Volume 2: Milwaukee County Parks and Parkways

Historic Properties Management Plan

Milwaukee County Parkway System
Milwaukee County, Wisconsin

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Prepared for
Milwaukee County and Wisconsin Department of Transportation

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Appendices

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Executive Summary

This *Historic Properties Management Plan* (HPMP) was prepared for Milwaukee County to help achieve its goals of stewardship and preservation of the Milwaukee County Parks and Parkways System (System). The County agreed to complete the HPMP as part of its commitments under the *Programmatic Agreement for Federally-Funded Road and Bridge Projects in the Milwaukee County Parks System* (PA). The HPMP was prepared by the engineers, architects, and historic preservation specialists at Mead & Hunt, Inc. (Mead & Hunt), with assistance from Laurie Albano, landscape architect. The System features an interconnected network of parkways that link the county's parks and golf courses. Originally envisioned by Charles Whitnall in 1923, this network of green space offers public users a resource that is rich in heritage, as well as having significant recreational and environmental values.

This HPMP is the second major product resulting from the County's commitment to preservation of the System. The first product, *Volume 1: Milwaukee County Parkway Inventory Report* (Volume 1)[1], was completed in February 2012 and presented the results of a reconnaissance-level survey that documented each of the historic properties located within the overall System. The County's historic parks and parkways were previously addressed in the National Register of Historic Places (National Register) Multiple Property Document (MPD) "The Milwaukee County Parkway System." The MPD found the System to be significant under the historic contexts of "Community Planning and Development in Milwaukee County, 1933-1942;" "Federal Work Relief Programs in Milwaukee County, 1933-1942;" and "Landscape Architecture in the Milwaukee County Parkway System, 1923-1960." The MPD serves as a framework for nominating individual properties within the System for listing in the National Register.

The HPMP is Volume 2 of the same effort. Taken together, the two volumes identify the historic properties within the System and provide guidance for the System's ongoing management. To retain the System's overall historic character, this HPMP focuses on providing guidance for the following activities:

- Bridge rehabilitation, bridge replacement and road improvement projects
- Routine maintenance to landscape features, roads, bridges, buildings, and associated resources
- Construction of new recreational resources, including buildings, trails, and other amenities

The HPMP is organized in six sections as follows:

- **Section 1 – Background and Purpose**. This section explains how recent County projects to replace bridges within the system led to a PA among agencies with the goal of streamlining required Section 106 of the Historic Preservation Act (Section 106) reviews. The section also describes this plan's purpose to support and encourage preservation of the historic system and expected benefits to the County and others.

[1] Volume 1 can be found electronically here: http://county.milwaukee.gov/AboutUs7806/MilwaukeeCountyParkwayInventoryReport.htm

- **Section 2 – Parkway History, Characteristics and Vision**. Section 2 summarizes the history and significance of the System, including how interconnected parks and parkways became a "necklace of green" that enriches the County with its cultural, natural, and recreational benefits. The discussion of the original vision provides guidance for overall preservation of the System.

- **Section 3 – Regulatory Framework for Projects**. This section introduces the local and federal regulations that apply to projects within the System, focusing on the Section 106 process that applies to federal undertakings. Though smaller, locally funded projects may not need to follow the Section 106 process, the preservation guidance in this plan can still inform treatment of the System as a whole.

- **Section 4 – Principles for Management**. Section 4 describes project activities and the historic boundary of the System towards which the HPMP's guidance is focused. The Secretary of the Interior's *Standards for the Treatment of Historic Properties* (Secretary's Standards) inform the preservation approach, as does state and local guidance, including the Wisconsin Department of Transportation (WisDOT)'s principles for context-sensitive solutions and Milwaukee County's Green Print sustainability initiative.

- **Section 5 – Preferred Treatments**. This section presents guidance for planners, engineers, architects, landscape architects, and operations and maintenance staff responsible for planning and executing projects, as well as conducting maintenance, within the System. This is the heart of the HPMP and is intended to guide future activities so appropriate maintenance and preservation decisions are made by responsible parties. It is noted that federally funded or permitted projects will be required to follow the treatment approach based on the Secretary's Standards. For County or locally funded projects, these preferred treatments are guidelines. This section is organized by resource type as follows: buildings, bridges, roads and trails, small-scale structures and features, and landscape and water features. Within each type, guidance is presented for maintenance, rehabilitation, and new construction activities.

- **Section 6 – Conclusion**. Section 6 culminates the HPMP by recognizing the challenges that the County faces in implementing guidance, the chief of these being funding limitations. The section suggests how coordination among agencies may ease the challenges and facilitate creative solutions.

1. Background and Purpose

The purpose of this HPMP is to provide guidance for future maintenance and project activities that may affect the historic System, which includes nine parkways and associated parks and golf courses and two stand-alone parks located in several municipalities. Much of the System has been determined eligible for, or listed in, the National Register. As the principal steward of the System, Milwaukee County (County) is committed to retaining its natural, cultural, and recreational value on behalf of county residents. The guidance contained in this HPMP applies to the overall historic System, and is not specific to any park or parkway.

The HPMP offers benefits to the County and other agencies with oversight and/or ownership responsibilities of the land and resources within the System. By following the guidance contained in this plan, project planners and designers should realize streamlining benefits and help the County achieve its stewardship and preservation goals. The multi-faceted value of the System is retained and enhanced through preservation of its distinctive historic character. Preservation, as used in this report, follows the definition set forth by the U.S. Secretary of the Interior as follows: "the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property."[2] Proposed project activities should be planned and executed so as to preserve and complement the overall historic System.

This HPMP is an outcome of a 2009 Programmatic Agreement (PA) between the County, Federal Highway Administration (FHWA), Wisconsin State Historic Preservation Office (SHPO), WisDOT, and local municipalities (see Appendix A for a copy of the PA). The PA outlines a uniform, consistent approach to streamlining the Section 106 process for federally-funded road and bridge projects that affect resources within the System. It applies to any such undertaking within the System's historic boundary, regardless of whether or not the affected component is itself historic. The PA specifies procedures to follow for the required agency review of project plans completed for bridge rehabilitation or replacement.

The PA was developed as the result of a Section 106 Memorandum of Agreement (MOA) that mitigated the replacement of five historic bridges within the System. During Section 106 review of these five bridge replacement projects, the County, WisDOT, FHWA, and SHPO gained a greater understanding of the significance of the overall System and agreed that it was eligible for the National Register. As a result, the replacement of the five bridges constituted an adverse effect on the System. The PA was developed to both mitigate, in part, for those losses and chart a different course for the future. As an outcome of the PA, the County committed to developing this HPMP and received partial funding through a transportation enhancement grant.

In addition to completion of this HPMP, the PA specified the following mitigation measures for the past loss of historic bridges:

[2] *Secretary of the Interior's Standards and Guidelines [As Amended and Annotated],* http://www.cr.nps.gov/local-law/arch_stnds_10.htm (accessed 15 August 2012).

- Completion of a reconnaissance-level inventory of resources within the System (included in Volume 1)

- Preparation of a National Register MPD for the System (completed in 2008 and included as an appendix to Volume 1)

- Future completion of individual National Register Nominations for parkways adversely affected under a federal undertaking

    - To date, National Register Nominations have been prepared for the following parkways:[3]
        - Honey Creek Parkway
        - Oak Creek Parkway
        - Kinnickinnic River Parkway
        - Milwaukee River Parkway
        - Root River Parkway

- Preparation of an illustrated booklet outlining the history, development, and significance of the System (underway)

The County has primary responsibility for the System as the major landowner and took a leadership role in developing this HPMP. The municipalities of Milwaukee, South Milwaukee, and Wauwatosa participated in its development due to oversight and/or ownership responsibilities for resources in the System, including roads and bridges. These municipalities were also signatories to the PA. Although the Milwaukee Metropolitan Sewerage District (MMSD) has oversight for resources within the System, including stream and river channels, it did not participate in PA development. However, since its projects may require Section 106 review, the MMSD was asked to participate in development of the HPMP. The guidance included in this HPMP may benefit the MMSD by streamlining Section 106 compliance needed for its projects. The municipality of West Allis did not see a direct effect in PA or HPMP participation, but because McCarty Park is located within the city, they asked to be kept informed of HPMP development as they may elect to apply the guidance to future city-sponsored improvement projects. For more information on the development of the HPMP, see Appendix B – Process of HPMP Development.

[3] The first four nominations were prepared as mitigation under individual bridge projects, prior to the execution of the PA. The fifth was the result of the PA. Four parkways have yet to be nominated.

2. History, Characteristics, and Vision

This section addresses the history, design characteristics, and vision of Charles Whitnall that guided the development of the System. It provides an understanding of the overall aesthetic and component features that contribute to the System's historic character and significance.

A. History

Spanning Milwaukee County, the System features a decades-old, interconnected network of parkways that link the county's collection of urban and rural parks and golf courses. In 1923 Charles Whitnall, known as the father of the System, first published a vision of this comprehensive landscape (see Figure 1 below for a historic parkway map). Critical to the system were the avenues of movement—parkways—connecting the county's existing isolated park units, such as Lake and Jackson Parks, and future parks. The county's topography was already defined by the Lake Michigan shoreline; the Milwaukee, Menomonee, Kinnickinnic, and Root Rivers; and the Honey, Lincoln, Oak, and Underwood Creeks. Whitnall used these natural water features as the focal point for his plan. As a result, two "necklaces of green" encircling the county emerged, each of which included abundant plantings of natural trees and shrubbery, a vehicular parkway drive, green space, and recreational buildings. Although the System was not fully implemented as originally planned, it does provide for circulation through much of the county and retains a high degree of integrity. Parkways that are historically associated with the System include the Honey Creek, Kinnickinnic River, Lake Michigan North, Lake Michigan South, Lincoln Creek, Menomonee River, Milwaukee River, Oak Creek, Root River, and Underwood Creek Parkways. Additionally, Greenfield Park and McCarty Park are included within the System as stand-alone park units. Volume 1 provides an inventory of the historic components within the System.

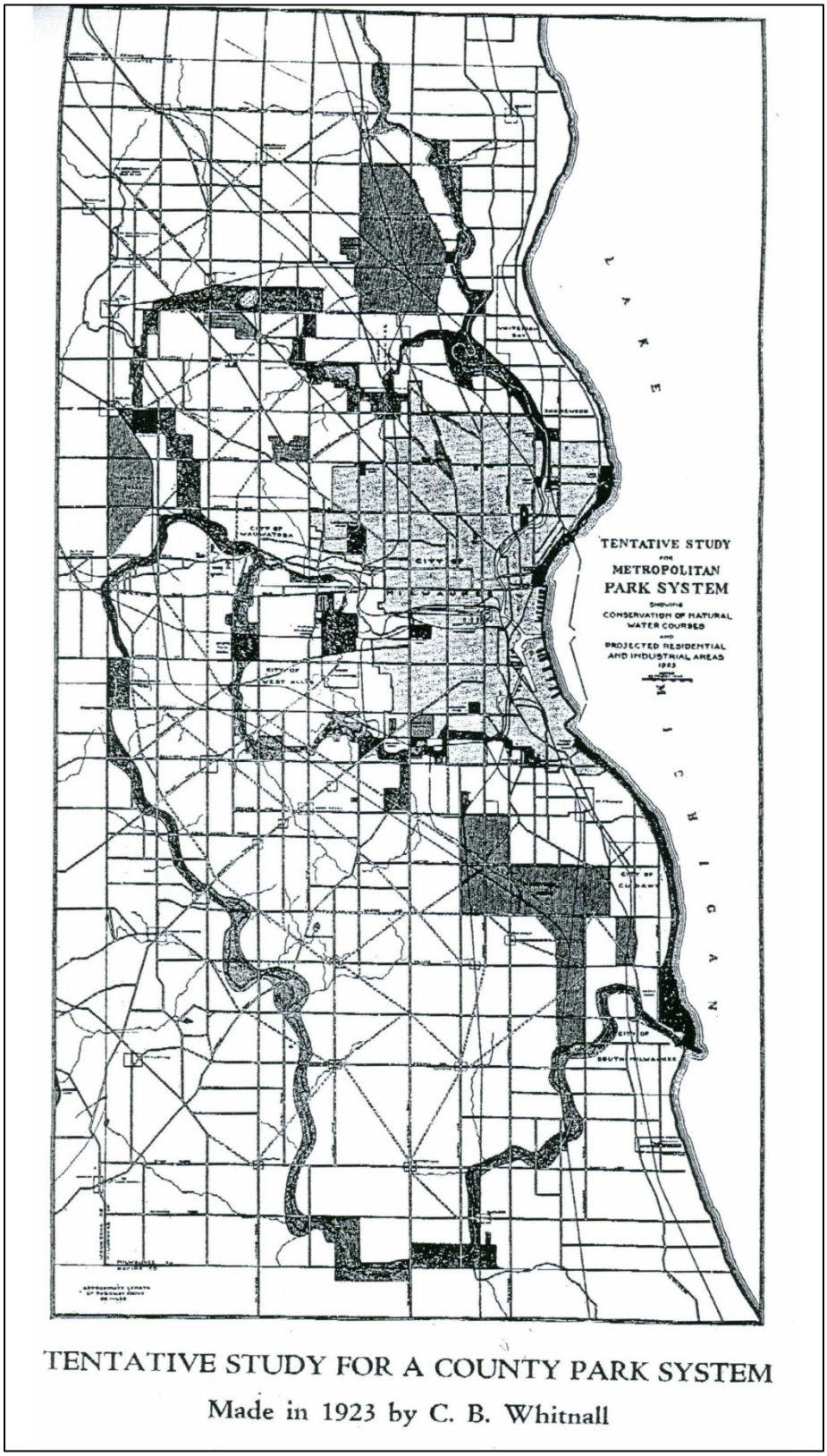

Figure 1. 1923 historic parkway map.

Like many early twentieth century reformist park advocates, Whitnall and the Milwaukee County Park Commission argued that a system of open green spaces would improve the health of Milwaukee's urban residents. Whitnall envisioned that the System would provide an escape from the "harshness and crude lines and noises of the town, from the street poles and signs, from the creaking of car wheels, from the crowding and from too great individualism of street buildings, expressed in ugliness, lack of imagination and jarring skylines."[4] From the beginning, it was also believed that the System could: alleviate flood conditions, a significant problem for Milwaukee County given the number of rivers located there and the county's topography; relieve urban congestion; provide space for outdoor recreation by linking park units containing facilities for passive and active recreation; and, increase adjacent property values.

During the Great Depression, Milwaukee County extensively used federal work relief programs to expand the System. Among the efforts completed with work relief labor were major programs to control flooding by planting trees, erecting masonry retaining walls along rivers and creeks, constructing dams, and realigning river and creek segments to prevent ice jamming. The parkways and their associated parks reflect trends in landscape architecture and design of the period, including naturalistic design promoted by Jens Jensen and other Midwest landscape designers and the rustic design that was favored in federal work relief projects. The parks and parkways make use of natural materials for the construction of buildings and structures, and emphasize naturalistic planting methods both in the choice of planting materials and in their placement. Efforts to implement the System continued through the 1950s, particularly with the provision of active recreational facilities such as ball fields. Development and improvements within the parkways, parks, and golf courses continue through the present day, and include upgrades to recreational facilities and to the transportation infrastructure. The System contains a broad variety of historic properties, including large-scale resources such as the parkways themselves, as well as parks, golf courses, vehicular bridges, buildings, and recreational facilities. Small-scale resources include designed landscapes, pedestrian trails and bridges, water features, retaining walls, signage, and lighting. Additional information on the history of each parkway and the historic properties within the System is presented in Volume 1.

B. Characteristics of the System

The System consists of three major interrelated property types: parkways, parks, and golf courses. Each property type serves a unique function and has distinct design qualities. Detailed descriptions of these property types and how each is manifest within the System can be found in Volume 1. This interconnected system of green space fulfills Whitnall's vision and provides the county with its "necklace of green."

The nine parkways are the unifying feature that ties the System together into a single recreational and natural resource network. The parkways were designed to follow watershed features, such as creeks, rivers, and the Lake Michigan shoreline. Each parkway contains a limited-access curvilinear vehicular roadway that links parks and recreational and cultural components. Designed landscapes, vegetation, and man-made features, such as stone retaining walls, surround and frame the parkway roads. The

[4] Milwaukee County Regional Planning Department, *First Annual Report*, 16.

parkways also contain drainage and engineering structures, buildings, furnishings, lighting, and signs. Much of the parkway's infrastructure follows Whitnall's original 1923 vision, was constructed using federal work relief labor, and exhibits the rustic design aesthetic of the Depression era. The use of native materials and handcrafted masonry finishes for buildings, bridges, and retaining walls is prominent throughout the parkways. Structures within the System include comfort stations, picnic shelters, and maintenance buildings. Small-scale structures and features in the parkway landscape include paved walks, benches, picnic tables, signage and lighting.

The Jackson Park lagoon is a significant water feature within the Kinnickinnic River Parkway, which is listed in the National Register.

This comfort station with stone exterior is representative of the rustic style buildings in the System (located in the upper segment of the Menominee River Parkway).

The Hanson Golf Course with associated prairie plantings in the Underwood Creek Parkway is one of the recreational facilities provided within the System.

The Root River Parkway Drive is typical of the historic road segments within the System.

Associated parks within the System are open spaces planned and designed for recreational and leisure activities. Most parks are located adjacent to a watershed feature and adhere to a planned landscape design. Common to most of these designed landscapes are curvilinear walks or foot paths with pedestrian bridges over water features and informal groupings of plantings and trees. The parks are unified through their rustic design aesthetic, as seen in the use of native stone and timber, and handcrafted finishes used in the construction of buildings, bridges, and retaining walls. Many of the parks also include provisions for recreational or cultural offerings, such as picnic shelters and comfort stations, swimming pools, ball fields, an arboretum, and monuments. The buildings associated with these provisions, such as bathhouses, often feature elements of rustic design and were constructed with local stone and timber, and used handcrafted masonry finishes.

The System also features county-owned golf courses. Some of the earliest county golf courses, such as Grant Park Golf Course, pre-date the parkway system. As parkway implementation began, these golf courses were incorporated in the county-wide system, consistent with Whitnall's 1923 vision. The golf courses vary in layout and topography; however, they contain a set of definable components or characteristic features. Club houses, which are a major component of golf courses, depict a range of architectural styles, including those that were popular during the early twentieth century, such as the Queen Anne-style club house at the Grant Park Golf Course (formerly a private residence), and more modern structures added in the mid-twentieth century, such as the Contemporary-style club house at the Hansen Golf Course.

C. Whitnall's vision

In order to develop a fitting plan to manage the historic properties in the System, it is necessary to understand the vision and principles that guided their development. By understanding the design

philosophy that shaped this historic landscape, it is possible to recognize the significant features within the System that warrant preservation. As described above, Whitnall originally articulated his vision for a countywide network of parkways in 1923.

Using the 1923 map of the proposed system as a reference (see Figure 1), the Milwaukee County Park Commission began acquiring land for the various parks and parkways recommended by Whitnall. The newly created Regional Planning Department had a staff of engineers, architects, and landscape architects who began preparing plans for the development of the parkways (numerous examples of these plans were published in Annual Reports of the Park Commission and Regional Planning Department).

Alfred Boerner, the lead landscape architect for the Regional Planning Department, helped establish a design aesthetic that would turn Whitnall's vision into reality. A dominant theme emerged that informed the design utilized throughout the system. Parks were to appear as a natural extension of the Wisconsin landscape by following the Laws of Nature. While incorporating the various activities associated with parks, they were to also be places of beauty. This meant fitting park activities into the existing landscape or shaping topography as it would appear naturally in the region. Vegetation was used for a variety of functions including screening, framing views, providing surfaces for sports, and picnicking. Use of indigenous plant material grouped according to ecological association was encouraged. Water features would be used for recreation as well as to unify the landscape and act as centers of interest. If water features did not already exist in the landscape they could be created, but must look as if they had occurred naturally.

To mimic the appearance and character of the Wisconsin landscape, Boerner urged planting largely with plant material indigenous to the region.[5] Plants should be grouped according to ecological association. When park land contained existing forest cover, it was to be retained and worked into the park design. In an article about the development of Greenfield Park, Boerner mentioned the existing stand of native hardwoods that remain today: "Woods," he wrote, are to "remain in their natural state with undergrowth and wildflowers left undisturbed. Walks allow visitors to enjoy hidden beauty."[6]

Boerner suggested that water features act as unifying features and centers of interest, stating, "if no water exists it can be created."[7] Lakes and lagoons were to resemble the shape of those found in nature. In the development of Greenfield Park the warming basins were designed to look like kettle lakes formed by glaciers.

[5] Alfred L. Boerner, "The Influence of Nature on Park Design," Milwaukee County Regional Planning Department, 26 November 1940, 20-21.

[6] Alfred L. Boerner, "Greenfield Park: Unit of Milwaukee County Park System Designed to Satisfy Modern Needs," in *Parks and Recreation* 17, no. 6. (February 1934), 185.

[7] Roger Boerner, notes from family archive of Alfred L Boerner, on file at Milwaukee County Parks.

This bridge (B-40-0714) and adjacent dam in the Oak Creek Parkway were designed using native limestone to fit the System's rustic aesthetic.

Buildings and structures throughout the System were also designed to fit into the established design aesthetic. Features such as dams and waterfalls constructed in the parks are primarily informal and were to resemble natural rock formations. Of his finished work, Boerner said, "must look as though it is the result of natural processes and that man played no part in building it."[8] The Kletzsch and Estabrook dams are examples of weathered limestone structures, while the dam in Whitnall Park exhibits the use of native fieldstone. Weather edge lannon-stone steps, timber light poles, and wood park signs of a singular design also contribute to this rustic aesthetic.

[8] Alfred L. Boerner, "The Influence of Nature on Park Design," 20.

The waterfall located on the west side of the lagoon in Greenfield Park utilizes natural rock formations in keeping with the System's overall design aesthetic.

The Kletzsch Park dam in the Milwaukee River Parkway, seen in this historic photo from c.1935, is made of native weathered limestone (Source: Milwaukee County Parks).

Another significant design consideration was the spatial organization of park features and activities, with careful consideration regarding the grouping of compatible uses. Boerner believed that "active recreation can be ingeniously woven into a sound park plan of artistic merit in a manner so unobtrusive that it in no way hinders the effectiveness of the park as a landscape composition."[9] For example, when writing about Greenfield Park, Boerner explained that the golf course is on the north half of the park, separated from other park activities as they are incompatible, while active recreation such as swimming, skating, baseball, tennis, and children's play areas are grouped together.

This overall vision and design philosophy is still largely recognizable throughout the System. Identifying and understanding these characteristics among the park and parkway features represents the first step in preparing a management plan. The following sections provide guidance as to how these design principles can be utilized for future rehabilitation, construction, and maintenance projects.

[9] Alfred L. Boerner, "Greenfield Park: Unit of Milwaukee County Park System Designed to Satisfy Modern Needs," 185.

3. Regulatory Framework for Projects

This section describes the regulatory framework that certain projects will need to comply with to satisfy local and/or federal requirements. Topics addressed include:

- Section 106 process
- Section 4(f) of the Department of Transportation Act of 1966 requirements
- Local preservation regulations
- Roles and responsibilities of agencies involved with regulatory requirements

A. Section 106 process

Section 106 requires federal agencies and owners seeking federal assistance to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings. Section 106 regulations, 36 CFR 800.16 (l)(1), define "undertaking" as a "project, activity or program funded in whole or part under the direct or indirect jurisdiction of a Federal agency…"[10] The Section 106 process seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties.

The historic preservation review process mandated by Section 106 involves four major steps:

1. Initiating through early planning
2. Identifying historic properties
3. Determining project alternatives to avoid or reduce harm to historic properties
4. Developing measures to mitigate any adverse effects

See Appendix C for the ACHP's Section 106 Flowchart, which succinctly presents the process.

To comply with Section 106, appropriate consultation among the lead agency, any other federal agency, the SHPO, Native American tribes, the public, and other interested parties is required. The goal of consultation is to provide parties an opportunity to participate in efforts to identify historic properties potentially affected by the undertaking, assess anticipated effects of the undertaking, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. Though the SHPO plays an important role in consultation under Section 106 regulations, the federal agency remains legally responsible for all required findings and determinations.

[10] Code of Federal Regulations, Title 36, *Parks, Forests, and Public Property*, Chapter VIII ("Advisory Council on Historic Preservation"), Part 800.16 ("Definitions"), available at http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=8236e2f9601b99c9866ff070f573af76&rgn=div8&view=text&node=36:3.0.6.1.1.3.1.3&idno=36 (accessed 15 August 2012).

For road and bridge projects, the FHWA is typically the lead federal agency responsible for the Section 106 process. The lead agency is in charge of fulfilling Section 106 requirements, including preparing appropriate documentation. The FHWA delegates a portion of its responsibility to WisDOT, the state transportation agency, which may in turn call upon a local government, such as Milwaukee County or a municipality, to provide information needed to comply with Section 106. It is important to note that ultimate responsibility for Section 106 compliance remains with the federal agency. The roles of the federal agency, SHPO, and other participants in the Section 106 review process are described further in Section 3.E.

In addition to bridge projects, certain work conducted within the System's waterways will require a federal permit from the U.S. Army Corps of Engineers (USACE). The USACE, through its issuance of Section 404 permits, is also involved with undertakings within the System. An example would include MMSD projects to improve channels, remove concrete lining, and improve areas prone to flooding. Other undertakings that may occur within the System include rehabilitation of existing retaining walls, or addition or replacement of sidewalks that include federal funding. Receipt of any federal funding, whether from the FHWA or another federal agency such as the U.S. Department of Housing and Urban Development (HUD) or Environmental Protection Agency, will necessitate that the agency providing such funds comply with Section 106.[11] These federal agencies will typically rely upon the local government to provide needed information to comply with Section 106.

It is also important to note that more than one federal agency may be involved in a given project (e.g., due to applicability of more than one approval, permit, and/or funding). Agencies should work together and designate one lead agency responsible for Section 106. By designating a lead agency early on, duplicative documentation and consultation can be avoided.

With the PA in place, the Section 106 process for undertakings affecting the System is greatly streamlined. Historic properties have already been identified through the inventory and National Register MPD, as documented in Volume 1. By following guidance in the HPMP, project planners and designers can efficiently develop project alternatives that avoid or reduce harm to historic properties. The PA also specifies measures to deal with any adverse effects, and the required consultation. By following the PA, agencies can effectively deal with any adverse effects. For example, replacement of a contributing bridge will require nomination of the affected parkway to the National Register, if it is not one of the five already prepared.

In addition to above-ground historic properties, a project has the potential to impact archaeological sites. The System includes known archaeological sites; however, the specific locations are not publicly disclosed to protect the sites. These below-ground historic properties are not addressed by the HPMP. However, Section 106 regulations require archaeological sites be considered in project planning in the same manner described above for above-ground historic properties. In the case that human remains or

[11] Under certain HUD programs, such as the Community Development Block Grant program, the enabling legislation specifically authorizes HUD to legally delegate certain Federal environmental duties, including Section 106 compliance, to a local government.

grave-associated artifacts are inadvertently discovered, their treatment and disposition must be done according to Section 157.70, Wisconsin Statutes, and the ACHP's Policy Statement Regarding Treatment of Human Remains and Grave Goods (September 27, 1988, Gallup, NM).

Any needed regulatory review should be initiated at the earliest stages of project development so a broad range of alternatives may be considered during the planning process for the undertaking. Appropriate technical professionals, including those meeting the Secretary of the Interior's Professional Qualification Standards, should be consulted as needed.

B. Section 4(f) requirements

Section 4(f) applies to U.S. DOT-funded projects that require the "use" of defined categories of public land, as well as historic properties. Specifically, Section 4(f) governs the use of land from publicly owned parks, recreation areas, wildlife and waterfowl refuges, and public or private historic sites for federal highway projects. The FHWA must ensure that the provisions of Section 4(f) are met before approving a federally funded project for letting. Projects that do not impair the historic integrity of a historic resource are not subject to Section 4(f). Therefore, appropriate rehabilitation of a historic bridge following the guidance of this HPMP would not be subject to Section 4(f).

The FHWA issued an update to its Section 4(f) Policy Paper in 2012, which replaces the 2005 edition of the document. According to the Policy Paper:

> This guidance is also intended to help State DOTs and other applicants for grants-in-aid for highway projects to plan projects that minimize harm to Section 4(f) properties. Experience demonstrates that when Section 4(f) is given consideration early in project planning, the risk of a project becoming unnecessarily delayed due to Section 4(f) processing is minimized. Ideally, applicants should strive to make the preservation of Section 4(f) properties, along with other environmental concerns, part of their long and short range transportation planning processes.

See the FHWA Section 4(f) Policy Paper for more information, including the definition of "use" and "historic sites" at http://www.environment.fhwa.dot.gov/4f/4fpolicy.asp. Note that use of land from public parks for transportation purposes is also governed by Section 4(f).

C. State preservation regulations

Although this document is intended to provide guidance for complying with Section 106, project activities within the System may also need to comply with Wisconsin Statutes 44.40 and 66.1111. Statute 44.40 applies to projects that receive state funding or require state-issued permits, licenses, authorizations, or variances. Under Statute 44.40 state agencies must consider if their proposed project will affect a historic property that is listed in the National Register or included in the Wisconsin Historic Preservation Database (WHPD). Similar to Statute 44.40, Statute 66.1111 requires that local municipalities identify at the earliest possible stages of project planning efforts if the proposed actions will result in an adverse effect to historic properties listed in the National Register or included in WHPD. WHPD records were prepared for contributing and noncontributing resources in the parkways and associated parks and golf courses documented in Volume 1. Therefore, state agency-sponsored projects that have the potential to affect these resources must comply with Statute 44.40 and Statute 66.1111. Project sponsors that receive state

funding or state-issued permits, licenses, authorizations, or variances should coordinate with SHPO early in the process to confirm that they are complying with Statutes 44.40 and 61.1111.

D. Local preservation regulations

In some cases, project activities will also need to comply with local preservation regulations, instituted at the city level through a municipal historic preservation ordinance. Historic preservation ordinances recognize locally important historic properties, designated as "landmarks," and have provisions to protect their historic character. As of August 2012, Lake Park (City of Milwaukee Landmark as part of the North Point North Historic District designated in 1983) is the only resource designated as a landmark under a municipal historic preservation ordinance.

Compliance with local preservation ordinance stipulations is required when a local landmark may be affected regardless of funding source. These requirements are in addition to compliance with Section 106 discussed above. Project activities expected to require coordination include rehabilitation or new construction that has the potential to impact the landmark's historic character. Routine maintenance is generally not considered an activity that requires project coordination.

Projects impacting a locally designated landmark should be coordinated with city's historic preservation staff to identify if a Certificate of Appropriateness (COA) is needed from the historic preservation commission prior to commencing the project. The COA outlines project activities that comply with the local ordinance. More information on the City of Milwaukee's Historic Preservation Ordinance and the process of obtaining a COA is available at http://city.milwaukee.gov/hpc.

It is important to note that additional parks or parkways, or individual resources therein, may be locally designated through a local historic preservation ordinance at a future date. Projects within newly designated landmarks would also require coordination on project activities in compliance with the local historic preservation ordinance under which they were designated.

The Milwaukee County Historical Society has also designated properties as Milwaukee County Landmarks under a county ordinance. A number of Milwaukee County Landmarks are located within the System (see Appendix D). Different than the City of Milwaukee Historic Preservation ordinance, the Milwaukee County Landmark designation is strictly honorific. By recognizing the importance of these properties, it has a focus on education—providing the public with a list of properties in the county that have historic, architectural, or cultural significance. In the case of these properties, the ordinance creating the landmarks program does not offer any protection, require project review by the Milwaukee County Historical Society, or provide protection from demolition or alteration.

E. Roles and responsibilities

Various agencies may be involved with projects within the System. The following identifies the players most commonly involved and what their roles and responsibilities entail under the above national and local preservation regulations:

- Owner – Key player in any decision-making process with ultimate responsibility for stewardship of a historic resource. The owner is responsible for coordination with federal agencies to satisfy federal regulations, and is also responsible for compliance with local preservation laws and regulations.

- Federal agency (e.g., FHWA, USACE) – Responsible for federal regulatory compliance, including Section 106, if a project is a federal undertaking. The FHWA is also responsible for compliance with Section 4(f) where U.S. DOT funds are used in a project.

- State agency – Responsible for oversight of state-funded or permitted projects to address compliance with Wisconsin Statute 44.40.

- WisDOT – Offices within the state transportation agency provide different types of technical assistance as follows:

    - Cultural Resource Team – The FHWA's delegated authority to comply with Section 106, including making determinations of National Register eligibility and findings of effect, as well as conducting SHPO and interested party consultation and advising on historic property stewardship.

    - Local Programs Coordinator – This administrator works closely with local governments to execute projects, coordinates local federally funded projects, and provides overall management.

- SHPO – The Wisconsin SHPO (part of the Wisconsin Historical Society) assists government agencies in carrying out their historic preservation responsibilities. Under Section 106 regulations, the SHPO plays an important role in consultation but the federal agency remains legally responsible for all required findings and determinations. As described in the regulations, the SHPO "reflects the interests of the State and its citizens in the preservation of their cultural heritage…advises and assists Federal agencies in carrying out their section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taken into consideration at all levels of planning and development." (36 CFR PART 800.2)

- MMSD – Has oversight for certain streams and watercourses within the System and works with the owner to meet requirements for projects it sponsors (see MMSD website for map of jurisdictional streams). In keeping with its mission, the MMSD plans and oversees projects that reduce flooding risks and prevent pollution that is conveyed by rainfall and snowmelt, working with stakeholders.[12]

[12] The MMSD Chapter 13 Surface Water and Storm Water Rules requires all users of the sewerage system and all governmental units to manage the volume, timing and peak flow rates of runoff from development or redevelopment.

- Local Historic Preservation Commission – The Historic Preservation Commission reviews and approves the COA prior to commencing a project that involves a locally designated landmark.

- Friends of the System – Several groups provide assistance in maintenance and day-to-day operations of the System. A listing of these "Friends" of the System is included in Appendix E.

4. Principles for Management

This section describes the guiding principles for management of the System and other documents that informed preparation of the HPMP. Topics addressed include:

- Project activities on which the HPMP is focused
- Secretary of the Interior's Standards as a foundation for guidance
- Context-sensitive solutions, also referred to as community sensitive design
- Milwaukee County's Green Print sustainability initiative

A. Applicability

Activities towards which guidance is focused are those that would be considered undertakings under Section 106 regulations. Within the System, the most common federal undertaking is the rehabilitation or replacement of a vehicular bridge. Certain roadway improvements may also be completed as federal undertakings, but many others are conducted as locally sponsored projects without state or federal funds. Waterway improvements, such as reconstruction or removal of concrete channel protection, typically require federal permits; as such, they are also considered federal undertakings and must comply with Section 106. The HPMP is not intended to apply to urgent actions taken for disaster response. In the case of an emergency, see the Section 106 procedures for Emergency Situations in 36 CFR Part 800.12.

Many other activities within the System do not involve federal funds, permits, or licenses and do not need to comply with Section 106. Examples range widely in both scale and type, from minor maintenance work such as new landscape plantings to major construction efforts such as a new recreational facility. A recent major project was the reconstruction of the Hoyt Park Pool and improvements to the associated bathhouse. In certain cases, state or local preservation regulations may apply (see Sections 3.C and 3.D).

Individual historic properties were identified during the inventory of the System (see Volume 1), including buildings, structures, and significant landscape features. Buildings, structures, and significant landscape features within the System are identified as contributing or noncontributing to the overall System based on the definition of contributing and noncontributing in the National Park Service (NPS)'s National Register guidance. In general, a contributing resource is defined as a building, structure, or landscape feature that was constructed within the period of significance for the System (prior to 1961) and retains a degree of integrity, while noncontributing resources are those constructed outside the System's period of significance (post-1960) or do not retain a degree of integrity. The contributing or noncontributing status of individual resources is available in Volume 1.

Both contributing and noncontributing resources need to be considered when alterations and/or replacement are proposed. Although it is not intuitive, alterations or removal of a noncontributing resource has the potential to impact the System's overall historic character. Because the parks and parkways represent a collection of interrelated resources and landscape features, changes to noncontributing resources may still have an impact on the overall System. Therefore, these changes or replacement of noncontributing resources still need to be considered during planning of proposed project activities.

Property boundaries also need to be considered when applying guidance in the HPMP. Property that was acquired after 1960 and is part of the County's present overall park and parkway system is not covered by the HPMP since it was not historically part of the system. Volume 1 includes maps of the overall system that defines the historic boundary of the individual parks and parkways covered by this HPMP.

B. Secretary of the Interior's Standards

The HPMP's foundation is the federal preservation regulations, standards, and guidance promulgated by the Secretary of the U.S. Department of the Interior. This Department is responsible for establishing standards for all national preservation programs under its authority and for advising federal agencies on the preservation of historic properties listed or eligible for listing in the National Register. Under this authority, the Secretary established a set of standards for the protection of historic properties "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources."

The Secretary's Standards, originally published in 1977, are a series of concepts related to maintaining, repairing, and replacing historic materials, as well as designing new additions or altering a historic property. They are not technical or prescriptive, but are intended to promote responsible historic preservation practices by providing advice and offering a consistent approach to proposed work. In certain cases, the Secretary's Standards are regulatory, including in the application of Section 106 as discussed in Section 3.A. The National Park Service (NPS), a unit of the Department of Interior, further developed the Secretary's Standards, which were then codified as 36 CFR Part 68 in the Federal Register (July 12, 1995, vol. 60, no. 133), replacing earlier versions. This HPMP follows and incorporates the latest guidance, which is available online on the NPS website at http://www.nps.gov/hps/tps/standguide/.

Four treatment options are included in the Secretary's Standards:

- *Preservation* – The act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property.

- *Rehabilitation* – The act or process of returning a property to a state of utility and of making possible a compatible use for a property through repair, alterations, and additions that makes possible an efficient contemporary use while preserving those portions or features that convey its historical, cultural, or architectural values.

- *Restoration* – The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.

- *Reconstruction* – The act or process of depicting by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.

Any of these options may be appropriate for a historic resource, depending on its particular significance, current and future use, physical condition, and project requirements. The guidance in this HPMP focuses on standards for preservation and rehabilitation since these will typically best address the County's objective to maintain and enhance the historic qualities of the County's System.

The Secretary's Standards are applicable to any and all actions contemplated within the System, no matter what level of effort. However, they are not mandatory unless the project is a federal undertaking under Section 106 (as defined in Section 3.A) and are instead meant to promote responsible historic preservation practices.[13] The NPS designed the Standards to be applied to all historic resource types included in the National Register, including buildings, sites, structures, districts, and objects.

To enhance the understanding of the Secretary's Standards, the NPS has developed guidelines for applying the Standards. The Secretary's *Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* are intended to provide guidance to historic building owners and building managers, preservation consultants, architects, contractors, and project reviewers. As noted above, while the Secretary's Standards are designed to be applied to all historic resource types, the Guidelines apply to a specific resource type: buildings. The Virginia Transportation Research Council adapted the Secretary's Standards and Guidelines to address the special requirements of historic bridges and to identify specific applications to bridges. The resultant *Guidelines for Bridge Maintenance and Rehabilitation Based on the Secretary of the Interior's Standards* are included in Appendix F and provide useful guidance for bridge maintenance and/or rehabilitation projects.

A complimentary volume, the Secretary's *Guidelines for the Treatment of Cultural Landscapes*, published in 1996, is also informative. Within the System, the parks are particularly apt to change, as their recreational function is not static but changes over time with changing needs and interests of the community. Within a historic park landscape, as found through the System, the goal of preservation is the retention of the landscape's existing form, features, and materials. These guidelines are also available on the NPS website at http://www.nps.gov/tps/standards/four-treatments/landscape-guidelines/index.htm. Each of these guidelines can assist project planners and designers in understanding how to apply the Secretary's Standards but, by nature, they are not project specific and should not be considered prescriptive.

The document guidance begins with the recommendation to identify those features that are important in defining the resource's historic character and which must be retained in order to preserve that character. These are known as character-defining features. In the case of the System, historic properties are varied and include bridges, parkway roads, buildings, landscapes, and other historic components of the overall

[13] In some cases, project activities will need to comply with Wisconsin Statutes that address historic preservation (see Section 3.C) or local preservation regulations, instituted at the city level through a municipal historic preservation ordinance (see Section 3.D).

System that lie within the historic boundaries. Using a bridge as an example, its character-defining features are the most important components to consider during rehabilitation activities. This includes a bridge's superstructure and the stone veneer that is commonly applied to the abutments. The historic fabric of the bridge (historic period materials and physical features) should be considered for preservation and retained where feasible. The rehabilitation of the bridge, including character-defining features and historic fabric, should be in compliance with the Secretary's Standards. The same approach should be followed for any other historic property type.

C. Context-sensitive solutions

Context-sensitive solutions, also referred to in Wisconsin as community sensitive design (CSD), is defined by WisDOT as the art of creating public works projects that function safely and efficiently, and are pleasing to both the users and the neighboring communities. The goal of CSD is to leave a lasting public works legacy that will stand the test of time. This goal is consistent with preservation of the System following the guidance of this HPMP. See the WisDOT Facilities Development Manual (FDM), Chapter 11, Section 3 for more guidance on CSD. Chapter 11 is available at this website http://roadwaystandards.dot.wi.gov/standards/fdm/11-03.pdf.

WisDOT's policy is to use a CSD approach to enhance excellence in transportation project development and resulting solutions. It is the intent of this HPMP to follow the policies and principles of the CSD design approach for new and rehabilitation projects. The outcomes of a CSD design approach are as follows:

- The project is a safe facility both for the user and the community.
- The project satisfies the purpose and needs for a full range of stakeholders.
- The project is in harmony with the community and preserves environmental, scenic, aesthetic, historic, and natural resource values of the area.
- The project achieves a level of excellence in people's minds.
- The project involves an efficient and effective use of resources.
- The project is designed and built with minimal disruption to the community.
- The project adds lasting value to the community.

D. Green Print sustainability initiative

Milwaukee County has set forth a series of initiatives to promote practices intended to control operating costs and improve the quality of life for the citizens of Milwaukee County through sound environmental stewardship. The Milwaukee County Board of Supervisors and County Executive approved the Green Print Initiatives in 2007 (http://county.milwaukee.gov/DPW/MilwaukeeCountysGreenPrint.htm). It is the intent of this HPMP to incorporate the applicable goals of the Green Print Initiatives while preserving the

historic character of the System. The goals, as applicable to the HPMP, are outlined according to five categories and their relevant components:

- Sustainable construction:
  - Retrofits public buildings with high-performance energy efficient technology to save money.
  - Requires County-supported construction projects to meet LEED standards.
- Resource management:
  - Reduces the amount of storm water runoff and seeks ways to use water more efficiently.
  - Returns unused park land to native grassland and prairie reserve areas.
- Alternative energy:
  - Examines the use of renewable energy sources.
- Education:
  - Improves staff awareness of green initiatives and programs.
  - Encourages staff participation in efforts to support green initiatives at work and at home.
  - Requires departments to look for ways to improve energy efficiency.
- Procurement:
  - Pursues the use of environmentally preferable products, in accordance with the recommendations of the Green Purchasing Task Force.
  - Replaces traffic signals with LED signals.

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5. Preferred Treatments

This section is the heart of the HPMP, outlining preferred treatments for maintenance, rehabilitation, and new construction within the System. This HPMP demonstrates the appropriate approach and best practices to guide parks and public works staff when undertaking maintenance and planning for rehabilitation and new projects within the System. Adoption of recommended treatments for maintenance, rehabilitation, and new construction should expedite Section 106 reviews since, through review and acceptance of this HPMP, regulatory agencies have agreed to the presented guidance. The HPMP, therefore, offers project planners and designers a reference for accepted practices. Use of this HPMP is expected to simplify consideration of alternatives and streamline project reviews, saving both time and money in the design and project development process.

Recognizing the nature and complexity of the historic properties within the System, preferred treatments following the Secretary's Standards are categorized under the following resource types:

- Buildings
- Bridges
- Roads and trails
- Small-scale structures and features
- Landscape and water features

Activities of planners, designers and maintenance staff with responsibility and/or oversight for the historic System will typically fall under one or more of these three categories:

- Maintenance – Maintenance, in this case, refers to maintaining intact the historic features of the System. Maintaining a historic resource has the purpose of sustaining its condition and longevity; therefore, this action falls within the preservation standard.

- Rehabilitation – As noted in Section 4, rehabilitation returns a property to a state of utility and makes possible a compatible use. Discussion of treatments for the purpose of continued functionality will encompass a broad range of actions that will typically fall under either the rehabilitation or preservation standard, but may, in unusual circumstances, follow the reconstruction or restoration standard.

- New construction – Activities include new or replacement structures, as well as building additions. Constructing a new building or bridge, or adding to an existing structure, would typically fall under the rehabilitation standard because it is an alteration to the larger historic district (except in the rare situation of complete reconstruction, which would adhere to the reconstruction standard). New construction within the System should be kept to a minimum.

In general, maintenance activities and projects should be designed to minimize material loss and visual change to the historic features within the System. Work undertaken should be performed in accordance with the Secretary's Standards. Preservation of original materials and details should always be considered first. When preservation of original material and details is determined to not be feasible,

replacement with similar materials should be considered and implemented to the greatest extent possible. New materials should match in form, texture, color, and finish.

The Preservation Briefs (Briefs) prepared by the NPS can also assist in decision making by providing technical guidance for the maintenance and preservation of historic buildings and structures. The Briefs focus on material cleaning and repair, and common maintenance and improvement issues. A list of Briefs that are most applicable for building and structure maintenance and rehabilitation in the System is presented in Appendix G. The Briefs are accessible at http://www.nps.gov/tps/how-to-preserve/briefs.htm.

A. Buildings

(1) Introduction

A variety of buildings are located within the System ranging from recreational structures and clubhouses, comfort stations, picnic shelters, and maintenance buildings. Historic buildings (built prior to 1960 as identified in Volume 1) reflect a number of architectural styles including Colonial Revival, Tudor Revival, and Modern/Contemporary. An overall theme of the System is the reflection of rustic design aesthetics from the Depression era. As a result, some of the buildings feature native materials and handcrafted masonry finishes, including limestone, which is characteristic of this style. However, with a range of buildings in the System that both pre-date and post-date the Depression era, a variety of exterior materials and finishes are found ranging from locally quarried limestone to brick to wood siding.

This pavilion in Kletzsch Park (built in 1936) in the Milwaukee River Parkway exemplifies the Tudor Revival Style.

The c.1935 Garden House at the Boerner Botanical Gardens and Arboretum within Whitnall Park in the Root River Parkway is an example of a recreational structure within the System.

The Warnimont Park Golf Course clubhouse (built in 1987) in the Lake Michigan Parkway (South) reflects the Modern/Contemporary Style.

Mandated code requirements, including state and local building codes, will need to be taken into consideration in the maintenance and rehabilitation of buildings. Codes for historic buildings are provided in Chapter 10 of the International Existing Building Code (IEBC). Buildings within the System meet the definition of historic buildings in Chapter 11 of the 2009 IEBC, which is designed to help owners maintain the appearance of historic buildings. For instance, original materials and construction techniques that are no longer permitted under present-day building codes can be allowed. The Division of Safety & Buildings, along with delegated municipalities, administers the IEBC.

Abatement of lead paint and asbestos within historic buildings requires particular care if important historic finishes are not to be adversely affected. Additionally, rehabilitation and new construction needs to meet accessibility requirements under the Americans with Disabilities Act (ADA) of 1990. NPS Preservation Brief 32, *Making Historic Properties Accessible*, provides guidance on accommodating ADA needs in historic buildings.

(2) Maintenance

Throughout the System, building maintenance occurs on a daily basis and is performed to keep the facilities in their current condition. Routine maintenance activities can assist in keeping historic buildings in good working order and head off the need for replacement of individual features or major rehabilitation. Maintenance activities should respect historic materials and work to retain and repair these materials rather than replace them. For example, repairing a historic window by reconditioning it is preferred over replacement of the window.

Specific maintenance recommendations are as follows:

- *Utility meter replacement* – The replacement of utilities may include the placement of exterior meters on buildings. When placing needed meters, consideration should be given to their location and method of mounting. It is preferable that the meter be located on a rear or side elevation that is not a primary facade, in the most inconspicuous place possible. The mounting should be completed in a manner that does not cause damage to the building's historic materials.

- *Graffiti* – Graffiti is an issue throughout the System, and buildings and structures are often the subject of tagging. Best practices to address graffiti include painting over when on wood and cleaning with the gentlest means possible when on masonry. Water cleaning or water-blast cleaning may not be effective in removal of graffiti. Water pressure washing should be low to medium pressure with the pressure never exceeding 1000 psi. High pressure water cleaning should not be used because it alters and destroys the surface. Sandblasting or any other media blasting (including but not limited to soda, corn cob, walnut, and dry ice) is abrasive and alters the surface of the individual stones and mortar joints. As such, sandblasting or media blasting does not comply with the Secretary of the Interior's Standards. It is also a violation of Wisconsin Statute 101.1215 to media blast a structure that is listed in the National Register; as such, this treatment should never be considered.

The West Forest Avenue Bridge (built in 2009 to replace a contributing structure) on the edge of Jackson Park in the Kinnickinnic Parkway shows uneven coloration and damage to the stone veneer due to inappropriate graffiti removal methods.

In all cases, trial samples should be performed before initiating full-scale work to evaluate the effectiveness of the graffiti removal and to minimize damage to the historic fabric. In many cases, solvent or chemical cleaning may be the gentlest method for graffiti removal, followed by a light to medium pressure water cleaning. Different products are more effective on graffiti than others, so research and test samples are necessary to select the correct solvent or chemical cleaner. Environmental and safety issues need to be addressed with the use of solvent or chemical cleaners in accordance with the manufacturer's literature and product data information. It is important to ensure that graffiti cleaning methods do not result in damage to the historic material. It is recommended that graffiti be removed by trained maintenance crews, using the most appropriate and sensitive cleaning technique. For more information, see NPS Preservation Brief 38, *Removing Graffiti from Historic Masonry*. The same approach should be followed on replacement bridges with stone veneer, which is also susceptible to material damage from abrasive cleaning methods.

- *Vandalism* – Vandalism is an issue in the System. Common examples include broken windows, theft of copper gutter and downspouts, and indiscriminate damage to structure interiors. Emergency maintenance activities need to be completed to secure the building and prevent further damage following vandalism. Measures taken to secure the building should not cause further damage to historic materials. For example, boarding up a broken window should be done in a manner that is reversible and does not damage historic materials.

Longer term treatments have been used to address vandalism to windows, including metal bars, screening, and alternatives to standard glass. The use of laminated or tempered glass is the preferred treatment. If acrylic materials are to be considered, it is important to make sure the material is UV stable, as some types of plexiglass are not UV stable and will ghost or yellow in the sun as the material ages. In a case where the change will be permanent as a means to address a serious vandalism concern, it is recommended that the overall character of the building be considered in the choice of treatment.

- *Lighting* – Lighting may be upgraded on and near historic buildings. It is recommended that historic lighting fixtures be retained as much as possible and that they are retrofitted. With retrofitting, such as for energy efficient LED lighting, consideration should be given to the quality of the light (similar to original is preferred) and avoidance of any potential to impact the historic building during installation.

(3) Rehabilitation

Rehabilitation allows for more substantial activities directed toward building upkeep, as well as modifications or improvements to enable continued use or reuse. The overall goal of rehabilitation is to retain character-defining features of the historic buildings (see Section 4.B for definition and importance of character-defining features). Rehabilitation may include overall improvements to a building to retain its existing use or to accommodate a new use. For example, the Golf Club House in Grant Park was formerly a residence and was rehabilitated for a new use as a clubhouse.

The Grant Park Golf Course clubhouse in the Lake Michigan Parkway (South) was constructed in 1892 as a residence and later adapted to its current use.

Specific rehabilitation recommendations are as follows:

- *Building relocation* – Although not expected to be a frequent activity, the relocation of smaller buildings within the System is a possibility. In particular, some 1930s stone comfort stations are not open or in use and have the potential to be relocated. The relocation of the buildings should place them in a similar setting and environment as their original location. If a contributing building is proposed for relocation as part of a federal or state undertaking, the SHPO should be consulted on the proposed move to avoid or minimize an adverse effect (see process outlined in Section 3). For technical guidance, see *Moving Historic Buildings* by John Obed Curtis (1979).

- *Historic materials* – When possible, the retention of historic materials through continued maintenance is the preferred treatment. However, some original historic materials may be expensive or difficult to maintain or replace in-kind. In select cases, a comparable substitute material may be acceptable. For example, it may be acceptable to replace a deteriorated slate roof with an artificial roofing material that maintains the appearance of slate. In other cases, the use of the historic material and retention or replacement in-kind would be important if the material is part of a character-defining feature. For example, replacement in-kind of copper gutter and downspouts is preferred if they are character-defining features of the building. As described in Section 5.B – Bridges, artificial form liner for concrete is generally not an acceptable substitute for stone, but stone veneer may be accepted.

(4) New construction

It is expected that a limited number of new buildings will be constructed within the System in order to address necessary improvements and modern recreational needs. New or replacement buildings should be planned, located, and designed so they do not have a negative impact on the historic character of the System. If new construction is proposed as part of a federal or state undertaking, the SHPO should be consulted to avoid or minimize an adverse effect (see process outlined in Section 3).

The new building should respect the System's overall historic character and complement the surrounding existing buildings and landscape. Overall, quality and good design will be important in executing a specific project. New construction should follow the general principles outlined in the Secretary's Standards for rehabilitation, or in the rare situation of complete reconstruction, the standard for reconstruction. Reconstruction would only be applied to replicate a significant feature within the System that had been damaged beyond repair or destroyed. See Section 4.B for more information on the application of the Secretary's Standards. Specific guidance for new buildings is provided below.

- *Location/siting* – Siting of a new building could have a significant impact on the feel and character of the historic System. For replacement buildings it is recommended that they be in the same location as the original historic building when possible. For new construction, it is recommended that buildings be sited within an individual park or parkway so that it does not detract from existing historic buildings and the overall landscape. A location at the edge of a park or parkway may be most appropriate. In particular, it is recommended that maintenance or service buildings be sited in areas away from major activities and park users so they are as unobtrusive as possible. Siting

and screening with vegetation are ways to lessen the impact of a new building on the historic character of the System.

- *Scale* – The size of a new or replacement building should be of similar scale to the existing historic buildings within the affected individual park or parkway.

- *Architectural style* – New buildings should be compatible and complement the other buildings within the individual park or parkway and should not detract from the overall character of the System. Historic buildings (built prior to 1960) within the System reflect a number of architectural styles including Colonial Revival, Tudor Revival, and Modern/Contemporary. Individual parks and parkways may have buildings that strongly reflect one style or may have buildings with a mix of styles represented. For example, the Kinnickinnic River Parkway has a variety of buildings ranging from rustic design to the Modern/Contemporary style. As a result, not one architectural style is recommended for new construction within the park and parkway system. It is recommended that new or replacement buildings constructed within the system are not so unique or dramatically different from the existing buildings that they detract from the overall character of the historic landscape or upstage the existing historic buildings.

  In general, maintenance or service buildings would not be expected to reflect principles of an architectural style and can be more utilitarian in appearance. However, their placement should not be prominent so as to minimize their impact on the historic landscape (see location discussion above).

This service building (built in 1941) in Jackson Park in the Kinnickinnic Parkway is an important example of the Tudor Revival Style.

As seen on the rear elevation, the Kletzsch Park pavilion (built in 1936) in the Milwaukee River Parkway reflects the rustic design aesthetic.

The c.1960 Jackson Park comfort station/community center reflects the Contemporary/Modern style and adds variety to the Kinnickinnic River Parkway.

- *Materials* – New buildings should be compatible and complement the other buildings within the individual park or parkway and not detract from the overall character of the System. Historic buildings (built prior to 1960) within the System reflect a variety of construction materials such as stone veneer, brick, and frame construction. As a result, not one exterior material is recommended for new construction within the System. It is recommended that new or

replacement buildings are not so unique or dramatically different from the existing buildings that they detract from the overall character of the historic landscape or upstage the existing historic buildings. New buildings constructed in wood, brick, or stone would be expected to be compatible with the existing System.

B. Bridges

(1) Introduction

Much of the parkway's infrastructure follows Whitnall's original 1923 vision, was constructed using federal work relief labor, and exhibits the rustic design aesthetic of the Depression era. The use of native materials, including locally quarried limestone, and handcrafted masonry finishes for bridges is prominent throughout the System. This rustic aesthetic is a unifying feature of these designed landscapes. Vehicular bridges are typically concrete structures faced with native limestone laid in a random ashlar pattern. Many of these bridges have aesthetic treatments, including segmental arch headwalls and decorative parapets. Pedestrian bridges are typically timber or native stone, which blend into the natural setting.

This stone veneer bridge (built in 1933) in the Root River Parkway reflects the rustic design aesthetic common for parkway bridges.

The East North Avenue Bridge (B-40-0999) in the Menomonee River Parkway was built in 1934 with limestone veneer.

This stone veneer bridge (Bridge B-40-0936), built in 1931) in the Oak Creek Parkway also reflects the rustic aesthetic.

(2) Maintenance

Preventive maintenance is the recurrent day-to-day, periodic, or scheduled work that is required to sustain a bridge so that it can be effectively utilized as intended. It includes work to prevent damage to or deterioration of a bridge that otherwise would be more costly to restore. Preventive maintenance should be completed to address smaller potential problems in a timely manner so they will not develop into more expensive efforts. Preventive maintenance activities can be divided into two groups: those performed at specified intervals and those performed as needed.

(a) Specified interval maintenance

This group includes the systematic servicing of bridges on a scheduled basis. The interval varies according to the type of work or activity. Tasks identified as interval maintenance should be incorporated into the maintenance schedule for the System's bridges to include:

- Cleaning bridge's drainage system.
- Cleaning and resealing expansion joints.
- Cleaning expansion bearing assemblies.
- Cleaning/washing – Low to medium pressure power wash and flush bridge components such as decks, sidewalks, railings and those surfaces exposed to salt-laden water or snow.
- Cleaning/washing – Low to medium pressure power wash and flush bridge components such as abutments, wing walls, arches, and piers, with particular attention to cleaning the bridge seats.

(b) As-needed maintenance

These activities should be performed when the need is foreseen for remedial work to prevent further deterioration or the development of defects. The need for this type of maintenance is often identified during inspections. Examples of as-needed maintenance activities include:

- Removal of graffiti – see Section 5.A.(2).
- Sealing or patching concrete decks.
- Spot painting or repainting metal railings and lighting features.
- Painting steel members.
- Sealing and/or inject minor cracks in concrete structures (non-structural repair).
- Deck joint repairs, including repair or replacement of expansion joint components to reinforce and protect the bridge structure.

- Minor stone masonry repairs in-kind.
- Patching and repairing of concrete, stone, timber, or metal surfaces.
- Minor re-pointing mortar joints in stone masonry, using historically correct mortar – see Section 5.B.(3) below.
- Removing vegetation growing in masonry or concrete joints.
- Removing soil and vegetation accumulated adjacent to piers and wing walls.
- Remove obstructions from the waterway.
- Repair concrete slope paving or stone riprap in-kind to match historic appearance.
- Repair scour damage to substructure units in-kind.
- Repair light fixtures.
- Repairing guardrails as needed to ensure public safety. The repaired beam guard should be in-kind if possible and in all cases should respect the historic character of the bridge while complying with current design standards and criteria.
- Adding vehicle load rating signs for pedestrian bridges. The addition of vehicle load rating signs for pedestrian bridges would allow the maintenance vehicle user to immediately see the load capacity of the bridge without having to request a check of the design load rating records. It is recommended that the signage be placed off the bridge.

(3) Rehabilitation

Rehabilitation allows for adaptation of a bridge to a new purpose and/or to meet current engineering design standards. Rehabilitation should always be considered as the preferred treatment for a historic bridge. Prior to undertaking work, a plan for rehabilitation that meets the project's purpose and need, as well as the Secretary's Standards, should be developed. It is most effective when an engineer and historian collaborate on this plan. Their collaborative efforts should focus on reviewing the character-defining features and historic fabric of the bridge, and discussing the project purpose and need, the bridge's current structural condition, and evaluation of proposed alternatives for rehabilitation.

Rehabilitation activities could include:

- *Replacement of railing or parapet* – When preservation of the existing parapets or railings is not feasible, the original design and effect should be replicated, while conforming to current design standards for vehicular impact loading and clear opening requirements. See Section 5.B.(4) below for more information on railing replacement.

- *Major repointing of mortar joints on masonry bridges* – Repointing is essential to maintaining strength, preserving masonry work, and limiting moisture infiltration. A mortar analysis should be conducted by a qualified professional prior to implementing preservation activities for purposes of specifying the mortar mix to be used during rehabilitation. The analysis should be consistent with the intent of NPS Preservation Brief 2*, Repointing Mortar Joints in Historic Masonry Buildings*. The fundamental goals of the mortar analysis should be to (a) match the historic mortar in color, composition, texture, hardness, and tooling; (b) match the repointing mortar sand with the historic mortar to the extent possible; (c) specify a repointing mortar of greater vapor permeability and less compressive strength than the stone masonry; and (d) specify a repointing mortar as vapor permeable and with the same, or less, compressive strength as the historic mortar. Mortar should be tested in multiple locations because the composition of mortar can vary (e.g., at or below the waterline vs. on the railing or bridge elevation). A historically appropriate material must be used and the joint must be tooled consistent with original joints.

- *Replacement of stone masonry* – To the extent possible, stone masonry should be replaced in-kind. Mismatching of materials may result in visual incongruence and may weather differently.

- *Sealing and/or injecting cracks in bridge decks, substructure units, and superstructure elements for structural repairs* – Repairing cracks reinforces and protects the bridge structure. By identifying the origin or the mechanism of the crack, the appropriate repair techniques can be applied.

- *Repairing small spalls in concrete* – Repair (patching) of small spalls in concrete surfaces of substructure and superstructure units for structural repairs should be done with material that matches the structure color and texture as closely as possible. Test panels of concrete should be used to find a suitable match to the color and texture of the original concrete.

- *Removal and replacement of concrete deck* – Removing and replacing the concrete deck should be done while maintaining superstructure framing and without widening the bridge.

- *Addition of beam guard on the approach roadway to a bridge* – The purpose of beam guard installation is to enhance safety by complying with current design standards. The length of beam guard should be determined based on the lateral area to be shielded, approach traffic speeds and volumes, and site-specific conditions. Similar to criteria for bridge rehabilitation, the beam guard should respect the historic character of the bridge while complying with current design standards and criteria.

- *Cleaning, surface preparation, and painting of entire steel structures* – If lead based paint is present, proper containment and disposal are required.

- *Removal and replacement of individual deteriorated structural steel components* – Replacing a member in-kind is an effective way to retain the original appearance of the bridge. Bolting or

welding new plates to the bridge should be avoided, if possible, since they are not historically accurate.

- *Replacement of rivets* – Replacement of corroded, damaged, or otherwise deficient rivets should be completed using button-head bolts of similar shank diameter to imitate the original rivet form.

- *Straightening of steel members* – Heat-straightening is an appropriate means to repair deformations, if deemed to be necessary, and if used with caution. The application of heat-straightening techniques by experienced personnel is a viable alternative for repair.

- *Stabilization of side slopes* – Side slopes can be stabilized with the addition of stone riprap that matches the materials and aesthetic features of the bridge and overall parkway. Although rectangular cut stone and rounded stone are appropriate materials, the selected stone should be consistent with the parkway. For example, rounded stone may be appropriate in parkways of a more rustic nature while cut stone may be appropriate in parkways where dressed stone bridges and retaining walls are common. Stone that matches the size, color, texture and appearance of the structure should be used.

- *External reinforcement of masonry arch barrel (use with caution)* – Used as a last resort to improve stability or structural capacity, the external reinforcement of the arch barrel changes the overall appearance of the bridge. Steel rings encased in concrete, reinforced concrete, or steel framework are added to the bridge to provide support of the external arch at the spring-lines.

- *Internal reinforcement of masonry arch barrel* – The internal reinforcement of the arch barrel uses a proprietary system consisting of steel reinforcement positioned within a confining tube of fabric and grouted in place, which may have little or no effect on the visual appearance of the bridge.

- *Distribution overslabs for masonry arch bridges* – Adding a distribution overslab to a masonry arch superstructure can be used to distribute loads more evenly through fill with little or no change in visual appearance. This method of repair typically requires that a bridge be closed while the slabs are added.

- *Lateral restraint of filled spandrel walls of masonry arch bridges* – Adding proprietary grouted steel rods internally or anchored steel rods externally will provide bridge structures with lateral restraint and may have little or no effect on the visual appearance of the bridge.

- *Masonry stitching of masonry arch bridges* – Restoration of structural integrity can be accomplished with the addition of proprietary grouted steel rods placed internal to the bridge, radial to the arch, or normal to the centerline. This technique can also be applied diagonally to cracks to restore structural integrity.

- *Replacement of fill with concrete for masonry arch bridges* – Replacing fill with reinforced concrete provides an effective method of strengthening structural support for filled arch bridges. This technique typically does not alter the visual appearance of the bridge structure.

- *Replace light fixtures* – If replacement is necessary, light fixtures on a contributing bridge should be replaced in-kind if original. If not original or placed on a noncontributing structure, the replacement light fixture should be appropriate to the bridge's date of construction

- *Pedestrian/bicycle accommodation* – Rehabilitation of a bridge may need to accommodate pedestrian and bicycle traffic in accordance with Wisconsin Administrative Code Trans 75 (Trans 75).[14] The WisDOT FDM, Chapter 11, Section 46, provides guidance on compliance with the requirements of Trans 75. The historic character of the contributing bridge within the parkway should be balanced with these requirements. It is not recommended that contributing bridges be widened to accommodate the multi-modal uses.

(4) New construction

It is expected that new bridges (replacement bridge, new bridge, replaced superstructure, or widened bridge) will need to be constructed within the System in order to address necessary improvements and modern functional needs. New or replacement structures should be planned, located, and designed so they do not have a negative impact on the historic character of the System and complement the surrounding landscape. Overall, quality and good design are important in executing a specific project. Consideration for materials, design, and safety need to be accounted for in the initial project budgeting and in the design and construction document preparation.

In accordance with the PA, the SHPO must review bridge plans for a new or replacement structure at the 30- and 90-percent design stage. Preliminary bridge plans should also be reviewed by the WisDOT Bureau of Structures (BOS) before beginning the final design and detailing of the bridge plans, in accordance with WisDOT policy.

Bridge replacement projects over the last seven years provide examples of successful projects that respect the character of the historic System, including bridges within the Kinnickinnic River, Milwaukee River, Root River, Menomonee River, Oak Creek, and Honey Creek Parkways.

[14] In 2009 Wisconsin Act 28 created Statute 84.01(35), also known as the "complete streets" law. This requirement applies to new construction and reconstruction projects funded in whole or in part from certain state funds or federal funds.

This stone veneer bridge in the Honey Creek Parkway (Bridge B-40-0724) replaced a contributing structure in 2007 and was found to comply with Section 106.

This structure (Bridge P-40-058, completed in 2009) replaced a contributing structure in Jackson Park in the Kinnickinnic River Parkway and retains the overall historic character of the System.

Specific-guidance for new bridges is provided below.

- *Superstructure type* – Various bridge superstructure types are found throughout the park and parkway system ranging from arch to beam girder. The dominant superstructure types are concrete slab or beam girder. In general, it is recommended that the replacement of a historic

contributing bridge visually replicate the type of the original structure. For example a beam girder structure is recommended to be replaced with the same superstructure type. It is possible, that an arch bridge be replaced with a beam girder structure that is designed with a fascia to appear as an arch. For noncontributing bridges there is more flexibility in the superstructure type chosen, as long as the type does not have an adverse effect on the historic landscape.

- *Overall appearance/design* – The replacement of a contributing bridge should maintain the overall appearance of the original structure including material, texture, finish, color, and architectural details. Horizontal and vertical dimensions for a replacement bridge should meet current design standards and criteria, while matching the existing structure as closely as possible.

  For the replacement of a noncontributing bridge or a new crossing within the System, the structure should be compatible with the surrounding historic landscape and complement the rustic design aesthetic. These structures do not need to replicate existing historic bridges but should be a pleasing example utilizing current technology that blends with the historic setting. Applied decoration that has no historical basis or precedent, such as form liner, should be avoided.

- *Materials* – Bridges within the System are constructed of concrete with stone veneer, concrete, timber, and steel. The stone veneer and timber structures continue the natural and rustic aesthetic of the System promoted by Whitnall and Boerner. It is recommended that replacement contributing bridges be constructed in materials that replicate the material of the original structure. For example, a concrete bridge with limestone veneer should be reconstructed with a matching stone veneer. Concrete form liner and staining to emulate stone veneer is not an acceptable substitute for original stone veneer.

  For noncontributing bridges (built after 1960), there is more flexibility in the materials used as the replacement structure does not need to replicate the materials of the previous structure. Concrete, stone, and timber materials are compatible with the design aesthetic of the overall System, and need not attempt to replicate a historic look.

- *Railing and parapet* – Railings and parapets on the historic bridges vary based on the type of structure and may include stone pillars with timber rail, stone parapets, and painted steel railings. In general, open railings were used to frame views. Where a contributing historic bridge is to be replaced, it is recommended that the railing or parapet on the replacement bridge replicate the design of the original structure as much as possible while addressing any safety concerns. A bridge that had an open railing should retain this general design and feel. It is recommended that stone veneer be used; form-lined and stained concrete is not acceptable.

  The design of railings and parapets shall be in accordance with current WisDOT Bridge Manual design criteria for bridges with and without sidewalks. These safety standards include design for vehicular impact loading and detailing to provide the required parapet or railing height. Clear opening spaces for railings shall be in accordance with American Association of State Highway and Transportation Officials bridge railing specifications.

Close-up view of the 70th Street Bridge railing in the Menomonee River Parkway, under construction in 2010.

For new stone parapets, it is recommended that beveled stone caps be used, or use precast concrete segments with the top surface beveled to allow water to drain. This will help avoid flaking, spalling and degradation of the flat top surfaces of the stone panels on top of some of the existing parapets within the System.

For noncontributing bridges (built after 1960) or newly constructed bridges there is more flexibility in the railing or parapet design and it should be compatible with the type/form chosen for the superstructure and the design aesthetic of the overall System.

- *Date stone* – If a contributing bridge is being replaced that has a WPA date stone, it is recommended that the date stone be salvaged and incorporated into a display near the replacement structure. Such a display could be a small monument with a sign. This approach allows the date stone to be interpreted without providing a false sense of history if the stone were to be incorporated into the new structure (not recommended).

- *Abutments* – Abutments on structures replacing contributing structures are recommended to replicate the material and form of the original abutment. For example, replacement of a structure originally with stone abutments is recommended to be stone veneer attached to cast-in-place concrete in exposed areas.

  For noncontributing bridges (built after 1960) there is more flexibility in the materials used, as the replacement abutments do not need to replicate the materials of the previous one. The abutments should complement the new bridge design and be compatible with the design aesthetic of the overall System.

- *Riprap* – Stone riprap for new and rehabilitated structures should match the original stone used to protect the structure. Rectangular stone which matches the size, color, texture, and appearance of the structure should be used. Rounded stone for riprap is discouraged due to its manufactured and incompatible appearance.

- *Pedestrian/bicycle accommodation* – Rehabilitation of a bridge may need to accommodate pedestrian and bicycle traffic in accordance with Trans 75. New bridges may need to accommodate bicycle and pedestrian needs per Trans 75 and incorporate sidewalks and bicycle facilities. The impact of the new bridge construction should be balanced with the requirements of Trans 75.

- *Sealant* – Use of sealant or staining the stone facing on parapets and wingwalls of new structures is not recommended. While such staining or sealing may provide initial protection, it is not recommended because the staining or sealing will change the appearance of the masonry. Some types of sealing or staining may cause physical or aesthetic changes or damage to the masonry. An example of where a coating changed the appearance of masonry to a grey sheen is shown in the following photo.

Bridge in the Kinnickinnic Parkway (built in 2011) showing discoloration and grey sheen from sealant that obscures natural finish of stone veneer.

- *Pedestrian bridges* – Prefabricated weathering steel structures with a hardwood timber deck that meet current load and safety requirements are acceptable for new or replacement pedestrian structures. This type of structure is aesthetically pleasing and blends in with the surrounding setting. Distinctive pedestrian bridges, such as the gated bridge in Grant Park at the entrance to Seven Bridges Trail, should be retained and rehabilitated.

C. Roads and trails

(1) Introduction

Each parkway contains a limited-access curvilinear vehicular roadway that typically follows the course of a watershed feature and links parks to recreational and cultural components. Roads are typically two lanes with concrete curb and gutter, with limited on-street parking. Despite not fully encircling the county, the System's roadways and pedestrian trails provide a circulation system throughout the county. Each parkway also features a changing terrain that is enhanced by the curvilinear road alignments and was historically planted with vegetation to frame the views along the roadway. Bicycle and pedestrian trails are found throughout the System and in some cases are included as part of the road network. Paved dedicated parking lots are located throughout the System near recreational buildings and areas.

(2) Maintenance

Preventive maintenance is the recurrent day-to-day, periodic, or scheduled work that is required to sustain a road and trail system so it can be effectively utilized as intended. Preventive maintenance should be completed to address smaller potential problems in a timely manner so they will not develop into more expensive efforts. Maintenance is also necessary to prevent the loss or change of existing features that could alter the historic character of the road or trail. Examples of routine maintenance activities include:

- Repairs to the riding surface of bicycle trails to smoothen ride.
- Repairs to curb and gutter and drainage inlets of existing roadways to enhance drainage.
- Crack sealing and joint repair on existing roads to enhance pavement life.
- Removal of debris and maintenance of paths and roads for access to facilities within the Parkways.
- Maintenance of parking areas, including sealing of cracks on paved surfaces and leveling of unpaved surfaces.
- Maintenance of sidewalks to include leveling of joints and removal of debris.
- Snow plowing and ice removal from parkway roads.
- Removal of overgrown vegetation.
- Removal of roots from trails.
- Regular trail mowing of the grass shoulders.

(3) Rehabilitation

Rehabilitation of parkway roads is necessary to correct geometric or safety deficiencies and meet current design standards and criteria. Rehabilitation activities could include:

- Changes in road profile to accommodate increased traffic and to meet current design criteria and standards. Changes of this type must consider the impact on the overall character and spatial organization of the historic landscape. (See Section 5.E (3)(a)). It is noted that the parkway roads are not intended to be thoroughfares and will not be modified to accommodate traffic increases. Continuity will be maintained, and the County does not intend to use dead ends or cul-de-sacs. It is also noted that the speed limit on the parkway roads is 25 mph and will remain as such.

- Intersection improvements, including the rehabilitation or addition of traffic signals or installation of crosswalks as necessary to accommodate pedestrian traffic. Traffic signals should be redone in accordance with the WisDOT's Manual for Uniform Traffic Control Devices (MUTCD). Historic features should not be removed or obscured by signals.

- For trails, grading and shaping with gravel or crushed stone to smooth the riding surface and eliminate bumps and moguls.

(4) New construction

It is expected that limited new roads will be constructed within the System. However, new trails may be constructed to address necessary improvements and modern recreational needs. New roads or trails should be planned, located, and designed so they do not have a negative impact on the historic character of the System. New parking lots may also be needed within the System to accommodate new recreational facilities or uses. Specific recommendations include the following:

- New vehicular roads should accommodate traffic volumes and be designed to meet, WisDOT, County, or municipal road standards for design and safety.

- New trails for bicyclists and pedestrians should be designed to meet current standards.

- The size of new parking lots should be appropriate for the need. Siting of a parking lot could have a significant impact on the feel and character of the historic System. It is recommended that lots be sited within an individual park or parkway so as not to detract from existing historic buildings and the overall landscape. A location at the edge or a park or parkway may be most appropriate, recognizing that lots still need to be convenient to users. Siting and screening with vegetation are ways to lessen the impact of a new parking lot on the historic character of the System.

- Storm water management and detention facilities should be incorporated into new road design and parking lots. Such facilities should be unobtrusive so as not to detract from existing historic features and the overall landscape. Facilities should be constructed to address both water quality

and water quantity. Use of pervious pavers or pavements, or another sustainable design approach is encouraged.

D. Small-scale structures and features

(1) Introduction

The System includes many small-scale structures and features that contribute to the overall character of the landscape. For the purposes of the HPMP, small-scale structures and features are defined to include site furnishings (picnic tables and benches), signage, lighting, and retaining walls. Picnic tables and benches within the System are largely wood and modern replacements to meet current recreational needs. However, a number of stone benches from the Depression era remain, such as the stone bench built into a retaining wall in Grant Park and cast concrete benches in Boerner Botanical Gardens. Small landscape structures, such as retaining walls and steps, are typically constructed of materials native to the region, including locally quarried limestone. The majority of these features, constructed during the Depression era by the CCC and WPA, reflect the natural rustic aesthetic of the System.

The wood post and pendant lighting seen in the Menomonee River Parkway is a common light standard associated with the System.

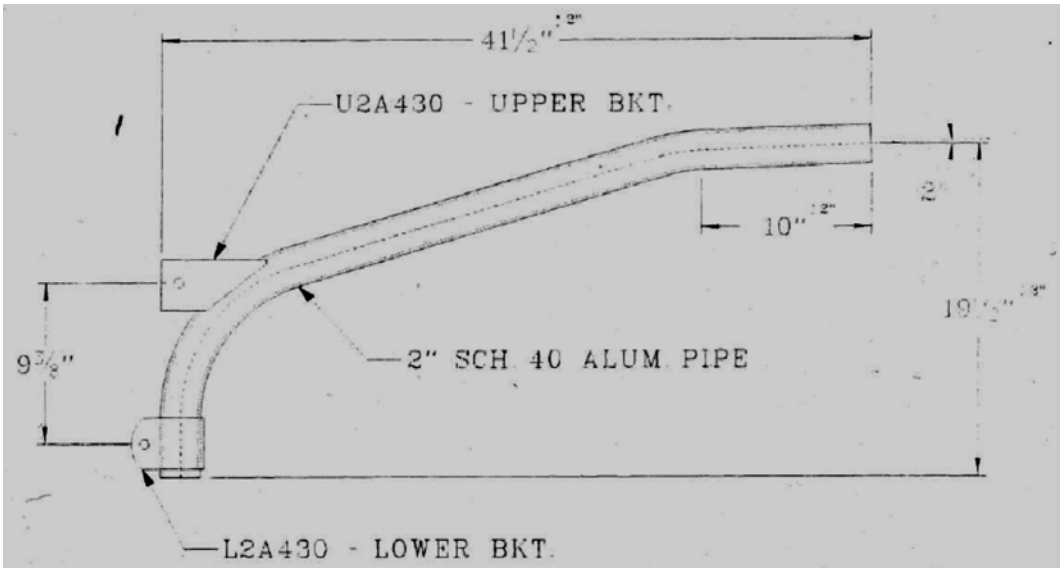
The System's signage helps guide the parkway driver along the route and identify entrances to the parkways, parks, picnic areas, shelters, and recreational facilities. Wood signs with the oak leaf logo and painted lettering are found throughout the System and, although not original to the System, are commonly associated with it. The current flagship signs at the park and parkway entrances likely date to the 1950s and are currently fabricated by the county. The County has begun constructing these flagship signs of plastic instead of redwood, because plastic does not fade, is more durable, and is less expensive. Modern signs have also been added throughout the System in recent years, many of which are related to the Oak Leaf Trail. A variety of light standards to illuminate the parkway drives and parking lots are used

throughout the System. The most common light standard associated with the parkway is the pendant light hanging from wood post. Due to high material, installation and maintenance costs, the County is establishing a new standard which includes an aluminum arm with brown coating and pendant-shaped LED fixtures. Wood poles, either salvaged or new, will continue to be used with the new arm and fixtures. Other light standards used within the system include modern box lighting, cobra-head light standards, acorn-style lights, lantern-style lights, and modern gooseneck lights.

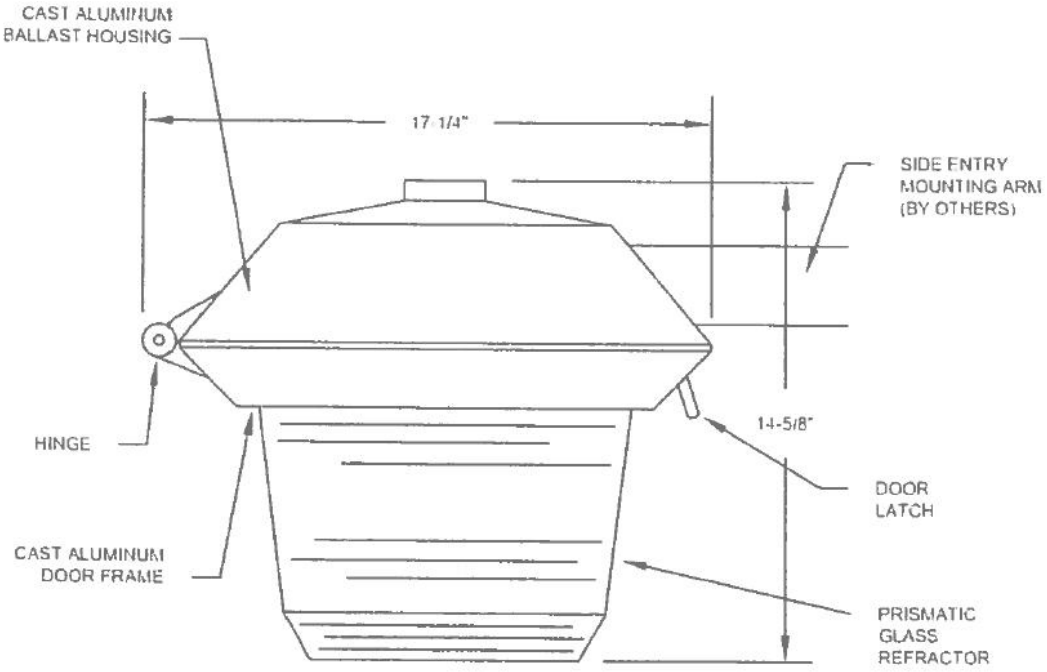
This wood parkway sign identifying Honey Creek Parkway represents a typical flagship sign in the System.

Close-up view of new plastic sign in Nathanael Greene Park.

The Veteran's Park sign in the Lake Michigan Parkway (North) is also characteristic of the System.



New aluminum arm standard for parkway lighting (from Milwaukee County standard plans).



New Luminaire light standard for parkway lighting (from Milwaukee County standard plans).

(2) Maintenance

Throughout the System, maintenance of small-scale features and structures occurs on a daily basis and the work is performed to keep the features in their current condition. Routine maintenance activities can assist in keeping the historic small-scale structures and features in good working order and head off the need for major rehabilitation or replacement of individual features. Maintenance activities should respect historic materials and work to retain and repair these materials rather than replace them.

Specific maintenance recommendations are as follows:

- Maintain and repair stone retaining walls since these are character-defining features from Depression-era work in the System.

- Maintain historic and non-historic existing street lights along the parkway roads, including replacement of burned out lights.

- Maintain and repair wood pendant light standards that are a character-defining feature of the System.

- Maintain and repair 1950s era wood flagship entrance signs and other period wood signage.

- Maintain non-historic existing signage for parkway roads.

- Remove all signs not approved by County Parks.

- Replacement of non-original picnic tables and benches should be in keeping with the overall character of the System. For example, wood benches are preferred over synthetic plastic or another material that is less rustic in appearance.

(3) Rehabilitation

Rehabilitation of historic small-scale structures and features involves accommodating compatible uses while preserving the System's historic character and features. Day-to-day maintenance activities are discussed in the maintenance section above. The overall goal of rehabilitation is to retain small-scale structures and features that are character-defining features of the System (see Section 4.B for the definition and importance of character-defining features). Rehabilitation of historic small-scale structures and features is appropriate when they are extensively deteriorated, damaged, or missing and need to be repaired or replaced. This treatment approach also provides the opportunity to make modifications based on improved technology or maintenance methods.

Specific guidance is provided by as follows:

- *Lighting* – As lighting needs replacement in the System, the location should be reviewed to determine the standard type in that area due to the variety of lighting that is used. Generally, the most historic and prevalent lighting is the pendant style with wood posts. This lighting is recommended to be used in most situations. It is understood that the wood arms of this "typical" style within the park have been a maintenance issue due to rotting. An artificial material simulating wood could be used to replicate the look if it could be demonstrated to achieve longer durability. Because of this, County Parks is now using bolted aluminum mast arms with brown coating, as described previously. However, if another light standard is more common, such as that found along the parkway and pedestrian paths in Jackson Park, the alternative lighting is recommended. The goal should be to have an overall lighting plan that is consistent with the

overall historic character of the System and achieves unity among the various types of lighting within the System. It is understood that the lighting within the System may fall under the jurisdiction of different entities; however, the plan could serve as a recommendation and guide for all.

- *Flagship signs at park entrances* – The current flagship signs are proposed to be replaced by plastic signs due to cost and maintenance. It is recommended that the replacement signage be done in the manner of the 1950s wood signs with painted letters when possible. If not feasible to retain the original wood signs, it is important for the signage within the System to be consistent. The goal should be to have an overall signage plan that is consistent with the overall historic character of the System. The plan should provide recommendations that unify the various types of signage within the system, including entrance signs, trail signs, historic markers, and other elements.

- *Stone walls, stairs, and benches* – Historic stone walls, stairs, and benches from Depression-era construction efforts are character-defining features of the System. These features shall be rehabilitated for long-term retention within the System. The replacement of materials, if necessary, should be in-kind. See Section 5.B.(3) for recommendations on replacing damaged stones and making mortar repairs.

The historic stone walls from Depression-era construction, as seen in the Menomonee River Parkway, represent a character-defining feature of the System.

(4) New construction

New construction of small-scale structures and features may be necessary in the System to meet changing needs, such as providing furnishings, signage, or lighting to accommodate a new recreational area or development within the System. New small-scale structures and features should be planned, located, and designed so they do not have a negative impact on the historic character of the System.

Overall, quality and good design will be important in executing a specific project. If new construction is proposed as part of a federal or state undertaking, the SHPO should be consulted to avoid or minimize an adverse effect (see process outlined in Section 3).

Specific recommendations are as follows:

- New retaining walls should be constructed in stone in the same manner as the historic walls from Depression-era work in the System. Materials and construction should match the original with native limestone laid in a random ashlar pattern. Details of the walls should be differentiated from the original so as not to create a false sense of history. This can be done with subtle differences, such as installing a different stone cap on the walls, tooling the joints differently, or using split face instead of chiseled stone. Form lined concrete is not acceptable. Smaller sections of deteriorated wall could be removed where they are no longer needed and the area regraded to match natural conditions rather than replacing the wall. If a deteriorated wall is impeding drainage and flood flows, flood mitigation solutions could include removing the historic wall and restoring the site to its natural condition. If alterations, removal or additions to walls are proposed as part of a federal or state undertaking, the SHPO should be consulted to avoid or minimize an adverse effect (see process outlined in Section 3). It is acceptable to salvage and reuse stone materials for other historic applications, such as repair of original walls. Salvaged stone should not be used to construct a new wall so as not to create a false sense of history.

- Removal of channel lining, whether concrete or stone, is acceptable. Restoring a channel to a more natural condition, if properly designed, can be effective flood management.

The MMSD Lincoln Creek flood management project included removal of lining and restoration of natural conditions.

- New lighting should follow standards in the lighting plan developed for the System. In the absence of a lighting plan, the overall historic character of the System should be considered.

- New signage should follow standards in the signage plan developed for the System. In the absence of a signage plan, the overall historic character of the System should be considered.

- New site furnishings, such as picnic tables and benches, should be in keeping with the overall character of the System. For example, wood benches may be preferred over synthetic plastic or another material that is less rustic in appearance.

E. Landscape and water features

(1) Introduction

Topography, landforms, vegetation, and water features were used by park landscape architects to define activity areas and create scenic views and vistas fulfilling the overall vision of creating a system of parks and parkways that provided an oasis from the harsh urban environment. Section 2.C addressed the vision of planners and the dominant theme that informed the design aesthetic used throughout the System. Parks were to appear as a natural extension of the Wisconsin landscape. While incorporating the various activities associated with parks, they were to also be places of beauty. This meant fitting park activities into the existing landscape or shaping topography so it would appear as it did naturally in the region. Vegetation was used for a variety of functions including screening, framing views, providing surfaces for sports, and picnicking. Use of indigenous plant material grouped according to ecological association was encouraged. Water features were used for recreation as well as to unify the landscape and act as centers of interest. Created water features had to look as if they had occurred naturally.

This design aesthetic is still easily recognized in the historic landscape and needs to be considered whether maintaining, rehabilitating, or constructing new within the System. The Secretary of the Interior's *Guidelines for the Treatment of Cultural Landscapes* are an important tool for the long-term care of historic landscapes and water features. These guidelines inform the following recommendations for maintenance, rehabilitation, and new construction of landscape and water features.

(2) Maintenance

This section addresses the maintenance of landscape and water features within the System. It includes maintenance of topography and landforms, vegetation, and water features that are part of the characteristic park landscape and how maintenance of these individual features impacts the spatial organization of park activities and planned scenic views and vistas. For example, a lack of maintenance could allow vegetation to grow in previously open areas, which could alter the relationship between park activities and their original spatial organization. Studying the relationship of activities and recognizing how they relate to and impact each other is an important step to be taken before maintenance of landscape features is considered.

Specific guidance is provided by category as follows:

(a) Topographic features

Existing topography was used and shaped by park designers to creatively separate parkways from adjacent land uses, to provide natural separation of activities within the parks, and to provide a pleasing alignment of park and parkway roads and walks in relation to other park features thereby creating a series of changing scenes as one moved through the parks. Recognition of how topography was used to shape the park landscape is necessary prior to considering any alterations.

Maintenance is necessary prevent the loss or change of existing topographic features that could alter the historic character of the landscape. It should include the following:

- Repair unstable topographic conditions to prevent the situation from worsening.
- Implement erosion control on unstable slopes.
- Remove fallen logs and debris that inhibit water flow and contribute to erosion.[15]
- Prevent pedestrian and vehicular access on areas with unstable topography.

(b) Vegetation

Vegetation within the historic parks and parkways refers to the care of trees, shrubs, and ground covers, as well as preservation of their historic use and function in the landscape. When attempting to perform maintenance operations on vegetation, it is necessary to first understand its intended function. If a row of evergreens were planted to create separation between two use areas, removing all of their lower branches to allow a mower to easily pass underneath might help reduce maintenance, but would change the spatial character of the landscape.

Maintenance of vegetation is a major undertaking in parks. Attempts have been made to reduce costs by cutting back on maintenance of un-programmed turf areas. However, reductions in mow lines have resulted in open spaces filling in with dense vegetation, and in some cases altering planned views or relationships between adjacent park activities. Where an open viewshed is desired, a better course would be to use low growing plant materials such as a no-mow grass mix or a mix of meadow or prairie plants that, once established, will reduce maintenance needs while still retaining historic character.

When replacement of vegetation is needed, physical evidence of composition, form, and habit of existing vegetation should be used to inform replacement of deteriorating or declining vegetation features. Replacing a plant with the same species is not as important as duplicating the plant in character. For example, if trees need to be replaced due to an outbreak of disease such as Emerald Ash Borer, attempts should be made to find a replacement canopy tree that is of similar size and shape to the trees being

[15] MMSD Rule 13.18 “Obstruction Prevention” addresses governmental units’ responsibility to manage lands they own or management in public rights-of-way to prevent debris and sediment from creating obstructions at storm sewer outfalls. Riparian property owners have a responsibility to maintain their lands up to and including the stream bank. The MMSD will consider removal of obstructions if the obstruction can be demonstrated to cause the regional flood to damage structures that would not be damaged if the obstruction did not exist.

replaced. Replacing a mown lawn with a no-mow grass mix that requires significantly less maintenance once established is also an appropriate treatment. Species that are considered invasive to the area could be replaced with a native species of similar character; e.g., instead of planting Norway Maple (*Acer plantanoides*) consider a native species such as Sugar Maple (*Acer saccharum*). The historic suggestion of using native vegetation (see Section 2.C) has not been strictly adhered to in parks for many years, but using native materials to replace vegetation that has been or will be removed is recommended as a means to restore this concept, as well as to improve habitat for wildlife.

Historic photographs, aerial photography, and early development plans can be used as resources to determine original placement of plantings and help determine original intent. Many canopy trees that predate park development show up on aerial photos and were incorporated into the System's original landscape plan.

(c) Water features

Creeks and rivers form the backbone of the System. Other water features include man-made lagoons, dams, and waterfalls. These features play a significant role in defining the character of the historic landscape. It is important to understand how these features were originally designed and how they have changed and/or evolved over time before undertaking maintenance. Most of the rivers and creeks have been altered and engineered over time to provide storm water management and flood control. Maintenance of these features must consider the original function and design, as well as how they are impacted by storm water runoff and natural forces. Historic aerial photography, surveys, and park development plans can be used to determine original courses of waterways and shape and size of lagoons.

The MMSD has permissive authority to address flood management along watercourses within the MMSD jurisdiction. Routine maintenance and repairs should be completed for the watercourses to retain their function and appearance.

Lagoons are another water feature used liberally throughout park and parkway system. Many of them are in poor condition containing large amounts of sediment that may contain toxins. Maintenance to stabilize remaining features includes stabilizing side slopes of lagoons, removal of debris, removal of invasive and volunteer vegetation, and maintaining plumbing and mechanical systems. Methods used to stabilize lagoon side slopes should attempt to provide solutions that appear natural to the regional Wisconsin landscape.

Dams, retaining walls, and waterfalls associated with park watercourses and lagoons should be maintained where they are still intact. Removal of volunteer vegetation that impacts structural integrity, annual inspections and removal or care of problems such as erosion can extend the life of these features.

(d) Views and vistas

Views and vistas are another important character-defining feature in parkways. Views and vistas are defined as the prospect created by a range of vision, conferred by the composition of other landscape features. Views are the expansive or panoramic prospect of a broad range of vision, which may be

naturally occurring or deliberately contrived. Vistas are the controlled prospect of a discreet, linear range of vision, which is deliberately contrived.

The introduction of the automobile impacted the way parkways were designed. The design of the landscape was adapted to being viewed at faster speeds. Road alignment along curves and over hills, placement of vegetation, and other features were all arranged to create pleasing pictures and changing scenes as one moved through the park. Designers controlled views along the parkways to reveal features in an ever-changing series of pictures. For example, parkway designers frequently used a bend in the parkway with a break in vegetation to frame scenes off the main axis of the parkway. Many of these views have changed with the growth or removal of vegetation or changes in other park features.

When maintaining the landscape, it is necessary to first identify where views were intended historically. Historic photos and aerial photos and plans can assist in identification of these spots. Refinement of vegetation along parkways should take historic as well as potential views and vistas into consideration. The Secretary's Standards for maintaining cultural landscapes and *Landscape Lines #16, Historic Roadways* include examples of maintenance of views and vistas and are good sources of assistance.

Heavy growth along waterways has obscured many earlier planned views. Although this may appear "natural," it often changes the historic design intent. Historic photos of the parkways depict groupings of vegetation alternating with openings that would have allowed periodic or filtered views as one drove along the parkway.

While exact placement of views may not be possible due to vegetation growth and changes made to the park landscape over the years, consideration should be taken to improve and not negatively impact remaining viewsheds. It is also possible with judicious pruning and replanting that opportunities exist to revive the historic design intent. These opportunities should be identified by park landscape architects and public works staff.

(3) Rehabilitation

Rehabilitation of historic landscape and water features involves accommodating compatible uses while preserving the System's historic character and features. Rehabilitation is appropriate where extensively deteriorated, damaged, or missing landscape and water features need to be repaired or replaced. This treatment approach also provides the opportunity to make modifications based on improved technology or maintenance methods and allows for updating landscapes to accommodate changing park uses and activities. For example, if additional athletic fields are needed, consideration could be given to using existing un-programmed turf areas. It is necessary to consider overall spatial organization of the historic landscape when making these modifications, and how changes/alterations might impact adjacent uses.

Specific guidance is provided by category as follows:

(a) Topography

- Existing topographic features should be preserved. Identifying, retaining, and preserving existing topographic features should be considered before any modifications to topography are made.

- Any changes should respect overall character of the landscape. If proposed rehabilitation of topographic features is considered the only option, use of archival sources to understand original topography and subsequent changes, as well as preparation of a topographic survey to document current existing conditions are valuable first steps. It is important to assure that any proposed changes will not negatively impact the overall character of the landscape as well as relationships between park activities and uses.

- Alterations or additions to allow for new or changed park activities should be located and designed to blend with existing topography. For example, if a road alignment was determined to be unsafe due to increased traffic or vehicles travelling at excessive speeds for the designed roadway, consideration should be given first to using methods of traffic calming such as speed bumps, rumble strips, or improving site lines prior to grading a hill or straightening a curve that could alter the historic character of the parkway.

- Avoid major grading that could significantly alter the intended rural impact/feeling.

(b) Vegetation

Existing vegetation should be preserved. It is important to first identify existing historic vegetation prior to any work being done. Archival resources such as period aerial photos, photography, and early development and planting plans should be used for reference when designing and installing new vegetation features where the historic feature is completely missing.

(c) Water features

Water features such as lagoons, ponds, and fountains in the parks were designed as unifying features in the landscape. Their loss or removal would significantly impact the overall character of the historic landscape and is not recommended. Retention and preservation of these features is preferred.

If a water feature is deteriorated or missing, archival evidence should be used to design a replacement. If enough evidence is not available, then the feature should be designed in a way that it is compatible with the historic landscape. For example, a waterfall in a Lake Park ravine was deteriorated to the point that it could not be repaired. Some historic photos and early development plans were used to design and replace this feature so that it is compatible.

This WPA waterfall in Lake Park in Lake Michigan Parkway (North) was restored in 2010 and is an example of the water features in the System.

When alterations or additions to water features are planned, it is recommended that their design be compatible with the historic character of the landscape. For example, if a new retention basin is proposed, it could be designed to replace a lagoon by replicating natural geological forms and features in the Wisconsin landscape. Otherwise, it should be located in a site that has minimal impact on the historic character of the park landscape. If alterations or additions to water features are proposed as part of a federal or state undertaking, the SHPO should be consulted to avoid or minimize an adverse effect (see process outlined in Section 3).

Waterways are part of broader ecological systems and changes being considered to one feature must be understood for possible impact on other historic landscape features both up and downstream. For example, the opening of the Estabrook Dam due to structural problems has resulted in the upstream impoundment at the Lincoln Blatz Building drying up and becoming overgrown with vegetation. Rehabilitation of the Estabrook Dam is the preferred treatment to maintain historic character of the landscape. However, if it is determined that the dam cannot be repaired or modified due to environmental concerns, subsequent rehabilitation of affected park features needs to be designed in a manner that results in a solution compatible with the character of the historic landscape.

Storm water management and flood control are important functions of park waterways, and any proposed rehabilitation being considered must include these functions. The MMSD has been removing concrete liners that were added to water courses in the 1960s and naturalizing waterways and incorporating wetlands to improve flood water management. These changes can be very effective and are compatible with the historic objective of blending into the natural landscape. Impact on adjacent property must be considered when planning for these improvements. For example, additional capacity was needed for temporary storage of flood waters along the Menomonee River Parkway. The MMSD lowered the

topography adjacent to the river to accommodate flood waters. Such changes to topography need to be graded in a manner that they blend with the historic setting. Materials used, such as rock revetment, should be compatible to those considered historically appropriate for other park structures. See Section 5.B.(4) for recommendations on riprap, and Section 5.D.(4) for recommendations for new retaining walls.

(d) Views and vistas

Views and vistas are important character-defining features of the parkway landscape. Many changes to the landscape have occurred since original development both inside and outside of park property. Rehabilitation of original views and vistas should be based on historic documentation. Careful study of archival sources in relation to present day sources would reveal whether specific historic vistas and views are intact and whether rehabilitation would still be desirable.

Heavy growth of volunteer vegetation has obscured many views that were originally designed with careful placement of vegetation around park features. For example, historic plans and photos depict a vista from the terrace at the south end of the Boerner Botanical Garden Shrub Mall. The view from the Shrub Mall overlooked the Rock Garden below, as well as a sweeping vista of the larger Whitnall Park landscape, including the chain of lagoons to the south. This vista is now overgrown and the lagoons are no longer visible. Rehabilitation is possible with selective removal of vegetation. Archival sources could assist in the identification of trees that date back to original construction or predate construction. Identifying these trees in the park would be a starting point in reestablishing this vista.

This 1975 photograph shows the view of the Rock Garden from the Shrub Mall in the Boerner Botanical Gardens in the Root River Parkway.


The photograph on the left was taken in 2012 from the same location as the 1975 photograph above; vegetation has filled in and completely blocked the view of the Rock Garden. The photograph on the right was taken from the south (outer) edge of the Rock Garden looking out to the south where the vegetation has also filled in and the lagoon and other scenery in the 1975 photograph are no longer visible.

(4) New construction

New construction of landscape and water features may be necessary to meet changing needs, such as the addition of new recreational activities, providing accommodations for accessibility, or to address environmental concerns. Likewise, requests by friends groups, scouts, and other donors to develop rain gardens, donate trees, or other items in parks must be carefully considered if placement is intended within the historic boundary. Their location can lead to adverse effects to historic spatial organization and/or the historic character of the park landscape. If new construction is proposed as part of a federal or state undertaking, the SHPO should be consulted to avoid or minimize an adverse effect (see process outlined in Section 3).

Specific guidance is provided by category as follows:

(a) Topography

Construction of new features in parks should not lead to adverse effects to existing landforms and topography that help define the historic character of the system. In particular, the following should be considered:

- If it is determined necessary to site new features within the System, changes to topography should be made in a way that they blend with the historic landscape.

- Dramatic changes to topography should be avoided. For example, leveling a large area of a slope to locate an athletic field is not recommended.

(b) Vegetation

Considerations for the addition of new vegetation in the historic landscape include type and character of plant materials, as well as the impact of their placement on spatial arrangement of park facilities and related views and vistas. In particular, the following should be considered:

- Construction of new park facilities is typically accompanied by the removal and/or addition of vegetation. New plantings must consider the impact on existing uses and spatial organization of the historic park setting.

- New vegetation might also be considered for screening new facilities that are incompatible with the historic character of new developments adjacent to parks that detract from the park setting.

- Proposed addition of vegetative features such as donated trees, rain gardens, or flower beds should be located so as to be compatible and blend with existing park structures and vegetation. It is important to understand the impact of their placement on the surrounding site and viewsheds.

- Using native materials is recommended as a means to enhance and restore the System's naturalistic design concept. Historic photographs, aerial photography, and early development plans can be used as resources to determine original placement of plantings and help determine original intent. This can inform selection and placement of new vegetation.

(c) Water features

New construction of water features in parks could include facilities for flood and storm water management and for the improvement of water quality. Possible removal of water features that are environmentally problematic is also a current issue. As mentioned above, water features in the historic park system were designed as central and unifying features in the park landscape and were to look like they naturally belong in their setting. If new water features are considered, they should be designed to be compatible with the historic landscape. They should resemble natural water features in the Wisconsin landscape.

MMSD works with the parks department on improvements and changes made along park watercourses, including proposals for additional storage capacity to handle storm peaks that may impact the historic landscape. Design and materials used should be compatible with the existing historic character. For example, as part of the County Grounds Floodwater Management Basin Project in Wauwatosa, the MMSD needed to design an outlet to the Menomonee River to handle peak flows. The structure was built into the Depression era retaining wall, salvaging and reusing existing limestone and blending the new structure with the old.

(d) Views and vistas

Introduction of new views or vistas should not impact historic views and vistas both into and from the site. Topography, vegetation, water features and other park structures were designed and arranged purposefully to create pleasing "pictures" as one moved through the system. Change to any one feature impacts the overall arrangement and the views that were planned along the historic landscape. New or revised views and vistas should be consistent with the original design intent and historic character of the System.

6. Conclusion

This HPMP is expected to guide staff conducting maintenance and rehabilitation projects, as well as the limited new construction, within the System for the purpose of achieving the County's goals of stewardship and preservation. This exceptional network of green space offers public users a resource that is rich in heritage and recreational and environmental values; as such, it is worthy of a special effort. This effort should include consideration and implementation of the recommended practices described in this plan. It is the intent for the County, agencies and municipalities to follow this HPMP to be eligible to receive federal funding and obtain required federal permits in accordance with Section 106 requirements. This HPMP can also be used as a guideline for day-to-day operations and maintenance activities conducted by County forces.

The broad purpose of the HPMP is to provide guidance for future maintenance and project activities that may affect the historic System, which includes nine parkways and associated parks, golf courses, and two stand-alone parks in several municipalities. New buildings and recreational facilities have historically been and will continue to be constructed within the System in order to address necessary improvements and modern recreational needs. The System is dynamic and must continue to function and serve its myriad of users. Much of the System has been determined eligible for, or listed in, the National Register. As the second major product completed under sponsorship by the County, the HPMP complements the *Milwaukee County Parkway Inventory Report*, which was completed in February 2012 and is recognized as Volume 1. Taken together, the two volumes identify the historic properties within the System and provide guidance for the System's ongoing management.

In putting forth this HPMP, the County also recognizes and accepts ongoing challenges to implementing its guidance, the chief of these being funding limitations. Preferred treatments as recommended in this plan may be more costly to implement due to additional material costs and a more sophisticated expectation for workmanship. This expense is partially offset by the streamlining benefits offered through adherence to the HPMP. Project development is more straightforward when preferred treatments have been identified and agreed upon in advance, as documented in this plan. Early and effective coordination among agencies may also ease the challenges and facilitate better communication on project expectations and the effect of their implementation on the historic System. The County currently coordinates with state agencies, including with WisDOT local programs, when it implements road and bridge projects that receive state and/or federal funding. This requirement continues but the approach presented herein clarifies expectations, roles, and responsibilities of the various parties.

Due to budget constraints, maintenance and desired improvements to buildings, bridges, and other System features must be prioritized by the County. Appropriate maintenance and rehabilitation of character-defining features and contributing properties will assist in preservation of this valuable historic recreational facility. Reference to Volume 1, which identifies contributing properties, and the selection of preferred treatments as recommended in this HPMP can assist owners with identifying priority projects when dealing with limited funding. For new construction and replacement of noncontributing features (typically those built after 1960), there is more flexibility in the design, including material selection and craftsmanship, though new features should be compatible with the System's historic character and design

vision as described in Section 2. This flexibility can allow for economical, yet creative, solutions with proper consideration of design.

There are additional challenges that are outside the scope of HPMP and have not been addressed. These include:

- Procedures to respond to offers of donations to the parks.
- Volunteer efforts to "maintain" resources (e.g., buildings and landscapes) within the parks.
- Encroachment of private uses and/or dispute of property ownership/boundary lines.
- Changes in traffic demand on parkway roads (however, responses to such demands in the form of rehabilitation and/or new construction are addressed in Section 5.C – Roads and trails).

The HPMP does not address or resolve effects of specific projects on the System; such projects still need to adhere to regulatory requirements including Section 106 and Section 4(f), or Wisconsin Statutes as applicable. Project planners and designers are reminded that any federal or state undertaking within the System's historic boundary must be considered for potential effects. This includes but is not limited to bridge rehabilitation or replacement, right-of-way acquisition for freeway improvements, or intersection work. Routine maintenance is generally not considered an undertaking that requires coordination.

Despite these challenges, the County recognizes the importance of the historic System and is committed to maintaining this asset. These parks, parkways, golf courses, and other facilities have supported leisure and recreational activities for nearly a century. The preservation of the System's overall historic character will benefit County residents for generations to come. The trends of the 1920s to 1950s period in landscape architecture and naturalistic, rustic design, which was favored in federal work relief projects, as evidenced throughout the System are a rare and valuable representative of Wisconsin's heritage. The parks and parkways make use of natural materials for the construction of buildings and structures, and emphasize naturalistic planting methods both in the choice of vegetation and in their placement. By first identifying, then promoting, and now—through this HPMP—setting a course for preserving this System, the county is making an important contribution in support of the living history that is the "necklace of green."

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Appendix A. Programmatic Agreement for Federally-Funded Road and Bridge Projects in the Milwaukee County Parks System

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Programmatic Agreement
Between the Federal Highway Administration, U.S. Army Corps of Engineers and the Wisconsin State Historic Preservation Officer

prepared
Pursuant to 36 CFR § 800.14 (b)

regarding
Federally-Funded Road and Bridge Projects in the Milwaukee County Parks System
Milwaukee County

WHEREAS, the Federal Highway Administration (FHWA) may be requested to provide funding for road and bridge rehabilitation and/or reconstruction projects on parkways within the Milwaukee County Parks System (hereinafter Projects), Milwaukee County, Wisconsin; and

WHEREAS, the Milwaukee County Parks System includes roads and bridges vital to transportation and multi-modal enhancement; and

WHEREAS, a Memorandum of Agreement for the replacement of five historic Milwaukee County Parkway bridges, executed by FHWA, the Wisconsin Department of Transportation (WisDOT), Wisconsin State Historic Preservation Office (SHPO), and Milwaukee County Department of Parks and Public Infrastructure on January 19, 2006, required FHWA to complete a Programmatic Agreement (PA) for federally-funded road and bridge projects within the Milwaukee County Parkway system; and the execution of this PA fulfills that requirement; and

WHEREAS, the parkways subject to this Programmatic Agreement (PA) are listed in Appendix A, which is incorporated herein; and

WHEREAS, Projects involving noncontributing resources may benefit from the efficiency of the process specified in this PA; and

WHEREAS, these parkways, including component roads and bridges, may qualify for listing in the National Register of Historic Places and as such would be subject to Section 106 of the National Historic Preservation Act (NHPA), 16USC 470f, as amended (hereinafter Section 106); and

WHEREAS, FHWA has determined that these Projects may result in adverse effects to historic properties as defined in 36 CFR Part 800, the regulations implementing Section 106; and

WHEREAS, in view of these facts, FHWA has elected to fulfill its obligations under Section 106 through execution and implementation of this PA as provided in 36 CFR Part 800; and

WHEREAS, the purpose of this PA is to ensure that historic properties are appropriately recognized and considered in the course of the developing Projects; and

WHEREAS, FHWA has consulted with the Advisory Council on Historic Preservation (Council) and the SHPO in the development of this PA; and

WHEREAS, in a letter dated February 19, 2009, the ACHP informed FHWA that it would not participate in the development of this PA; and

WHEREAS, the U.S. Army Corps of Engineers (USACE), which may be requested to issue Section 10 and 404 permits for Projects, participated in consultation and was invited to and elected to be a consulting party and signatory to this PA; and

WHEREAS, WisDOT participated in consultation and was invited to and elected to be a consulting party and signatory to this PA; and

WHEREAS, the Cities of Milwaukee, South Milwaukee, and Wauwatosa, having affected roads and bridges, participated in consultation and were invited to and elected to be consulting parties and signatories to this PA; and

WHEREAS, the Milwaukee County Department of Parks, Recreation, and Culture, as the owner and maintainer of the Milwaukee County Parks System, participated in consultation and was invited to and elected to be a consulting party and signatory to this PA; and

WHEREAS, Milwaukee County or the municipality or local agency responsible for developing Projects is defined as the Project Sponsor;

NOW, THEREFORE, the FHWA, USACE and the SHPO agree that during the ongoing development and implementation of Projects, the following procedures and protocols shall apply.

STIPULATIONS

FHWA will ensure that the following measures are carried out:

1. Reconnaissance-Level Inventory of Historic Properties
Within one (1) year of PA execution, and contingent upon obtaining the necessary funds, Milwaukee County or its agent will conduct a reconnaissance-level inventory to document resources within the nine Milwaukee County parkways included in the 1923 design, including associated parks, bridges and other structures (see Appendix A). Milwaukee County-owned land along the parkway and associated parks will be included in the inventory. The survey will be completed following the methodology outlined in Appendix B. A list of contributing and noncontributing resources, identified in the inventory, will be appended to this PA.

2. Historic Properties Management Plan
Within two (2) years of PA execution, and contingent upon obtaining the necessary funds, Milwaukee County or its agent will develop a Historic Properties Management Plan (HPMP) for Milwaukee County parkways and associated parks (as listed in Appendix A). The HPMP will provide guidance for future bridge replacement and road replacement Projects and routine maintenance to landscapes, roads, bridges, and associated resources in terms of compliance with the Secretary of the Interior's *Standards for Treatment of Historic Properties.* Recommended preservation treatments, design guidelines for contributing and noncontributing resources, and maintenance activities will be identified.

3. National Register Nominations for Individual Parkways
The Project Sponsor or its agent will prepare National Register Nominations for individual parkways that are the subjects of this PA, if resources are adversely affected by individual Projects. The Project Sponsor will coordinate with WisDOT and SHPO to determine if the proposed Project will result in an adverse affect to the Parkway. If adverse effect can be avoided, completion of a National Register Nomination is not necessary.

The Nominations will be completed under the cover of the Milwaukee County Parkway System National Register Multiple Property Document (MPD), which was submitted to SHPO in January 2008. The Project Sponsor will be responsible for securing funding for and carrying out the Nomination process. See Appendix A for the parkways covered by the MPD and subject to the nomination process.

Within one (1) year of completion of a Project, a complete National Register Nomination will be submitted to WisDOT Bureau of Equity and Environmental Services (BEES), including:

- Form 10-900 (electronic and hardcopy)
- USGS and Historic Boundary Maps
- Photographic Documentation (following current SHPO requirements)
- State Review Board presentation materials

4. Design Review on Future Road and Bridge Projects
As each Project is scheduled and its design is developed, the Project Sponsor will provide WisDOT BEES and the SHPO an opportunity to review and comment on Project preliminary

(30%) and final (90%) plans to confirm that the Project is compatible with the overall parkway design. Contributing and noncontributing bridges, as identified during the inventory, will be subject to this design review process. Projects will comply with the *Secretary of the Interior's Standards for Rehabilitation* [36 CFR Part 67] that apply to new construction or rehabilitation, as determined through Project purpose and need, and applicable bridge design standards. The Project Sponsor or its agent will proceed with Projects as outlined in Appendix C.

5. Milwaukee County Parkway Booklet

Within one (1) year of PA execution, and contingent upon obtaining the necessary funds, Milwaukee County or its agent will prepare a booklet outlining the history, development, and significance of the Milwaukee County Parkway network. The booklet will include current and historic images, as appropriate, as well as a map of the parkway network. Milwaukee County or its agent will provide drafts to WisDOT BEES and SHPO for review and comment, as outlined in Appendix D.

Milwaukee County or its agent will print a minimum of 1,000 final copies of the booklet to provide to county parks, municipalities, and friends of the parkways groups for distribution. Milwaukee County will be responsible for initial printing fees, distribution of the booklet, and additional printing fees in the future.

6. Funding

Milwaukee County will make a good faith effort to pursue applicable funding, including Statewide Multi-model Improvement Program (SMIP) Transportation Enhancement (TE) funding, to complete these stipulations. Efforts to obtain funding will continue until stipulations are complete.

7. Dispute resolution

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FHWA shall consult with such party to resolve the objection. If FHWA determines that such objection cannot be resolved, FHWA will:

a) Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the ACHP. The ACHP shall provide FHWA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. FHWA will then proceed according to its final decision.

b) If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FHWA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.

c) FHWA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

8. Other laws, rules, regulations

a) No provision of this PA, whether express or implied, is intended or designed to exempt the FHWA, USACE, SHPO, Council, Milwaukee County, or any other signatories in this PA from their respective obligations, duties and responsibilities pursuant to any provisions of the NHPA and/or the implementing regulations at 36 CFR § 800 not specifically referenced herein, or the provisions of any other federal, state, or local law, regulation, rule or ordinance not specifically referenced herein.

b) It is the responsibility of the FHWA, USACE, SHPO, Council, Milwaukee County, and all other signatories in this PA independently to recognize, understand and carryout each of their respective obligations, duties and responsibilities under the NHPA and the implementing regulations at 36 CFR § 800 not otherwise referenced herein.

9. Amending or terminating

Any signatory to this PA may propose to the FHWA that the PA be amended or terminated, whereupon the FHWA shall consult with the other parties to this PA to consider such an action. Amendments may include modifying and/or deleting any existing provision(s), adding a new provision(s), adding an additional signatory(ies) and/or consulting party(ies), and/or removing an existing signatory(ies). Upon approval by FHWA, an amended signature page will be circulated to the municipality and three principal signatories: FHWA, WisDOT, and SHPO. The execution of any such action shall be governed by 36 CFR § 800.6(c)(1).

10. Sunset provision

This PA terminates five (5) years after execution. At that time, FHWA, USACE, SHPO, Council, Milwaukee County, and other signatories will evaluate the status of the PA stipulations to determine if the responsible agencies are carrying out their responsibilities and if the PA is assisting Project Sponsors in meeting the requirements of 36 CFR § 800. At this time, FHWA shall consult with the necessary and invited signatories to this PA to consider whether the agreement should be amended and extended for another five (5) years. Completed stipulations may be removed from the PA at this time. Thereafter, the status of the PA will be reviewed and extended by the invited signatories every five (5) years.

Execution of this PA by the FHWA, USACE, SHPO, Council, and Milwaukee County, and implementation of its terms, evidences that the FHWA and USACE have complied with Section 106 of the NHPA, and that the FHWA and USACE have taken into account the effects of the PROJECT on historic properties.

Executed by the following Signatories:

FEDERAL HIGHWAY ADMINISTRATION

BY: Stephanie J. Hickman Date: 4/14/2009
Environmental Programs Coordinator

WISCONSIN STATE HISTORIC PRESERVATION OFFICER

BY: _____ Date: OCT 5, 2009
Michael E. Stevens, State Historic Preservation Officer

WISCONSIN DEPARTMENT OF TRANSPORTATION

BY: _____ Date: 10/16/09
Eugene S. Johnson, Director
Bureau of Equity and Environmental Services

U.S. ARMY CORPS OF ENGINEERS

BY: _____ Date: _____

MILWAUKEE COUNTY DEPARTMENT OF PARKS AND PUBLIC INFRASTRUCTURE

BY: _____ Date: _____
Sue Black, Director
Milwaukee County Parks, Recreation and Culture

Executed by the following Signatories:

FEDERAL HIGHWAY ADMINISTRATION

BY: Stephanie J Hickman Date: 4/14/2009
Environmental Programs Coordinator

WISCONSIN STATE HISTORIC PRESERVATION OFFICER

BY: _____ Date: _____
Michael E. Stevens, State Historic Preservation Officer

WISCONSIN DEPARTMENT OF TRANSPORTATION

BY: _____ Date: _____
Eugene S. Johnson, Director
Bureau of Equity and Environmental Services

U.S. ARMY CORPS OF ENGINEERS

BY: Tamara Cameron Date: 5-4-09
Regulatory Branch Chief

MILWAUKEE COUNTY DEPARTMENT OF PARKS AND PUBLIC INFRASTRUCTURE

BY: _____ Date: _____
Sue Black, Director
Milwaukee County Parks, Recreation and Culture

Executed by the following Signatories:

FEDERAL HIGHWAY ADMINISTRATION

BY: Stephanie J Hickman Date: 4/14/2009
Environmental Programs Coordinator

WISCONSIN STATE HISTORIC PRESERVATION OFFICER

BY: _____ Date: _____
Michael E. Stevens, State Historic Preservation Officer

WISCONSIN DEPARTMENT OF TRANSPORTATION

BY: _____ Date: _____
Eugene S. Johnson, Director
Bureau of Equity and Environmental Services

U.S. ARMY CORPS OF ENGINEERS

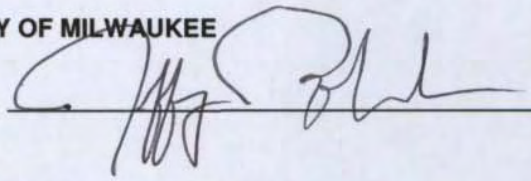
BY: _____ Date: _____

MILWAUKEE COUNTY DEPARTMENT OF PARKS AND PUBLIC INFRASTRUCTURE

BY: Sue Black Date: 4-23-09
Sue Black, Director
Milwaukee County Parks, Recreation and Culture

Invited signatories:

CITY OF MILWAUKEE

BY:  Date: 11/16/10

CITY OF WAUWATOSA

BY: _____ Date: _____

CITY OF SOUTH MILWAUKEE

BY: _____ Date: _____

Programmatic Agreement
regarding
Federally-Funded Road and Bridge Projects in the
Milwaukee County Parks System
Milwaukee County

Invited signatories:

CITY OF MILWAUKEE

BY: _____ Date: _____

CITY OF WAUWATOSA

BY: _____ Date: 10/23/09
Bill Kappel, Director of Public Works

CITY OF SOUTH MILWAUKEE

BY: _____ Date: _____

APPENDIX A

Parkways included in 1923 design and associated parks:

Honey Creek Parkway
- *McCarty Park*

Kinnickinnic River Parkway
- *Jackson Park*
- *Kinnickinnic Sports Center*
- *Pulaski Park*
- *Baran Park*

Lake Michigan Parkway North and South
- *Lake Park*
- *Bradford Beach*
- *McKinley Park*
- *Veteran's Park*
- *Juneau Park*
- *Cupertino Park*
- *South Shore Park*
- *Bay View Park*
- *Sheridan Park*
- *Warnimont Golf Course*
- *Grant Park*
- *Grant Park Golf Course*

Lincoln Creek Parkway
- *Meaux Park*
- *Lincoln Park*

Menomonee River Parkway
- *Currie Park*
- *Currie Golf Course*
- *Hoyt Park*
- *Jacobus Park*

Milwaukee River Parkway
- *Estabrook Park*
- *Lincoln Park*
- *Kletzsch Park*

Oak Creek Parkway

Root River Parkway
- *Greenfield Park*
- *Whitnall Park*
- *Whitnall Golf Course*

Underwood Creek Parkway
- *Hansen Golf Course*

The Milwaukee County Parkway System National Register MPD serves as a cover document for future individual parkway nominations. A copy of the MPD is on file at SHPO.

APPENDIX B
Reconnaissance-Level Inventory of Historic Properties

Survey Methodology
Milwaukee County or its agent will adhere to the following when completing the survey:

- A survey team meeting the Secretary of the Interior's Standards for architectural history will conduct a site visit to each of the parkways and document contributing and noncontributing resources, following the guidelines in the National Register Bulletin *How to Complete the National Register Registration Form.*
- Each resource will be photographed and mapped following Wisconsin Historical Society, Division of Historic Preservation, requirements.
- Representative landscapes will be documented with photographs.
- Each contributing and noncontributing resource will be recorded in the Wisconsin Historic Preservation Database (WHPD).
- An inventory card with an attached photograph will be prepared for each contributing and noncontributing resource.
- A report will be prepared that includes survey results for each parkway, including a list of resources, estimated construction dates, contributing or noncontributing status, and general historic boundary recommendations.

Survey Report Review and Submittal
Milwaukee County will adhere to the following guidelines when submitting the draft report for review and comment:

a. Milwaukee County or its agent will submit a draft report to WisDOT BEES for an initial review period, limited to 15 working days. If the draft requires revision, BEES will notify Milwaukee County of the modifications in writing. If the draft is acceptable, WisDOT BEES will submit a draft to SHPO for review, also limited to 15 working days.

b. SHPO will, within 15 working days, respond in writing with suggested modifications.

c. Milwaukee County or its agent will implement suggested modifications or consult to resolve the dispute in accordance with Stipulation 7. Dispute Resolution.

d. If no response is received from SHPO, Milwaukee County will finalize the report as submitted.

Milwaukee County or its agent will submit the following final deliverables to WisDOT BEES:

- Up to ten (10) bound copies of the final survey report.
- PDF version of the survey report on CD.
- An inventory card with an attached photograph for each contributing and noncontributing resource.
- Digital survey images on CD, including representative landscape images.

APPENDIX C

Design Review on Future Road and Bridge Projects

The Project Sponsor or its agent will adhere to the following when developing project plans:

a. Prior to submitting the Design Study Report (DSR), the Project Sponsor will provide plans demonstrating that the designs are compatible with the overall parkway design. Plans will be submitted to WisDOT BEES for an initial review period, limited to 15 working days. If the plans require revision, BEES will notify the Project Sponsor of the modifications in writing. If the plans are acceptable, WisDOT BEES will submit to SHPO for review, also limited to 15 working days.

b. If SHPO finds that project plans do not comply with the guidance, SHPO will, within 15 working days, respond in writing with suggested modifications.

c. The Project Sponsor or its agent will implement suggested modifications or consult to resolve the dispute in accordance with Stipulation 7. Dispute Resolution.

d. If no response is received from SHPO, The Project Sponsor will implement the designs as submitted.

APPENDIX D

Milwaukee County Parkway Booklet

Milwaukee County or its agent will adhere to the following when developing the booklet:

a. Milwaukee County or its agent will submit a booklet concept, including a text outline, design concept, and anticipated graphics, to WisDOT BEES for an initial review period, limited to 15 working days. If the draft concept requires revision, BEES will notify Milwaukee County of the modifications in writing. Once the draft concept is acceptable, WisDOT BEES will submit to SHPO for review, also limited to 15 working days.

b. SHPO will, within 15 working days, respond in writing with suggested modifications.

c. Milwaukee County or its agent will implement suggested modifications or consult to resolve the dispute in accordance with Stipulation 7. Dispute Resolution.

d. If no response is received from SHPO, Milwaukee County will develop the booklet using the concept, text, and graphics as submitted.

e. Milwaukee County or its agent will submit draft version of the booklet to WisDOT BEES for an initial review period, limited to 15 working days. If the draft requires revision, BEES will notify Milwaukee County of the modifications in writing. Once the draft booklet is acceptable, WisDOT BEES will submit to SHPO for review, also limited to 15 working days.

f. SHPO will, within 15 working days, respond in writing with suggested modifications.

g. Milwaukee County or its agent will implement suggested modifications or consult to resolve the dispute in accordance with Stipulation 7. Dispute Resolution.

h. If no response is received from SHPO, Milwaukee County will finalize the booklet as submitted.

Appendix B. Process of HPMP Development

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Appendix B. Process of HPMP Development

Due to its broad-reaching implications, many individuals were invited to participate in the development of this HPMP. Specifically, staff of Milwaukee County and other agencies responsible for maintaining and improving components of the System were invited to contribute suggestions and participate in discussions regarding plan development. Because activities pursued by the County and other agencies can impact the overall System, it was important to receive agency input toward future preservation planning. Agency involvement included participation in a workshop and site visits to review typical features and project activities within the System. Input solicited from the various participants strengthens the HPMP's utility as a planning tool for its various users.

Twenty-five members of County and local public works staff were invited to the workshop, held in November 2011. To make the most of this working session, a questionnaire was provided to invitees to complete ahead of time. The questionnaire sought information about typical routine maintenance activities completed within the parks and parkways; typical construction/improvement activities completed; and challenges faced in both maintenance and construction/improvement activities (funding, training, etc.). At the workshop, Mead & Hunt presented the results of the recently completed historic properties inventory (documented in Volume 1) and introduced the purpose and goals of the HPMP. The presentation was followed by an interactive work session during which the consultant team solicited specific input regarding the HPMP as an effective management tool. Participants shared their needs and plans related to maintenance and operational and construction activities within the System.

A public information meeting was held in March 2012 to share findings, describe project goals, and solicit input on the development of the HPMP. Members of the Parks Committee, Friends of Parks groups, and other agencies and parties with potential interest were invited to the meeting. The County's website also served as a means to reach members of the public. The Volume 1 report is posted on the site, along with an introduction to the HPMP. Once complete, the HPMP will also be available for download from this site. For information, see http://county.milwaukee.gov/AboutUs7806/MilwaukeeCountyParkwayInventoryReport.htm.

To continue the involvement of County and local public works staff in plan development, three site visits were held in May of 2012. Staff who attended the workshop, as well as other colleagues involved in maintenance and/or construction activities, were invited to participate in the visits, which involved looking at historic properties within the System and discussing planning needs and design issues related to potential project activities. Each site visit focused on a different resource type as follows:

1. Buildings
2. Bridges and roads
3. Landscape and water features

Appropriate technical personnel from the consultant team participated in each visit, including an architect, engineer, and landscape architect. A historic preservation specialist led the visit.

The purpose of the site visits was to gather data that would assist the consultant team in understanding maintenance issues and future improvement projects that could impact the historic parks and parkways

within the System. The consultants directed a discussion of best preservation practices demonstrated by recent projects that were viewed during the visits. Participants were advised that the locations visited were intended to be representative of the overall System as the resultant plan would be for the whole System rather than for an individual park or parkway. The historic boundaries were also reviewed, as they differ from current park and parkway boundaries. The historic boundaries are based on the findings of the historic properties inventory and are documented in Volume 1.

Appendix C. ACHP Section 106 Flowchart

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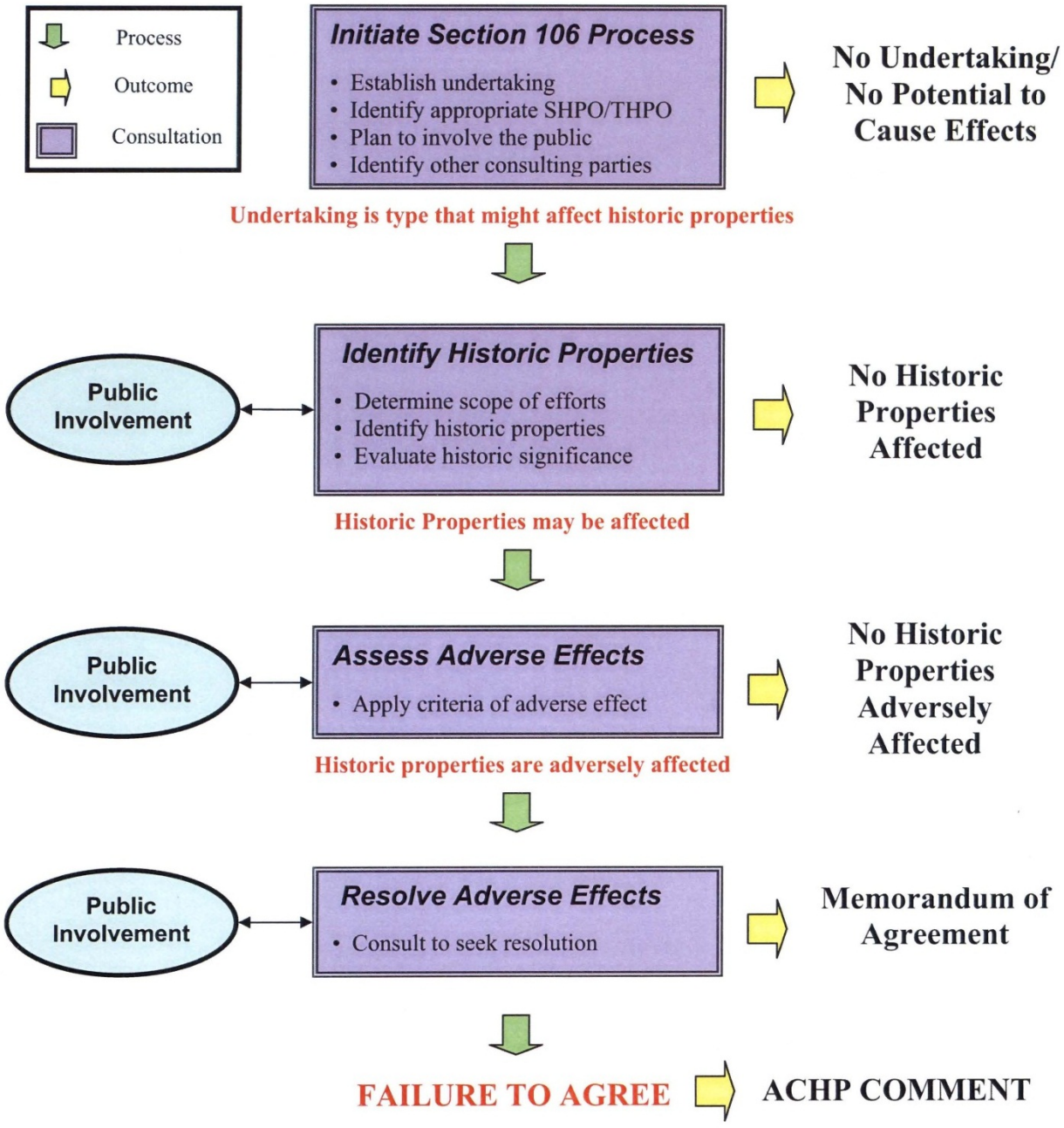
THE SECTION 106 PROCESS



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Appendix D. Milwaukee County Historic Sites

Designated by Milwaukee County Historical Society

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Appendix D. Milwaukee County Historic Sites

Designated by Milwaukee County Historical Society

- Grant Park Clubhouse
- Oak Creek Dam
- Statues:
  - Leif, the Discoverer (1887) – Juneau Park
  - Solomon Juneau (1887) – Juneau Park
  - Commerce (1881) – Jackson Park
  - Casimer Pulaski (1932) – Pulaski Park, Cudahy
  - Patrick Cudahy (1965) – Sheridan Park
  - Reflecting Pool Statuary (1936) and Garden Statuary (1936) – Boerner Botanical Gardens, Whitnall Park
  - Erastus B. Wolcott (1920) – Lake Park

- Sheridan Park
- Boerner Botanical Gardens
- CCC Building in Whitnall Park
- CCC Bridges in Whitnall Park
- Lake Park
- South Shore Park Pavilion
- Kilbourntown House
- Kelly Senior Center
- North Point Lighthouse in Lake Park
- Bradford Beach Bathhouse in Lake Michigan North
- Flushing Station in Lake Michigan North

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Appendix E. Friends of the Milwaukee County Parks and Parkways System

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Friends Group	President	Phone	Email	Secondary Contact	Phone	Email
Bay View Neighborhood Assoc.	Patty Thompson	414-403-8003	pattwhy@hotmail.com			
Boerner	Ellen Hayward, Exc. Director	414-525-5651	ehayward@fbbg.org			
Bradford Beach	Deb Lukovich	414-803-3229	dlukovich@wi.rr.com			
Caeser's Park Watch	Shirley Ferguson	271-7052				
Center Street Park Watch	Mary VanDerven	774-1864				
Cooper Park Watch	Beth Rehrer		brehrer@sbcglobal.net			
Copernicus Park Neighborhood Assn	David Mantes		copernicusparkna@gmail.com			
Dineen Park	Frederick Franklin	414-840-8726	frederick_franklin@yahoo.com	Tennita Magee		magee_tl@yahoo.com
Doctors Park Friends	Kim Cavigiolla	414-702-2256	kcaviggiola@rwbaird.com			
Domes (Mitchell Park Domes)	Deanna Andre		paulanddeanna@yahoo.com			
Doyne Park (not a formal group)	Bob Graf	414-379-4162	bobsyouruncle@sbcglobal.net	Father Paul Maslach	414-774-9418	
East Town Association	Kim Morris	271-1416	kmorris@easttown.com			
Estabrook Park	Harold Schmidt	414-933-4512	schmidhd@yahoo.com	Jennifer Cooney Vulpas		jcvulpas@sbcglobal.net
Euclid Park Watch	Joe Dudzik	541-2067	jdudzi@milwaukee.gov			
Franklin Park	Don Adams		dadams@miliserv.net			
Grant Park	Don Lawson	414-732-5343	lawson_groth@copper.net	Betsy Abert	414-764-9244	betsyacorn@aol.com
Grant Park Garden Club	Kathy Krause		kaflower@milwpc.com	Penny Manke		Pmmanke@aol.com
Grant Park Watch	Jody Johnson		Jody <jodyjohnson@wi.rr.com>			

Friends Group	President	Phone	Email	Secondary Contact	Phone	Email
Great Lakes Sports Fisherman	Bob Wincek	262-679-9752 cell: 414-217-9752	bob@glsfclub.com			
Greenfield Jaycee	Becky Deall	931-8497				
Greenfield Park	Susan Scharmach, Chair		sscharmach@dkattorneys.com			
Hales Corners Pool	Don Schwartz	414-529-4821	dschwartz6@wi.rr.com			
Holler Park Neighborhood Assoc.	Chris Kuester, Chair	769-1815	christo36@juno.com	Lisa Albright, Liaison		thealbright5@yahoo.com
Hoyt Park & Pool, Inc	Kit Slawski	office: 302-9160 cell: 731-9730	kit.slawski@tosapool.com	Heidi Janssen		
Humboldt Park Watch	Nicole Williams		2006bn@gmail.com			
Jackson Park Watch	Ken Franzen		kennethfranzen@sbcglobal.net			
Jacobus Park	Jim Price		jprice2@wi.rr.com			
Johnson's Park	Tony Gibson	333-7009	TGibson4@msn.com			
Johnsons Park Neighborhood Assoc.	Liz Drame		erdrame@uwm.edu	Tony Gibson		tgibson4@msn.com
Juneau Park	Lisa Hatch	414-897-0168	lhatch@wi.rr.com			
Kletszch Park	Jon Wright	414-339-3972	jfwright@ra.rockwell.com	Melissa Cook, V-Pres.		melissa5822@sbcglobal.net
Kohl Park	Wayne Parker	354-4759	wp1924@aol.com			
Kops Park Revitalization Team	Janese Baket		jbaket@wi.rr.com			
LaFollette Park Friends	Barry Waddell		bwaddell@ci.west-allis.wi.us			
Lake Park Friends	Ann Wolmer	414.962.1680	lakeparkfriends@sbcglobal.net			
Lincoln Park	Mark Enters					

Friends Group	President	Phone	Email	Secondary Contact	Phone	Email
Lindsay Park	Beth Rosenow	461-5471	brosenow@sbcglobal.net	Rich Bowen	444-2012	
Lindbergh Park	Rev. Dennis Jacobsen	414-372-1600	lynnjake@sbcglobal.net	NEW GROUP		
Lindsay Park Neighborhood Assoc.	Beth Rosenow, Chair		brosenow@sbcglobal.net			
Lyons Park Watch	Supervisor Borkowski		mborkowski@milwcnty.com			
McBoat	George Graubner	791-8439 Fax:262-784-6775	george_graubner@mohawkind.com			
McCarty Park Watch	Gail Radonski, Chair		gactivist@hotmail.com			
Mill Pond & Oak Creek WC	Nancy Wucherer, President		nancywucherer@gmail.com			
Milwaukee BMX	John Mittelstadt		mjmittelstadt@yahoo.com			
Milwaukee River Greenway	Ann Brummitt	414-763-6199	ann@protectmilwaukeeriver.org			
Milwaukee Trails	Marty Weigel		marty@worba.org			
Mitchell Airport Park	Gina Sottile	414-287-7274 cell: 414-852-3437	ginasot.1207@gmail.com			
Nash Park Watch	Darlene Eiff	464-4868				
Neighborhoods United for Washington Park	Pat Mueller		hwproperties@netzero.com			
North Point Lighthouse Friends, Inc.	John Scripp, President		keeper@northpointlighthouse.org	May Klisch, Ops Mgr.	414-332-6754	
Partners in Parks (old Granville DEA group)	Fred Mennecke	262-251-2542	akitahelpr@earthlink.net			

Friends Group	President	Phone	Email	Secondary Contact	Phone	Email
Patrick Cudahy Park Friends	Tina Dondajeski	483-8959 Cell: 881-8494	cudahyparkfriends@sbcglobal.net			
Preserve our Parks	John Lunz	414-702-7288	info@preserveourparks.org			
Preserve our Parkways	Kit Hansen	414-771-5482		Betsy Gonwa	414-259-0565	bwgonwa@sbcglobal.net
Pulaski Cudahy	Susan Slogaski	481-9056 Cell: 940-6893	sslogaski@wi.rr.com			
Residents for Off-Leash Milwaukee Parks	Robin Barry, spokesperson	414-364-6488	robin_331@yahoo.com			
Riverkeepers	Cheryl Nenn	414-287-0207 x2	cheryl_nenn@milwaukeeriverkeeper.org	Karen Schapiro (Exec Dir)	x3	karen_schapiro@milwaukeeriverkeeper.org
Riverwest Neighborhood Association	Wendy Mesich	241-3069	wendym@my-rna.org			
ROMP	Kevin Frank	769-8806	k9vinf@gmail.com	Robin Barry	C:364-6488 W:647-3551	robin_331@yahoo.com
Saveland Park Watch	Christopher Schutte		firemancjs@wi.rr.com			
Sheridan Park Friends	Supervisor Jursik		patricia.jursik@milwcnty.com			
Sherman Park	Joel Ramirez or Fred Curzan	(414) 444-9803 ext 105 or ext 102	joelspca@gmail.com	Supreme Allah	ext 106	supreme@shermanpark.org
South Shore Park Watch	Cary Solberg		carysolberg@yahoo.com			
Story Hill Neighborhood Association	Sancy Rusch - President	414-302-9591	Sandy_rusch_walton@hotmail.com	Mark Stanmeyer - VP		
The Park People	Jim Goulee	273-PARK C:881-8413	jim@parkpeoplemke.org			

Friends Group	President	Phone	Email	Secondary Contact	Phone	Email
Tippecanoe Park Watch	Sue Kakatsch	483-0154				
Tosa East Towne Neighborhood Asso.	Kathleen Flander	771-7311				
Vogel Park	Terry Hackworth	462-0237	tjhackworth@wi.rr.com			
Walker Square Park	Jason Cleereman		jason.cleereman@gmail.com			
Washington Heights Neighborhood Asso.	Paul Barsch	333-2435		Debbie Knepke	258-8834 cell: 313-4314	dknepke@volunteermilwaukee.org
Washington Park Partners	Matt Melendes	414-265-5803	matt@cdamilwaukee.com			
Wedgewood Park Watch	Supervisor Borkowski		mborkowski@milwcnty.com			
Wehr (Wehr Nature Center)	Paul Brings		info@friendsofwehr.org			
Westown Association	Stacie Callies	276-6696	stacie@westown.org	Ashley Schmitt	276-6696	ashley@westown.org
Wilson Park	Scott Spiker	647-1774	sps496@gmail.com			

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Appendix F. Guidelines for Bridge Maintenance and Rehabilitation Based on the Secretary of the Interior's Standards

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Guidelines for Bridge Maintenance and Rehabilitation Based on the Secretary of the Interior's Standards

1. Every reasonable effort shall be made to continue an historic bridge in useful transportation service. Primary consideration should be given to rehabilitation of the bridge on site. Only when this option has been fully exhausted shall other alternatives be explored.

2. The original character-defining qualities or elements of a bridge, its site, and its environment should be respected. The removal, concealment, or alteration of any historic material or distinctive engineering or architectural feature should be avoided.

3. All bridges shall be recognized as products of their own time. Alterations that have no historical basis and that seek to create a false historical appearance shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive engineering and stylistic features, finishes, and construction techniques or examples of craftsmanship that characterize an historic property shall be preserved.

6. Deteriorated structural members and architectural features shall be retained and repaired, rather than replaced. Where the severity of deterioration requires replacement of a distinctive element, the new element should match the old in design, texture, and other visual qualities and where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical and physical treatments that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the most environmentally sensitive means possible.

8. Significant archaeological and cultural resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

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

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

Source: Ann Miller, et al. *A Management Plan for Historic Bridges in Virginia*. Charlottesville, Va.: Virginia Transportation Research Council, 2001.

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Appendix G. National Park Service Preservation Briefs Most Applicable to the Milwaukee County Parks and Parkways System

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Appendix G. National Park Service Preservation Briefs Most Applicable to the Milwaukee County Parks and Parkways System

Note: All briefs are located at: http://www.nps.gov/tps/how-to-preserve/briefs.htm

Masonry

1 Cleaning and Water-Repellent Treatments for Historic Masonry Buildings
2 Repointing Mortar Joints in Historic Masonry Buildings
38 Removing Graffiti from Historic Masonry

Concrete

15 Preservation of Historic Concrete

General for Buildings

3 Improving Energy Efficiency in Historic Buildings
16 The Use of Substitute Materials on Historic Building Exteriors
24 Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches
32 Making Historic Properties Accessible
39 Holding the Line: Controlling Unwanted Moisture in Historic Buildings
47 Maintaining the Exterior of Small and Medium Size Historic Buildings

Roof

4 Roofing for Historic Buildings
29 The Repair, Replacement, and Maintenance of Historic Slate Roofs
19 The Repair and Replacement of Historic Wooden Shingle Roofs

Cleaning

6 Dangers of Abrasive Cleaning to Historic Buildings

Windows

9 The Repair of Historic Wooden Windows
13 The Repair and Thermal Upgrading of Historic Steel Windows

Wood

10 Exterior Paint Problems on Historic Woodwork

Additions

14 New Exterior Additions to Historic Buildings: Preservation Concerns

Identification of character-defining features

17 Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character
18 Rehabilitating Interiors in Historic Buildings — Identifying Character-Defining Elements

Signs

25 The Preservation of Historic Signs