River County
Library District

Square Footage:

Historic Building 7,190 sf
Total 18,878 sf⁹¹

Accessibility Challenges

According to the head librarian, there are no main accessibility challenges because of the recent work in 2003. The updates and addition provide an accessible entrance, restrooms, parking, and an elevator. Many Carnegie libraries have additions, and they provide a good opportunity for accessibility accommodations. This library provided many examples of how to make these buildings more accessible.

Condition: Good/Excellent

Integrity: Fair

Additions/ Upgrades

- 1969- Major upgrades to building including renovating auditorium in basement to a children's library
- 1993- More updates
- 2003- Major addition (over 10,000 sf)

Historic Character Defining Features

- Original Windows
- 2 stories (above ground basement and first floor)
- High windows (over shelving)
- Main entrance (with stairs and lamps)
- Masonry exterior

⁹⁰ Krussow, Patricia and Sally Donovan. "Hood River County Library and Georgiana Smith Park: Hood River, OR." *official National Register Nomination*, accepted 1998.

⁹¹ A large part of this building information was learned through the interview with the head librarian.

Example Library 2

Medford Carnegie Library: Event Space



Date Built:
1912

National Register Listed:
Yes- 1980

Use:
Offices and Event Space

Manager:
City of Medford

Square Footage:
Historic Building 2,771 sf
Total 6,215 sf ⁹²

Medford Library. Taken by Stacey Henderson 2013

Accessibility Challenges

In the 1980's, ramps and an elevator were added to make the building more accessible. The elevator was added in the front of the building where the grand staircase used to be. This had a large impact on the entrance and caused irreversible damage to the original stairs.

Condition: Good

Integrity: Fair

Additions/ Upgrades

1951- Addition to the South
1980(s)-Elevator and exterior ramps added.
2005 to present- TARP grants have allowed for energy retrofits

Historic Character Defining Features

- 2 stories (above ground basement and first floor)
- High windows (over shelving)
- Main entrance (with stairs and lamps)
- Masonry exterior
- Coved ceiling joint

⁹² Benson, John. "Medford Carnegie Library: Medford, OR." *National Register Nomination*, accepted 1980.

Example Library 3

Salem Carnegie Library: Oregon Civic Justice Center



The Salem Library. Taken by Stacey Henderson 2013

Date Built:
1912

National Register Listed:
No

Use:
Houses: Law School,
Oregon Civic Justice
Center

Manager:
Willamette University

Square Footage:
N/A

Accessibility Challenges

Willamette University obtained this building in 2003 and added a vertical circulation tower to the back in 2007. This addition added an elevator, stairs, and created the only accessible entrance into the building. Adding vertical circulation on a secondary facade prevents the work from permanently impacting the interior structure and does not visually alter the historic look of the building.

Condition: Excellent

Integrity: Fair

Additions/ Upgrades

- 1971- Changes from being a library to the YWCA (YWCA also occupied the building next door.)⁹³
- 2003- Willamette University takes over
- 2007- Renovations to restore part of original building and modernize facilities (vertical circulation installed)⁹⁴

Historic Character Defining Features

- 2 stories (above ground basement and first floor)
- High windows (over shelving)
- Main entrance (with stairs and lamps)
- Masonry exterior
- Coved ceiling joint

93 "Oregon Civic Justice Center." Council of Independent Colleges: Historic Campus Architecture Project. <http://hcap.artstor.org/cgi-bin/library?a=d&d=p2249>.

94 This information was learned through talking with the building managers.

Example Library 4

Albany Carnegie Library: Public Library



The Albany Library. Taken by Stacey Henderson 2013

Date Built:
1914

National Register Listed:
Yes- Part of Monteith
Historic District⁹⁵

Use:
Public Library

Manager:
Albany Public Library
System

Square Footage:
N/A

Accessibility Challenges

The only two major alterations that have occurred on this building are the replacement of the carpeting and some of the lighting fixtures. This building retains most of the original furniture including bookshelves, tables, and the checkout desk. This library presented a good opportunity to analyze how the accessibility changes would impact the high level of historic integrity.

Integrity: Excellent

Condition: Excellent

Additions/ Upgrades

No additions have been added, the major alterations include new mechanical equipment, carpet, and lighting.

Historic Character Defining Features

- 2 stories (above ground basement and first floor)
- High windows (over shelving)
- Main entrance (with stairs and lamps)
- Masonry exterior
- Coved ceiling joint

⁹⁵ Monteith District National Register Nomination.

Building Approach

When serving the public, whether it is retail, a restaurant, government building, or a library, there must be accessible routes for everyone to enter the building. An accessible route refers to the parking accommodations, pathways, slope, material, width, and whether or not there are stairs leading into the building. Accessible (designated) parking is important because it allows a patron to park in a spot with more allotted space to maneuver in and out of the car, and there should also be curb cuts included (if on the street) to ease access from car to sidewalk. For those who are ambulant disabled a pathway made of uneven material such as gravel or grass can be difficult to navigate and balance on. The goal is to make these buildings as accommodating as possible for all, whether they are pushing a stroller or a walker, or if they face other challenges.

It is important to understand what is required by the ADA Accessibility Guidelines, as well as local state and city ordinances when it comes to accessible building approaches. This chapter will focus on what the ADA requirements are as local requirements can vary between cities and ordinances. ADAAG section 4 addresses many of these challenges including 4.3 Accessible Routes in Buildings, 4.4 Protruding Objects, 4.6 Parking and Passenger Loading Zones, 4.7 curb ramps, and a special designated section 8 addressing Library design. Section 8, Library Design states that libraries must comply with all basic requirements of section 4, while addressing issues specific to Libraries such as check out desks and study areas.

Accessible approaches are a common challenge with Carnegie libraries, and there are many things that can be done to alter the building site within the means and capabilities of those who manage it. Part of the *Notes on the Erection of Libraries* addressed the requirement for the building site to be large so it can accommodate future additions to the library if needed.⁹⁶ As a result, some buildings have long pathways leading from the street/parking to the building, making it difficult for some with physical limitations. This section will discuss a range of the solutions various libraries have implemented to create accessible routes, and how they went about doing so.⁹⁷

96 (Bobinski 1969, 221)

97 ("ADA Title III Regulations")

Hood River Challenge: Sloped Site



Site of the Hood River Library
Altered Google Earth image, 2013.

Site Challenges

It is important to ensure your building has accessible routes to the entrances. At Hood River, the site is sloped, and therefore creating routes that are level and easy to navigate is important. The two easiest accessible routes (route 1&3) are on the South side of the building, one leading to the historic library, and one to the addition. The North side of the building is not easily accessed except from the corner of 6th and Oak street (route 2), and this option is completely uphill as one heads towards the building. Route 3 is important as it allows users to enjoy the historic park in an easily accessible way.

Hood River

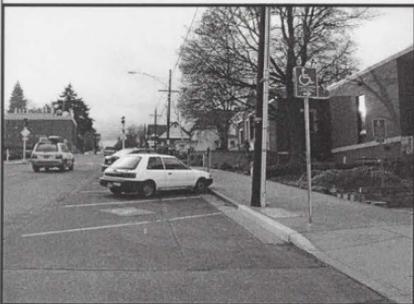
Strategy: Designated Accessible Parking



Accessible Parking Spots
Photo Taken by Stacey Henderson 2013



Pavers and pavement were used, it's important to pay attention to level surfaces when changing materials. Photo taken by Stacey Henderson 2013



One accessible parking spot on the street.
Taken by Stacey Henderson 2013

Issue Being Addressed:

The parking at Hood River is on a slope which can be difficult to navigate.

Applicable ADA Standards and Guidelines

- Standard: Section 36.304- Removal of Barriers
- Standard: Section 36.406- Historic Preservation
- Standard: Section 36.305- Alternatives to Barrier Removal
- ADAAG: 4.6- Parking and Passenger Loading Zones
- ADAAG: 4.7- Curb Ramps⁹⁸

Solutions Implemented:

- Two level spots were created on the sloped site as a place to park with a direct route to the entrance. (Implemented 2003)
- Regrading the landscape to incorporate the level spots and pathway.
- Built a retaining wall.
- Paving of the new spots- As seen here, paving blocks and pavement were used.

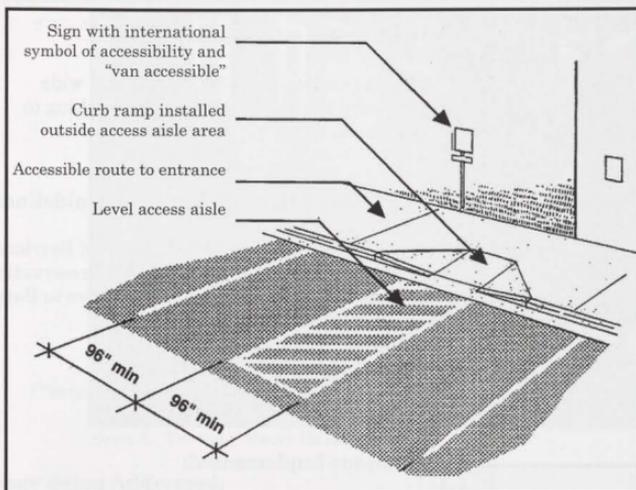
Impact of these Changes:

- Altering the original landscape.
- Introducing new pavement and materials
- Does not impact the existing historic fabric of the building.
- Designating parking spots can be one of the most affordable ways to ensure patrons with disabilities have direct access to the building
- The original landscape is already altered from new streets, sidewalks, etc, and the historically significant park on the North side of the building is not affected by these parking spots.

98 ("2010 ADA Standards for Accessible Design")
("ADA Title III Regulations")

ADA: Parking Requirements and Solutions

Accessible Parking Diagram⁹⁹



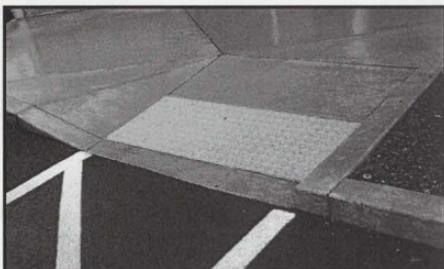
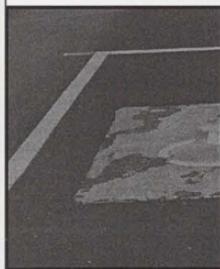
Spaces shall be minimum 96" wide with an aisle of 96" for maneuvering in and out of car.

Parking should be located on the shortest accessible route to main accessible entrance.

Signage to designate accessible parking is important.

Curb ramps complying with ADAAG 4.7 shall be installed wherever an accessible route

Possible Solutions



Images taken by Stacey Henderson, 2013.

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Repaint parking lines to incorporate larger accessible parking spots.¹⁰⁰

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Add accessible parking signs to designate spot. (After repainting lines)

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Incorporate a curb cut next to newly designated spots to allow patrons access from the street to the sidewalk.

\$\$\$\$TTTTT

Regrade part of the site to incorporate new accessible spots and pathways.

⁹⁹ ("Checklist for Existing Facilities")

¹⁰⁰ ("2010 Standards for Accessible Design", 45)

Hood River Strategy: New Pathways



Route 1: added 2003
Taken by Stacey Henderson 2013

Issue Being Addressed:

The site needs a level 36" (minimum) wide pathways leading from accessible parking to entrances.

Applicable ADA Standards and Guidelines:

- Standard: Section 36.304- Removal of Barriers
Standard: Section 36.406- Historic Preservation
Standard: Section 36.305- Alternatives to Barrier Removal
ADAAG: 4.3 Accessible Route
ADAAG: 4.4 Protruding Objects
ADAAG: 4.5 Ground and Floor surfaces¹⁰¹



Route 2: added 2005
Taken by Stacey Henderson 2013

Solutions Implemented:

- R1. *Regrade the slope:* with straight, level, direct path to the accessible entrance.
R2. *New route:* was added to the North of the building, through the historic park to the library.

This allows more people to enjoy the historic park and access the library from the North.

Impact of these Changes:

- R1. *Low impact to landscape:* This area of the land had already been changed from the historic configuration. This path also does not affect the historic fabric of the building.
This was a good way to create the most direct route to the building.
R2. The pathway divides the original shape and topography of the park, impacting the original design intent.¹⁰²

101 ("2010 ADA Standards for Accessible Design")
102 (Krussow and Donovan 1998)

Hood River Strategy: New Pathways Continued



Route 3. Taken by Stacey Henderson 2013

Issue Being Addressed:

Level change to main entrance.

Applicable ADA Standards and Guidelines:

Standard: Section 36.304- Removal of Barriers

Standard: Section 36.305- Alternative to Barrier Removal

Standard: Section 36.406- Historic Preservation

ADAAG: 4.3 Accessible route

ADAAG: 4.4 Protruding Objects

ADAAG: 4.5 Ground and Floor Surfaces

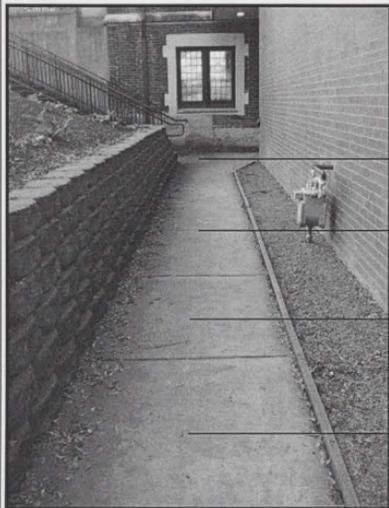
Solutions Implemented:

- Regrade the site to lead from the sidewalk to the main entrance.
- Although the street and this path is sloped, it is wide, and leads directly from parking to the door.

Impact of these changes:

- The area in front of the historic library building has already been altered to incorporate a porch that used to be there, so it is not historic landscape.
- *Impact of historic building fabric:* The new landscaping may of impacted the exterior of the building by adding the new land.

ADA: Path Requirements and Solutions



Taken by Stacey Henderson 2013

Minimum clear width of an accessible route is 36".

Ground floor surfaces shall be stable, firm, and slip resistant.

When path is made of precast concrete slabs or paving blocks, ensure they are laid carefully with flush joints.

Uneven paved surfaces can be a tripping hazard to many.

It is advisable to have a corrugated finish on paving slabs, it helps add texture and a non slip surface.¹⁰³

Turn around space by door and stairs.

No protrusions or overhead objects

Level Surface

Smooth, slip resistant material

Possible Solutions



Images taken by Stacey Henderson 2013



Rubber tread pavers may be used where ordinary concrete could be slippery.¹⁰⁴



Brick pavers are acceptable when surfaces and joints are flush. A rough and porous brick is preferred to smooth.¹⁰⁶



Textured concrete helps to add a slip resistant surface to the pathway.¹⁰⁵

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Signage to the most direct route

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Repave path with more stable materials.

103 (Goldsmith 1976, 163)

104 "New Again Rubber Pavers and Tiles." The Matt King. Image: http://thematking.com/business_industry/industrial/new-again/pavers-tiles.htm.

105 "Tampa Brick Pavers." Deco Pavers and Landscape Design. Image: <http://www.decopavers.com/>

106 (Goldsmith 1976, 163)

Salem Challenge: Original Stairs at Main Entrance



Taken by Stacey Henderson 2013

The ADA, as well as many building codes, dictate guidelines and regulations for safe stair design. There is a certain minimum height and width the stairs must achieve to make them comfortable to climb, and there needs to be handrails to help with balance. Often times, stairs on historic buildings were not built according to current ADA and code requirements. Usually they are too steep, the treads are too narrow, or there are unsafe handrails.

Most of the Carnegie libraries have stairs leading to the main entrance that were built at time of construction, and could benefit from slight alterations to make them more accommodating. If a large number of alterations are required, then in order to preserve the historic integrity and fabric of the building it is advisable to seek accessible entrances on secondary facades. In many municipalities, existing and historic stairs can be kept through the renovation if they are not altered or if it is impossible to design new stairs in the existing stair location, but this can vary between situations.

The Salem Library appears to have repoured new stairs to reach the entrance, visible by the change in color of concrete half way through the stairs. There are also compliant handrails added that are still cohesive with the building composition.

Salem

Strategy: Modify Existing Stairs



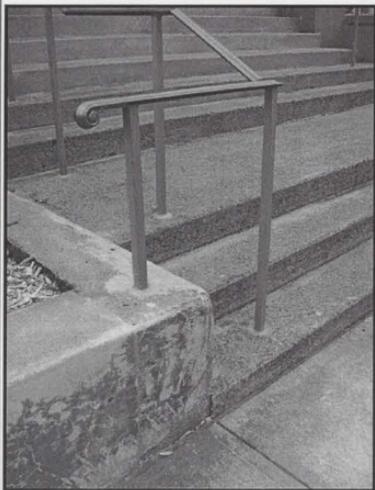
An awning was added to cover the small platform at the top of the stairs. This helps create a protected space from the rain, and keeps the surface dry to prevent slipping. Taken by Stacey Henderson 2013

Issue Being Addressed:

Stairs need to be updated to current regulations.

Applicable ADA Standards and Guidelines:

Standard: Section 36.304- Removal of Barriers
Standard: Section 36.305- Alternatives to Barrier Removal
Standard: Section 36.406- Historic Preservation
ADAAG: 4.9 Stairs
ADAAG: 4.11 Platform Lifts (Wheelchair Lifts)
ADAAG: 4.14 Entrances¹⁰⁷



New railings were installed according to current ADA regulations. Their design is minimal, and the materials and style do not detract from the library facade. Taken by Stacey Henderson 2013

Solutions Implemented:

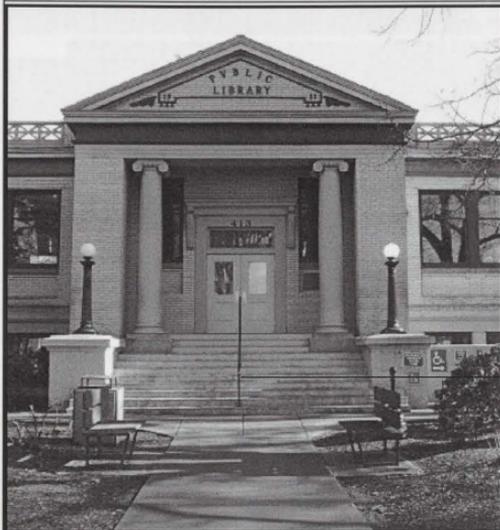
- *New railings*- that extend past the top and bottom of the stairs according to ADAAG 4.9.
- *New paved stairs*- unsure of when this was done, but it was probably to replace deteriorating steps with ones compliant with current rise-run ratios.
- *Awning*- Provides protection for users from the rain, while helping to keep that surface area dry to prevent slipping. The design is also compatible with the existing look of the facade, as to not detract from the historic fabric.

Impact of these Changes:

- Repouring the landing and front stairs impacted the historic integrity of the building by removing the original fabric. This change is not reversible.
- It is ultimately important to ensure that building elements such as stairs are useful, accommodating, and safe, which can be done by minor changes.
- Awning can often create the most visual impact so it is important to add one that is consistent with the existing building design.

¹⁰⁷ ("2010 ADA Standards for Accessible Design")
(ADA Title III Regulations)

ADA: Accessible Stair Requirements



Images taken by Stacey Henderson 2013

It is important for outside stairs to be illuminated by enough lighting fixtures so they are visible and safe for users.

The doors should not open on to the first stair, but rather a landing.

When possible and visually compatible, make the tread and riser contrast to help with those who have trouble seeing.

Handrails must be on either side of the stairs, and down the middle when the stairs are wide. This helps those walking down the middle of the stairs.

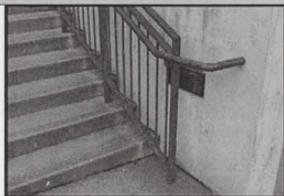
Stairs must have uniform tread widths and riser heights.¹⁰⁸

Possible Solutions



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There are various ways to add traction to the existing stairs. Doing so allows the preservation of the existing stairs (if compliant) while making them safe with minimal impact. Above: traction created in the concrete.



\$\$\$\$

New compliant handrails can be added to the staircase that match the existing character of the building. It is important to have handrails on either side of the stair, and if necessary, one down the center. Sometimes, handrails can be added next to historic railings.



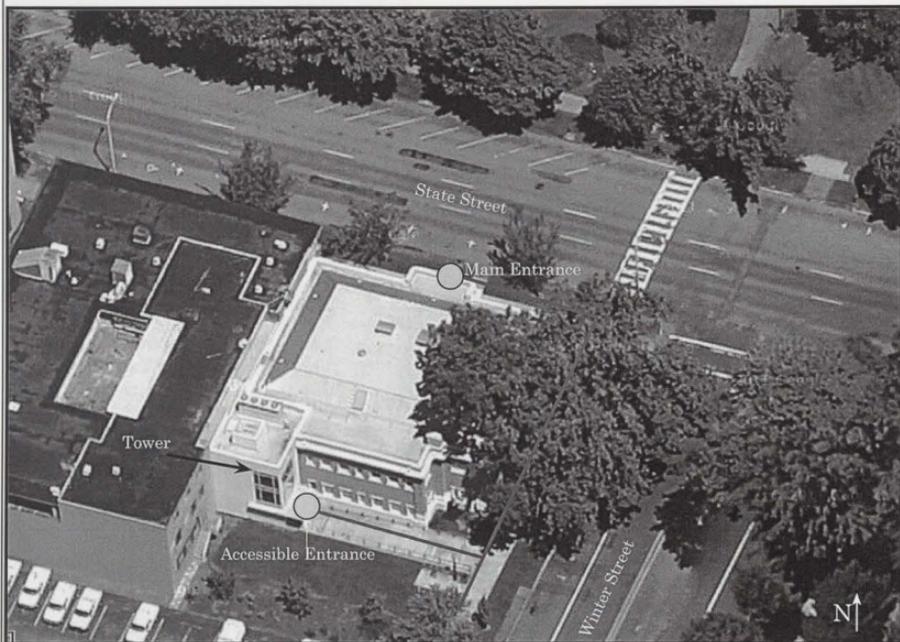
\$\$\$\$\$

Wheelchair lifts can be installed next to stairs, depending on the context. They take up less space than a ramp, and create an equal experience for entering the building. They need to be considered carefully after all other options, because they can be visually and physically intrusive.¹⁰⁹

¹⁰⁸ ("ADA Title III Regulations)

¹⁰⁹ "Wheelchair Platform New Zealand." webbranks. http://www.independence.co.nz/our_products_platform-lifts_vertical.html.

Salem Challenge: No Accessible Entrance and Level Changes



Site of the Salem Library: Altered Google Earth Image, 2013.

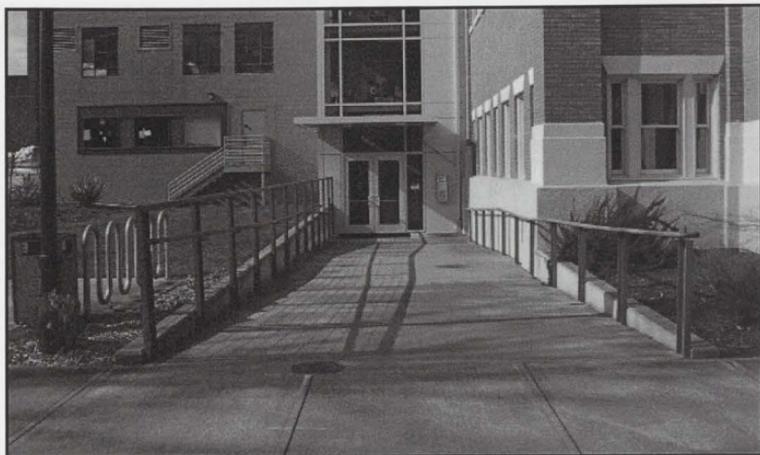
As stated before, this building only had one original entrance and it is not accessible by wheelchair. A successful solution was implemented on the south facade as shown in the image, to incorporate an accessible entrance in a minimal way. A straight, gradual, relatively short ramp was installed on the South facade, leading to an accessible entrance and vertical circulation tower. (The vertical circulation tower includes an elevator and staircase that go through all floors.)

This ramp did not affect any historic landscape on the site, and minimally impacted the historic fabric of the building. There is no designated accessible parking on the streets surrounding the building, so the routes still have some barriers depending on where the building users park.

The building has an above ground basement and first floor, making it so there is a level change no matter how you enter the building. This is a common characteristic with Carnegie libraries, and the vertical circulation tower is a good permanent solution.

Salem

Strategy: Ramp to New Entrance



Taken by Stacey Henderson 2013

Issue Being Addressed:

A major obstacle here is the inevitable level change upon entering the building, and the main entrance with stairs.

Applicable ADA Standards and Guidelines:

Standard: 36.304 Removal of Barriers
Standard: 36.305 Alternatives to Barrier Removal
Standard: Section 36.406- Historic Preservation
ADAAG: 4.5 Ground and Floor Surfaces
ADAAG: 4.8 Ramps

Solutions Implemented:

- Accessible entrance was added on the South facade that leads directly to the vertical circulation tower for the building. A wide ramp was added with handrails.

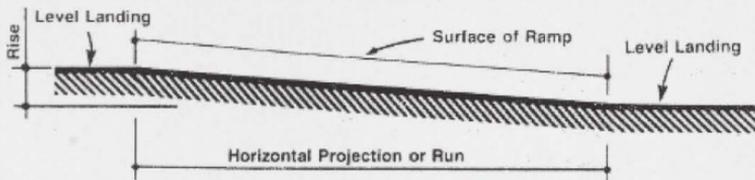
Impact of these Changes:

- The impact of this ramp, the handrails, and retaining walls are minimal to the existing fabric of the building. Considering it adds a direct, accessible route to the building, and aids with interior vertical circulation.¹¹⁰

¹¹⁰ ("2010 ADA Standards for Accessible Design")

ADA: Ramp Requirements and Solutions

Ramp Requirements



Ramp Diagram: ADAAGs Section 4.6 Figure 16

Required Maximum Slope 1:12: (one inch of rise to every twelve inches of ramp)

- Existing ramps that are steeper than 1:12 may be OK if all other options are explored.
- If slope of a ramp is between 1:12 and 1:16: maximum rise = 30 inches
maximum horizontal run = 30 feet
- If the slope of the ramp is between 1:16 and 1:20: maximum rise = 30 inches
maximum horizontal run = 40 feet

Minimum Width: 36"

Landings: Shall be at the beginning and end of each ramp.

Handrails: If a ramp is longer than 72" it shall have handrails on both sides.

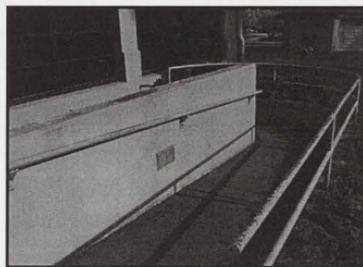
Possible Solutions



Taken by Stacey Henderson 2013

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Portable ramps can be provided for shorter heights and distances if all other options have been explored.¹¹¹



Taken by Stacey Henderson 2013

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Addition of a permanent ramp is a good way to accommodate for level changes and slopes on the site. They do cause a permanent impact on the site effecting the historic integrity.

¹¹¹ "Wheelchair Ramps and Lifts: Products." Handi Ramp. <http://www.handiramp.com/wheelchair-ramp.htm>.

Albany

Challenge: No designated parking or accessible path



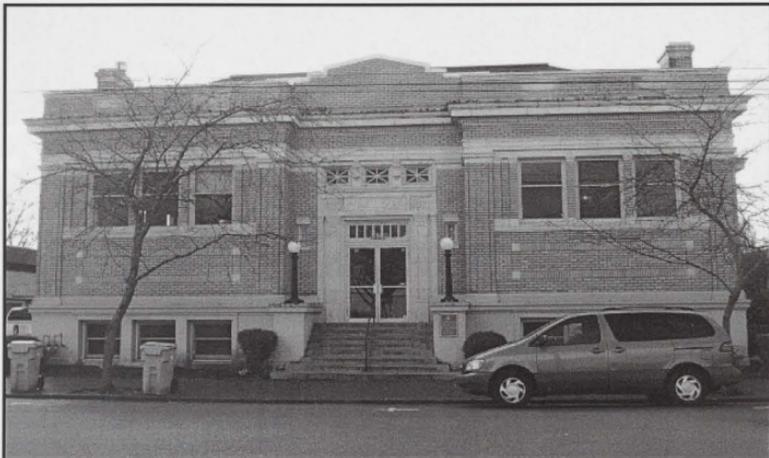
Site of the Albany Library: Altered Google Earth Image, 2013.

Site Challenges

The building is located on a corner lot, lined with street parking on Ferry and 3rd Avenue. A few parking spots sit at the south facade of the building, but they are not labeled for the public.

There are only curb cuts on the corner as labeled in the image, which is far away from the main entrance. Employee parking spots appear to be next to the secondary entrance as labeled on the image. The yellow dot next to the building on Ferry street is the location of the main entrance, and the second yellow dot near the parking is a secondary entrance.

Albany Strategy: Install Accessible Parking



Taken by Stacey Henderson 2013

Main entrance and primary facade on Ferry street.

Although there are stairs at all of the entrances, it would still be helpful to designate accessible parking spots near some of the entrances. For those who can walk up stairs, but struggle with movement, it is important to make sure they have the shortest route possible to the entrance to ease use.



Taken by Stacey Henderson 2013

Suggestions for Ferry Street:

Curb cuts could be installed in front of this main entrance.

Suggestions for south facade parking:

Add signage for public- these could become accessible parking spots. They are in an alley, and on a level surface to the side entrance, and the main entrance. This creates a short accessible route.

ADA guidelines that apply:

- 4.3 Accessible route
- 4.4 Protruding Objects
- 4.5 Ground and Floor Surfaces
- Section 36.304- Removal of Barriers
- 4.6- Parking and Passenger Loading
- 4.7- Curb Ramps¹¹²

112 ("ADA Title III Regulations")

Building Entrances

Public buildings, whether government, restaurants, or retail, need to accommodate for accessible entrances. An accessible entrance can include the floor materials, threshold height, door width, door weight, and various door hardware such as automatic door buttons. These are all important elements that aid in the use of the building. Historic wood doors can often times be heavy to push and pull, so automatic door buttons allow those who may not have the strength or stability, to still open the door. Making sure the threshold is the proper height, and installing slip resistant materials, ensures that patrons will not slip or trip when entering the building. These elements can be especially tricky to those who struggle with walking or have their hands full as they enter the building.

When looking at entrances with regards to code regulations and ADA requirements, it is important to understand what is required by your local state and city ordinances. As previously stated, this book focuses on ADA guidelines and standards, as local codes vary too much. ADAAG section 4 addresses many of these technical entrance details, including (for example) door width and height requirements. ADAAG Section 8, Library Design, states that libraries must comply with all basic requirements of Section 4 while addressing issues specific to Libraries such as check out desks and study areas.

The entrances can be one of the most challenging physical barriers to overcome with regards to making your building more accessible. Many, if not most, of the Carnegie libraries have inaccessible entrances that present a challenge when trying to update the building while still preserving its appearance. The "Notes on the Erection of Library Buildings" dictates that most libraries shall have two stories, and the lower level needs to have windows. This creates an unavoidable level change no matter how a patron tries to enter the building. Most Carnegie libraries have a staircase leading to the main entrance, and then more stairs leading to the first floor or basement once inside.

In this chapter, we have already addressed how to adapt stairs, and add ramps and accessible pathways to the building, so now we are going to discuss how to ensure the entrance opening itself is compliant with ADA regulations and accessible. With regards to the preservation of the exterior of the building this is one of the most important character defining features, and heavy alterations will affect the whole look of the building. Every decision made needs to consider how the alteration will increase accessibility, and the impact it will have on the historic fabric of the building.

Hood River Challenge: Heavy Original Doors



Images taken by Stacey Henderson 2013

Hood River Doors

The original doors at the main entrance of the historic library are still intact, as well as the original doors at the basement level that use to go outside. These doors are significant to the integrity of the library and rich with character. They are 1-2 inches thick, made of wood, with panels and wood trim.

Often times, historic doors are not the same proportion in height and width as cited in regulations today, and they also may not include door hardware that is easy to operate or grab by today's standards. The doors at the Hood River Library are beautiful, but very heavy to open and close. This can be a challenge for those who have physical limitations and cannot grab handles or push heavy doors, as well as those who have their hands full.



Hood River

Strategy: New Door Hardware on Original Doors



Taken by Stacey Henderson 2013



Taken by Stacey Henderson 2013

Issue Being Addressed:

Historic doors and door openings can be too narrow or heavy to operate.

Applicable ADA Standards and Guidelines:

Standard: 36.304 Removal of Barriers
Standard: 36.305 Alternatives to Barrier Removal
Standard: Section 36.406- Historic Preservation
ADAAG: 4.13 Doors
ADAAG: 4.14 Entrances¹¹³

Solutions Implemented:

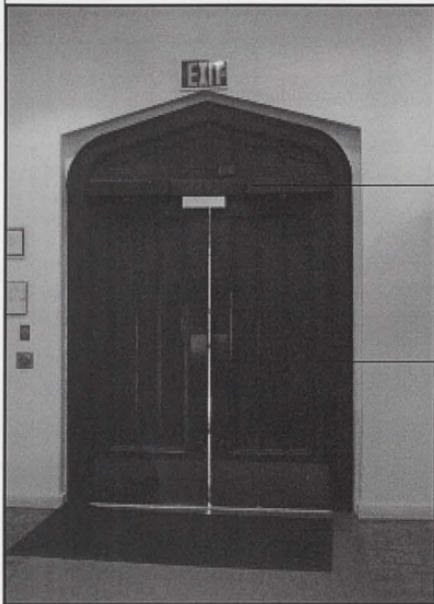
- Added automatic door hardware so those who need it can push a button to open the door.
- It is unsure if the handle on the outside is original, but it is easy to grasp and operable with a closed fist.
- On the interior there is a push panel in place of a handle. These are often used on fire doors to ease operation in case of an emergency.
- Other options for similar situations:
 - New hinges can be installed to ease the opening of the door.
 - Fire exit handles can be installed as seen in the image.

Impact of these Changes:

- Many of these alterations could be removed and would leave scars and a slight indentation.
- These adaptations allow for the retention of historic fabric and characteristics such as the door.

¹¹³ ("ADA Title III Regulations")
("2010 ADA Standards for Accessible Design")

ADA: Door Requirements and Solutions



Minimum clear width when doors are open is 32 inches.

Automated doors and power assisted doors: automatic door shall comply with ANSI A156.10.

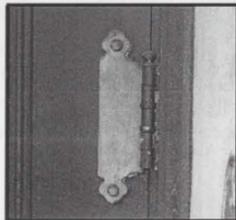
Door opening force generally needs to be the minimum opening force allowable.

Door Hardware- Handles, pulls, latches, locks, and other operating devices on accessible doors shall have a shape that is easy to grasp with one hand and not require tight grasping or twisting.

Thresholds shall not exceed 1/4"

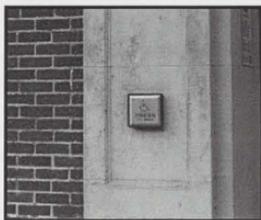
Look for additional life safety requirements on egress in the local building codes.¹¹⁴

Possible Solutions



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Alter door thresholds or adapt door hardware. Historic hardware can be retained in place, and to reduce door pressure, friction hinges can be retrofitted with ball bearing inserts.¹¹⁵



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Automatic door hardware: can be installed to existing doors to ease use. This is a more intrusive process, but still preferable to replacing historic doors as it allows the retention of historic fabric.



\$\$\$\$ T T T T

Replicating the historic doors with easier to operate doors is always an option, but it will be more costly, and more intrusive to the historic fabric and surround-

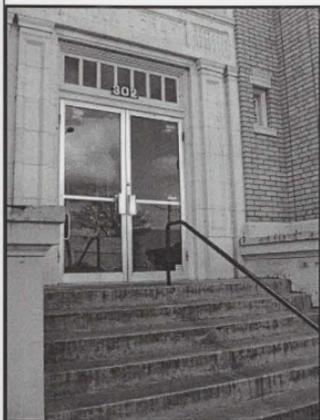
¹¹⁴ ("ADA Title III Regulations")

¹¹⁵ Jester, Thomas C. and Sharon C. Park. "Making Historic Properties Accessible." *Historic Preservation Brief 32* (1993), <http://www.nps.gov/hps/tps/briefs/brief32.htm>.

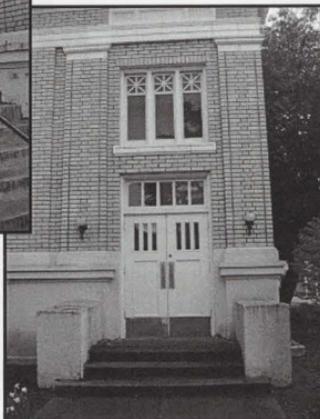
Albany

Challenge: No Accessible Entrances

Entrance 1



Entrance 2



Entrance 3



Entrance Challenges

Images taken by Stacey Henderson 2013

This library, similar to many across the country, was designed with no accessible entrances. Because of the above ground basement and the raised first floor, a level change is faced at every entrance.

The original doors remain on entrance two as seen in the image, but they have been replaced at the main entrance. The main entrance doors were replaced for various safety reasons as they are easier to open, and they are clear so those entering or exiting can see if there is a person on the other side of the door. The main doors open directly onto the stairs instead of a landing, so this visual is very important.



ALBANY Suggestions

Main Entrance



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Although this is not common, there are walkers specially designed to aid people with stairs. The library could provide some of these walkers for patrons and bring them out when needed. This would involve needing a sign out front, but is a possible solution for those who are mobile but struggle with stairs.¹¹⁶



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Automatic door hardware should be investigated. This could help those who can still use stairs, but may have difficulty or their hands full. Having the door open automatically would help reduce the difficult balancing needed to open the door while on the stairs.

Secondary Entrances

Building Assessment

This library had an assessment done to explore the best options for creating an accessible entrance. A vertical circulation tower on a secondary facade (West or South) was suggested. This is an advisable option, but also more expensive and impactful on the historic fabric and look of the building. In these situations free standing lifts and elevators are advised, as they create minimal connection and impact to the historic fabric.

Installing an entrance in the back as a part of the elevator tower would allow for installing an elevator and ground level entrance without altering interior structure.

Grants

Adding an elevator can be one of the most expensive accessibility alterations to the library. There are grants available to aid in the accessibility retrofit process. It is important to look up a grant that is most helpful to your specific situation and abilities, but they can help in installing things such as elevators. There are federal or private grants available.

ADA Guidelines that apply

Standard: 36.304 Removal of Barriers
Guideline: 4.13 Doors
Guideline: 4.14 Entrances

116 "TFI Universal Stair Climbing Walker." All Day Medical: Home Medical Supplies. <http://www.alldaymedical.com/walking-aids/walkers/tfi-uni-stair-climbing-walker.html>.

Vertical Circulation

When serving the public, whether it is retail, a restaurant, government building, or a library, there must be an accessible way for building users to move from floor to floor within the building. Vertical circulation refers to the way in which the patrons move from floor to floor, and can include stairs, wheelchair lifts, or elevators. With these it is important to consider all of the details including the handrails, floor materials (of the stairs and elevator), grab bars, and operation of elevator buttons. These are all important aspects of vertical circulation because for those who are ambulant disabled, elevator buttons at the incorrect height, or stairs made of slippery marble can make the building difficult and unsafe to use. The goal is to make these buildings as accommodating as possible for all, whether they are pushing a stroller or a walker, or if they face other physical challenges.¹¹⁷

It is important to understand what is required by the ADA Accessibility Guidelines, as well as local state and city ordinances and codes when it comes to vertical circulation requirements. This section will focus on what the ADA requirements are for stairs and elevators, but not the life safety requirements when thinking about them as exits from the building, as life safety is not addressed in this guidebook. ADAAG section 4 addresses many of these challenges including 4.10 Elevators, 4.11 Platform lifts, and a special designated section 8 addressing Library design.¹¹⁸ Section 8, Library Design states that libraries must comply with all basic requirements of section 4, while addressing issues specific to Libraries such as check out desks and study areas.

The design requirements for stairs and elevators have changed significantly over time, as many historic buildings were built before elevators, and current stair requirements call for more comfortable handrails and a gradual stair rise to run ratio. When it comes to the Carnegie libraries, many of them can be exempt from the elevator requirement if they are a qualified historic building. When these historic buildings do not have elevators, the main amenities and services such as bathrooms and main meeting rooms still need to be provided on the accessible floor.¹¹⁹ Installation of elevators and stairs is one of the most impactful (and costly) things that can be done to a historic building, so it needs to be approached thoughtfully and carefully. These types of alterations are permanent to a buildings structure and the overall character of the building, and it is important to ensure new vertical elements do not interfere with character defining features.

¹¹⁷ (Jester and Park 1993)

¹¹⁸ (ADA Title III Regulations)

¹¹⁹ (ADA Title III Regulations, 45)

Hood River Challenge: No Interior Elevator



Interior of first floor reading room in original library building. Taken by Stacey Henderson 2013

Original Library Building

The original library building at Hood River is two stories tall, and was built with one main staircase and no elevator. As stated, it is important to be able to access the main amenities and services of a building, and for libraries these can include the bathrooms, check out desk, meeting rooms, and main reading rooms. At the Hood River Library (in the original library building) a main reading room is on the first floor, and the children's reading room is in the basement. There is a small staircase in the historic library building as seen in the picture, but it was not until the elevator was added in the addition that these services were more easily accessible to those with physical disabilities.

Hood River

Strategy: Elevator in Circulation Knuckle



Glass connection between the new and old building.
Taken by Stacey Henderson 2013



Interior view of the glass circulation knuckle.
Taken by Stacey Henderson 2013

Issue Being Addressed:

No accessible vertical circulation for those in wheelchairs or with physical disabilities in the historic library building.

Applicable ADA Standards and Guidelines

Standard: Section 36.304- Removal of Barriers
Standard: Section 36.406- Historic Preservation
Standard: Section 36.305- Alternatives to Barrier Removal
Standard: Section 36.404- Alterations: Elevator Exemptions
ADAAG: 4.2 Space Allowance and Reach Range
ADAAG: 4.10 Elevators
ADAAG: 4.11 Platform Lifts
ADAAG: 4.27 Control and Operating Mechanism¹²⁰

Solutions Implemented:

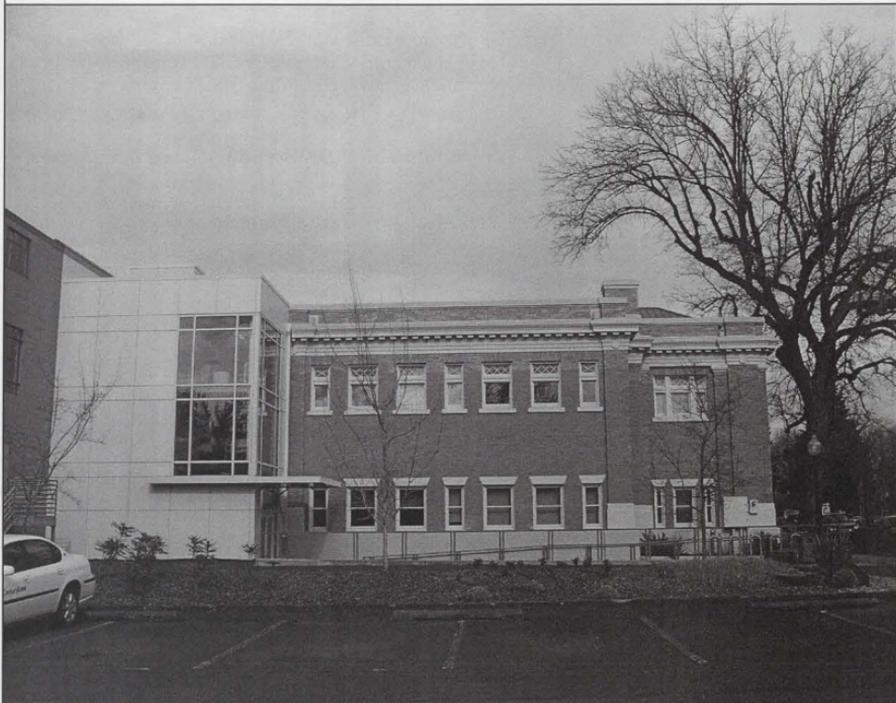
- Installed elevator directly in between the historic building and addition in the glass transitional space.
- Elevator is next to accessible entrance, and gives direct access to main services and amenities.

Impact of these Changes:

- Easier vertical circulation is achieved without compromising original historic structure of the library.
- This main circulation knuckle encourages organized arrangement of spaces with the wide hallway without affecting historic fabric.
- The glazing allows for a differentiated material to distinguish between the original building and the addition.

¹²⁰ ("2010 ADA Standards for Accessible Design")

Salem Challenge: No Elevator



View of the South facade and vertical circulation tower. Taken by Stacey Henderson 2013

Original Historic Building

Similar to the Hood River Library, the original Salem library building is two stories tall, and was built with no elevator. There are meeting rooms and offices on the first floor, and more offices on the basement level. This building serves Willamette University, so it is important to ensure that all rooms and offices are accessible for all users. Ownership and use of the building can influence the circulation needs, as well as budget, and preservation of the existing building elements.

Salem

Strategy: Vertical Circulation Tower



Circulation Tower
Taken by Stacey Henderson 2013



Connection to Historic Building
Taken by Stacey Henderson 2013

Issue Being Addressed:

No accessible vertical circulation for those in wheelchairs or with physical disabilities in the existing building.

Applicable ADA Standards and Guidelines

Standard: Section 36.304- Removal of Barriers
Standard: Section 36.406- Historic Preservation
Standard: Section 36.305- Alternatives to Barrier Removal
Standard: Section 36.404- Alterations: Elevator Exemptions
ADAAG: 4.2 Space Allowance and Reach Range
ADAAG: 4.10 Elevators
ADAAG: 4.11 Platform Lifts
ADAAG: 4.27 Control and Operating Mechanism¹²¹

Solutions Implemented:

- Installed an elevator and new stair on the outside of the back of the building.
- Contrasting material was used to differentiate the historic from new.
- Elevator is located directly next to the accessible entrance, and it services all main rooms and amenities of the building.

Impact of these Changes:

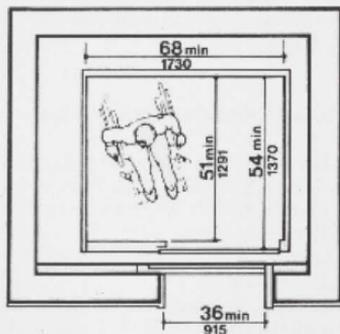
- Easier vertical circulation is achieved without compromising original historic structure of the library.
- The differentiated materials of the addition are cohesive with the historic design and fabric, and do not detract from the building.
- The location of this elevator is convenient and creates an ease of movement within the building.

121 ("2010 ADA Standards for Accessible Design")

ADA: Elevator Requirements

Elevator Operation should be automatic.

ADA Elevator Floor Diagram ¹²²



Hall Call buttons should be centered at 42" above the floor, and an easily visible lantern signal should be provided to warn users when the elevator is approaching.

Each floor should have raised and braille floor number designation signs.

Buttons shall be 3/4" in their smallest dimension, and include tactile, braille, and visual control indicators.

The visual and tactile element to the elevator operation allows those who have trouble seeing or hearing to feel where the buttons are and operate the elevator smoothly.¹²³

Possible Solutions

Way finding Signage



Images taken by Stacey Henderson, 2013.



\$T

If there is an existing elevator, replacing signs with new ones can help with navigation. Signs as shown above with contrasting colors, brail, and raised numbers aid those who may struggle with their sight.

\$\$\$ TTT

Another possible adaptation for an existing elevator is to install new buttons that include brail, proper lighting, and that are at the proper height above the ground to help ease use and operation.

\$\$\$\$ TTTT

Wheelchair lifts or Limited Use Limited Access (LU/LA) elevators should be investigated if there is no existing elevator to work with.¹²⁴ Both options are smaller, cheaper, and require less space for installation.

¹²² ("ADA Title III Regulations")

¹²³ ("ADA Title III Regulations")

¹²⁴ "Garaventa Elvovoron LU/LA." Access Elevators and Lifts Inc. http://www.accessellevatorinc.com/index.php?option=com_content&task=view&id=82&Itemid=98.

Albany Challenge: Historic Stairs



Taken by Stacey Henderson 2013

Original Stairs

Often times, original stairs in a historic building do not comply with current stair design guidelines. Stair treads may be too narrow, the rise may be too steep, or handrails may not be provided to aid with balance. There are many things that can be done to help adapt existing stairs to make them more usable, and in some cities, they can be grandfathered in without needing to be updated. It is always a good idea to make the stairs as accommodating as possible, especially when they are the only form of vertical circulation, as seen in the Albany library.¹²⁵

¹²⁵ ("2010 ADA Standards for Accessible Design")

Albany Strategy: Adaptations to Stairs



Handrail added on the wall to aid with balance.

Taken by Stacey Henderson 2013



Existing handrail is an acceptable shape to grab and stable.

Taken by Stacey Henderson 2013

Issue Being Addressed:

Original stairs need to be updated and adapted to be more accommodating for the ambulant disabled.

Applicable ADA Standards and Guidelines

Standard: Section 36.304- Removal of Barriers
Standard: Section 36.406- Historic Preservation
Standard: Section 36.305- Alternatives to Barrier Removal
Standard: Section 36.404- Alterations: Elevator
ADAAG: 4.9 Stairs ¹²⁶

Solutions Implemented:

- New carpet installed (throughout building) was designed to replicate original carpet pattern, but is made with a sturdy, low pile, to prevent tripping.
- Handrails were added to walls to ensure there are handrails on both sides of the stair. This is important to provide for balance and safety.

Existing handrail seen in the image is made of an acceptable, easy to grasp shape.

Unsure if handrail is original or not, but adding an acceptable handrail to the existing stair is a good way to keep the look and integrity while increasing usability.)

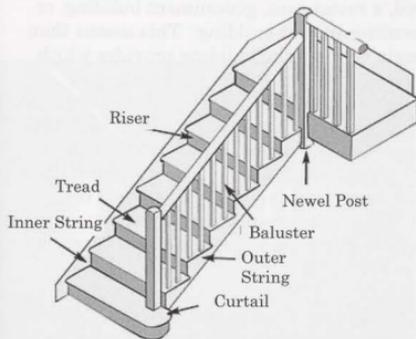
Impact of these changes:

- Although some historic fabric was replaced, the overall original design intent of the stairs remains unaltered.

¹²⁶ ("ADA Title III Regulations")

ADA: Stair Requirements

Basic Stair Diagram and Terminology



Steps shall have uniform riser heights and uniform tread widths.

Stair treads shall be no less than 11" wide.

Stairways shall have handrails on both sides of the stair and comply with 4.26.

Gripping surfaces shall be uninterrupted by newel post.

Top of handrail shall fall between 34-38 inches above the stair nosings.

Handrails shall be rounded at ends, and shall not be able to rotate.¹²⁷

Landings are suggested to provide a place to rest midway for the ambulant disabled.¹²⁸

Possible Solutions



Images taken by Stacey Henderson, 2013.

\$ T

Repair or replace worn stair treads, or balusters. It is important to make sure that new materials are compatible to the existing historic stair.

\$\$\$ T T

Install new compliant handrails. These can be designed to fit with the existing stair, and either replace the handrail that is there, or be installed to the outside of it.

\$\$\$\$ T T T

Resurface the stairs with a material that has more traction. The surface material of the stair has a big impact on whether or not someone feels stable and can use the stairs.

\$\$\$\$\$ T T T T

Rebuild stairs in existing location. This is far more intrusive to the integrity of the building, and costly. If other adaptations do not make the stairs accessible, it is ok to reconstruct.

¹²⁷ ("ADA Title III Regulations")

¹²⁸ (Goldsmith 1976, 166)

Access to Services

When serving the public, whether it is retail, a restaurant, government building, or a library, access must be provided to all main amenities in that building. This means that users of the building must be able to access the main services the building provides which can include meeting rooms, bathrooms, or check out stands at a store. Rearranging or adapting the operation of your main services is one way your existing building can be made accessible without major alterations or construction. It is especially important to keep this in mind when physical barriers are technically infeasible to remove, as the accessibility will ensure continued equal use and experience to all patrons. Little changes like moving a checkout desk, rearranging isles, or adding a bathroom on the main floor can make the difference in how welcome patrons feel in your building. The goal is to make these buildings as accommodating as possible for all, whether someone is pushing a stroller or a walker, or if they face other physical challenges.

It is important to understand what is required by the ADA Accessibility Guidelines, as well as local state and city ordinances when it comes to making your historic building and the services it provides accessible.¹²⁹ This section will focus on what the ADA requirements are as local requirements can vary between cities and states. ADAAG section 4 addresses many basic requirements, and section 8 addresses Library design specifically. The ADA Standards Sec 36.302- Sec36.304 also discuss the removal of barriers and the main spaces that should remain accessible to all.

Many Carnegie libraries still operate as libraries today, so the main accessible service requirements for libraries will be discussed in this section as presented in Section 8 of the ADA. In addition to this, a few examples will be used from buildings with other uses to provide examples of main services and how people have accommodated. Main library services to consider are the reading rooms, check out desk, bathrooms, book stacks, and card catalogue displays. Section 36.304 "Removal of Barriers" lays out a priority list when it comes to making services more accessible including: 1 access into the building, 2 access to main spaces, 3 access to bathrooms, and 4 access to the rest of the rooms. This section will discuss a range of the solutions various libraries have implemented to create accessible routes, and how they went about doing so.

129 ("2010 ADA Standards for Accessible Design")

Medford

Strategy: Ensure Elevator Reaches Event Room

Issue Being Addressed:

Need access to main banquet room on the first floor. This room is used for city events, and can be rented by the public for events such as weddings or dances.

Applicable ADA Standards and Guidelines

Standard: Section 36.303- Auxiliary Aids and Services

Standard: Section 36.304- Removal of Barriers

Standard: Section 36.406- Historic Preservation

Standard: Section 36.305- Alternatives to Barrier Removal

ADAAG: 4.1 Minimum Requirements¹³⁰



Elevator installed in the 80s interferes with the original staircase, but provides direct access from the basement to the main room.

Image taken by Stacey Henderson, 2013.

Solutions Implemented:

- Elevator installed near main staircase to provide direct access to the banquet room.
- Staircase provided on secondary facade.
- First floor is completely open so that furniture can be arranged in flexible ways to allow access to all spaces in the room.

Impact of these Changes:

- Elevator installed in the 80's interferes with original main entrance, and it does provide direct access from the parking.
- The first floor of the building was originally open plan, so although some materials have been changed, keeping it open is cohesive with the original design intent.



The main room that can be rented for events by the public.

Image taken by Stacey Henderson, 2013.

¹³⁰ ("2010 ADA Standards for Accessible Design")

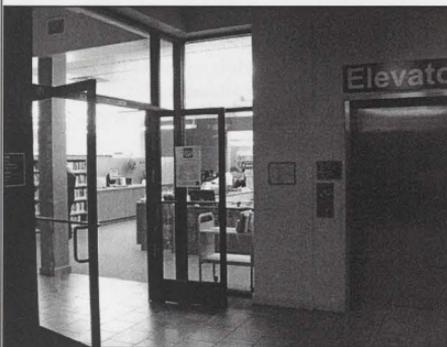
Hood River

Strategy: Accessible Check Out Desk



Check out desk located centrally between the original building and addition.

Image taken by Stacey Henderson, 2013.



Check out desk is also located next to the main elevator, for ease of exits and book returns.

Image taken by Stacey Henderson, 2013.

Issue Being Addressed:

The check out desk needs to be located in a place where all patrons can access in order to be able to fully use the building.

Applicable ADA Standards and Guidelines

Standard: Section 36.303 Auxiliary Aids and Services

Standard: Section 36.304- Removal of Barriers

Standard: Section 36.406- Historic Preservation

Standard: Section 36.305- Alternatives to Barrier Removal

ADAAG: 4.1 Minimum Requirements

ADAAG: 4.32 Fixed or Built In Seating and Tables¹³¹

Solutions Implemented:

- New check out desk added with addition
- Although it is not the original check out desk, it remains in a central location acting as a "control station" as these desks usually did with the original designs.
- Design of the desk includes a segment that is compliant with ADAAG 4.32 for proper counter height.

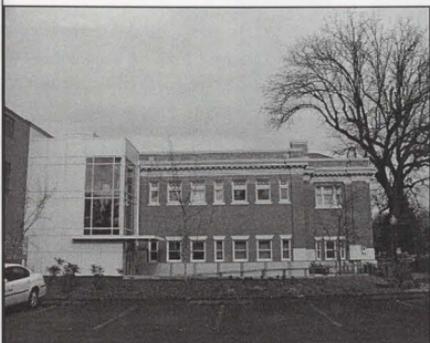
Impact of these Changes:

- The addition of the new check out desk does not impact the interior of the original library building.
- Design of the new desk is cohesive with the interior of the old and new parts of the building. Designing a new compatible (and accessible) desk is a good option when the original is no longer there.

¹³¹ ("2010 ADA Standards for Accessible Design")

Salem

Strategy: Ensure Elevators are Near Circulation and Restrooms



View of vertical circulation tower on secondary facade. Image taken by Stacey Henderson, 2013.



Image taken by Stacey Henderson, 2013.

Issue Being Addressed:

Ensuring there are accessible restrooms in the building.

Applicable ADA Standards and Guidelines

- Standard: Section 36.303- Auxiliary Aids and Services
- Standard: Section 36.304- Removal of Barriers
- Standard: Section 36.406- Historic Preservation
- Standard: Section 36.305- Alternatives to Barrier Removal
- ADAAG: 4.1 Minimum Requirements¹³²

Solutions Implemented:

- Installed new restrooms on the first floor near the accessible entrance and vertical circulation tower.
- Kept restrooms on first floor for main public access. (There may be restrooms on the basement as well.)

Impact of these changes:

- If the restrooms were moved (unsure of original location) then that did have impact on the original structure of the building.
 - Removing or installing plumbing can be costly.
- The location of the restrooms ensures that they are easily accessed by all.

¹³² ("2010 ADA Standards for Accessible Design")

ADA: Requirements for Access to Amenities



Image taken by Stacey Henderson, 2013.

All new buildings and altered spaces must make all main services and public spaces accessible.

Employee spaces must also be accessible and compliant with the ADA Standards.

Any portion that can be made accessible shall be made compliant with the ADA to the fullest extent technically and structurally feasible.

Most buildings must have at least one accessible route and entrance.

Most public restroom¹³³ facilities shall comply with ADAAG 4.22.

Possible Solutions



Images taken by Stacey Henderson, 2013.

Move or arrange shelving according to ADA dimensions for turnarounds and pathway widths.

Allow enough room in front of historic features such as this fireplace, so they can be enjoyed by all. The Albany library has placed tables near the fireplace so they can be moved as needed.

Large open rooms such as this allow for flexible floor arrangements. It is important to ensure there are wide enough aisle widths, and proper maneuvering space. Movable furniture allows for future flexibility when the demands of the space change, while minimally impacting the building itself. (Especially historic spaces)

¹³³ ("2010 ADA Standards for Accessible Design")

¹³⁴ (ADA Title III Regulations)

Albany Access to Main Amenities

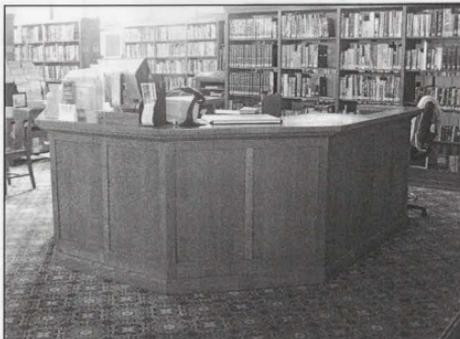


Image taken by Stacey Henderson, 2013.

Check Out Desk

This is the original charging desk from when the library was built in 1914. The library has no accessible entrances, which is the main challenge when trying to reach this desk. There is a blue sign at the main entrance that provides a phone number to call when someone who cannot use the stairs needs to reach someone inside. This sign is the easiest way for those who cannot access the building to get aid from the librarian and check out books.



Image taken by Stacey Henderson, 2013.

Reading Rooms and Book Stacks

Keeping the floor plan open as they have done will ensure the accessibility to these reading rooms and book shelves. The furniture is mobile, and arranged in a way that provides wide aisles for maneuverability. Open and flexible floor plan is the best way to ensure accessibility to the main reading rooms and book stacks that people will need to access.

Albany Access to Main Amenities



Image taken by Stacey Henderson, 2013.

Restrooms

The restrooms in this library are located in the basement, which makes them accessible to those using the children's reading room. The main charging desk and regular reading rooms are located on the first floor, making it difficult for those on the first floor to access the restrooms if stairs present a challenge. There is a small employee restroom on the first floor, which could be made into a single accessible restroom for those who wish to stay on the main floor.



Image taken by Stacey Henderson, 2013.

Children's Reading Room

The children's books and reading room is located in the basement of the library. The basement is only accessible via stairs, but once in the basement the main services in this room are accessible. The mobile furniture allows for spacious arrangements, the check out stand is near the front of the room, and the stacks are spaced wide enough to allow for proper movement throughout the space. Open space and flexible furniture are once again useful in this situation.

Floor Materials

When serving the public, whether it is retail, a restaurant, government building, or a library, the floor materials must be safe and compatible for the uses of the space. This refers to the various physical qualities of the material such as slip resistance, resilience, or resistance to marks and indentations. These are important factors that play into the usability of the space for those in wheelchairs, those who are ambulant disabled, blind, or deaf. It is important to remember that the requirements and needs for disabled people regarding the floor finishes can vary. For example, for chairbound people a slip-resistant surface is not required, but for those who are ambulant disabled, this quality is important to minimize slipping and falling. For those who are blind, a noisy and resonant floor surface is preferred to aid in the auditory qualities of the room. When considering which flooring best suits the needs of the building, it is important to remember the goal is to make these buildings as accommodating and safe as possible for all.¹³⁵

It is important to understand what is required by the ADA Accessibility Guidelines, ADA Standards, and local state and city ordinances when it comes to flooring materials. This section will focus on the ADA requirements, as local requirements can vary between cities and ordinances. ADAAG section 4 addresses technical aspects of accessible design including 4.5 Ground and Floor Surfaces. Other resources such as *Designing for the Disabled*, discuss possible options and give suggestions on finding the proper floor surface for your building.

Floor materials can affect the usability of a room in many ways and there are many things to consider when refinishing the flooring in your Carnegie building. For entryway, it is important to consider the slip resistance qualities of the material when it gets wet, especially in areas such as the Pacific Northwest where rainwater frequently makes its way into the building. Another important design aspect is the point in which they transition from one floor material to another, as it is important to ensure these are installed flush to one another, and are of similar resilience for ease of movement. The floor material can also have a large impact on the look of the space.¹³⁶ In these historic spaces, it is important to replace flooring with similar materials to the furthest extent possible to preserve the original design intent of the room, while still ensuring users can move comfortably within. This section will discuss a range of the solutions various libraries have implemented to provide easy to use flooring materials, and how they went about doing so.

¹³⁵ (Goldsmith 1997)

¹³⁶ (Goldsmith 1997)

Hood River

Strategy: New Entrance Materials and Slip Carpet



Main entrance, located in addition.
Image taken by Stacey Henderson, 2013.



Original historic entrance with new flooring.
Image taken by Stacey Henderson, 2013.

Issue Being Addressed:

The need for slip resistant materials at the new and historic entrance to the building.

Applicable ADA Standards and Guidelines

Standard: Section 36.406- Historic Preservation
Standard: Section 36.305- Alternatives to Barrier Removal
ADAAG: 4.5- Ground and Floor Surface¹³⁷

Solutions Implemented:

- Main flooring in the space is tile, so a permanent carpet material was installed directly in front of the door as seen in the images.
- Cream colored carpet was not installed all the way to the door, so an additional green mat was added that goes directly against the door.

Impact of these Changes:

- New flooring materials- the tile and carpet are not the original materials for the space.
 - These mobile entry carpets can cause tripping as they move around and the edges curl up. It is important to pick one that is as flush and stable as possible, so they do not cause a tripping hazard.
- Because the permanently installed carpet does not start for a foot after entering the building, an additional carpet was purchased.
 - These can have a significant visual impact on the space, so it is important to pick compatible material.
 - The colors of these stone tiles and carpet do not detract from the materials of the historic Carnegie library building, making them a compatible choice.

¹³⁷ ("2010 ADA Standards for Accessible Design")

Albany

Strategy: Historically Replicated Low Pile Carpet

Issue Being Addressed:

Carpet needed to be replaced.

Applicable ADA Standards and Guidelines

Standard: Section 36.406- Historic Preservation
Standard: Section 36.305- Alternatives to
Barrier Removal
ADAAG: 4.5- Ground and Floor Surface¹³⁸

Solutions Implemented:

- New carpet that is sturdy, and resilient.
- New carpet pattern that was designed to match the original, historic carpet pattern.

Impact of these Changes:

- The low pile (short length of the carpet) and sturdy nature of it help for those who are ambulant disabled.
 - Carpet is a slip-resistant material.
 - Resiliance of carpet is more desirable than a dense tile or stone.
 - Acoustic qualities of carpet help to muffle noise which is appropriate for library reading rooms. (Carpet creates a quiet acoustic environment.)
- The replicated carpet pattern and colors help to preserve the integrity and original design intent of the spaces in the library.
 - Changing the pattern or colors could of drastically altered the feeling of the space.
 - This was a good solution to ensuring there is a reasonably safe and suable material while preserving the interior space.



Historically replicated carpet.
Image taken by Stacey Henderson, 2013.

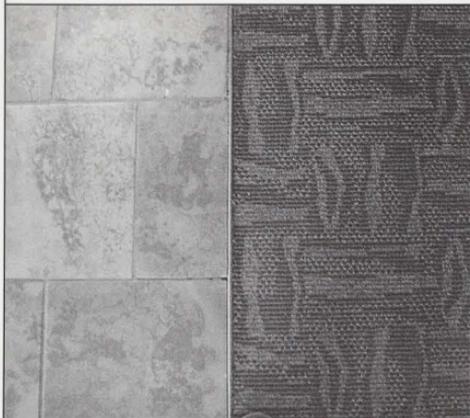


Close up of the carpet.
Image taken by Stacey Henderson, 2013.

¹³⁸ ("2010 ADA Standards for Accessible Design")

ADA: Floor Material Requirements

Flooring at the Hood River Library



Carpet and carpet tile shall be securely attached, with a maximum pile thickness of 1/2".

Flooring in all accessible rooms shall be stable, firm, and slip-resistant.

If gratings are located in walking surfaces, they shall have openings no larger than 1/2" wide in one direction.

For tiled floors, the joints may provide enough friction to counter the slipping, but it is important to check.¹³⁹

Possible Solutions



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When assessing the flooring in your building, one temporary but affordable measure to take is to add slip resistant mats at the entrances. These need to be added with caution, as they can curl up and cause tripping if not maintained.



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Another measure that can be taken with the existing flooring is to inspect all edges and transition zones to make sure they are not creating a tripping hazard. As buildings settle the flooring may become uneven, and as materials wear down they become unfastened.



\$\$\$\$ T T T T

If there are too many areas of flooring in need of repair, then refinishing the flooring is a good option. It is important to replace with similar materials to keep with the historic character of the space.



Furniture

When serving the public, whether it is retail, a restaurant, government building, or a library, a portion of the furniture must be usable and accessible to all. This refers to clearance height of tables, furniture arrangements, or the distance one is required to reach for an object as dictated by heights and dimensions of shelving. Many features about a piece of furniture can affect someone's ability to use it. For example, if a chair is heavy and does not slide easily, then someone who has their hands full or is possibly elderly or ambulant disabled will struggle to pull the chair out or push it back to the table. Not every table and chair must be easily accessible and operable, but it is important to ensure that a portion of the furniture is accommodating for those who may need it.

It is important to understand what is required by the ADA Accessibility Guidelines, as well as local state and city ordinances when it comes to furniture dimensions. This section will focus on what the ADA requirements are as local codes and requirements can vary between cities and ordinances. ADAAG section 4 addresses many of these challenges including 4.2 Space Allowance and Reach Ranges, 4.32 Fixed or Built in Seating or Tables, or 4.37 Benches. Section 8 of the ADAAG addresses Library Design specifically, giving specific furniture requirements for access to the check out desk, reading areas, card catalogue, and book stacks.¹⁴⁰

When it comes to Carnegie Libraries and library design specifically, there are a couple of main furniture categories that will be discussed in this section. During the field research for this guidebook, only one library still had all of the original shelving, check out desk, and furniture, so these elements will be used as the examples. With libraries it is important to think about the shelving, and how accommodating it is for those who may have physical ailments and struggle to reach and lift objects such as books. Checkout counters need to also be of the proper height at the adult and children's reading rooms so those who are chairbound can still use the desk the same as everyone else. Many of the libraries today unfortunately do not have the original furniture, shelving, or check out desks, so when they are still in the building it is even more important to preserve them as a part of this historic feature. This section will discuss the possible adaptations that can be made to the historic furniture in order to make it more accommodating while still preserving significant features of the space.

140 ("ADA Title III Regulations")

Albany Challenge: Original Tables



Issue Being Addressed:

Heights needed to be adjusted to allow more room to sit between the chair and the table.

Applicable ADA Standards and Guidelines

Standard: Section 36.406- Historic Preservation

Standard: Section 36.304- Removal of Barriers

Standard: Section 36.305- Alternatives to Barrier Removal

ADAAG: 4.2- Space Allowance and Reach Ranges

ADAAG: 4.32- Fixed or Built in Seating or Tables

ADAAG: 4.37- Benches¹⁴¹



Original adult reading room furniture
Image taken by Stacey Henderson, 2013.

Solutions Implemented:

- Tables and chairs were refinished to ensure smooth surfaces.
- Holes in table top where lamp used to go were filled to create one large surface.
- A small piece of wood was added to the bottom of the table legs to raise the table height so people can sit at it more comfortably.

Impact of these Changes:

- Whether it is painted or stained wood, refinishing can help breathe new life into the furniture pieces while also protecting them.

Places where stain has worn off leave the wood exposed to possible damages.

- The holes were filled with a compatible material, and blend in with the table top.
- Each piece of wood was added inconspicuously to the bottom of a table leg, in the same wood as the table.

This makes the table more comfortable and usable without altering the furniture or original appearance of the furniture.



Original children's reading room furniture.
Image taken by Stacey Henderson, 2013.

141 ("2010 ADA Standards for Accessible Design")

Albany

Analysis: Original Shelving



Images taken by
Stacey Henderson, 2013.



Issue Being Addressed:

Preserving original bookshelves while keeping them useful for the library.

Applicable ADA Standards and Guidelines

Standard: Section 36.406- Historic Preservation

Standard: Section 36.304- Removal of Barriers

Standard: Section 36.305- Alternatives to Barrier Removal¹⁴²

ADAAG: 4.2- Space Allowance and Reach Ranges
4.32- Fixed or Built in Seating or Tables

Features of the Shelving:

- Built in shelving for books, as well as maps and other abnormal sized reference material.
- Small details on the shelving continue to molding around features such as the original heaters.
- Small shelf at waist height with pull out option provides a place to set books while browsing.

Accessible Features of the Shelving:

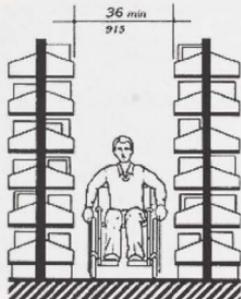
- The built in shelving has no parts that protrude above the ground that would be unsafe.
- The shelving is spaced to allow for maximum movement.
- Most of the shelves remain at an accessible height, but there were also step stools provided for those who could not reach the top shelf.
- Signage in contrasting colors with large lettering are placed in plastic holders at the top of each shelf to label where the books are. This creates minimal impact to the shelving.
- Shelf at waist height is helpful to those who can't hold all of their books while browsing.

142 ("2010 ADA Standards for Accessible Design")

ADA: General and Library Furniture Requirements

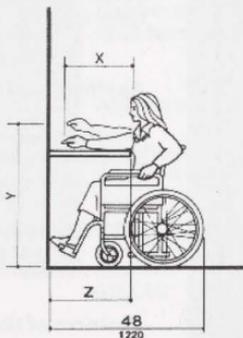
ADA Diagrams of Furniture Dimensions

For Libraries: at least 5% or a minimum of one of each type of fixed seating and tables must comply with the ADAAGs.



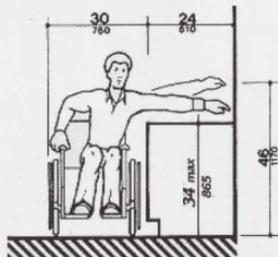
1. Shelving ¹⁴³

Shows minimum aisle width between book stacks is 36".



2. Forward Reaching ¹⁴⁴

Maximum high forward reach at a table is 48" and the minimum low is 15".



3. Side Reaching ¹⁴⁵

Maximum high side reach is 54" and the maximum low side reach is 9". ¹⁴⁶

Possible Solutions



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Replace hardware including hinges and drawer handles to make them easier to open and operate.



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Make minor adjustments such as adding pieces of wood to the table legs to alter the dimensions and make the table more comfortable.



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Refinishing the furniture can help prevent pieces from breaking and splintering while protecting the historic furniture.



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When furniture is unusable and needs to be replaced, it is suggested to replicate the historic furniture to the furthest extent possible. Adaptations can be made to original design when necessary.

143 ("2010 ADA Standards for Accessible Design") Figure from section 4.2 Space Allowance

144 ("2010 ADA Standards for Accessible Design") Figure from section 4.2 Space Allowance

145 ("2010 ADA Standards for Accessible Design") Figure from section 4.2 Space Allowance

146 ("ADA Title III Regulations")

Bathrooms

When serving the public, whether it is retail, a restaurant, government building, or a library, there must be easily accessible restrooms for those using the services of that building. Accessible restrooms allow for enough maneuvering space for those with wheelchairs, walkers, or strollers to move comfortably. They also need to be well lit so those who have trouble seeing can navigate safely, and main amenities such as paper towel dispensers need to be provided within a reasonable and accessible reach. For those who may have a physical disability, are chairbound, or even have their hands full with children, easily accessible restrooms can help to save time and prevent frustration while in the building. Using a restroom involves a lot of movement, from opening a stall door, to maneuvering into a stall, accessing the toilet, and operating sinks. Ensuring that the restrooms are comfortable and easy to use helps to dissolve many physical barriers.

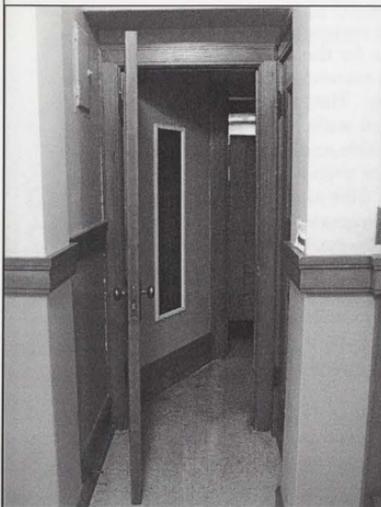
It is important to understand what is required by the ADA Accessibility Guidelines, as well as local state and city ordinances when it comes to restroom design. This section of the section will focus on what the ADA requirements are as local requirements can vary between cities and ordinances. ADAAG section 4 addresses many bathroom design elements including 4.16 Water Closets, 4.17 Toilet Stalls, 4.24 Sinks, and 4.26 Handrails and Grab Bars. There is a lot involved with proper restroom design, so it is advised to consult with the ADAAG and Standards in addition to reading this section in order to understand what is required with your specific restroom in your building.¹⁴⁷

Many Carnegie library buildings today have been heavily remodeled on the interior, including the restrooms. Newly designed or remodeled restrooms should be compliant with the ADA already, so a lot of the information in this section is more applicable to restrooms still intact from the original construction, or ones remodeled before 1990. Many small adaptations can be done that minimally impact the existing fabric of the restroom and are more affordable, including installing grab bars, repositioning toilet paper dispensers, or insulating exposed hot water pipes under older sinks. It is very important to also create as much maneuvering space as possible, which can often times be achieved in existing restrooms by rearranging stall partitions. This section will discuss many possible options for adapting existing restrooms, and lay out basic dimension requirements as explained by the ADAAGs.

¹⁴⁷ (ADA Title III Regulations)

Albany

Challenge: Need Compliant Bathrooms



Entrance to the restroom.
Image taken by Stacey Henderson, 2013.



The main sink area next to the stall.
Image taken by Stacey Henderson, 2013.

Issue Being Addressed:

The original restrooms are still intact, and have some accessibility challenges.

Applicable ADA Standards and Guidelines

Standard: Section 36.406- Historic Preservation

Standard: Section 36.304- Removal of Barriers

Standard: Section 36.305- Alternatives to Barrier Removal

ADAAG: 4.16- Water Closets

ADAAG: 4.17- Toilet Stalls

ADAAG: 4.18- Urinals

ADAAG: 4.19- Lavatories

ADAAG: 4.22- Toilet Rooms

ADAAG: 4.24- Sinks

ADAAG: 4.26- Handrails, Grab bars, and Tub and Shower Seats¹⁴⁸

Solutions Implemented:

- Fixtures have been added such as towel and soap dispensers, and better lighting.
- Grab bars were added near the toilet.
- A new toilet fixture was installed.

Impact of These Changes:

- The fixtures that have been added such as a towel and soap dispenser, cause little impact to the existing restroom, while making it more comfortable to use.
- Adding grab bars in the restroom is a low impact way to make the toilet stall more accessible and easy to use.
 - It is ideal to have the grab bars on both sides and one behind the toilet for maximum maneuvering support.
- New modern toilets can be installed that comply with required ADA dimensions.

Albany

Challenge: Solutions for Adapting the Restrooms



The door leading to the stall in women's restroom.
Image taken by Stacey Henderson, 2013.

Install a Lighting Fixture in Toilet Stall

The toilet stall shown in the image (left) is very dark when the stall door is closed. Installing a light would make this stall more comfortable to use and safer for those who have visual disabilities.

Remove Toilet Stall Door

There is limited maneuvering space in this restroom area. Removing the toilet stall door should be investigated as it could allow for ease of movement throughout the space and would make it easier to get in and out of the stall.

Add Grab Bar Behind Toilet

The ADAAG 4.17.6 suggests grab bars to be placed beside and behind the toilet. This is a low impact, affordable way to make the restroom more compliant with accessibility guidelines.



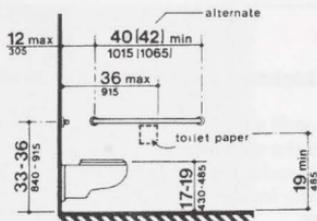
Grab bar added to toilet stall, and new toilet.
Image taken by Stacey Henderson, 2013.

Replace Sink and Toilet

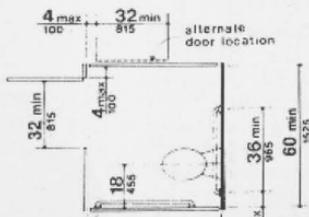
Another good option that allows for retention of the existing restroom is to replace the major fixtures such as toilets and sinks with features that are compliant with current dimensions. This can be more costly and slightly more invasive, but if a complete redesign of the restroom is technically infeasible then ADA compliant fixtures can be installed.

ADA: Bathroom Requirements

Diagram of Toilet Stall Dimensions¹⁴⁹



Required heights.



Dimensions in plan

Wall mounted toilets must be used when the stall is the minimum depth of 56".

Floor mounted toilets can be used if the depth is 59" or greater.

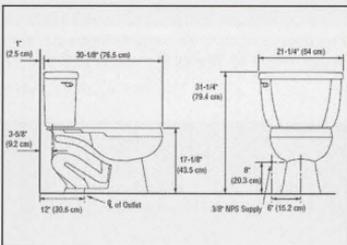
Grab bars must be to either side of the toilet, or one to the side and one behind the toilet depending on the stall size.

Height of toilet shall be 17-19" measured to the top of the seat.

Flush controls shall be hand controlled or automatic in compliance with ADAAG 4.27.

Sinks: mounted no higher than 34" above finished floor, and exposed pipes shall be insulated for safety.¹⁵⁰

Possible Solutions



\$ T

Replace elements such as:

- Accessible door hardware
- Installing grab bars
- Insulate exposed pipes
- Install raised toilet seat
- Install full length mirror
- Reposition dispensers

\$\$ TT

Reconfiguring toilet stall partitions is a lower cost, less invasive way to work within the existing space to create more maneuvering space.

\$\$\$ TTT

Replacing toilet and sink fixtures is also an option, as this allows for minimal new construction while making the restroom easier to operate.¹⁵¹

¹⁴⁹ ("2010 ADA Standards for Accessible Design")

¹⁵⁰ ("ADA Title III Regulations")

¹⁵¹ Image: Flushmate - <http://www.flushmate.com/models/model.php?market=2&brand=11&model=85>.

Additions

Many of these smaller Carnegie Library buildings were built between about 1900-1920 when Mr. Carnegie increased the amount he was donating for the libraries. The designs served the purposes of their time, and helped to redefine public library design. The early demands that dictated the needs of the library vary from today when it comes to the size of the collection of books, public events, and technology in the library. Today, inventories of books are larger, and a large part of library usership comes from free internet access, computer use, and various classes offered at the libraries. Many of these buildings have also been rehabilitated into various other uses including offices or event spaces, altering the demands on the building from when it was originally designed.

Additions have been added to Carnegie library buildings for many reasons. Whether it is still operating as a library, or has a new use, additions have been added to increase square footage of the building and keep up with demands. Additions also allow for the integration of electrical outlets and the accommodation of more computers and technology into the space. When it comes to accessibility, additions provide the opportunity to add an accessible entrance, elevator, and elements such as new accessible restrooms without severely altering the existing historic fabric. Additions themselves can cause severe alterations to a building and are usually not reversible, so it is suggested to consult a historical architect through the design of the addition, and carefully consider how it will impact the historic building.

When it comes to making additions to historic buildings, there are general guidelines and standards that have been developed by professionals in the preservation field to ensure that the historic buildings keep their integrity and original design intent. The Secretary of Interior's Standards addresses various treatments for historic buildings including suggestions for preservation, rehabilitation, restoration, and reconstruction.¹⁵² Most work that will be done on these library buildings will either fall into the preservation or rehabilitation category. When adding an addition to a Carnegie library, these standards and guidelines will help to determine where the addition should be placed, how big it should be, the materials used, and other various details about the appearance. It is still possible to follow these preservation practices and make your building accessible, and that way, everyone gets to enjoy these beautiful buildings.

152 "Secretary of Interior's Standards for Rehabilitation." National Park Service. http://www.nps.gov/hps/tps/standguide/rehab/rehab_standards.htm.

Hood River

Addition to Increase Square Footage of the Building

Date Added

The addition was added in 2003 and is roughly 11,688 square feet. (Original building is 7,190sf.)

Use of Addition

- The main accessible entrance, elevator, and public restrooms are all located in the addition.
- The first floor of the addition houses the check out desk, large computer/reading room and book stacks.
- The basement of the addition houses employee space, offices, and a large public meeting room.

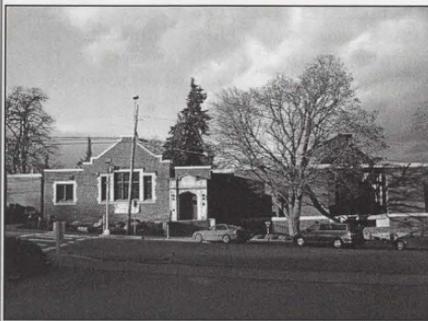
Preservation Practices Implemented

- The front facade of the addition recedes behind that of the historic building. (as seen in the image) This allows the historic building to remain a visual priority.
- Compatible, but differentiated materials were used as to not detract from the historic design of the building.
 - Glass was used in the transition zone between the new and old building to visually differentiate the two.
- Features were added (image) that pay tribute to the classic shapes of the historic building, while not distracting from it.

Impact of the Addition to the Building

- The addition was a great way to integrate accessible elements without severely altering the structure or character defining features of the historic building.
- The addition is compatible with the historic building, but the work done is not reversible.¹⁵³

¹⁵³ This information is from the site visit and interviews.



Left: Historic library building
Right: Addition
Image taken by Stacey Henderson, 2013.



Central feature of addition that mimics Georgian detail on the front of the historic building.
Image taken by Stacey Henderson, 2013.

Salem Connected to Neighboring Building



The neighboring building is built close to the library. Image taken by Stacey Henderson, 2013.

Date Altered

According to the building managers, it is estimated that the buildings were connected around 1971 when it went from being a library to the YWCA.

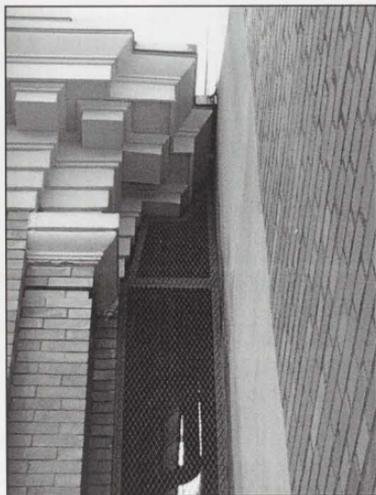
- They are only connected in the back by the circulation tower.

Use of Addition

- Currently, the building it is connected to is used as storage.

Preservation Practices Implemented

- The buildings technically do not touch each other except at one point in the back (as seen in the image).
- Wire mesh has been placed at each end to prevent debris or animals from living in the gap. This mesh visually recedes, giving the illusion of a gap between the buildings, and not detracting from the historic building.



The two buildings technically don't touch as seen here. The screen prevents animals from getting in the gap.

Image taken by Stacey Henderson, 2013.

Impact of the Addition to the Building

- Creating one point of connection between the two buildings creates minimal impact to the historic fabric of the library.
- The mesh is reversible and does not detract from the historic building.
- This connection between buildings allows for the Carnegie building to have more usable square footage if needed in the future without having to severely alter the structure.¹⁵⁴

¹⁵⁴ This information is from the site visit and interviews.

Medford

Addition to Increase Square Footage of the Building



Right: Addition to the original library.
Image taken by Stacey Henderson, 2013.



Transition material
between the addition and
original building.
Images taken by Stacey
Henderson, 2013.



Date Added

The addition was added in 1951.

Use of Addition

- The basement of the addition is rented out to various offices.
- The first floor is connected to the first floor of the historic building as one large event room that can be rented.

Preservation Practices Implemented

- Because of the early date of this addition, many features of the design of the addition would not be accepted today.
- The transition between the original building and addition was treated delicately with materials that are easily removable.
The interior is a light metal that was formed and painted to replicate details of the original design.

Impact of the Addition to the Building

- Visually from the outside, the addition dominates the original library building from most angles. It is proportionally very large for the size of the historic building.
- The connection between the two buildings required large segments of the building to be removed on both floors. This leaves a large impact to the historic fabric that is not reversible.
- The addition was a good opportunity to add two accessible entrances into the building.¹⁵⁵

¹⁵⁵ This information is from the site visit and interviews.

CONCLUSION



One of the first Carnegie libraries in the U.S., built in Braddock, PA 1889.¹⁵⁷

¹⁵⁷ <http://15104.cc/opportunities/>

Conclusion

Currently, there are few documents that address accessibility retrofits on historic buildings with a full breadth of comprehensive information as seen in this guidebook. This resource presents quick reference material while also providing the location of technical documents for those in search of additional information. Multiple resources were consulted in order to present this complete guidebook that addresses the history of these libraries and accessibility laws and codes. This information is easy to navigate and can be used as needed depending on the range of accessibility needs for the building.

While visiting the various libraries, it was apparent that these buildings are treasured within their community. They present interesting adaptive reuse challenges as the buildings are vacated, and the open plans allow for a variety of new uses. As these buildings continue to be reused and adapted, there needs to be more specific information incorporated into the building codes and the Americans with Disabilities Act (ADA) with regards to historic buildings. The extent to which a historic building must incorporate new accessibility elements is not clear in many local codes and the ADA, and it can be a vague and subjective process. It is important to ensure that all building managers and owners (historic or new) are doing what they can, to make their building accessible. Future work should aim towards a more standardized method of adapting historic buildings in a sensitive, preservation conscious way in both accessibility codes and laws.

As one can see, an accessibility retrofit is possible on many levels with a range of adaptations available depending on financial and physical abilities and limitations. It is essential to ensure that these accessibility adaptations do not impact the historic fabric of the building, so they can continue to represent their history within the community and the country. This is a useful guidebook for architects, preservationists, or building owners/managers who are looking to make their Carnegie library more accessible.

ADDITIONAL RESOURCES

Terminology

Resources and Websites

“Notes on the Erection of Libraries”



Terminology

Accessibility Retrofit

When used in this guidebook, the term "accessibility retrofit" refers to the various adaptations necessary to upgrade a building, so it is compliant with current accessibility laws and codes. This can mean retrofitting staircases to have compliant handrails, or adding accessibility elements such as grab bars and plumbing fixtures to existing restrooms.

Ambulant Disabled

In this context, ambulant disabled is used to describe individuals who can still travel on their feet, but may have difficulty doing so. This can mean they use a walker or cane, but stairs and excessive movement are difficult. Many elderly can be categorized as ambulant disabled, and they are a common user group of public libraries making them an important demographic to consider when designing.

Character Defining Feature

According to common preservation practices and NPS Preservation Brief 17, character-defining features are those elements that speak to the historic and visual character of the building and contribute to its historical style, use, and original design intent. Without these elements, the building would not operate the same, look the same, or hold the same level of historic integrity. Character defining features in common with many Carnegie libraries are described in Chapter 2 of this guidebook.

Condition

When it comes to historic preservation, the condition refers to the level of deterioration of the structure, materials, and overall appearance. For example, a historic barn that is weathered, worn, and about to fall over is in poor condition, as opposed to a historic resource that has been well maintained over the years and is stable. Condition for the libraries is based on stability of the structure, deterioration of materials such as the masonry, and assessment of major building elements involved.

Historic Fabric

Historic fabric refers to the physical materials that make up a building or resource. This could include anything from wood; to pilaster, metal, masonry, tile, and even landscaping materials. In this document, historic fabric describes the walls, floors, windows, ceilings, and the grounds surrounding the building.

Terminology

Historic Integrity

As defined by the Secretary of Interior's Standards, historic integrity is "the authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic or prehistoric period."

The general level of integrity a resource retains is usually determined through seven aspects or qualities, including: location, design, setting, materials, workmanship, feeling, and association. When judging the level of integrity on a Carnegie library, it is important to consider the seven aspects of integrity, and apply them to the structure.



Resources and Websites

Provided below, are links to websites and information that will answer additional questions throughout the accessibility retrofit. These retrofits are an interdisciplinary process, and understanding common historic preservation and accessibility practices will result in a successful balance between accessibility and preservation.

Preservation Resources

"The Gospel of Wealth"

http://carnegie.org/fileadmin/Media/Publications/PDF/THE_GOSPEL_OF_WEALTH_01.pdf

The *Gospel of Wealth* is a collection of writings done by Andrew Carnegie stating his philosophies on how the wealthy should use their money. This document is referenced in Chapter 2 of the guidebook, and the full *Gospel of Wealth* can be found at this website.

Historic Preservation Briefs

<http://www.nps.gov/tps/how-to-preserve/briefs.htm>

Historic Preservation Briefs help to guide the work and various technical treatments commonly implemented on historic buildings. Topics range from preserving ornamental plaster and concrete, to increasing energy efficiency of a historic building. Brief 32 discusses making historic buildings accessible, and was used to help organize the information in this guidebook.

Introduction to the Secretary of Interior Standards and Guidelines

http://www.nps.gov/hps/tps/standguide/overview/using_standguide.htm

This is a resource that gives background information on the Secretary of Interior's Standards and Guidelines, what they mean, and how to apply them to historic buildings. This site also contains links to more technical pages addressing various building elements and specifics on: Preservation, Rehabilitation, Restoration, and Reconstruction.

Secretary of Interior Standards for Rehabilitation

http://www.nps.gov/hps/tps/standguide/rehab/rehab_standards.htm

This is a more direct link to the standards for rehabilitation, and will apply to many of the accessibility retrofits.

Resources and Websites

Accessibility Resources

ADA Accessibility Guidelines for Buildings and Facilities (ADAAG)

<http://www.access-board.gov/adaag/html/adaag.htm>

This link leads to the details and specific sections of the ADA Accessibility Guidelines. Many of the ADAAG are specified in the Visual Field Guide, and it may be helpful to use this link to reference specific information pertaining to a building area or element.

ADA Title III Regulation

http://www.ada.gov/regs2010/titleIII_2010/titleIII_2010_regulations.htm

This resource leads to the 2010 ADA standards also referenced in the Visual Field Guide. They address requirements for barrier removal, possible alternatives for existing buildings, and other categories of a retrofit. The Standards are essential, as they are the ultimate law of the ADA and should be followed.

ADA Checklist for Existing Facilities

<http://www.ada.gov/racheck.pdf>

This checklist can be downloaded and used by building owners or managers to perform their own accessibility audit on the building. The checklist walks through all major areas, and helps the user evaluate if that building element is compliant to the requirements of the ADA. This is a valuable resource as it will highlight possible problem areas that need to be addressed.

Notes on the Erection of Libraries

There are six versions of the "Notes on the Erection of Library Buildings." Any of the versions can be difficult to locate in books or on the internet, so a scanned copy of version 3, found in Appendix 1 of *A Book of Carnegie Libraries* has been provided here. (Pg 221-223)

Appendix 1

Notes on the Erection of Library Buildings [Version 3, c. 1915]

This memorandum is sent to anticipate frequent requests for such information, and should be taken as a guide, especially when the proposed architect has not had much library building experience. It should be noted that many of the buildings erected years ago, from plans tacitly permitted at the time, would not be allowed now.

Library committees, especially in small towns, are frequently composed of busy men who, having lacked time or opportunity to obtain a knowledge of library planning, are led to select a design which, if built, would yield an inadequate return of useful accommodation for the money invested, and would unwarrantably increase the expense of carrying on the library.

Some architects are liable, unconsciously, no doubt, to aim at architectural features and to subordinate useful accommodation. Some are also apt, on account of a lack of practical knowledge of the administration of a library, to plan interiors which are entirely unsuited for the purposes of a free public library. Small libraries should be planned so that one librarian can oversee the entire library from a central position.

The amount allowed by the Carnegie Corporation of New York to cover the cost of a library building is according to a standard based on (a) the population which is to pay the tax for carrying on the library, and (b) a specified minimum revenue from such tax. The donation is sufficient only to provide needed accommodation and there will be either a shortage of accommodation or of money if this primary purpose is not kept in view, viz.: **TO OBTAIN FOR THE MONEY THE UTMOST AMOUNT OF EFFECTIVE ACCOMMODATION, CONSISTENT WITH GOOD TASTE IN BUILDING.**

The amount allowed is intended to cover cost of the building, complete and ready for use with indispensable furniture and fixtures, and including architect's fees.

In looking over hundreds of plans for small and medium-sized buildings, costing about \$10,000, more or less, we have noted some features

Notes on the Erection of Libraries

leading to a wasting of space, especially in connection with the entrance feature, which, when not wisely planned, leads also to waste in halls, delivery room, etc.

The economical layout of the building is sacrificed or subordinated at times to minor accessories, such as too much or too valuable space allotted to cloak rooms, toilets and stairs.

The building should be devoted exclusively to: (main floor) housing of books and their issue for home use; comfortable accommodation for reading them by adults and children; (basement) lecture room; necessary accommodation for heating plant; also all conveniences for the library patrons and staff.

Experience seems to show that the best results for a small general library are obtained by adopting the one-story and basement rectangular type of building, with a small vestibule entering into one large room subdivided as required by means of bookcases. In cases where it is necessary, to secure quiet, glass partitions may be put above the bookcases. By a one-story and basement building is meant a building with the basement about four feet below the natural grade, the basement being from say 9 to 10 feet and the main floor from say 12 to 15 feet high in the clear. Plans have at times been submitted for "one-story and basement" buildings, which differ from two-story buildings only by having the stair to the upper floor outside instead of inside!

The rear and side windows may be kept about six feet from the floor, to give continuous wall space for shelving. A rear wing can be added for stack-room (when future need demands it) at a minimum expense, and without seriously interfering with the library service during its construction. The site chosen should be such as to admit light on all sides, and be large enough to allow extension, if ever such should become necessary.

The accompanying diagrams [see figs. 1.21 and 1.22] are offered as suggestions in planning the smaller library buildings most commonly required, and will be found to include a maximum of effective accommodation relative to total area.

While these diagrams are suggestive rather than mandatory, nevertheless, since they are the result of experience, those responsible for building projects should pause before aiming at radical departures, and see whether their alternative is to provide as much effective accommodation and have as little waste space.

An important cause of alleged inadequacy of accommodation in buildings erected years ago, when less supervision was exercised, has frequently been found to be uneconomical plan with bad layout. When

Notes on the Erection of Libraries

applications (based on growth of population) have been received for aid in extending such buildings, it has often been impossible to entertain the idea of making a grant, owing to the prohibitive cost of demolition and re-erection relative to net gain of superficial area.

It may not be desirable to have library buildings planned from ready-made patterns, and yet a certain standardization of the main requirements of accommodation is as necessary for library buildings as for school buildings, which have been advantageously subjected to strict regulations both in plan and construction. Where architecture is best appreciated there are recognized types established for the various buildings of a public or semi-public character.

It will be noted that no elevations are given or suggestions made about the exteriors. These are features in which the community and architect may express their individuality, keeping to a plain, dignified structure and not aiming at such exterior effects as may make impossible an effective and economical layout of the interior.

These notes are of course written with the smaller buildings in mind; larger buildings require larger and more varied treatment, but no modification of the primary purpose.

Note: For an explanation of the Simplified Spelling used throughout this Appendix, see note 69 to chapter 1.



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1. The first part of the report is a general introduction to the project and the objectives of the study. It also includes a brief review of the literature related to the topic.

2. The second part of the report is a detailed description of the methodology used in the study. This includes information about the study design, the participants, the data collection procedures, and the data analysis methods.

3. The third part of the report is a presentation of the results of the study. This includes a description of the data, the statistical analysis, and the interpretation of the findings.

4. The fourth part of the report is a discussion of the results and their implications. This includes a comparison of the results with the literature, a discussion of the strengths and limitations of the study, and suggestions for future research.

5. The fifth part of the report is a conclusion and a list of references. The conclusion summarizes the main findings of the study, and the references list the sources of information used in the report.



University of Oregon Historic Preservation Program

Terminal Project Approval Page

Stacey Henderson

ACCESSIBILITY RETROFIT GUIDEBOOK:
A Resource for Carnegie Library Building
Owners to Meet ADA Requirements while
Preserving Historic Integrity.

This Terminal Project has been accepted and approved in partial fulfillment of
the requirements for the Master of Science degree in the Historic Preservation
Program by:

Committee Chairperson: Crim Cunningham Date: 6/10/13

Committee Member: Jaurin B. Allsopp Date: 6/11/13

Committee Member: _____ Date: _____

Degree awarded: June 2013





