

# Johnstown Flood National Memorial Accessibility Assessment

## Summary Report Findings and Recommendations

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National Park Service  
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**Johnstown Flood National Memorial  
Accessibility Assessment  
Summary Report of Findings and Recommendations  
Assessment Dates: May 19 & 20, 2011**

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**II. Final Locations as Identified in FMSS**

16321 – South Abutment Trail  
42685 – South Abutment Parking Lot RT 903 (Upper Lot)  
45907 – South Abutment Trailhead Parking Lot RT 902 (Lower Lot)  
16348 – Arbor Nature Trail  
86613 – Carriage Road Trail  
236371 – North Abutment Trail  
87527 – North Abutment Trail Bridge  
42683 – North Abutment Trailhead Parking Lot RT 901  
87526 – Abutments Boardwalk and Overlooks  
16309 – Unger House  
16312 – Unger/VC Grounds  
13610 – Johnstown Flood Visitor Center  
42681 – Visitor Center Access Parking Lot, RT 900  
16333 – 1889 Historic District Area  
16334 – 1889 Club House  
16335 – 1889 Club House Grounds  
16336 – 1889 Club House Parking Lot  
16344 – Picnic Area Grounds  
16345 – Picnic Area Pavilion  
16348 – Picnic Area Trails  
16350 – Picnic Area  
16352 – Picnic Area Comfort Station

### **III. Park Purpose, History & Themes**

The Johnstown Flood National Memorial in Pennsylvania commemorates the most devastating flood of the 19th century in the United States and the greatest national catastrophe in the post-Civil War era. The National Park Service is charged with interpreting the causes and significance of the Johnstown Flood in relation to the era of American history in which the flood occurred. The Park pays homage to the loss of life experienced in the wake of the 1889 flood and recounts the stories of survivors.

Visitors experience the major interpretive themes of the Park through exhibits in the Visitor Center, the Park film, and by traversing the landscape through a series of trails and overlooks. The 1889 Club House of the South Fork Fishing and Hunting Club is a newly acquired Park resource, and plans for renovations of the historic structure were underway at the time of the accessibility assessment.

### **IV. The National Center on Accessibility Assessment Approach**

The National Center on Accessibility assessment process is designed to identify barriers to participation for people with disabilities, make recommendations for barrier removal and improved access, and develop associated work orders and cost estimates to assist Park personnel in long-term planning. The NCA assessment team utilizes the federal standard for program access, Section 504 of the 1973 Rehabilitation Act, as a guiding principle for viewing the programs, activities and services of the National Park or Historic Site, in its entirety, for consideration of barrier removal. The assessment team looks critically at the programs that make up the visitor experience from the point of view of persons who have impairments to vision, hearing, mobility, or cognitive processes. This approach focuses the assessment process and outcomes on the visitor experience and beyond the realm of solely the physical environment. The NCA assessment team views the physical environment as a catalyst for program access and thus forms recommendations for barrier removal with program access at the forefront of the investigative and reporting processes.

At the Johnstown Flood National Memorial, the NCA assessment team conducted an accessibility assessment of the physical and programmatic elements throughout the Park including the Visitor Center, 1889 Club House, Picnic Area, North and South Abutments, and the Park's trail system. In addition, key Park personnel were interviewed to develop a broad range of recommendations for improving access for visitors with disabilities.

### **V. Referenced Standards and Guidelines**

The National Park Service is legislatively mandated to provide accessible facilities and programs for their visitors with disabilities. Based on these mandates, the National Center on Accessibility utilizes the following accessibility standards and guidelines for their assessment:

**Architectural Barriers Act of 1968 as amended (U.S. Access Board, 2004; General Services Administration, effective date May 8, 2006)**

This document contains scoping and technical requirements for accessibility to sites, facilities, buildings, and elements by individuals with disabilities. The requirements are to be applied during the design, construction, addition to, alteration, and lease of sites, facilities, buildings, and elements to the extent required by regulations issued by Federal agencies under the Architectural Barriers Act of 1968 (ABA).

**Rehabilitation Act of 1973, as amended in 1978, Section 504**

Section 504 of the Rehabilitation Act (1973) reads, "No otherwise qualified individual with a disability in the United States shall solely by reason of his disability, be excluded from the participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or under any program or activity conducted by an Executive Agency."

**Rehabilitation Act of 1973, Section 508**

This section, amended in 2000, requires access to electronic and information technology provided by the Federal government. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Federal agencies must ensure that this technology is accessible to employees and members of the public with disabilities to the extent it does not pose an "undue burden."

**NPS Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Services**

This NPS Director's Order reiterates the NPS goal to ensure that all people, including the estimated 54 million citizens with disabilities, have the highest level of accessibility that is reasonable to their programs, facilities and services in conformance with applicable regulations and standards. Five objectives are outlined including: incorporation of the highest level of accessibility as a long range goal; implementation through daily operation, policies, organizational relationships and strategies; provision of guidance and direction regarding the NPS interpretation of laws and policies; establishment of a framework for effective implementation; and ensuring the implementation of "universal design" principles within the National Park system.

**Programmatic Accessibility Guidelines for National Park Service Interpretive Media (February 2012)**

These NPS Guidelines combine laws, policies, and best practices for interpretive media. The guidelines acknowledge that no interpretive media product works alone. Media products are interdependent and each has inherent strengths and weaknesses. Park visitors sample and benefit from an array of interpretive media. These guidelines describe design and presentation solutions that are acceptable in most interpretive media situations. It should be noted however that these guidelines present highlights only and are not comprehensive.

**Draft Final Accessibility Guidelines for Outdoor Developed Areas (U.S. Access Board, October 19, 2009)**

Achieving accessibility in outdoor environments has long been a source of inquiry due to challenges and constraints posed by terrain, the degree of development, construction practices and materials, and

other factors. These guidelines are proposed by the U.S. Access Board as new scoping and technical requirements for outdoor developed areas covered by the Architectural Barriers Act. The guidelines will cover new and altered trails, beaches, picnic and camping facilities and viewing areas. While these guidelines are not yet enforceable as requirements for Federal entities, they should be integrated into the planning, construction, and renovation of outdoor recreation areas and facilities and in the provision of programs and services provided to the public as best practice guidelines.

In addition to legislative mandates and proposed rulemaking, the NCA assessment team has made recommendations based on best practices in the field in order to create greater opportunities for participation and benefit among visitors with disabilities.

### **Principles of Universal Design**

Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The intent of Universal Design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal Design benefits people of all ages and abilities.

There are times when NCA may use the concept of Universal Design for recommendations that are not requirements but are seen as “best practices”. An example would be providing recommendations for benches in the outdoor environment, installing power assisted exterior doors, marking parking spaces uniformly at 11 feet wide, and/or utilizing the advisories in ABAAS when appropriate due to accessibility issues that contribute to safety risks.

### **Smithsonian Guidelines for Accessible Exhibition Design**

The Smithsonian Guidelines is one of the very first and most formidable resources addressing exhibit design considerations for museum patrons with disabilities. The Smithsonian Guidelines are referenced as best practice for designing to various learning styles and functional abilities in the interpretive environment and especially in situations where the accessibility standards do not fully transfer to unique exhibition designs.

### **NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities D24 (2420) (October 20, 2006)**

A series of official disability rights complaints and testimony received at a Congressional oversight hearing on disability access revealed that the NPS has many audiovisual programs that are not captioned or audio-described; assembly areas that are not equipped with assistive listening systems; and in some cases, captioning systems that are broken and have not been repaired. This initiative established the fundamental goal that the films and audio-visual programs presented in parks provide three basic services: open captions, audio-description, and assistive listening devices for those with hearing loss.

### **Architectural and Transportation Barriers Compliance Board Revised Draft Guidelines for Accessible Public Rights-of-Way (November 23, 2005)**

Sidewalks, street crossings, and other elements of the public rights-of-ways present unique challenges to accessibility for which specific guidance is considered essential. These proposed guidelines for public rights-of-way address various issues, including access for blind pedestrians at street crossings, wheelchair access to on-street parking, and various constraints posed by space limitations, roadway design practices, slope, and terrain. The new guidelines will cover pedestrian access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

## **VI. Key Findings and Recommendations**

This section provides an overview of the NCA assessment team's key findings and recommendations. More complete details of findings, recommendations for corrective actions and cost estimates are available through the Facility Management Software System (FMSS) database, and the Cost Estimating Software System (CESS).

The deficiencies are given a priority rating by the assessors. The three accessibility deficiency priorities, as established by the National Park Service within FMSS, are:

**Critical** - A critical priority would be given to those deficiencies that occur in an asset or facility that is utilized by a significantly high number of people (visitors or employees); or "prohibits" or seriously inhibits people with disabilities from utilizing the facility.

**Serious** - A serious priority would be given to those deficiencies that occur in an asset or facility but only modestly inhibit an individual with a disability from utilizing the facility.

**Minor** - A minor priority would be given to those deficiencies that occur in any asset or facility but only slightly inhibit an individual with a disability from utilizing the facility. Minor classifications can also signify that the deficiency can be easily corrected with maintenance and/or minor adjustments or that correction might take more time and money but only needs to be corrected when renovations/replacements are scheduled.

### **1. Policy Considerations and Best Practices**

During the review of assessment data, NCA accessibility specialists identified several barriers to accessibility, unique to Johnstown Flood National Memorial, that are not explicitly addressed in the above referenced standards. As a result of discussion with Park management, and in collaboration with recommendations from the U.S. Access Board, the Park has decided to adopt the following best practices to maximize accessibility for visitors with disabilities.



### Exterior Doors

While there is no identified accessibility standard for the operating force of exterior doors, it is recommended as best practice for the Park to adjust exterior door closers to reduce the operating force to as close to 5 pounds (maximum force requirement for interior doors) as possible. If this is not possible, the Park should investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability.

### Waysides and Interpretive Panels

As new waysides and interpretive panels are installed, or maintenance is conducted to existing routes where waysides and interpretive panels are furnished, clear ground space complying with ABAAS 305 should be provided, positioned for either a forward or parallel approach, centered on the frame.

### Benches

All new accessible benches should be installed with clear floor or ground space positioned near the bench for wheelchair seating that does not overlap the accessible route. As benches are repaired or replaced, accessible benches should be provided until a minimum of 20 percent are accessible in each location. Accessible benches should have back support, at least one armrest, a seat height of between 17 inches minimum and 19 inches maximum, and should be installed along an accessible path of travel (i.e. accessible route, outdoor recreation access route, or trail).

## **2. Visitor Information / Trip Planning**

The Park website is often the first point of contact for people planning their visit to the Park. While an accessibility section of the website exists, it provides only partial information on the accessibility of the Park. The website includes the statement that “The Visitor Center film has closed captions.” This statement is misleading to visitors who require text captioning of audio information as “closed captioning” gives the individual with a disability the inclination that they have to request the captions to be turned on. As a matter of policy, the Park film is shown with captioning on-screen at all times. This is called “open captioning” and the language on the Park website should be changed to reflect this. There is no information provided regarding the availability of auxiliary aids and services including assistive listening and audio description. Additionally, the procedure to request a sign language interpreter, live audio describer, and the contact information for the Park’s Accessibility Coordinator is not provided.

The recommendation is to alter the accessibility section of the Park website to include comprehensive information about the Park’s accessible features and services for visitors with disabilities, including, but not limited to, existing physical accessibility barriers, planned improvements, and maintained accessible features of each Park area. Enhance the accessibility information, not only for people with physical disabilities, but also for people with sensory and cognitive disabilities. Provide specific information about auxiliary aids and services, brochures available in alternate formats, and objective statements about the conditions affecting the accessibility of the grounds and trails to enable prospective visitors to plan accordingly. Include the procedure to request a sign language interpreter or to make other accommodation requests. It is also recommended that the Park reference the latest regulations

published by the Department of Justice regarding service animals and Other Power Driven Mobility Devices, and review and update the Park's policies on the topics. Update the existing information in the "Pets" section of the website, and include the same information in the "Accessibility" section. Finally, include the name and contact information of the staff member who serves as the Accessibility Coordinator for the Park. All information provided on the Park's website or in Park publications relating to accessibility should reflect person-first language and appropriate terminology regarding individuals with disabilities, accommodations, and features of accessibility.

### **3. Visitor Orientation and Way-finding**

The layout of the facilities and features of Johnstown Flood National Memorial are communicated through signage, maps, and publications designed to welcome and orient the visitor to the Park. Vertical information kiosks, maps of the Park and maps of trails are not provided in electronic, large print, or tactile formats for people with low vision or who are blind. While accessibility guidelines do not address visitor orientation and way finding, in order to meet program access requirements the Park should design and develop a tactile, topographical map of the Park, including the Visitor Center, Unger House, North and South Abutments, 1889 Club House, the area trails, and the other relevant amenities and topographies to be provided at the Visitor Center. This will allow individuals with low vision or who are blind to orient themselves to the surroundings in the Park.

The existing tactile model, which includes three recorded audio narrations, does not include sufficient enough information to serve as the sole tactile representation of the Park for the purposes of orientation and way-finding. Multiple models may be necessary in order to convey the relevant Park information, in addition to the relevant interpretation, in order to meet the program access requirements for orientation and way-finding. The map/model(s) material should be able to withstand high visitor use, be comfortable to the touch (i.e., be able to withstand temperature extremes if located outside), and be finished with a coating that allows for routine cleaning. A variety of textures should be used to distinguish between landscape features of varying topographies such as forest, water and trails. The tactile map/model(s) should include components such as raised lines and scale orientation options. The map/model(s) should also include an audio description component.

### **4. Publications**

Publications offer a wide range of information; therefore, it is critical that people with disabilities receive the same information - of the same quality - as other visitors. Publications that are considered "readily available," like the official Park brochure and site bulletins, must be provided in all alternate formats.

The Park's unigrid brochure and all other readily available publications should be converted to Braille, designed for large print, and formatted for audio and electronic distribution. Utilize the Harpers Ferry Center large print brochure template to adapt all primary standard Park brochures to large print. In addition, convert the content for the primary standard Park brochures to Braille, electronic text file (.txt, .rtf, .doc), and audio (cassette, CD, mp3), and maintain the alternate formats in stock for visitor request. Provide signage at the information areas and a notice on the Park website stating that the information is

available in alternate formats. Develop a procedure for converting the content of secondary brochures into alternate formats and insert a statement in those publications indicating, "Alternate formats of this publication are available upon request."

Add a section to the primary Park brochures explaining the availability of services for visitors with disabilities including information to request a sign language interpreter, availability of an assistive listening system and audio description, alternate formats, trail information, accessibility improvements to the Park, and the contact information for the Park's Accessibility Coordinator. Ensure that the same information is added to the Park's website.

## **5. Exhibits**

The interpretive program content should be designed to communicate as effectively to people with disabilities as it does to people without disabilities. Generally, this requires purposeful design in the planning phase to accommodate what may be a wide range of sensory and cognitive impairments. At a minimum, interpretive panels should include high-contrast, no glare, sans serif or simple serif font and font size appropriate for viewing distance and height. An audio description program should communicate the interpretive content for visitors with visual impairments. Tactile elements should be integrated to effectively communicate the primary interpretive themes and unique Park features to individuals who are blind, have low vision, or are cognitively impaired. Maps of the Park, including the buildings and trail system, should be made tactually available for all visitors.

### Interpretive Panels

The interpretive panels in the Visitor Center and 1889 Club House present a barrier for individuals with low vision due to small font size, type and contrast, glare, shadow, excessive use of italics, and lack of tactile elements. The volume of text and images and complexity of interpretive content on the panels may create a barrier for persons who have learning disabilities or who are cognitively impaired. The Park shall work with a consultant to determine a replacement schedule for those panels that may present the most significant barriers to persons with disabilities. As panels are replaced, ensure that sufficient text size, font and contrast is provided. Font shall be sans serif or simple serif. Contrast shall be between 70 percent minimum and 95 percent maximum. Ensure that text is readable against any background image. Italics shall be used minimally. As panels are replaced, the interpretive content should be altered to present the main interpretive themes on a variety of levels of complexity, so they can be understood by people with varying abilities and interests. Where possible, consider presenting the information most central to the Park's interpretive themes as a multi-sensory experience (i.e. tactile exhibits, audio description, easy to understand graphics, etc.). Include the most pertinent information contained on the interpretive panels in the proposed audio described tour of Johnstown Flood.

### Interactive Exhibits

There are multiple exhibits that are intended to be activated by the visitor in order to receive the interpretive information: *Survivor Stories*, *Fiber Optic Map*, and *Conemaugh Lake Model*. None of these exhibits contain raised text or Braille exhibit labels or audio description to convey instructions to

individuals who are blind or have low vision. Incorporating labels may also assist in the intuitive use of exhibit components for individuals with cognitive impairments. The recommended solution is to provide raised text and Braille exhibit labels for interactive components of the aforementioned exhibits. Each exhibit with an audio component that must be activated by the visitor should incorporate the designation “push” to activate. The way in which the labels are integrated into these exhibits should ultimately be determined through collaboration with Park management, interpretive staff, and the audio description consultant. The new labels should be incorporated into the audio described tour of the Visitor Center.

#### Captioning of Audio Components

The diorama exhibit, Survivor Stories, delivers a recorded audio message from one of the survivors of the Johnstown Flood. The audio message is activated by a push button mechanism on any of five speaker stations installed to the top of the waist-high railing/retaining wall. The activating mechanisms for the audio message are installed beyond maximum reach range requirements. While a script of the audio information is available at the information desk, there is no captioning provided for individuals who are deaf or have hearing loss.

The Conemaugh Lake Model exhibit, provided on the lower level of the Visitor Center, delivers three recorded audio messages regarding the events of the Johnstown Flood. Each audio message is activated by a push button mechanism integrated into the model. There is no script of the audio message or captioning provided for individuals who are deaf or have hearing loss.

The Park shall provide a video monitor that delivers the text of the audio message at each exhibit. The captioning delivery system shall be installed to provide sufficient viewing height for a large range of audiences, both seated and standing. A minimum of one of the speaker stations shall be altered at the Survivor Stories exhibit to provide the operating controls within accessible reach range requirements. It may be necessary to relocate the Conemaugh Lake model within the exhibit space to ensure that the captioning and model are simultaneously viewable by the visitor.

#### Tactile Exhibits

There are limited tactile exhibit components available to provide an equal program experience for individuals who are blind, have low vision, or are cognitively impaired. The Park shall work with an interpretive media and design specialist to create tactile models of those elements that are reflective of the major interpretive themes of the historic site. Some interpretive elements to consider producing as a tactile experience include the 1889 South Fork telegraph, period clothing, and native plant species. Include the models in the recommended comprehensive audio described tour of the Johnstown Flood National Memorial.

#### Physical Design Elements

There are multiple exhibit cases and light boxes that protrude into the path of travel within the Visitor Center. Protruding objects that are not cane detectable create potential safety hazards to individuals who are blind or have low vision. A cane detectable element shall be installed beneath each of the

exhibit components that create a protruding object. An object shall be considered cane detectable if it protrudes more than 4 inches from the wall and has a low leading edge greater than 27 inches above the finish floor or ground surface. During fabrication of cane detectable elements, consider a contrasting color for the finish of the extension in order to provide sufficient contrast to be detectable by persons with low vision.

There are three Plexiglas exhibit cases (*Lake Conemaugh*, *The Dam Gives Way*, and *The Victims*) that have sharp edges. Persons with low vision may experience this kind of exhibit by bending over to gain a closer look at the artifact. The sharp edges on the Plexiglas case create a potential safety hazard for individuals who cannot visually detect the clear casing. The edges and corners of each Plexiglas exhibit case shall be grinded and smoothed to limit the potential safety hazard for individuals who have low vision. Future Plexiglas exhibit cases shall have rounded and smoothed edges to limit this potential hazard.

There are deficiencies to the lighting scheme in the Club House that provide a barrier for individuals with low vision. Overhead lighting creates glare on the surface of the exhibit panels or cases washing out segments of text, images, and displays. It also creates a shadow over the exhibit which does not allow for the recommended contrast making the text difficult and in some cases potentially impossible to read. Areas of low lighting can obscure the exhibit altogether. Park management shall work with a design consultant to adjust the lighting for exhibits in the Club House. Particular attention should be given to details such as glare, shadows and low lighting. Provide sufficient, even light for exhibit text. Avoid harsh reflections and glare. This includes finishes for text panels that are highly reflective, such as glossy or metallic surfaces. The lighting system shall be flexible enough to allow adjustments on-site. Back-lighting shall be avoided when type or illustration is positive [dark] on a light background. Back-lit text panels or cases should not be placed in front of windows or bright lights.

#### Exterior Interpretive Elements

Exterior wayside exhibits display graphic and textual interpretive information for Park visitors. At the time of assessment, the Park had nine wayside exhibits installed throughout the grounds. There are multiple deficiencies in regards to the presentation of interpretive information on waysides. Serif font, insufficient contrast, text over images, and lack of audio or tactile elements all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments. The audio station for *The Unger House* wayside was not operational at the time of assessment. Current and future exterior interpretive programs throughout the Park should be evaluated and prioritized to develop a new interpretive program of wayside exhibits, maps and models. The information should be presented in multiple modes of delivery including graphic, textual, audio, and tactile information. When panels are replaced, ensure that the information is presented in a way that is accessible to the widest range of visitors. Things to consider in interpretive design include the use of sans serif or simple serif fonts (as opposed to serif fonts), minimal use of italics, contrast between text and background of 70-95 percent, and the incorporation of audio and tactile elements. Where possible, all maps should be tactile. Text should not appear over images or in shadow as the stylistic presentation of information can interfere with readability. Wayside exhibits should be installed along an accessible

route, outdoor recreation access route, or accessible trail. The physical accessibility guidelines for the exhibit panels include installation in relation to the accessible route, panel viewing height and viewing angles, clear floor or ground space that is firm and stable, and unobstructed views of exhibits and Park features. Where exhibits are placed at inaccessible locations, consider posting wayside content on the Park website. Wayside exhibits shall be regularly maintained to ensure accessibility of information for all visitors.

## **6. Audio/Visual Programs**

All new media productions shall be open captioned and audio described per Section 508 of the Rehabilitation Act and the NPS Audio-Visual Accessibility Initiative. All existing media shall be captioned, audio described and available for use with an assistive listening system. The accessible features of the audio/visual programs such as assistive listening, audio description and open captioning shall be maintained through periodic testing and staff training. Display signage at reception areas indicating that the assistive listening system and audio description is available and market their availability through brochures, program announcements and the Park website.

### Assistive Listening System

There are three exhibits in the Visitor Center that include an audio component. None of the audio exhibits include equipment that is equipped with volume control or t-coil compatible amplification delivery for individuals who have hearing loss. The recommended solution is to install one set of headphones at each audio exhibit (3) that includes volume control and t-coil compatibility. The headphones shall be installed within accessible reach range requirements. Routine maintenance shall be conducted to ensure that the equipment is operational at all times for all visitors.

An assistive listening system is not available for the video program, *Black Friday*, or for any of the audio exhibit elements within the Visitor Center. At the time of assessment there was no assistive listening system available for use by Park staff or local arts productions at the 1889 Club House.

The Park shall work with an interpretive media consultant to provide a dedicated assistive listening system within the Johnstown Flood Memorial Visitor Center and within the 1889 Club House. The Visitor Center system should incorporate the theater and audio exhibits on the main and lower levels. At the 1889 Club House, the system should incorporate the video program and the performance space on the first floor. A minimum of four assistive listening receivers are required to be dedicated for use in the Visitor Center theater. A minimum of two of the receivers shall be hearing-aid compatible. A minimum of two assistive listening receivers are required to be dedicated for use at the 1889 Club House. Both receivers shall be hearing-aid compatible. Signage shall be provided on the entry doors in each location alerting visitors to the availability of the accommodation.

### Audio Description

At the time of assessment, the primary Park film “Black Friday”, was advertised as being equipped with audio description, although the system was not operational. Since the time of assessment, Park senior

management has indicated that the audio description delivery system has been repaired. The Park shall ensure that signage is displayed and a notice is provided on the website alerting visitors to the availability of audio description and that routine maintenance is conducted to ensure that the accommodation is available and operational at all times.

#### Open Captioning

The primary Park film, "Black Friday", is equipped with open captioning. However, the black and white text of the open captions is often difficult to read and requires a great deal of visual acuity to distinguish between the black and white background of the film. In addition, the clarity of the captioning is poor and the text appears distorted or fuzzy to the audience. This may, in part, be caused by a conflict between the size of the projection versus the existing digital quality of the film. The Park shall work with a consultant to digitally re-master the Park film in order to enhance the film quality to improve the viewing experience for all visitors, including those with low vision. During the re-mastering process, the format of the open captions should be updated to provide sufficient contrast between the text and background. The new captioning shall be readable against any background image.

The fiber optics map in the Visitor Center has a caption monitor that delivers text of the audio information provided to visitors. Multiple lines of text (average 8) and images are provided simultaneously with the movement of the fiber optics. The fiber optic map is installed within a housing that the visitor must look down into in order to view the interpretive program. The monitor is installed on top of the framing making it difficult, if not impossible, for a visitor to watch the progression on the map of the flood and read the captions on the monitor at the same time. Both are necessary for a visitor to be able to receive the same information provided to all visitors. Park management shall work with design services to redesign the fiber optic map exhibit so that visitors can read the captions and watch the fiber optic map movement simultaneously. Consideration should be given to angling the map forward or mounting it on a wall with the captions provided beneath the exhibit for easier viewing. In addition, the amount of text provided on the caption monitor should be limited to a maximum of two lines at a time.

The video program, *Victorian Summer*, shown in the 1889 Club House is not open captioned for individuals who are deaf or have hearing loss. The Park shall provide open captions on the 15 minute long video program. Captioning for individuals who are deaf or have hearing loss shall incorporate the auditory script of the film in addition to identification of speakers and information regarding on- and off-screen nonverbal sound effects. Captions should use white text and a darker colored or transparent text box to enhance contrast and readability by individuals who have impairments to vision.

## **7. Talks and Tours**

### Portable Assistive Listening System

A portable assistive listening system is not available for talks, tours, and special events at the Johnstown Flood National Memorial. Four portable receivers (two receivers shall be hearing-aid compatible) and two portable transmitters shall be purchased and dedicated for use by interpretive staff conducting talks

and tours in and around the Visitor Center. In addition, a portable system with two portable receivers (both receivers shall be hearing-aid compatible) and one portable transmitter shall be purchased and dedicated for use by interpretive staff conducting talks and tours in and around the historic 1889 Club House structure. Signage shall be provided on the entry doors in each location alerting visitors to the availability of the accommodation.

#### Audio Description

The Park conducts ranger-led programs seasonally and upon request by organized groups. Interpretive staff should receive training on the provision of audio description for people with visual impairments and tailoring talks for people with cognitive impairments who attend public programs conducted and/or hosted by the Park.

None of the visual elements of the Johnstown Flood National Memorial are audio described. This provides a barrier to full participation for visitors who are blind or have low vision. The Park shall work with a consultant to develop and record a script that will incorporate the visual elements of the Visitor Center and the exterior elements of the grounds, into an audio described tour. Be sure to include the following elements in development of the script: a general orientation to the Visitor Center, the exterior interpretive panels and waysides, photos and text on interpretive panels, any exhibits behind Plexiglas, the Survivor Story audio stations, computer operated exhibits, light boxes, fiber optic map, Conemaugh Lake model, and all tactile components throughout the exhibit area. In addition to providing a programmatic alternative solution to interpretive visual elements of the Visitor Center for individuals who are blind or have low vision audio description may also provide an enhanced program opportunity for individuals with cognitive impairments. Where audio description for exhibits is provided, incorporate signage alerting to the availability of audio description. In addition, the consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (so that visitors can explore their surroundings by means of tactile exhibits), is able to be independently operated, and is hearing-aid compatible.

While there was no existing self-guided audio tour or cell phone audio interpretation delivery system in place at the time of assessment, it should be noted that the development of any type of new interpretive program should meet the minimum requirements of Section 508 for electronic and information technology, and the program access standard mandated by Section 504 of the Rehabilitation Act. Wherever communication is made with visitors, the communication should be as effective for people with disabilities as it is for people without disabilities. Use of new technology, such as cell phones, smart phones, MP3 players, and portable GPS should include purposeful planning to accommodate the range of needs of people with hearing loss, people with visual impairments, people with mobility impairments, and people with cognitive impairments. Consideration should also be given to the diversity of the Park visitor population including those traveling with children, older adults, large groups, and individuals who may not own or have access to such devices.

The Park shall not require an individual with a disability to utilize his or her personal technological device as the sole method of receiving the interpretive message, in particular, the delivery of audio description.



Where future audio tour programs are implemented, the Park should consider preloading the media content onto an accessible MP3 player, or other device, to include the audio program and an audio described version of the audio program for visitors with visual impairments who request this accommodation. This method of communication shall be investigated as a means of providing the interpretive information without requiring the visitor to have/carry a personal cell phone, and possibly to deplete their available minutes and/or battery life.

## **8. Physical Building Elements**

Below is a summary of the major physical accessibility deficiencies, by area, found at the Johnstown Flood National Memorial. The identified barriers and recommended solutions have been entered into FMSS, and work orders have been generated and cost estimated for the removal of the specific barrier. For a detailed explanation of a specific deficiency and solution, please refer to the FMSS data and generated work orders.

### Parking

There are multiple deficiencies to the parking area at Johnstown Visitor Center. There are a total of 60 vehicle parking spaces and two bus parking spaces provided. Four vehicle spaces are designated for accessibility. Two spaces are marked for van accessibility and have a shared access aisle. One of the van accessible parking spaces does not meet minimum width requirements. Three of the four vertical signs for the accessible spaces do not meet minimum height requirements above the ground surface measured to the bottom of the lowest sign. The slope of the existing designated accessible spaces and access aisles exceed maximum requirements up to 5.8 percent. Also in the parking lot, there is a concrete switchback ramp provided between the upper and lower levels of the parking area. The lowest ramp section (closest to the accessible parking) has running slope that exceeds maximum requirements. Many of the Park's visitors arrive at the site via bus (e.g. school groups). There is no accessible loading area provided within the asphalt parking area or on the adjacent concrete accessible route for bus loading and alighting.

The Park shall consult with design services to provide accessible parking, ramp, and loading zone at the Visitor Center. The Park should continue to provide four accessible parking spaces with two designed for van accessibility. The slope of accessible parking spaces and access aisles shall not exceed 2.08 percent in any direction. The concrete switchback ramp provided between the upper and lower levels of the parking area shall be graded to ensure that the maximum running slope does not exceed 8.33 percent. An accessible loading zone shall be provided for bus loading and alighting. The accessible loading zone shall be a minimum 5 feet wide and 8 feet deep to accommodate the deployment of a ramp. The slope of the loading zone shall not exceed 2.08 percent in any direction. During renovations, ensure that the height of accessible parking signage is corrected.

There is no accessible parking area designated in the gravel parking lot adjacent to the 1889 Club House. The unimproved surface is not firm, stable, or slip resistant and does not meet minimum slope requirements for accessibility. Similarly, the unimproved surface of the existing route (sand, gravel, and

grass) between the parking area and the ramp and stair access points to the 1889 Club House does not meet requirements for firmness and stability. A minimum of one van accessible parking space is required at the 1889 Club House. Accessible parking shall be provided on the shortest accessible route to the Club House and shall include vertical signage identifying the space as “van accessible.” A design study shall be conducted to designate and install an accessible route from the proposed accessible parking area to the base of the stairs and ramp at the north corner of the Club House. Grading and paving of the unimproved ground surface is required in order to provide the required firm and stable surfacing and to ensure slope requirements are met for the accessible parking area and accessible route.

### Accessible Routes

The multi-use patio at the exterior of the Visitor Center is constructed of 12x12 inch brick paver surfacing. Over time, the seasonal frost-thaw process has created areas of heaving, which has created areas of excessive slope up to 4.7 percent and changes in level up to  $\frac{3}{4}$  inch. Built-in wood benches are provided on the patio. No arm rests are provided throughout the seating area. The existing brick paver surfacing shall be removed, the sub base graded, and the pavers replaced with concrete to provide a level surface at the exterior patio. Due to the multi-functional use of the patio (e.g. gathering space, seating area, orientation zone, etc.), the slope of the patio shall not exceed 2.08 percent in any direction. A minimum of one accessible bench is recommended for this area. The accessible bench should include back support and at least one armrest. Park management should consider affixing the bench to the concrete surface to maintain the features of accessibility including seat height between 17 and 19 inches above the ground surface. Clear ground space should be positioned near the bench for companion seating.

The handrails installed along both sides of the stair flight between the main and lower levels of the Visitor Center do not meet minimum requirements for diameter of the gripping surface. In addition, the extensions at the top and bottom landings do not meet minimum length requirements. The handrails shall be replaced along this stair flight. The new handrails shall meet minimum requirements for diameter of the gripping surface and shall include the required extensions at the top and bottom landings. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extensions shall return to a wall, guard, or the landing surface. Ensure that the new handrails are installed to comply with requirements for height of the gripping surface above the stair nosings.

The ramp at the exterior of the 1889 Club House has multiple deficiencies. There is a vertical change in level that exceeds maximum height requirements at the bottom landing where the wood ramp transitions to a natural grass surface. There is high potential for the slope of the ramp run, specifically cross slope, to come out of compliance due to settling of the footings into the natural ground surface at the bottom of the ramp. The handrails installed along the ramp run and at the two stair flights serving the exterior portico do not meet minimum requirements for diameter of the gripping surface and do not meet minimum height requirements for accessibility. The handrails also lack the required extensions at

the top and bottom landings. The ramp and guard rails (including handrails) along the ramp and at the stair flights shall be replaced with materials in kind in order to meet requirements for accessibility and maintain the visual presence of historic accuracy. Level landings shall be provided at the top and bottom of stair flights and ramp runs. Ensure that the landing at the base of the ramp includes a firm and stable surface and encompasses a large enough surface area to meet requirements for accessibility in addition to preventing settling of the ramp footings into the natural ground surface. The new ramp shall meet requirements for running and cross slope and include handrails along both sides of the ramp run. Handrails along the ramp run and at stair flights shall meet requirements for diameter of the gripping surface in addition to height and length requirements, including extensions that return to a wall, guard, or the landing surface.

The thresholds at the two main entrances of the 1889 Club House create a change in level up to 3 inches. The existing wood thresholds shall be replaced with a product designed for accessibility. The thresholds are permitted to be ½ inch high maximum. Thresholds with a vertical change in level greater than ¼ inch shall be beveled. The doors themselves may need to be altered by adding additional materials to the bottom of the doors in order to minimize the gap between the double doors and the threshold.

There are multiple deficiencies to the natural surface and geotextile route at the rear of the Visitor Center leading to the Unger House. The clear space in front of two waysides along the geotextile route (*The Dam Melts Away* and *Lake Conemaugh*) exceeds maximum slope recommendations up to 7.1 percent. Beginning south of the *Lake Conemaugh* wayside and continuing toward the Unger House, the running slope of the geotextile route exceeds maximum requirements for an accessible route up to 10.9 percent. The existing geotextile and natural surface between the lower level Visitor Center entrance/exit and the Unger House shall be removed, graded, and replaced with materials in kind to correct for slope. The running slope of the accessible route shall not exceed 5 percent maximum and the cross slope shall not exceed 2.08 percent maximum. Clear ground space measuring 30 by 48 inches should be provided at the front of each wayside exhibit, centered on the interpretive information, positioned for either a forward or parallel approach. The slope of the clear ground space at the two waysides should not exceed 2.08 percent maximum in any direction.

There is approximately 70 linear feet of geotextile route that must be traversed from the rear of the Unger House to *The Unger House* wayside. Visitors using mobility devices, such as wheelchairs, walkers, or crutches, may not be able to visually discern where the firm and stable surface is located due to the grass overgrowth on the geotextile that blends with the natural landscape. The Park shall designate the geotextile route from the rear of the Unger House to *The Unger House* wayside through the use of landscape markers (i.e. stone pavers) installed into the natural surface on both sides of the geotextile route. Ensure that the clear width between the brick pavers along the path to *The Unger House* wayside meets minimum clear width requirements for an accessible route.

The wood U-shaped ramp to the rear entrance of the Unger House does not meet the following minimum requirements for accessibility: the clear width of the landing between ramp runs does not

meet minimum requirements, handrails do not meet minimum height requirements, and the running slope of each ramp run significantly exceeds maximum requirements up to 14.1 percent. The sandstone paver landing at the base of the ramp (and stairs) has slope that exceeds maximum requirements up to 5.2 percent and has changes in level up to 1 inch between pavers. Similarly, at the lower level Visitor Center entrance/exit, the paver landing at the exterior of the building has slope and changes in level between pavers that exceeds requirements. The ramp and guard rails (including handrails) along the Unger House ramp shall be replaced with materials in kind in order to meet requirements for accessibility and maintain the visual presence of historic accuracy. The new ramp shall meet requirements for running and cross slope, include handrails that meet requirements for diameter of gripping surface and height along both sides of the ramp run, and provide extensions at the top and bottom of the ramp run that return to a wall, guard, or the landing surface. Ensure that landings are provided at the top and bottom of the ramp runs, and that they do not exceed maximum slope requirements. The paver surface shall be replaced at the Unger House and at the Visitor Center with concrete in order to provide the required level landings.

### Restrooms

The dimensions of the high and low drinking fountains at the exterior of the restrooms on the lower level of the Visitor Center are consistent with those required for accessibility. However, both units create a protruding object into the path of travel that is not detectable by individuals who are blind or have low vision. A privacy style partition shall be installed adjacent to each drinking fountain to provide a detectable warning of the protruding object for individuals who are blind.

There are multiple barriers to accessibility in the men's restroom in the Visitor Center: signage is installed on the door; the force required to open the restroom door exceeds maximum requirements for an interior door; the lavatory apron exceeds maximum height requirements above the finish floor; pipes are not fully wrapped to protect against contact beneath the lavatory; the mirrors exceed maximum height requirements above the finish floor measured to the bottom of the reflective surface; the clear floor space at the urinal does not meet minimum requirements; the urinal rim exceeds maximum height requirements above the finish floor; the accessible stall does not meet minimum size requirements; the rear grab bar does not meet minimum length requirements in relation to the toilet centerline; the side grab bar does not meet minimum length requirements from the rear wall; the space between both grab bars and the wall exceeds requirements; and the coat hook exceeds maximum reach range requirements. The following corrective actions were recommended in order to ensure compliance with the accessibility standards: relocate the compliant restroom signage to the wall on the latch side of the door; adjust the closer on the interior door to require no more than 5 pounds of force to open; reinstall the lavatory counter to correct for height; wrap pipes beneath the lavatory to protect against contact; lower a minimum of one mirror to correct for height; replace the wall-hung urinal with a unit designed for accessibility; reinstall the partition adjacent to the accessible urinal to provide the minimum required clear floor space at the accessible unit; adjust the partition system to provide an accessible toilet compartment; replace the side and rear grab bars in the accessible toilet compartment; and install an additional coat hook in the accessible toilet compartment to comply with requirements for reach range.

There are multiple barriers to accessibility in the women's restroom in the Visitor Center: signage is installed on the door; pipes are not fully wrapped to protect against contact beneath the lavatory; the mirrors exceed maximum height requirements above the finish floor measured to the bottom of the reflective surface; the accessible stall does not meet minimum size requirements; the rear grab bar does not meet minimum length requirements in relation to the toilet centerline; the side grab bar does not meet minimum length requirements from the rear wall; the space between both grab bars and the wall exceeds requirements; and the coat hook exceeds maximum reach range requirements. The following corrective actions were recommended in order to ensure compliance with the accessibility standards: relocate the compliant restroom signage to the wall at the latch side of the door; wrap pipes beneath the lavatory to protect against contact; lower a minimum of one mirror to correct for height; adjust the partition system to provide an accessible toilet compartment; replace the side and rear grab bars in the accessible toilet compartment; and install an additional coat hook in the accessible toilet compartment to comply with requirements for reach range.

There is a men's and women's restroom provided on the first floor of the 1889 Club House. Neither of the existing restrooms have any features that have been designed for accessibility. Park management shall work with design and historical architect services to create an accessible single-user restroom on the first floor of the Club House. Significant redesign of the interior of the first floor and associated plumbing will be involved. The accessible toilet room shall be sized for accessibility, including provision of fixture clearances, turning space, compliant toilet seat height and centerline, lavatory height and knee clearance, side and rear grab bar length and positioning, mirror height, and other features. All features of the newly designed single-user accessible restroom in the Club House shall comply with the corresponding standard in ABAAS.

### Theater Access

There is no means of physical access provided to the lower stage/presentation area of the theater for individuals with mobility impairments. Due to the construction of the theater and adjoining stairway to the lower level exhibit space, installation of a ramp or lift at the interior of the Visitor Center for access to the lower level of the theater is not feasible. Therefore, Park management shall consult with design services to investigate options for providing physical access to the theater from the exterior of the building. There is a significant change in level from the ground surface to the threshold of the exterior emergency exit door to the theater. Ensure that if a ramp is installed, that all requirements for an accessible ramp/route are met in accordance with ABAAS.

Nine fixed seats have been removed at the rear of the theater for wheelchair seating, and the minimum number of required wheelchair spaces with accompanying companion seats (four) is met; however, no accessible aisle seating is provided. The existing seating configuration does not permit the addition of a designated aisle seat. A minimum of one designated accessible aisle seat is required. Park management shall consult with design services to rearrange the orientation of the fixed seating at the rear of the theater to provide four wheelchair seating spaces, each with an accompanying companion seat, and one designated aisle seat with a retractable or removable armrest for transfer shall be added to the design plan. The designated accessible aisle seat shall include the International Symbol of Accessibility.

The handrails installed along the stair flight on each side of the theater and in the alcove leading to the lower level exhibits do not meet minimum requirements for diameter of the gripping surface. In addition, the extensions at the top and bottom landings do not meet minimum length requirements. The handrails shall be replaced in each of these areas. The new handrails shall meet minimum requirements for diameter of the gripping surface and shall include the required extensions at the top and bottom landings. At the top of a stair flight, handrails shall extend horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extensions shall return to a wall, guard, or the landing surface. Ensure that the new handrails are installed to comply with requirements for height of the gripping surface above the stair nosings.

## **9. Picnic Area**

Consistent with the language in the Draft Final Accessibility Guidelines for Outdoor Developed Areas, a picnic unit shall refer to an individual site used for picnicking that contains outdoor constructed features (e.g., picnic table and pedestal grill). A picnic facility refers to any group of picnic units. Where one picnic facility differs in experience or opportunities provided to visitors from another facility, the total number of accessible elements in each facility will be calculated based on each separate facility. Given this explanation, there are two picnic facilities provided at Johnstown Flood National Memorial: the covered picnic pavilion (which includes eight non-fixed picnic tables and one shared-use pedestal grill), and the uncovered picnic units dispersed throughout the grounds (each containing one picnic table and one pedestal grill). An outdoor constructed feature at the picnic facility or unit is defined as any one of the following: picnic table, grill, drinking fountain, trash and recycling receptacles.

### Parking

There are multiple deficiencies at the accessible parking serving the picnic area. There are a total of 18 vehicle parking spaces. Two spaces are designated for accessibility and incorporate a shared access aisle. One of the two spaces is marked for van accessibility. Neither of the accessible parking spaces meets minimum width requirements for accessibility. The vertical signage for the van accessible space does not meet minimum height requirements above the ground surface measured to the bottom of the lowest sign. The slope of the accessible parking spaces and access aisle exceeds maximum requirements up to 3.3 percent.

Repair the accessible parking area by removing, grading, and paving the asphalt surface in order to provide two accessible parking spaces – one standard, and one van accessible, with a shared access aisle. The slope of the accessible parking spaces and access aisle shall not exceed 2.08 percent in any direction. Each accessible space shall include accessible parking signage with the van accessible space including the designation, “van accessible”. The signage shall meet minimum height requirements measured above the ground surface to the bottom of the lowest sign.

### Outdoor Recreation Access Routes

The picnic facility has a covered picnic pavilion in the middle of the picnic grounds. The outdoor recreation access route (ORAR) connecting the pavilion to the accessible parking area does not meet minimum recommendations for accessibility. The asphalt ORAR surface is deteriorated and loose aggregate causes the surface to not meet recommendations for stability. There is a change in level between the asphalt ORAR and the concrete surface of the picnic pavilion that exceeds maximum height recommendations. Additionally, there is no ORAR from the picnic pavilion to the outdoor constructed feature (pedestal grill) adjacent to the pavilion.

The recommended solution is to re-pave the existing asphalt ORAR to provide a firm and stable route from the accessible parking area to the picnic pavilion. The clear width of the ORAR should not be less than 36 inches. Ensure that the transition between the asphalt and concrete does not exceed ½ inch high maximum. Where the surface of an ORAR is asphalt, concrete or boards obstacles shall not exceed ½ inch in height, measured vertically to the highest point. The running slope of any segment of an ORAR should not exceed 10 percent maximum. Where the running slope is between 5 and 8.33 percent the maximum length of the segment shall be 50 feet maximum. Where the running slope is between 8.33 and 10 percent the maximum length of the segment shall be 30 feet maximum. Resting intervals shall be provided at the end of each segment that has a running slope greater than 5 percent. Where the surface of an ORAR is asphalt, concrete or boards the cross slope shall not exceed 2.08 percent maximum.

In addition, create an ORAR from the picnic pavilion to the adjacent pedestal grill using asphalt. Remove the outdoor constructed feature (pedestal grill) from the natural ground surface adjacent to the picnic pavilion and install an asphalt pad around the grill that will provide a minimum 48 inches of clear ground space around all sides of the grill. The clear space around the grill should adjoin the ORAR on one side. Reinstall the grill into the asphalt surface centered on the space. The slope of the clear ground space around the outdoor constructed feature should not exceed 2.08 percent in any direction. Ensure during reinstallation of the grill that the cooking surface is between 15 inches minimum and 34 inches maximum above the ground surface and the clear ground space on all usable sides measured from the center of the feature is 48 inches by 48 inches.

There is no outdoor recreation access route (ORAR) connecting the accessible parking at the picnic facility with the Carriage Road Trailhead. The existing asphalt route running parallel to the picnic facility (between the grass and wheel stops) at the top of the parking area does not meet minimum width recommendations for an ORAR. The existing natural grass surface between the designated accessible picnic unit and the Carriage Road Trailhead does not meet minimum guidelines for firmness and stability. The asphalt route running parallel to the picnic facility (between the grass and wheel stops) shall be widened at the top of the accessible and standard parking spaces to provide a minimum 48 inches of clear width. The minimum recommended clear width has been increased from 36 to 48 inches for this application due to the location of the route and the potential for vehicles to protrude beyond the wheel stop into the clear width of the ORAR. The ORAR will connect the access aisle to the designated accessible picnic unit and continue to the Carriage Road Trailhead. Technical specifications

for the ORAR in relation to the recommended surface materials to be utilized in this area can be found in the associated work orders found in the Facility Management Software System.

There is no pedestrian route provided between the accessible parking area and the comfort station at the picnic facility. The most direct route between the two areas requires an individual to traverse through a section of grass which does not provide a firm and stable surface. The Park shall designate and install an outdoor recreation access route (ORAR) between the accessible parking area and comfort station at the picnic facility. A pedestrian crosswalk shall be provided on the east side of the roadway between the access aisle and grass road divider. Another pedestrian crosswalk shall be provided on the west side of the roadway between the grass road divider and the comfort station. The ORAR should be completed by installing asphalt between the two crosswalks, over the grassy area.

#### Drinking Fountain

There is a single drinking fountain unit located adjacent to the existing designated accessible picnic unit at the picnic area. The existing unit does not meet minimum requirements for knee clearance. There is no high unit provided for standing persons who have difficulty bending or stooping.

The recommended solution is to replace the existing single unit drinking fountain with an accessible high-low unit. Ensure that the new low unit complies with knee and toe clearances and clear ground space. Knee clearance shall be 11 inches deep minimum at 9 inches above the finish floor or ground, and 8 inches deep minimum at 27 inches above the finish floor or ground. Clear ground space shall be 30 inches wide by 48 inches long minimum and shall be centered on the unit, positioned for a forward approach. The spout outlet for the lower unit shall be 36 inches maximum above the ground surface and located 5 inches maximum from the front edge of the unit, including bumpers. Spout outlets of drinking fountains for standing persons shall be installed 38 inches minimum and 43 inches maximum above the finish floor or ground. Both spouts shall provide a flow of water 4 inches high minimum. Operable parts of the new unit shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate operable parts shall be 5 pounds maximum.

#### Picnic Pavilion

There are a total of eight non-fixed picnic tables provided within the picnic pavilion. None of the tables are designed for accessibility. Due to the size of the pavilion and the number of tables provided, the recommended clear ground space is not provided to or around any of the existing tables.

In order to maintain the clear ground space recommended for accessibility, a maximum of four picnic tables should be provided in the picnic pavilion at any given time. A minimum of two of the four picnic tables at the picnic pavilion should be accessible. Remove a minimum of six tables, replacing two with accessible units. Ensure that the accessible picnic tables meet the requirements for knee and toe clearance outlined in ABAAS 306. Picnic tables should provide at least one wheelchair space for each 24 linear feet of usable table surface perimeter. The wheelchair space should be 30 inches wide minimum by 48 inches deep minimum and should be positioned for a forward approach. Install the accessible



picnic tables so that there is 36 inches of clear ground space along all usable sides of the tables, measured from the back edge of the benches. The Park should consider permanently affixing the tables to the concrete surface of the pavilion to avoid the potential for noncompliance.

#### Accessible Picnic Units

The picnic area contains a picnic facility that is made up of nine individual picnic units not contained in the picnic pavilion, dispersed throughout the grounds. Of the nine individual picnic units provided only one has been designated as accessible; however, the designated unit does not meet the minimum recommendations for accessibility and the single unit does not fulfill minimum scoping recommendations. The picnic table at the designated accessible unit does not provide the required clear width for a wheelchair seating space. In addition, the designated accessible picnic unit does not provide a firm and stable surface at the pedestal grill and picnic table to allow for the minimum clear ground space to and around those elements. The existing surface beneath the designated accessible unit does not meet requirements for stability due to deterioration of the asphalt.

The recommended solution is to conduct a design study to redesign, designate and make accessible a minimum of two of the nine existing uncovered picnic units on the picnic area grounds. The design study should take into consideration the following: providing an outdoor recreation access route (ORAR) from the parking area or asphalt ORAR serving the picnic pavilion to both of the individual accessible picnic units; grading the area around each of the newly designated units and installing an asphalt pad to provide a firm and stable surface around the outdoor constructed features to allow for minimum clear ground space.

In each newly designated accessible picnic units (two), redesign the picnic units to provide the necessary clear ground space at the outdoor constructed features (picnic table and pedestal grill). The current configuration of outdoor constructed features on the existing asphalt surface does not allow for the proper clear ground space at each feature. Picnic tables should have 36 inches of clear ground space along all usable sides of the table measured from the back edge of the benches. Pedestal grills should have 48 by 48 inches of clear ground space on all usable sides. Approximately 265 square feet of asphalt will be provided at each unit designed for accessibility.

Replace the fixed picnic table at each newly designated accessible picnic unit with a unit that meets accessibility recommendations. Picnic tables should provide at least one wheelchair space for each 24 linear feet of usable table surface perimeter. Wheelchair spaces should be 30 inches wide by 48 inches long minimum positioned for a forward approach to the table and provide knee and toe clearance complying with ABAAS 306. During renovations, ensure that the fire building surface for a the pedestal grills is 9 inches minimum above the ground surface and the cooking surfaces is between 15 inches minimum and 34 inches maximum above the ground surface.

#### Information Kiosk

The dual bulletin board/information kiosk located adjacent to the existing designated accessible picnic unit lacks a firm and stable surface for a forward or parallel approach to the information.

The recommended solution is to remove the dual bulletin board/information kiosk from the natural ground surface and relocate the structure closer to the asphalt surface of the picnic unit/parking area in order to provide a firm and stable clear ground space of 30 inches wide by 48 inches long positioned for either a forward or parallel approach, centered on each panel. The clear ground space should not overlap the required clear width of an accessible route, ORAR or be positioned within the vehicular way. Ensure that the slope of the clear ground space at the kiosk does not exceed 2.08 percent maximum in any direction. Ensure that when reinstalling the kiosk that the unit is installed between 24 and 36 inches from the ground measured from the bottom of the exhibit frame. Ensure that the kiosk is cane detectable at 27 inches above the ground surface if relocated to a location within the circulation route of the picnic area.

### Restrooms

The men's restroom at the picnic area comfort station was locked during the time of assessment. Park management shall conduct an accessibility assessment of the men's restroom and perform corrective actions as deficiencies are identified.

The women's restroom at the picnic area comfort station has multiple barriers to accessibility: signage is installed on the wood privacy partition at the exterior of the restroom building; the existing signage does not meet minimum requirements for content (i.e. lacking Braille, raised characters, and the International Symbol for Accessibility); neither wall hung lavatory (two) meets minimum requirements for knee clearance and pipes are not wrapped to protect against contact; the paper towel dispenser exceeds maximum reach range requirements; the toilet paper holders do not permit free flow; the wheelchair accessible stall does not meet minimum size requirements for a floor mounted water closet; the toilet seat in the wheelchair accessible stall does not meet minimum height requirements; the side and rear grab bars incorporate a center flange which restricts the use of the bar; the sanitary napkin disposal bin obstructs use of the side grab bar; the flush control is installed into the wall within the required clearance above the rear grab bar; the coat hook exceeds maximum reach range requirements. The following corrective actions were recommended in order to ensure compliance with the accessibility standards: purchase and install new compliant restroom signage onto the wood paneling to the latch side of the door at the exterior of the women's restroom; reinstall one of the wall hung lavatories to comply with requirements for knee clearance and wrap pipes beneath the accessible unit to protect against contact; purchase and install an additional paper towel dispenser and coat hook to comply with requirements for reach range; replace the toilet paper holders in the wheelchair accessible stall with a fixture that will permit free flow; relocate the sanitary napkin disposal bin as not to obstruct the use of the grab bars and to comply with reach range requirements; reconfigure the stall partitions to provide a wheelchair accessible toilet compartment with a floor mounted water closet; replace the toilet seat to comply with height requirements for accessibility; replace both grab bars in the accessible toilet compartment; and replace the existing flush control with an automatic eye operating mechanism.

## **10. Trails & Scenic Viewing Opportunities**

According to the Draft Final Accessibility Guidelines for Outdoor Developed Areas, a trail is defined as, “a pedestrian route developed primarily for outdoor recreational purposes. A pedestrian route developed primarily to connect elements, spaces, or facilities within a site is not a trail.”

Where the Park determines that a specific portion of a trail does not permit full compliance with the trail guidelines of the Draft Final - Outdoor, the Park shall ensure that the trail complies with the guidelines to the maximum extent feasible. The Park shall document the basis for the determination, and shall maintain the documentation with the records for the construction or alteration project.

### Program Access on Trails

A common misconception among park and recreation practitioners is that the “program access” standard under Section 504 of the Rehabilitation Act only applies to staffed, structured, traditional programs, such as specially scheduled interpretive tours. The program access standard applies to every good, service or activity provided by the Park to the public, including trails. In addition to assessing the trails for physical access, the programmatic elements offered on the trail were also assessed. Program access on trails encompasses more than just information provided on waysides or interpretive panels; it includes the entire experience that the trail offers to a visitor. The experience could include prominent features found along a trail, facilities and/or amenities along the trail, or a type of environment provided on a trail that may not be found elsewhere within the Park. Therefore, it was necessary to first look at the trail in its entirety, and then each unique trail segment, to adequately determine if visitors with disabilities are being offered equal programmatic experiences on the trail.

Trail designers are encouraged to seek opportunities to enhance the program access components of managed land areas for individuals with disabilities. One of the ways program access on trails could be improved at Johnstown Flood NM is integrating contrasting textures into the trails surface material where interpretive elements such as waysides are provided along trails. The integration of this design solution into trail construction will enhance the recreational experience for individuals who are blind or have low vision. When selecting surface materials that will create the varying textures, the Park should take into account the routine maintenance schedule for the trail and the available labor for maintenance in order to accommodate the level of attention necessary to ensure deficiencies do not arise from deteriorating surfaces. In addition, where the trail permits uses other than pedestrian access, and in locations where there are extreme weather changes between seasons, the chosen materials should be able to withstand the wear and weathering associated with those factors. The selected surface materials should allow for continued accessibility for the total length of time that the trail is open to the public. At no time should the materials create physical accessibility barriers such as slope, openings, or tread obstacles. Alternatives to providing contrasting surfaces include audio alerts, that are motion activated, integrated into the landscape or interpretive panel, that will alert individuals with visual impairments to the program opportunity. The interpretation provided along trails should also be integrated into the comprehensive audio described tour of the Park.

### North Abutment Trail & Overlook

The North Abutment Trail offers an accessible trail experience to the North Abutment Overlook. While there were minor deficiencies recorded along the trail, the Park should be commended for its purposeful design of the North Abutment to accommodate the widest range of visitors possible.

There are a total of five parking spaces provided at the North Abutment Trailhead. One of the spaces is designated as accessible, however there is no access aisle provided and the width of the existing accessible space does not meet minimum requirements for van accessibility. The signage for the accessible space does not meet minimum height requirements measured above the ground surface to the bottom of the sign. The Park shall relocate five wheel stops and re-stripe the parking lot to provide four standard vehicle parking spaces and one van accessible parking space with an adjacent striped access aisle. The van accessible space shall be located closest to the trailhead. The new parking space shall include signage designating it as “van accessible” and shall be installed to comply with minimum height requirements for accessibility.

There is a change in level up to  $\frac{3}{4}$  inch between the asphalt of the trail and the lumber surfacing at the northeast end of the North Abutment Trail Bridge. On trails that have surfacing of concrete, asphalt, or boards, changes in level should not exceed  $\frac{1}{2}$  inch in height maximum measured vertically to the highest point. The transition between surface materials shall be repaired to eliminate the change in level.

At the North Abutment Overlook there is a single wayside, *The South Fork Dam*, installed onto the wood guard rail. The wayside exceeds maximum height recommendations measured above the finished grade to the base of the wayside frame. The height of the wood guard rail obstructs the viewing area for individuals who are seated or of shorter stature. The North Abutment Overlook provides unique viewing areas to the northwest, west, and southwest. Three distinct viewing locations (northwest, west, and southwest) should be provided by removing a 36 – 48 inches long section of the wood guardrail to provide an unobstructed view between 32 and 51 inches above the finished grade. Clear ground space measuring 36 by 48 inches should be provided at each distinct viewing location, positioned for either a forward or parallel approach. The viewing area should extend the entire side of the clear ground space facing the landscape or point of interest (either 36 or 48 inches minimum). Ensure that the slope of the clear ground space does not exceed 2.08 percent maximum in any direction. During the renovation, the wayside should be lowered to ensure that the base of the wayside frame measures 32 inches above the ground surface.

### South Abutment Trail & Overlook

The South Abutment Trail provides a challenging trail experience to visitors who wish to traverse the steep, hilly terrain to the river’s edge. The trail may not be considered accessible for some individuals with mobility impairments; however, the Draft Final - Outdoor Developed Areas Guidelines indicates that trails should be brought into compliance to the “maximum extent feasible”.

There are no designated accessible parking spaces at the Upper or Lower South Abutment Parking Lots. The striping of the parking lot is faded and it is difficult to discern the total number of parking spaces

within the parking areas. In each parking lot, stripe the parking area to provide identifiable standard parking spaces (approximately 17) and one van accessible parking space with an adjoining access aisle. At the Upper parking lot, the accessible parking space shall be located closest to the Carriage Road Trail. At the Lower parking lot, the accessible parking space shall be located closest to the South Abutment Overlook. Signage for van accessible parking spaces shall include the designation “van accessible”. Ensure that the slope of the accessible parking space and access aisle does not exceed 2.08 percent maximum in any direction.

The wooden stair flight between the upper and lower levels of the South Abutment Parking lot does not include compliant handrails for the diameter of the gripping surface. The Park shall purchase and install compliant handrails onto the existing wood guard rails. The new handrails shall meet minimum requirements for diameter of the gripping surface and shall include the required extensions at the top and bottom of the stair flight. Extensions shall return to a guard or the landing surface.

Adjacent to the proposed accessible parking area at the Lower South Abutment Parking Lot, there is a vertical interpretive panel installed into a natural grass surface approximately 22 linear feet from the roadway. The natural grass surface does not meet recommendations for firmness and stability. This may prevent some individuals with mobility impairments from accessing the interpretive information. The recommended solution is to install an outdoor recreation access route (ORAR) from the proposed accessible parking area to the information kiosk. The ORAR surface should be firm and stable. Clear ground space measuring 5 by 5 feet should be provided at the front of the interpretive panel, centered on the interpretive information, to provide the required turning space for individuals who use mobility devices. The slope of the clear ground space at the kiosk should not exceed 2.08 percent maximum in any direction. All running and cross slope recommendations should be met during installation of the new outdoor recreation access route consistent with the type of firm and stable surface installed.

At the South Abutment Overlook there is a single wayside, *The South Fork Dam*, installed onto the wood guard rail. The wayside exceeds maximum height recommendations measured above the finished grade to the base of the wayside frame. The height of the wood guard rail obstructs the viewing area for individuals who are seated or of shorter stature. The South Abutment Overlook provides unique viewing areas to the northeast, east, and southeast. Three distinct viewing locations (northeast, east, and southeast) should be provided by removing a 36 – 48 inches long section of the wood guardrail to provide an unobstructed view between 32 and 51 inches above the finished grade. Clear ground space measuring 36 by 48 inches should be provided at each distinct viewing location, positioned for either a forward or parallel approach. The viewing area should extend the entire side of the clear ground space facing the landscape or point of interest (either 36 or 48 inches minimum). Ensure that the slope of the clear ground space does not exceed 2.08 percent maximum in any direction. During the renovation, the wayside should be lowered to ensure that the base of the wayside frame measures 32 inches above the ground surface.

There are multiple sections of the South Abutment Trail that incorporate stairs. Guard rails constructed of 2x4 inch lumber are provided along the majority of the stair segments (typically on only one side);

however, the lumber boards do not meet minimum requirements for diameter of the gripping surface. Handrails are not provided on both sides of the stairways. None of the stairways (three) have uniform tread depth or risers. While there is no explicit guideline for stairways on trails, it is recommended, as a best practice, that the Park investigate the feasibility of reconstructing the stairways to meet the accessibility standards in ABAAS. Stairways that are part of an accessible route shall have a uniform tread depth of 11 inches and uniform riser height between 4 and 7 inches. Handrails complying with the requirements in ABAAS 505 shall be provided on both sides of each stair flight.

The natural dirt, grass, and aggregate surface of the South Abutment Trail does not meet minimum accessibility guidelines for firmness and stability. The instability of the trails surface creates washout areas during times of heavy rain causing deficiencies to running and cross slope. The running slope on the natural aggregate trail surface exceeded maximum recommendations up to 12.6 percent during the time of assessment. The cross slope exceeded maximum recommendations up to 17 percent during the time of assessment. Tree roots create tread obstacles up to 3 inches, measured vertically to the highest point along segments of the trail.

Park management should install a firm and stable surface material along the South Abutment Trail to meet recommendations for accessibility. If a natural surface material is selected for installation, the surface should be installed in two, three inch lifts with rolling and compaction at each level, providing a total depth of six inches. When planning construction and resurfacing of trails, consideration should be given to extending the trail surface to provide clear ground space at the front of benches, waysides, interpretive panels, bulletin boards, trail brochure holders, and other outdoor amenities that serve the trail.

Ensure that during the alteration project, the deficiencies to running slope and cross slope are corrected. The tread obstacles should also be eliminated to reduce the vertical projection to 2 inches high maximum measured vertically to the highest point.

Two accessible trailhead signs are recommended to be provided (north and south end) for the South Abutment Trail.

#### Arbor Nature Trail

The Arbor Nature Trail offers visitors a natural, rustic trail experience through the wooded area between the picnic facility and Carriage Road Trail. There is one interpretive wayside provided along this trail, and there is a tree numbering system in place that corresponds with the trail brochure. The trail brochure outlines the native plant and tree species found along the trail.

The natural dirt, grass, and aggregate surface of the Arbor Nature Trail does not meet minimum accessibility guidelines for firmness and stability. The instability of the trail's surface creates washout areas during times of heavy rain causing deficiencies to cross slope. The cross slope on the natural aggregate trail surface exceeded maximum recommendations up to 8.9 percent during the time of assessment.

Park management should install a firm and stable surface material along the Arbor Nature Trail to meet recommendations for accessibility. If a natural surface material is selected for installation, the surface should be installed in two, three inch lifts with rolling and compaction at each level, providing a total depth of six inches. When planning construction and resurfacing on trails, consideration should be given to extending the trail surface to provide clear ground space at the front of benches, waysides, interpretive panels, bulletin boards, trail brochure holders, and other outdoor amenities that serve the trail.

Ensure that during the alteration project, the deficiencies to cross slope are corrected. Cross slope on a natural surface trail should not exceed 5 percent maximum.

There are multiple interpretive features provided along the Arbor Nature Trail: wayside (*Black Friday*), trail brochure holder, and tree numbering system (1-13). The natural lighting creates a large amount of glare on the smooth vinyl plaques containing the numbering system for the various tree species along the Arbor Nature Trail (and one sign on the Carriage Road Trail). The plaques are often installed off of the trail tread, within the natural overgrowth. These may present a barrier to individuals who are blind or have low vision.

Replace the 13 smooth vinyl plaques, numbered 1 through 13, with a plaque material that will reduce the amount of glare reflected from the natural lighting along the trail. The new plaques should also incorporate raised numbers and Braille for the effective communication of information to individuals who are blind. The plaques should be reinstalled at the edge of the trail tread, in front of the interpretive element, complying with reach range requirements identified in ABAAS 308.

It is recommended that accessible trailhead signage be provided for the Arbor Nature Trail.

#### Carriage Road Trail

The Carriage Road Trail offers visitors a natural, rustic trail experience through the wooded area between the Arbor Nature Trail and South Abutment areas of the Park. There are no interpretive panels provided along this trail, although the final location for the Arbor Nature Trail is located along the Carriage Road Trail. The trail brochure outlines the history of the South Fork Fishing and Hunting Club's ownership and maintenance of the South Fork Dam. As identified in the brochure, the existing Carriage Road Trail traverses a section of landscape commonly navigated by carriages conveying members of the South Fork Fishing and Hunting Club, their families and guests from the train station at South Fork to the Club House and cottages.

The natural dirt, grass, and aggregate surface of the Carriage Road Trail does not meet minimum accessibility guidelines for firmness and stability. The instability of the trails surface creates washout areas during times of heavy rain causing deficiencies to cross slope. On the south end of the trail, the cross slope on the natural aggregate trail surface exceeded maximum recommendations up to 14.4 percent during the time of assessment. Also on the south end of the trail, there was a large rock that

created a tread obstacle up to 5 inches, measured vertically to the highest point, which reduced the clear width of the trail to 19 inches.

Park management should install a firm and stable surface material along the Carriage Road Trail to meet recommendations for accessibility. If a natural surface material is selected for installation, the surface should be installed in two, three inch lifts with rolling and compaction at each level, providing a total depth of six inches. When planning construction and resurfacing on trails, consideration should be given to extending the trail surface to provide clear ground space at the front of benches, waysides, interpretive panels, bulletin boards, trail guide holders, and other outdoor amenities that serve the trail.

Ensure that during the alteration project, the deficiencies to cross slope are corrected. Cross slope on a natural surface trail should not exceed 5 percent maximum. The tread obstacle should also be eliminated to restore the clear width of the trail to 36 inches minimum. Tread obstacles on a natural surface trail should not exceed 2 inches in height measured vertically to the highest point.

Two accessible trailhead signs are recommended to be provided for the Carriage Road Trail – one at the picnic facility and one at the South Abutment Parking Lot.

The north end of the Carriage Road Trail ends at the South Abutment Parking Lot. There is a stairway provided between the roadway and the natural surface of the trail that accommodates a total change in elevation of 22 inches. The stairway does not include compliant handrails. Through resurfacing and trail alteration, it is feasible to make the remaining 2200 linear feet of the Carriage Road Trail accessible.

The Park should grade the area to comply with guidelines for an accessible trail and install firm and stable surfacing to bypass the stairway between the South Abutment Parking Lot and the Carriage Road Trail. By extending the trail surface and creating a trail segment capable of meeting specifications for an accessible trail, a new trailhead will be created at the South Abutment Parking Lot. Accessible trailhead signage should be provided in this area.

Handrails shall be provided on both sides of the stair flight if it is to remain during reconstruction. The handrails shall comply with all requirements in ABAAS 505.

#### Trailhead Signage

It is recommended that accessible trailhead signage be provided throughout the trail system at Johnstown Flood National Memorial. Accessible trailhead signs should contain a minimum of the following: the length of the trail or trail segment; surface type; typical and minimum tread width; typical and maximum running slope; and typical and maximum cross slope. The information provided on the signs should also be made available in alternate formats.



## **11. Concessions**

Eastern National is the Park's operating concessionaire association. Concessions for the Park are provided in the Visitor Center. A portion of the concessions displayed did not comply with requirements for reach range; however, all merchandise was viewable and on display for all visitors.

Provision of accessible goods, activities and services by the concessionaire should be reviewed as part of the annual NPS evaluation. At a minimum, the concessionaire should strive to achieve the same level of physical and programmatic accessibility as is expected of the programs or services offered by the National Park Service. For example, when new inventory is selected, buyers are encouraged to seek video/DVD programs with captions and audio description and make those titles known to customers. If videos or DVDs are shown in retail spaces, versions with open-captions and audio descriptions are recommended for viewing. Where possible, samples of products stored on higher shelves or hooks should be provided within accessible reach range.

## **VII. Action Planning**

Upon receipt of the assessment data, it will be critical for Park personnel to review and embark on a series of actions to continue planning for improved access to the programs and facilities at the Johnstown Flood National Memorial.

Park senior management is encouraged to establish a core accessibility management team with representation from various divisions including interpretation, maintenance, administration, concessions and senior management. Representation should include individuals with decision-making authority in order to appropriately prioritize funds while assuming responsibilities for compliance oversight in those key areas.

A process to review and prioritize corrective actions to improve Park access for visitors with disabilities should be developed. In addition, a strategy and timeline should be outlined to conduct accessibility assessments of facilities and programs as they are changed or updated so that any deficiencies may be entered into FMSS, and proposed corrective actions can be cost estimated to serve future planning and budget requests.

A process to review all new construction and renovation plans or designs should be implemented to ensure the minimum accessibility standards and guidelines are appropriately applied and opportunities for the application of universal design are seized. In addition, a process to inspect all construction projects for compliance with the minimum accessibility standards and guidelines should be established.

Park Management should identify qualified local service providers for real time captioning and sign language interpreters. A policy should be implemented where the request for these services must be received a specified number of days in advance. The policy should be publicly posted in the program marketing materials including brochures, advertisements, the Park website, etc.

Provide staff training for full-time staff, seasonal staff and volunteers on select topics including the application of the accessibility standards and guidelines for Park maintenance; the principles of universal design; program access; methods for developing accessible interpretive programs; the accommodation process; techniques for interacting with people with disabilities and the use of people first language. Interpretive staff should receive more specific training on the provision of audio description for people with visual impairments and tailoring talks for people with cognitive impairments. Frontline customer service staff should also receive a seasonal update on accessibility improvements in order to field and/or refer questions on accessibility from the public.

An ongoing evaluation of programs, services and activities should be instituted to ensure the Park is meeting the needs of visitors with disabilities. The Park's accessibility management team will be instrumental in achieving this goal.