National Park Service
U.S. Department of the Interior

Glacier National Park
Date: 09/12/2022

# Categorical Exclusion Documentation Form (CE Form)

**Project:** Replace the Upper McDonald Creek Bridge and Formalize Parking at Upper McDonald Creek Trailhead
**PEPC Project Number:** 99671
**GLAC POC/Project Lead:** Jim Foster (Facilities Management)

**Description of Action (Project Description):**

The Upper McDonald Creek Bridge is in poor structural condition and has a restricted load capacity (rated for 15 tons), which is inadequate for heavy loads, including fire engines needed for wildland fire control and structure protection, normal construction traffic and park administrative vehicles necessary to maintain the ranger station and other park assets, and garbage trucks (for garbage service hired by landowners). With the loss of several homes and buildings, including NPS assets, on the northwest side of the lake during the 2018 Howe Ridge Fire, a bridge that can accommodate necessary traffic and loads is essential. The typical lifespan for a timber bridge is 40 to 50 years. The existing bridge is 57 years old. Repairs in recent years have resulted in improvements, but continued deterioration will continue with the structure's age, continued use, and environmental conditions. If the bridge is not replaced, progressive failure will cause further load restrictions, and the bridge will eventually become unsafe for vehicle access and will need to be closed and/or removed for safety reasons. Therefore, replacing the bridge is needed due to progressive failure and to improve vehicle access to NPS structures and operations and private land on the northwest side of the lake.

Under this project, the existing single-lane bridge and its two in-stream piers will be removed and replaced with a single-lane, clear span bridge with two walkways, one on each side. The new bridge will be built approximately 30 feet upstream of the existing bridge, requiring a realignment of the road approaches. The new bridge and approaches will be approximately eight feet higher than the existing bridge. The existing approaches to the bridge will be contoured to blend with existing topographic features and restored with native vegetation.

A temporary work bridge will be installed upstream of the new bridge site to enable construction and staging. Up to 12 temporary piles may be installed instream to support the existing bridge and/or temporary work bridge. The existing bridge, temporary bridge, and all piles will be removed once the new bridge is built.

Existing rip rap will be removed and may be salvaged and used as rip rap for the new bridge. Some of the existing rip rap will be left in place and transitioned with the new rip rap. At the west end of the new bridge, additional rip rap is expected to extend an estimated15 feet upstream of the structure, transitioning into existing rip rap. On the east side of the new bridge, additional rip rap is expected an estimated 6 feet upstream, also tying into existing rip rap. The exact amount and extent of rip rap removal and placement will depend on what is necessary for riverbank slope protection, erosion mitigation, and vegetation re-establishment. The transition to existing rip rap will be field-fitted to control erosion, stabilize the streambank, and provide for revegetation. Rip rap placement will occur in a manner that avoids excavation within the limits of the ordinary high water (OHW) of the creek. Stream diversion and/or a temporary buffering wall may be needed during rip rap installation to keep excavation behind the OHW. Work occurring below the OHW will be limited to removal of the existing rip rap, timber piles and center pier, and the placement and removal of temporary piles.

Equipment for construction will include heavy equipment and machinery, and could include excavators, dump trucks, concrete trucks, concrete pump trucks, large cranes, and/or other similar machinery. It is anticipated that cranes or excavators with vibratory hammers will install the new bridge abutments and temporary piles. No heavy equipment will be used in the stream; work will be done using equipment from the bank or temporary work bridge. Equipment staging areas will include the old road downstream of the existing west abutment; trees along the old roadbed will likely need to be limbed for access, but no trees will be removed.

The existing bridge will continue to be available for NPS and landowner access during construction. Work will be done in a manner that minimizes disruptions to access on the existing bridge as much as feasible. Traffic delays will be minimized as much as possible, with 30 to 60-minute closures expected. Full closures, possibly for 2-3 days at a time, will be necessary at times for safety (such as during crane operations). The construction area extending approximately 100-feet from the GTSR to the Upper McDonald Creek trailhead will be closed to public access for the duration of construction.

The graveled parking area for the Upper McDonald Creek Trailhead west of the bridge will also be formalized and paved under this project. Currently, parking at the site is uncontrolled due to an absence of delineated parking spaces. Approximately 6 to 7 vehicles can usually park there, but parking is tight. The Upper McDonald Creek Trail is accessible, but there is currently no accessible parking. Formalizing the trailhead parking will delineate 6 to 7 head-in parking spaces (estimated until the actual number can be field fitted) and 1 accessible parking space, for a total of 7 spaces, and involve an approximately 305 sq. foot expansion of the current parking area. The area of expansion is previously disturbed, and no trees will be removed.

Night work may occur during the project, with restrictions to protect sensitive fish and wildlife species (see Mitigation Measures). Equipment may need to be staged on-site over the winter. Site clearing will likely occur in late summer/early fall of 2022. Construction is anticipated to begin in the spring of 2023 and be mostly completed by the end of fall, 2023. Depending on progress and weather in the fall of 2023, some follow-up work may continue in spring/summer of 2024, such as paving and slope finishing for landscaping.

**Required Mitigation(s):**
Mitigation measures in the attached Mitigations List Form are required and will be implemented during the project.

**CE Citation:** 3.3.C.19 Construction or rehabilitation in previously disturbed or developed areas, required to meet health or safety regulations, or to meet requirements for making facilities accessible to the handicapped.

**CE Justification:** Replacing the Upper McDonald Creek Bridge is necessary for safety reasons, and formalizing parking at the Upper McDonald Creek Trailhead is necessary to provide accessible parking for an accessible trail. The project will occur in a developed zone that includes the existing bridge and N. McDonald Lake Road near the Going-to-the-Sun Road, utility infrastructure, privately owned buildings, trailheads and associated parking, the Lake McDonald Ranger Station complex and other NPS administrative facilities. The action will not cause significant environmental impacts as demonstrated in the Environmental Screening Form (ESF) and will not trigger any extraordinary circumstances as explained below.

**Internal and External Scoping:**

Replacing the Upper McDonald Creek Bridge with a new bridge was approved under a categorical exclusion in May of 2021. However, the submitted workplan had greater than anticipated impacts on landowner access. The project has been redesigned to enable increased administrative access across the existing bridge during construction. The park conducted public scoping for the redesign from August 15-30, 2022, and held a public scoping meeting at Park Headquarters on August 23, 2022.

The park received 12 comment letters during scoping and 20 people attended the public scoping meeting. Some comments centered on questions about how the work would be done; these are addressed in the project description. Some comments raised concerns about impacts to park resources and the level of impacts analysis; impacts to park resources are analyzed in the attached environmental screening form (ESF). Other comments suggested changes or alternative elements to the action. Suggestions were considered; those not incorporated do not meet project objectives, would be too impactful to park resources, and/or are not feasible.

The park's IDT began initial review of the project on November 18, 2018, with continued review as design progressed. For the current design, park resource specialists conducted site visits on July 29, August 9, August 31, and September 6, 2022.

**National Historic Preservation Act (NHPA), Section 106**

On February 24, 2021, the park notified the Montana SHPO and Blackfeet Nation and Confederated Salish and Kootenai THPOs that removing and replacing the Upper McDonald Creek Bridge would be an adverse effect under Section 106 of the NHPA. The Advisory Council was notified on February 26, 2021. The SHPO concurred with the adverse effect on March 3, 2021. In accordance with NHPA Section 106, a Memorandum of Agreement (MOA) between Glacier National Park and the Montana SHPO was signed on July 13, 2021; the MOA outlines stipulations that will be implemented to take into account the effect on historic properties.

**Endangered Species Act (ESA), section 7**

Park wildlife and fisheries biologists determined that the project will affect but is not likely to adversely affect bull trout, bull trout critical habitat, grizzly bears, and Canada lynx, with no effect to other listed species and habitat. The park submitted a biological assessment (BA) to the US Fish and Wildlife Service (USFWS) on March 23, 2021. On March 26, 2021, the USFWS concurred with the park's determinations of effect. The current construction design is a change from what was described in the BA submitted to the USFWS in 2021. On August 15, 2022, the park notified the USFWS of the changes to the project design and of park biologists' conclusions that there are no changes to the ESA section 7 determinations of the original BA. On August 22, 2022, the USFWS replied with agreement that the effects of the project modifications fall within those already analyzed in the BA.

If there are any changes to the scope of work as reviewed and described in the project description, additional review and compliance may be necessary. Glacier National Park's Office of Planning and Compliance will be notified, and the project will not proceed until any necessary further review and compliance is complete

**Decision: I find that the action fits within the categorical exclusion above. Therefore, I am categorically excluding the described project from further NEPA analysis. No extraordinary circumstances apply.**

**Signature**

**Superintendent:** DAVID ROEMER Digitally signed by DAVID ROEMER Date: 2022.09.12 11:02:31 -06'00' **Date:** _____

Dave Roemer

**Extraordinary Circumstances:**

| If implemented, would the proposal... | Yes/No | Explanation |
|---|---|---|
| **A.** Have significant impacts on public health or safety? | No | The project will not introduce risks to public health and safety. The construction area will be closed to the public to ensure safety. The project will benefit safety through the replacement of a structurally deteriorating bridge. |
| **B.** Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas? | No | As demonstrated in the ESF and AEF, the project will have no significant impacts to natural or cultural resources. There is no potential for impacts to other unique geographic characteristics. |
| **C.** Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E))? | No | Neither a high level of controversy over environmental effects nor unresolved conflicts over alternative uses of resources emerged during internal and external scoping for the project. |
| **D.** Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks? | No | The park has replaced bridges elsewhere in the park and made previous repairs to the Upper McDonald Creek Bridge. As demonstrated in the ESF, negative effects are well-understood and not significant. Therefore, the project does not have the potential for highly uncertain or potentially significant environmental effects or involve unique or unknown environmental risk. |
| **E.** Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects? | No | Because bridge replacement has occurred previously in the park with no significant environmental effects, there is no potential to set a precedent or represent a decision that could lead to significant environmental impacts. |
| **F.** Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects? | No | The project does not have a direct relationship with other actions that could cause cumulatively significant environmental effects. |
| **G.** Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office? | No | As demonstrated in the ESF and AEF, the project will not have significant impacts on historic properties. |
| **H.** Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species? | No | As demonstrated in the ESF and BA, the project will not have significant impacts on listed species or their habitat. |
| **I.** Violate a federal, state, local or tribal law or requirement imposed for the protection of the environment? | No | The project has been designed and reviewed taking into account all applicable laws and requirements for the protection of the environment, and therefore will not violate any such laws. |

| | | |
|---|---|---|
| **J.** Have a disproportionately high and adverse effect on low income or minority populations (EO 12898)? | No | There is no potential for the project to affect low income or minority populations. |
| **K.** Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or adversely affect the physical integrity of such sacred sites (EO 130007)? | No | The project will not change the physical integrity of ceremonial sites nor limit access. The tribes were consulted on the project and did not raise concerns. |
| **L.** Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)? | No | Weeds will be controlled and disturbed areas will be restored such that there will be no increased spread of invasive non-native plants. |

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Glacier National Park
Date: 09/09/2022

# ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

## A. DESCRIPTION OF UNDERTAKING

**1. Park:** Glacier National Park

**2. Project Description:**

**Project Name:** Replace the Upper McDonald Creek Bridge and Formalize Parking at Upper McDonald Creek Trailhead
**Prepared by:** Sierra Mandelko **Date Prepared:** 09/07/2022 **Telephone:** (406) 888-7943
**PEPC Project Number:** 99671
**Locations:**
**County, State:** Flathead, MT
**Describe project:**
The Upper McDonald Creek Bridge is in poor structural condition and has a restricted load capacity (rated for 15 tons), which is inadequate for heavy loads, including fire engines needed for wildland fire control and structure protection, normal construction traffic and park administrative vehicles necessary to maintain the ranger station and other park assets, and garbage trucks (for garbage service hired by landowners). With the loss of several homes and buildings, including NPS assets, on the northwest side of the lake during the 2018 Howe Ridge Fire, a bridge that can accommodate necessary traffic and loads is essential. The typical life-span for a timber bridge is 40 to 50 years. The existing bridge is 57 years old. Repairs in recent years have resulted in improvements, but continued deterioration will continue with the structure's age, continued use, and environmental conditions. If the bridge is not replaced, progressive failure will cause further load restrictions, and the bridge will eventually become unsafe for vehicle access and will need to be closed and/or removed for safety reasons. Therefore, replacing the bridge is needed due to progressive failure and to improve vehicle access to NPS structures and operations and private land on the northwest side of the lake.

Under this project, the existing single-lane bridge and its two in-stream piers will be removed and replaced with a single-lane, clear span bridge with two walkways, one on each side. The new bridge will be built approximately 30 feet upstream of the existing bridge, requiring a realignment of the road approaches. The new bridge and approaches will be approximately eight feet higher than the existing bridge. The existing approaches to the bridge will be contoured to blend with existing topographic features and restored with native vegetation.

A temporary work bridge will be installed upstream of the new bridge site to enable construction and staging. Up to 12 temporary piles may be installed instream to support the existing bridge and/or temporary work bridge. The existing bridge, temporary bridge, and all piles will be removed once the new bridge is built.

Existing rip rap will be removed and may be salvaged and used as rip rap for the new bridge. Some of the existing rip rap will be left in place and transitioned with the new rip rap. At the west end of the new bridge, additional rip rap is expected to extend an estimated15 feet upstream of the structure, transitioning into existing rip rap. On the east side of the new bridge, additional rip rap is expected an estimated 6 feet upstream, also tying into existing rip rap. The exact amount and extent of rip rap removal and placement will depend on what is necessary for riverbank slope protection, erosion mitigation, and vegetation re-establishment. The transition to existing rip rap will be field-fitted to control erosion, stabilize the streambank, and provide for revegetation. Rip rap placement will occur in a manner that avoids excavation within the limits of the ordinary high water (OHW) of the creek. Stream diversion and/or a temporary buffering wall may be needed during rip rap installation to keep excavation behind the OHW. Work occurring below the OHW will be limited to removal of the existing rip rap, timber piles and center pier, and the placement and removal of temporary piles.

Equipment for construction will include heavy equipment and machinery, and could include excavators, dump trucks, concrete trucks, concrete pump trucks, large cranes, and/or other similar machinery. It is anticipated that cranes or excavators with vibratory hammers will install the new bridge abutments and temporary piles. No heavy equipment will be used in the stream; work will be done using equipment from the bank or temporary work bridge. Equipment staging areas will include the old road downstream of the existing west abutment; trees along the old roadbed will likely need to be limbed for access, but no trees will be removed.

The existing bridge will continue to be available for NPS and landowner access during construction. Work will be done in a manner that minimizes disruptions to access on the existing bridge as much as feasible. Traffic delays will be minimized as much as possible, with 30 to 60-minute closures expected. Full closures, possibly for 2-3 days at a time, will be necessary at times for safety (such as during crane operations). The construction area extending approximately 100-feet from the GTSR to the Upper McDonald Creek trailhead will be closed to public access for the duration of construction.

The graveled parking area for the Upper McDonald Creek Trailhead west of the bridge will also be formalized and paved under this project. Currently, parking at the site is uncontrolled due to an absence of delineated parking spaces. Approximately 6 to 7 vehicles can usually park there, but parking is tight. The Upper McDonald Creek Trail is accessible, but there is currently no accessible parking. Formalizing the trailhead parking will delineate 6 head-in parking spaces and 1 accessible parking space, for a total of 7 spaces, and involve an approximately 305 sq. foot expansion of the current parking area. The area of expansion is previously disturbed, and no trees will be removed.

Night work may occur during the project, with restrictions to protect sensitive fish and wildlife species (see Mitigation Measures). Equipment may need to be staged on-site over the winter. Site clearing will likely occur in late summer/early fall of 2022. Construction is anticipated to begin in the spring of 2023 and be mostly completed by the end of fall, 2023. Depending on progress and weather in the fall of 2023, some follow-up work may continue in spring/summer of 2024, such as paving and slope finishing for landscaping

**Area of potential effects (as defined in 36 CFR 800.16[d])**
The Upper McDonald Creek (UMC) Bridge, abutments, approaches and an area to the north of the existing bridge for a new permanent structure. Also, parking at the UMC Trailhead. Clearing limits north of the existing bridge will not exceed 45 feet width. New bridge decking is 8 feet higher than existing abutments and approaches will add fill to achieve the grade necessary. Temporary pilings will be used to strengthen the existing and temporary bridge during construction of the new bridge, and rip rap will be used to strengthen abutments. Rip rap may extend up to 15 feet upstream of the west abutment and 6 feet from the east abutment. Downstream rip rap will key into existing rip rap under the existing bridge (demolished as part of this undertaking). A 12 x 225 foot segment of the original road alignment on the southwest side of the bridge will be used for material staging. Temporary removal of barrier rock to access this staging area will be used and limbing trees to accept material height is planned. To meet slope requirements no more than 60 trees are proposed for removal within the project area along the historic roadway. Trailhead parking measures 23.5 x 71 feet and will be formalized with new pavement to accept up to 7 vehicles and include accessible parking. Of the parking area, a portion is paved with an adjacent maintained trailhead that has combined gravel base and staylock. Together this parking area will be maintained for accessible access to the UMC Falls. Temporary auditory effects to the area for construction, and setting temporary and permanent piles for the clear span bridge are anticipated. Visual impacts include removal of trees to accept new bridge and road alignment, change to the height, width and overall appearance of the bridge, and removal of the historic UMC Bridge. Two large cranes will be onsite to perform construction. Restoration efforts will reclaim bridge slopes with a natural landscape and road bed not to exceed 30 feet width.

**3. Has the area of potential effects been surveyed to identify historic properties?**

____ **No**

_X_ **Yes**

**Source or reference:** 2020 Replace North McDonald Road Bridge Across McDonald Creek and Formalize Parking around the North McDonald Trailhead by Brent Rowley et al.
Upper McDonald Creek Bridge/Kelly Camp Bridge Montana Historic Property Record, 2021

**4. Potentially Affected Resource(s):**

**Archeological Resources Present:** Yes

**Archeological Resources Notes:** The area has been impacted by historic road and bridge construction, trail construction, parking development, and catastrophic flooding which took the original wooden bridge structure in 1964. Isolated historic materials were identified. By definition, isolated materials are not eligible for listing in the National Register of Historic Places. These materials were recorded during inventory and are reported in the 2020 findings by Brent Rowley et. al.

**Historical Structures/Resources Present:** Yes

**Property Name:** Upper McDonald Creek/Kelly Camp Bridge **LCS:**
**Location:** Flathead County

**Historical Structures/Resources Notes:** North Lake McDonald Road and the contributing bridge and abandoned road segment and original bridge pilings (24FH1396) Upper McDonald Creek Bridge (24FH1618)

**Cultural Landscapes Present:** No

**Ethnographic Resources Present:** No

**Ethnographic Resources Notes:** It is suspected that the area holds a rich ethnographic landscape based on oral and ethnographic accounts of the upper Kootenai of a winter crossing of the mountains in this area. Tribes were consulted and raised no concerns.

**5. The proposed action will: (check as many as apply)**

Yes Destroy, remove, or alter features/elements from a historic structure
No Replace historic features/elements in kind
No Add non-historic features/elements to a historic structure
Yes Alter or remove features/elements of a historic setting or environment (inc. terrain)
Yes Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape
No Disturb, destroy, or make archeological resources inaccessible
No Disturb, destroy, or make ethnographic resources inaccessible>
Yes Potentially affect presently unidentified cultural resources
Yes Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources
No Involve a real property transaction (exchange, sale, or lease of land or structures)
___ Other (please specify): _____

**6. Supporting Study Data:**
**(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)**

## B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

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**[ X ] 106 Advisor**
**Name:** Sierra Mandelko
**Date:** 09/07/2022
**Comments:** Updates to the design occurred in August and September 2022. These updates are within previously inventoried areas and within consultations with MT SHPO and Tribes.

***Check if project does not involve ground disturbance*** **[ ]**
**Assessment of Effect:** __No Potential to Cause Effect __No Historic Properties Affected __No Adverse Effect __X__Adverse Effect __Streamlined Review
**Recommendations for conditions or stipulations:** Monitoring is required at the formalization of the parking area to meet management policy. Rip rap will be colored to match visible gravels within Upper McDonald Creek to provide a natural appearance to the built environment. To meet the stipulations present within the Memorandum of Agreement signage on the bridge is required as is a website that includes a platform about the historic bridge.

**Doc Method:** Standard 4-Step Process

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**[ X ] Archeologist**
**Name:** Sierra Mandelko
**Date:** 09/07/2022
**Comments:** Updates to the location of the Upper McDonald Creek Bridge and temporary bridge construction area shifted the APE to the north of the existing bridge. This update is within areas previously surveyed by archeologists in 2020. Updates to the parking area are also within areas previously surveyed.

***Check if project does not involve ground disturbance*** **[ ]**
**Assessment of Effect:** __No Potential to Cause Effect __No Historic Properties Affected __X__No Adverse Effect __Adverse Effect __Streamlined Review
**Recommendations for conditions or stipulations:** Monitoring at the Upper McDonald Creek Trailhead parking area is required per management policies.

**Doc Method:** Standard 4-Step Process

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**[ X ] Historical Architect**
**Name:** Sierra Mandelko
**Date:** 09/07/2022
**Comments:** The Replacement of Upper McDonald Creek Bridge is an adverse effect. An MOA was completed with Montana SHPO and Advisory Council to mitigate effects. Completion of Historic American Engineering Record (HAER MT-191) was completed as part of the mitigation stipulations.

***Check if project does not involve ground disturbance*** **[ ]**
**Assessment of Effect:** ___No Potential to Cause Effect ___No Historic Properties Affected ___No Adverse Effect __X__Adverse Effect ___Streamlined Review
**Recommendations for conditions or stipulations:** Mitigation stipulations described in the MOA for resolution include bridge signage and completion of an NPS website that describes the historic bridge.

**Doc Method:** Standard 4-Step Process

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**[ X ] Historical Architect**
**Name:** Kim Hyatt
**Date:** 09/08/2022

***Check if project does not involve ground disturbance*** **[ ]**
**Assessment of Effect:** ___No Potential to Cause Effect ___No Historic Properties Affected ___No Adverse Effect __X__Adverse Effect ___Streamlined Review
**Recommendations for conditions or stipulations:**

**Doc Method:** Standard 4-Step Process

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**No Reviews From**: Curator, Historian, Other Advisor, Anthropologist, Historical Landscape Architect

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## C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

### 1. Assessment of Effect:

_____ No Potential to Cause Effects
_____ No Historic Properties Affected
_____ No Adverse Effect
__X__ Adverse Effect

### 2. Documentation Method:

**[ X ] A. Standard 36 CFR Part 800 Consultation**
Further consultation under 36 CFR Part 800 is needed.

**[ ] B. Streamlined Review Under the 2008 Servicewide Programmatic Agreement (PA)**
The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

**Applicable Streamlined Review Criteria**
(Specify 1-16 of the list of streamlined review criteria.)

**[ ] C. Undertaking Related to Park Specific or Another Agreement**
The proposed undertaking is covered for Section 106 purposes under another document such as a park, region or statewide agreement established in accord with 36 CFR 800.7 or 36 CFR 800.14.

**[ ] D. Combined NEPA/NHPA Process**
Process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 is in accord with 36 CFR 800.8.c.

**[ ] E. Memo to Project File**

**3. Consultation Information**

**SHPO Required:** Yes
**SHPO Sent:** Feb 24, 2021
**SHPO Received:** Mar 3, 2021

**THPO Required:** Yes
**THPO Sent:** Feb 24, 2021
**THPO Received:**

**SHPO/THPO Notes:** Scoping carried out on 8.15.2022 by email, mail and public meeting to address changes to bridge design and location. The updated area is within the previously inventoried area completed in 2020.

**Advisory Council Participating:** Yes
**Advisory Council Notes:** The Advisory Council was notified on 2/26/2021.
**Additional Consulting Parties:** No

**4. Stipulations and Conditions:** Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.

Archeological monitoring is required for formalization of the parking area at the Upper McDonald Creek Trailhead due to excavations of the subbase to meet Management Policies. Rip rap should be colored to match area soils and gravels- particularly those colors visible in upper McDonald Creek at the bridge site. This area of the park is known for colorful rocks in the clear waters.

**5. Mitigations/Treatment Measures:** Measures to prevent or minimize loss or impairment of historic/prehistoric properties:

See above stipulations and Mitigations List Form attached to final compliance documentation.

**6. Assessment of Effect Notes:**

Adverse effect was taken due to the bridge replacement along the North Lake McDonald Road. Updates to bridge location, clearing limits and parking areas in August and September 2022 are within previous inventory limits. Scoping addressed changes in temporary bridge location and clearing limits. No comments were received during 2022 scoping with Montana State Historic Preservation Office or Tribes.

Historic American Engineering Record (HAER MT-191) completed as part of the mitigations for the Memorandum of Agreement (MOA) and accepted in a letter dated 11.16.2021. Signage and interpretation are forthcoming as mitigations for the removal of this historic bridge to meet stipulations outlined in the MOA.

**D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:**

**Compliance Specialist:**

**NHPA Specialist**

Kim Hyatt /s/ Kim Hyatt **Date:** 9.8.22

Sierra Mandelko /s/ Sierra Mandelko **Date:** 9.9.22

**E. SUPERINTENDENT'S APPROVAL**

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

**Signature**

**Superintendent:** DAVID ROEMER Digitally signed by DAVID ROEMER Date: 2022.09.12 11:00:39 -06'00' **Date:**

Dave Roemer

**National Park Service**
**U.S. Department of the Interior**

**Glacier National Park**
**Date: 09/12/2022**

# Mitigations List Form

**UMC Bridge replacement**

**Mitigation(s):**
**(the following list of mitigations will be incorporated into the project)**

Vegetation:

- The number of trees removed will be minimized as much as feasible, in consultation with the park's Vegetation Management Specialist, Dawn LaFleur.
- Sensitive tree species in tree-removal areas, including cedar and hemlock, will be salvaged for replanting as feasible in consultation with the park ‘s Vegetation Management Specialist, Dawn LaFleur.
- Topsoil will be conserved for replacement during restoration.
- All vehicles must be cleaned and inspected prior to entering the park to ensure they are free of mud, plant, and seed material.
- Disturbed areas will be restored with native vegetation in consultation with the park's Vegetation Management Specialist, Dawn LaFleur.
    - Restoration will include restorative measures during the construction period, such as possible hydro-seeding and regular watering of restoration areas, for example. The park will seed the areas with native species once construction is complete.
    - Restoration will include planting salvaged or nursery-raised trees that are as mature as possible at the time of planting.
    - Restoration will include measures to prevent the establishment or spread of non-native invasive plants.
- The approaches to the existing bridge will be recontoured and restored with native vegetation, in consultation and coordination with Dawn LaFleur, the park's Vegetation Management Specialist.
- Protective measures will be in place where feasible to protect trees and tree limbs from damage (such as using construction fencing to hold limbs out of the way of passing equipment, for example).
- Vegetation trampling outside of vegetation removal areas must be minimized as much as possible (for example, by staging materials and equipment and walking on hardened surfaces whenever possible and avoiding the use of multiple footpaths).

Water Quality & Hydrology:

- Erosion and sedimentation will be controlled and minimized by appropriate use of sediment mitigation measures. Such measures will be in place at project commencement and for the duration of construction.
- No heavy equipment may be used below the ordinary high water (OHW) of the stream.

- Park protocols for prevention of AIS must be followed in consultation with the park's Fisheries Program Manager, Chris Downs.
- The removal and placement of rip rap will include onsite consultation with park staff to meet park restoration objectives.

Visitor Use & Experience:

- The park will notify the public of construction start and end dates, and of the status of associated public closures. Public notification will occur via press releases and the park website.
- The park will maintain communication with landowners about access across the bridge during construction, including notification of anticipated full closures (e.g. closures that could last for 2-3 days at a time).

Fish and Wildlife:

- No grubbing or vegetation removal, including brush, ground vegetation, or trees, will occur during the migratory bird nesting season unless park biologists determine that nesting is not occurring in the area in question (based on site surveys conducted by a trained park employee) and have approved the activity.
- The area surrounding the inlet to Lake McDonald will be closed to the public during construction to reduce disturbance to foraging bald eagles, migratory birds, and other wildlife.
    - If the Lake McDonald bald eagle nest is active, this closure will begin immediately after the annual spring closure of the head the lake, which is in place from March 15-May 15. If the Lake McDonald nest is not active, this closure will go into effect when bridge construction begins in April. The closure will remain in effect until September 15.
    - Boats will be prohibited within approximately ¼-mile area surrounding the inlet.
    - Pedestrian traffic will be prohibited along both banks of the creek to the bridge, and along both shorelines on either side of the inlet to points approximately ¼ mile from the inlet.
- During May and June, onsite construction work is restricted to 2 hours after sunrise until 2 hours before sunset to protect bald eagles.
- Work will not be permitted within 150 feet of the ordinary high-water mark (OHW) at night or around sunrise and sunset from April 15 through September 15 to minimize impacts to harlequin ducks, bald eagles, water birds, shorebirds, and other species that use the stream and inlet during time periods surrounding dawn and dusk.
    - For sunrise: no work will occur within of 150 ft of the OHW 2 hours before and 2 hours after sunrise.
    - For sunset: no work will occur within 150 ft of the OHW 2 hours before and 1 hour after sunset.
    - Subject to park review and approval, certain light-duty work that is similar to existing activity in terms of noise, amount, and type of activity (such as visitor and administrative vehicle traffic, for example) may be permitted within 150 feet of the OHW and at the bridge within the restricted timeframes around sunrise and sunset.
- Night work must not occur within 50 feet of ordinary high water (OHW) from August 30 to October 15 to protect bull trout that may be foraging in the area at night.

- Night work on the GTSR for other construction must be 2600 feet away or more (as the crow flies) from night work at the bridge site.
- During any night work, lights must be directed away from the stream and toward the ground to reduce impacts to bull trout, birds and other wildlife, and night skies.
- Any observations of grizzly and black bears, Canada lynx, wolves, mountain lions, moose, or bald eagles in the project area must be reported to park wildlife biologists. Wildlife lingering in the project area (instead of passing through), licking equipment, or exhibiting unusual behaviors must also be reported to park biologists. The park will take appropriate actions (such as hazing) to reduce potential conflicts.
- Project personnel must comply with park storage requirements for food, garbage, and other attractants.
    - Construction crews will receive training in the proper conduct of operations to minimize impacts to grizzly bears and other wildlife, including food and garbage storage, sanitation, and bear behavior. Project personnel must comply with guidance in the park-provided handbook, "Bear, Wildlife, and Sanitation Requirements While Working Glacier National Park."
    - Compliance will be monitored and strictly enforced during the construction period and as part of standard park policy pertaining to recreation activities in the park.
    - Park resource specialists will be involved in inspections and monitoring and provide recommendations during construction where applicable.

Cultural Resources:

- As stipulated in the MOA between the park and SHPO, Historic American Engineering Record (HAER) documentation has been completed and submitted to park archives and NPS Heritage Partnerships Program.
- Interpretation will be provided about engineering, with a focus on bridges within the park that were established during the Mission 66 era. Interpretation will include a park webpage describing engineered structures during this time period, with a focus on the design of the Upper McDonald Creek Bridge and the important role of this crossing for the Lake McDonald community.
    - As part of the interpretation requirement, the park will affix a sign onto the railing of the new bridge informing visitors about where to access additional information on historic park bridges. Sign designs will be circulated to the Montana SHPO for comments prior to production.
- Rip rap will be colored to match visible gravels within Upper McDonald Creek to provide a natural appearance to the built environment.
- Ground disturbing activities at the Upper McDonald Creek trailhead to formalize parking must be monitored for archeological activities. The park's Cultural Resources Specialist, Sierra Mandelko, must notified at least 2 weeks in advance to schedule monitoring.
- If cultural material is found, ground disturbing activities must stop immediately and the park's Cultural Resources Specialist, Sierra Mandelko, notified. If archeological resources are identified, excavation will not resume until resources are recorded.

**National Park Service**
**U.S. Department of the Interior**

**Glacier National Park**
**Date: 09/12/2022**

# ENVIRONMENTAL SCREENING FORM (ESF)

**Updated Sept 2015 per NPS NEPA Handbook**

## A. PROJECT INFORMATION

| | |
|---|---|
| **Project Title:** | Replace the Upper McDonald Creek Bridge and Formalize Parking at Upper McDonald Creek Trailhead |
| **PEPC Project Number:** | 99671 |
| **PMIS Number:** | |
| **Project Type:** | Repair/Rehabilitation (REHAB) |
| **Project Location:** | |
| **County, State:** | Flathead, Montana |
| **Project Leader:** | James Foster |

## B. PROJECT DESCRIPTION

The Upper McDonald Creek Bridge is in poor structural condition and has a restricted load capacity (rated for 15 tons), which is inadequate for heavy loads, including fire engines needed for wildland fire control and structure protection, normal construction traffic and park administrative vehicles necessary to maintain the ranger station and other park assets, and garbage trucks (for garbage service hired by landowners). With the loss of several homes and buildings, including NPS assets, on the northwest side of the lake during the 2018 Howe Ridge Fire, a bridge that can accommodate necessary traffic and loads is essential. The typical life-span for a timber bridge is 40 to 50 years. The existing bridge is 57 years old. Repairs in recent years have resulted in improvements, but continued deterioration will continue with the structure's age, continued use, and environmental conditions. If the bridge is not replaced, progressive failure will cause further load restrictions, and the bridge will eventually become unsafe for vehicle access and will need to be closed and/or removed for safety reasons. Therefore, replacing the bridge is needed due to progressive failure and to improve vehicle access to NPS structures and operations and private land on the northwest side of the lake.

Under this project, the existing single-lane bridge and its two in-stream piers will be removed and replaced with a single-lane, clear span bridge with two walkways, one on each side. The new bridge will be built approximately 30 feet upstream of the existing bridge, requiring a realignment of the road approaches. The new bridge and approaches will be approximately eight feet higher than the existing bridge. The existing approaches to the bridge will be contoured to blend with existing topographic features and restored with native vegetation.

A temporary work bridge will be installed upstream of the new bridge site to enable construction and staging. Up to 12 temporary piles may be installed instream to support the existing bridge and/or temporary work bridge. The existing bridge, temporary bridge, and all piles will be removed once the new bridge is built.

Existing rip rap will be removed and may be salvaged and used as rip rap for the new bridge. Some of the existing rip rap will be left in place and transitioned with the new rip rap. At the west end of the new bridge, additional rip rap is expected to extend an estimated15 feet upstream of the structure, transitioning into existing rip rap. On the east side of the new bridge, additional rip rap is expected an estimated 6 feet upstream, also tying into existing rip rap. The exact amount and extent of rip rap removal and placement will depend on what is necessary for riverbank slope protection, erosion mitigation, and vegetation re-establishment. The transition to existing rip rap will be field-fitted to control erosion, stabilize the streambank, and provide for revegetation. Rip rap placement will occur in a manner that avoids excavation within the limits of the ordinary high water (OHW) of the creek. Stream diversion and/or a temporary buffering wall may be needed during rip rap

installation to keep excavation behind the OHW. Work occurring below the OHW will be limited to removal of the existing rip rap, timber piles and center pier, and the placement and removal of temporary piles.

Equipment for construction will include heavy equipment and machinery, and could include excavators, dump trucks, concrete trucks, concrete pump trucks, large cranes, and/or other similar machinery. It is anticipated that cranes or excavators with vibratory hammers will install the new bridge abutments and temporary piles. No heavy equipment will be used in the stream; work will be done using equipment from the bank or temporary work bridge. Equipment staging areas will include the old road downstream of the existing west abutment; trees along the old roadbed will likely need to be limbed for access, but no trees will be removed.

The existing bridge will continue to be available for NPS and landowner access during construction. Work will be done in a manner that minimizes disruptions to access on the existing bridge as much as feasible. Traffic delays will be minimized as much as possible, with 30 to 60-minute closures expected. Full closures, possibly for 2-3 days at a time, will be necessary at times for safety (such as during crane operations). The construction area extending approximately 100-feet from the GTSR to the Upper McDonald Creek trailhead will be closed to public access for the duration of construction.

The graveled parking area for the Upper McDonald Creek Trailhead west of the bridge will also be formalized and paved under this project. Currently, parking at the site is uncontrolled due to an absence of delineated parking spaces. Approximately 6 to 7 vehicles can usually park there, but parking is tight. The Upper McDonald Creek Trail is accessible, but there is currently no accessible parking. Formalizing the trailhead parking will delineate 6 to 7 head-in parking spaces (estimated until the actual number can be field fitted) and 1 accessible parking space, for a total of 7 spaces, and involve an approximately 305 sq. foot expansion of the current parking area. The area of expansion is previously disturbed, and no trees will be removed.

Night work may occur during the project, with restrictions to protect sensitive fish and wildlife species (see Mitigation Measures). Equipment may need to be staged on-site over the winter. Site clearing will likely occur in late summer/early fall of 2022. Construction is anticipated to begin in the spring of 2023 and be mostly completed by the end of fall, 2023. Depending on progress and weather in the fall of 2023, some follow-up work may continue in spring/summer of 2024, such as paving and slope finishing for landscaping.

### C. RESOURCE IMPACTS TO CONSIDER:

| Resource | Potential for Impact | Potential Issues & Impacts |
|---|---|---|
| **Air**<br>Air Quality | Potential | Issue: Emissions from construction equipment<br><br>Impact: Construction machinery will contribute to emissions in the project area during construction. Any increase will be incremental, and will not meaningfully change existing emissions levels from vehicle, administrative, and construction traffic on the GTSR and in nearby developments. Any effects will be temporary, ceasing when construction activities are complete. |
| **Biological**<br>Nonnative or Exotic Species | Potential | Issue: Ground disturbance leads to the spread of non-native invasive plants<br><br>Impact: Non-native invasive plants are already present in the project area due to previous disturbances and the site's proximity to roads and developments, and social trails from ease of pedestrian access. Ground disturbance associated with the project will likely result in some spread of existing weeds. However, disturbed areas will be restored, to include measures to control the spread of non-native invasive plants, and cleaning and inspection of project vehicles will be required before they enter the park to ensure weeds are not being transported. These measures are expected to prevent any increase in the presence of non-native invasive plants in the project area. |

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| **Biological**<br>Species of Special Concern or Their Habitat | Potential | Issue: Bull trout, grizzly bears, and Canada lynx (all listed as threatened under the Endangered Species Act) could be present in the project area, and the bridge is in critical bull trout habitat. The project area and surrounding vicinity provides important habitat for bald eagles (protected under the Bald and Golden Eagle Protection Act), harlequin ducks (a state listed species of concern), and other bird species listed with the state and/or protected under the Migratory Bird Treaty Act.<br><br>Impact: The project has limited potential to impact bull trout because upper McDonald Creek is not known to be a bull trout spawning or rearing stream. Use of the project area by bull trout is likely to be transient due to low habitat complexity and the relatively low number of bull trout in Lake McDonald. Bull trout could move into and out of the project reach from Lake McDonald during construction, and there is the possibility of infrequent displacement of individual bull trout from the project area. This is more likely to occur early in May-July when stream flows remain high and cold and then again in October when kokanee congregate in and around the project area for spawning. Night work will not occur within 50 feet of OHW from August 30 to October 15 to avoid impacting bull trout that may key into the kokanee as a food source. The limited amount of work within the OHW (including a prohibition of equipment below OHW) further limits the potential to impact bull trout. The project will not affect bull trout sub-populations, diversity, or persistence. The project may impact bull trout critical habitat in the form of turbidity and additional fine sediment deposition. But higher summer stream flows are likely to carry fine sediment into Lake McDonald where it will settle out, and the amount of sediment generated will be small in comparison to the amount naturally produced by the watershed and transported to the project area on an annual basis. For these reasons, measurable impacts to substrate composition are not expected.<br><br>Grizzly bears could be displaced or disturbed by noise and visibility of construction activities. Construction activities will be localized to the bridge and road corridor and are not anticipated to alter the distribution of bears in the greater area. Any impacts will affect individuals but will not impact grizzly bears at the population level. Construction activities will occur in Management Situation 3 grizzly bear habitat (where grizzly habitat maintenance is not the highest management consideration and grizzly bear presence is discouraged), so no permanent loss of functional habitat will result. Increased human activity associated with construction could increase the chances of bears within the project area becoming habituated, food conditioned, or coming into conflict with people. The chance of this is very low, however, as park requirements for attractant storage will be strictly enforced.<br><br>Individual Canada lynx could be disturbed or displaced if passing through the project area during construction. The North Lake McDonald Road and the surrounding area receive a substantial amount of human use and traffic during the visitor season. During this time, lynx habitat immediately adjacent to the project area is of marginal quality and likely primarily only used by lynx traveling from one area of the valley to another. Any impacts will be at the individual level, with no effects to populations. Construction activities will not alter habitats in or near areas that could potentially serve as lynx den sites. Construction activities will be |

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| | | localized to the road and bridge corridor and, thus, will not alter the larger scale distribution of lynx.<br><br>Bald eagles nest at Lake McDonald and the head of the lake is a valuable foraging area for bald eagles. Noise and construction activity could displace foraging eagles. Restrictions on construction activity during sunrise and sunset, which are sensitive foraging times for eagles, will reduce the potential for displacement during foraging. Public closures at the head of the lake, inlet, and along the streambanks to the bridge will minimize disturbances from boats and pedestrians that could compound potential impacts from construction. Bald eagles prey on kokanee salmon near the inlet, and kokanee could be displaced by construction operations. But few kokanee are present in Lake McDonald due to competition and predation by lake trout, and bald eagles forage on other prey, including other fish species, waterfowl, and small mammals, and in other areas of the lake. Therefore, any displacement of kokanee during the construction period is not likely to meaningfully impact bald eagle foraging capabilities. Given this, the aforementioned public closures, and restrictions on construction activity around sunrise and sunset, impacts to bald eagles are expected to be minimal and temporary.<br><br>The vicinity of the project area and the inlet to the lake provide valuable foraging habitat for harlequin ducks and other migratory birds, which could be disturbed or displaced by noise and construction activity. The potential for impacts will exist along a relatively short stretch of the stream, without impacting connectivity to other reaches of the stream. Restrictions on construction activities at night and around sensitive foraging periods at sunrise and sunset and a public closure of the inlet and project area will protect foraging opportunities for harlequin ducks and migratory birds. |
| **Biological**<br>Vegetation | Potential | Issue: Tree removal and ground disturbance<br><br>Impact: Trees will be cleared for approaches to the new bridge and the temporary work bridge. Trees that will be removed include approximately 43 that are greater than 5 inches dbh, and approximately 12 that are greater than 19 inches dbh. Trees in the greater than 5-inch dbh class include: 3 western red cedar; 25 western hemlock; 6 Douglas fir; 4 white pine; 2 spruce; and 3 birch. Trees in the greater than 19-inch dbh class include: 3 western hemlock (including one that is dead or dying); 1 western larch; 4 Douglas fir; and 4 cottonwood. An additional approximately 120 trees that are in the 1 to 4-inch dbh class will be removed, as well as numerous tall shrubs, including mountain maple, hawthorne, and dogwood. Some trees will also need to be limbed (e.g. in the old road bed on the downstream west side of the bridge for equipment staging).<br><br>Approximately 0.66 acre will be permanently disturbed, and another 0.05 acre will be temporarily disturbed. In addition to restoration of temporarily disturbed areas, another approximately 0.7 acre will also be restored, including existing roadbeds, fill slopes, and parking that will be obliterated and revegetated.<br><br>Within the immediate project area, tree removal will adversely impact mature forest and regenerating cedar and hemlock. The greater area will retain its old growth |

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| | | character, however, due to the number of adjacent and surrounding mature trees that will remain undisturbed. The size of the area that will be cleared (approx. 0.66 acre) is too small to meaningfully alter species composition or distribution. Additional tree-loss from windthrow could occur as a result of the clearing. But since areas to be cleared are surrounded by larger, older trees, the extent of future blow-down is also not likely to change species composition or distribution, or the value and character of the stand as old-growth cedar hemlock. Older age trees have more structure and tend to be more resilient to wind events.<br><br>It is not likely that any trees will be identified as hazard trees and removed, because there will not be a target (such as a building) that would require protection from a hazard tree. Cedar and hemlock in the park are stressed by drought and fires, and some regenerating hemlock will be lost as a result of this project. Continued regeneration is expected in the project area given the site's proximity to the creek, which provides humidity that aids regeneration; adjacent moisture works in favor of regeneration for both cedar and hemlock, and will aid in the stand's ability to maintain itself. For this reason, the stressors from drought and fire that are observed in other areas of the park are not likely to be as pronounced at the project area. The mitigating effects of measures to salvage trees as feasible for replanting and restore disturbed area (the amount of area that will be restored will be equal to or greater than the amount of area disturbed) will ensure the area's ability to persist and function as riparian vegetation for the long term.<br><br>Beneficial impacts to vegetation will occur from a reduction in the potential for trampling associated with pedestrians accessing the stream off-trail. The finished slope will be contoured and revegetated/landscaped to not allow parking at the bridge ends and to hinder pedestrian access to the river. |
| **Biological**<br>Wildlife and/or Wildlife Habitat including terrestrial and aquatic species | Potential | Issue: Potential disturbance from construction noise and activity<br><br>Impact: Wildlife could be disturbed or displaced during construction activity. The project will occur in an area where there are already high levels of existing human activity, including hiking on nearby trails, activity at private homes, boating, park administrative operations, and heavy vehicle traffic. Therefore, construction activity is not likely to cause much change to the environmental baseline for most species. Because the project will be limited to the road and bridge corridor, it will not affect overall forage, nesting, or denning opportunities, and secure habitat will remain available in surrounding forested areas. Any impacts will be at the individual level, with no lasting effects to wildlife distribution or species populations. |
| **Cultural**<br>Archeological Resources | None | Impact: The project area was surveyed for archeological resources, and no resources of concern were identified. Ground disturbance at the Upper McDonald Creek Trailhead will be monitored and, if cultural resources identified, they will be recorded. For these reasons, archeological resources will not be impacted. |
| **Cultural**<br>Ethnographic Resources<br>*Lake McDonald* | None | Issue: construction machinery sounds, sight and access<br><br>Impact: There will be temporary auditory and visual effects to Lake McDonald and areas immediately adjacent to the northern portion of the lake. Access may be limited at times for safety, when setting bridge pilings, decking or other structural |

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| | | features, for example. Effects will be temporary, and any closures short term. The tribes were consulted on the project and did not raise concerns. |
| **Cultural**<br>Prehistoric/historic structures<br>*Upper McDonald Creek Bridge (24FH1618); North Lake McDonald Road (24FH1396)* | Potential | Issue: Replacement of the bridge; construction along the eastern portion of the road<br><br>Impact: Removing the bridge and the design of the new bridge will adversely impact historic structures. The new bridge will be taller and wider and, therefore, more visible than the existing bridge. Changes to the bridge approaches, including adding fill height and removing trees, as well as visual intrusions and audible construction noise, will adversely impact the historic character of the North Lake McDonald Road, which is eligible for listing in the National Register of Historic Places (NRHP). Formalizing parking at the Upper McDonald Cr. trailhead will change the visual appearance of the parking area, also affecting the historic character of the road. However, the area to be formalized is already disturbed, and formalizing the parking will not change the road's eligibility for listing.<br><br>Noise impacts and visual intrusions from construction will be temporary, ceasing once the project is complete, with no lasting impacts. Understanding that the new bridge is re-engineered and will look much different than the existing, the design retains historic design elements, including an emulation of the hand-rails, keeping echoes of historic design and appearance. Adverse impacts to the bridge will be mitigated by stipulations outlined in a Memorandum of Agreement (MOA) with the Montana State Historic Preservation Office (SHPO), and will include interpretation of Mission 66 engineered bridges. |
| **Geological**<br>Geologic Features | Potential | Issue: Adverse impacts from ground disturbance.<br><br>Impact: Excavation and ground disturbance will adversely impact soils within the disturbance limits of the project site. Approximately 0.66 acre will be permanently disturbed, and another 0.05 acre will be temporarily disturbed. In addition to restoration of temporarily disturbed areas, another approximately 0.7 acre will also be restored, including existing roadbeds, fill slopes, and parking that will be obliterated and revegetated. The project area has undergone varying degrees of disturbance over the years, including developments (the road and bridge, hiking trails), bridge repairs, erosion from flooding and high-water events and trampling from pedestrian access to the stream. Because topsoil will be conserved and existing roadbeds and parking will be reclaimed, resulting in a restored area that will be equal in size or greater than the area of permanent disturbance, the project will not meaningfully change or adversely impact soil integrity or function in the area.<br><br>There will be beneficial impacts to soils from a reduction in the potential for ongoing disturbance and compaction associated with pedestrians accessing the stream off-trail. The finished slope will be contoured and revegetated/landscaped to not allow parking at the bridge ends and to hinder pedestrian access to the river. |
| **Lightscapes**<br>Lightscapes | Potential | Issue: Night work<br><br>Impact: If night work occurs, work lighting could be visible to some degree beyond the project area, but this will be minimal due to forested screening. Night skies will not be affected because lighting will be directed downward, toward the ground. |

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| **Other**<br>Human Health and Safety | Potential | Impact: If the bridge is not replaced, it will become a safety hazard due to continued deterioration. Replacing the bridge will, therefore, have beneficial impacts to safety. Safety will also benefit from a new bridge with an improved load capacity that can support fire engines and other similar weight vehicles. |
| **Socioeconomic**<br>Land Use | Potential | Issue: Bridge access during construction<br><br>Impact: Traffic delays will be in place during construction and full closures will be necessary at times, which will put some limitations on administrative and landowner access across the bridge. The construction plan has been designed to enable administrative access across the bridge during the construction period, and traffic delays will be minimized as much as possible. As a result, impacts to access are expected to be minimal. |
| **Soundscapes**<br>Soundscapes | Potential | Issue: Noise from heavy equipment and machinery during construction<br><br>Impact: Heavy equipment and machinery used during construction will produce audible noise that will disrupt natural soundscapes. The noise will occur in proximity to other developments (roads, private homes, NPS administrative facilities) where noise from vehicle traffic, other construction, boats, and other human activities is not uncommon. Pile driving is likely to produce the most audible noise, but will occur intermittently and relatively infrequently, for an estimated 4 days to 1 week at a time for each of the two abutments, and for the same estimated amount of time for the temporary piles. Project noise will end once the project is complete (pausing in fall of 2023, with some lighter level work possible in spring/summer of 2024), with no lasting effects to soundscapes. |
| **Viewsheds**<br>Viewsheds | Potential | Issue: Visibility of construction<br><br>Impact: Project equipment and machinery and other evidence of construction activity, such as staging areas and disturbed ground, will adversely impact viewsheds in the immediate vicinity of the bridge. Impacts will only be observable in the immediate area, with little to no visibility beyond the project area due to screening from surrounding forest. Impacts to viewsheds will end once the project is complete and equipment and machinery is moved offsite. |
| **Visitor Use and Experience**<br>Visitor Use and Experience | Potential | Issue: Closures, noise<br><br>Impact: The construction area from approximately 100 feet from the GTSR to the Upper McDonald Creek Trailhead will be closed to public access during construction. To protect bald eagles and other wildlife, the area surrounding the inlet to Lake McDonald will also be closed to the public from the spring until September 15. These closures will prevent visitors' from accessing the head of the lake, the creek, and trailheads on the northwest shore of the lake. Impacts will be temporary, as these areas will reopen to visitors once the project is complete. Other visitor opportunities in the McDonald Valley and the park will remain available. Construction noise may disturb opportunities for solitude for some visitors. However, since the project area is in proximity to roads and other developments, where noise is already present, impacts are expected to be minimal. The additional noise will be primarily localized to the project area, and visitors will still be able to access quiet zones in other areas of the McDonald Valley and the park. |

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| **Water**<br>Water Quality or Quantity | Potential | Issue: Potential for erosion and sedimentation<br><br>Impact: Work associated with the bridge replacement will produce some sediment and turbidity. But the amount is expected to be small, especially given the limitations on work within the ordinary high-water mark(OHW), and because equipment will not enter the stream. Any sediment generated by the project will be transported downstream to the upper McDonald Creek delta, where the stream enters the lake. Higher summer stream flows are likely to carry fine sediment into Lake McDonald where it will settle out. Lower late summer flows may carry the fine material a shorter distance and result in deposition in the delta or lower reaches of the stream. In either case, it is a relatively short distance (approximately 400 yds) from the project site downstream to the natural deposition zone (delta) of upper McDonald Creek and any sediment generated from the project is likely to be deposited in this general area. Because of the small amount of suspended fine sediment anticipated to be generated by the project and the location of the project in the watershed, measurable short or long-term impacts to substrate composition are not expected. The amount of sediment generated will be small in comparison to the amount of sediment that is naturally produced by the watershed and transported to the project area on an annual basis.<br><br>Clearing trees for the approaches to the new bridge and the temporary work bridge will not cause measurable or detectable changes in stream temperature. The water in the creek is flowing, and the area from which trees will be removed is too small to change the temperature of flowing water. The instantaneous amount of time the water will spend flowing by the cleared area will not change water temperatures. Much of the vegetation will also regenerate, especially on the east side of the bridge where species are likely to regenerate quickly, thus re-establishing the riparian habitat that helps provide shade to the site.<br><br>The project will completely remove the existing bridge and replace it with a wider, clear-span bridge. Removal of the existing bridge pilings and abutments will return the channel to a more natural condition, benefitting water resources for the long term. |
| **Wilderness**<br>Wilderness | None | Impact: The project area is not within nor adjacent to recommended wilderness. |

## D. ESF ADDENDUM

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| **Cumulative Impacts** | Past, present, and reasonably foreseeable actions with potential for impacts to resources in the project area include bridge repairs; underground utility installation and maintenance; trail construction and maintenance; GTSR road construction (previous, ongoing, and planned for 2023); building and road repair and maintenance; resources management activities (e.g. weed control and stream surveys). Impacts from these activities include potential disturbance or displacement of wildlife and listed species; ground and vegetation disturbance; disruption of natural soundscapes; effects to historic structures; and temporary closures on visitor access.<br><br>When the impacts of the current bridge replacement project are combined with those of past, present, and reasonably foreseeable actions, the cumulative impacts will continue to |

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| | be adverse. Since impacts from the bridge replacement to wildlife and listed species, soundscapes, and visitor access will be temporary, they will contribute incrementally to impacts to these resources but will not have lasting changes to impacts that are already occurring. Construction on the GTSR from Apgar to the N. Lake McDonald Road is planned for the same time (2023) as bridge replacement, but since GTSR construction is expected to be transitory, with activity moving from place to place along the road, it will likely not be concentrated near the bridge (at GTSR/N. Lake McDonald Road intersection) for the full duration of bridge construction. Therefore, wildlife areas to cross the road and avoid disturbance will remain available without substantially altering travel routes. For vegetation and historic structures, the bridge replacement will contribute the majority of cumulative impacts due to tree removal and removal of the existing historic bridge. But cumulative impacts will not notably exceed those identified for this project because mitigation measures (such as restoration) associated with past, present, and reasonably foreseeable actions have minimized impacts to vegetation and historic structures to short term and low or no detectability. |

**National Park Service**
**U.S. Department of the Interior**

**Glacier National Park**
**Date: Sep 12, 2022**

# Other Compliance/Consultations Form

**Park Name:** Glacier National Park
**PEPC Project Number:** 99671
**Project Title:** Replace the Upper McDonald Creek Bridge and Formalize Parking at Upper McDonald Creek Trailhead
**Project Type:** Repair/Rehabilitation
**Project Location:**
**County, State:** Flathead, MT
**Project Leader:** James Foster

### ESA

**Any Federal Species in the project Area?** Yes
**If species in area:** Not Likely to Adversely Affect
**Was Biological Assessment prepared?** No
**If Biological Assessment prepared, concurred?** Yes
**Formal Consultation required?** No
**Formal Consultation Notes:**

**Formal Consultation Concluded:**
**Any State listed Species in the Project Area?** Yes
**Consultation Information:** Bald eagles forage at the inlet, and harlequin ducks and other migratory birds use the project area. Restrictions on construction activity during nighttime and surrounding sunrise and sunset will be in place. Park biologists will monitor eagle, harlequin duck, and other migratory bird activity during this time. Consultation was not required.
**General Notes:** The current construction design is a change from what was described in the BA submitted to the USFWS in 2021. On August 15, 2022, the park notified the USFWS of the changes to the project design and of park biologists' conclusions that there are no changes to the ESA section 7 determinations of the original BA. On August 22, 2022, the USFWS replied with agreement that the effects of the project modifications fall within the effects already analyzed in the BA.

### Floodplains/Wetlands/§404 Permits

| Question | Yes | No | Details |
|---|---|---|---|
| **A.1. Is project in 100- or 500-year floodplain or flash flood hazard area?** | | No | Not in floodplain or flash flood hazard area. |
| **A.2. Is Project in wetlands as defined by NPS/DOI?** | Yes | | Determined to be exempt from compliance with Director's Order #77-1 and no Wetland Statement of Findings required. |
| **B. COE Section 404 permit needed?** | Yes | | **Request Date:**<br>**Issue Date:** Mar 8, 2022<br>**Expiration Date:** Mar 14, 2026 |

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| **C. State 401 certification?** | | No | |
| **D. State Section 401 Permit?** | | No | **Issue Date:**<br>**Expiration Date:** |
| **E. Tribal Water Quality Permit?** | | No | |
| **F. CZM Consistency determination needed?** | | | N/A |
| **G. Erosion & Sediment Control Plan Required?** | Yes | | |
| **H. Any other permits required?** | | No | **Permit Information:** |
| **Other Information:** | | | The COE permit for the original construction design was issued on July 7, 2021. Re-verification was issued on March 8, 2022. |

**Data Entered By:** Amy Secrest **Date:** Sep 10, 2022

# FloodPlains & Wetlands Mitigations

*No FloodPlains & Wetlands mitigations are associated with this project.*

**Wilderness**

| Question | Yes | No | |
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| **A. Does this project occur in or adjacent to Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness?** | | No | |
| **B. Is the only place to conduct this project in wilderness?** | | | |
| **C. Is the project necessary for the administration of the area as wilderness?** | | | |
| **D. Would the project or any of its alternatives adversely affect (directly or indirectly) Designated, Recommended, Proposed, Study, Eligible, or Potential Wilderness? (If Yes, Minimum Requirements Analysis required)** | | No | |
| **E. Does the project or any of its alternatives involve the use of any of the Wilderness Act Section 4(c) prohibited uses: commercial enterprise, permanent road, temporary road, motor vehicles, motorized equipment, motorboats, landing of aircraft, mechanical transport, structure, or installation? (If Yes, Minimum Requirements Analysis required)** | | No | |
| **If the answer to D or E above is "Yes" then a Minimum Requirements Analysis is required. Describe the status of this analysis in the column to the right.** | | | **Initiation Date:**<br>**Completed Date:**<br>**Approved Date:** |

| | | |
|---|---|---|
| **Other Information:** The project area is neither within nor adjacent to recommended wilderness. | | |

**Data Entered By:** Amy Secrest **Date:** Sep 11, 2022

**Other Permits/Laws** *Questions A & B are no longer used.*

| Question | Yes | No |
|---|---|---|
| **C. Wild and scenic river concerns exist?** | | No |
| **D. National Trails concerns exist?** | | No |
| **E. Air Quality consult with State needed?** | | No |
| **F. Consistent with Architectural Barriers, Rehabilitation, and Americans with Disabilities Acts or not Applicable? (If N/A check Yes)** | Yes | |
| **G. Other:** | | No |

**Other Information:**

**Data Entered By:** Amy Secrest **Date:** Sep 11, 2022

Limits of 2020 Cultural Survey

Location of 6 to 8 temporary piles

Access to temporary bridge within permanent disturbance footprint

Temporary Bridge

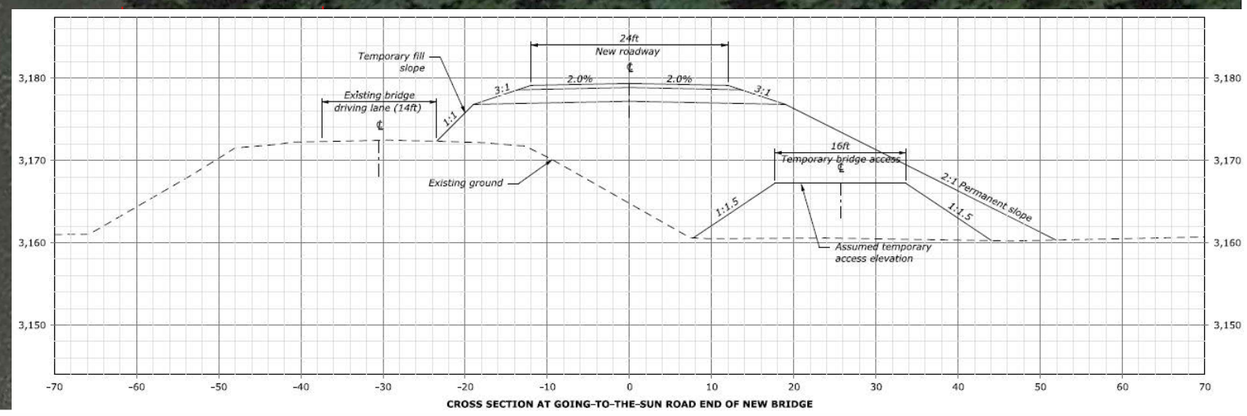
25'-8"

New Bridge

29'-4"

Existing Bridge

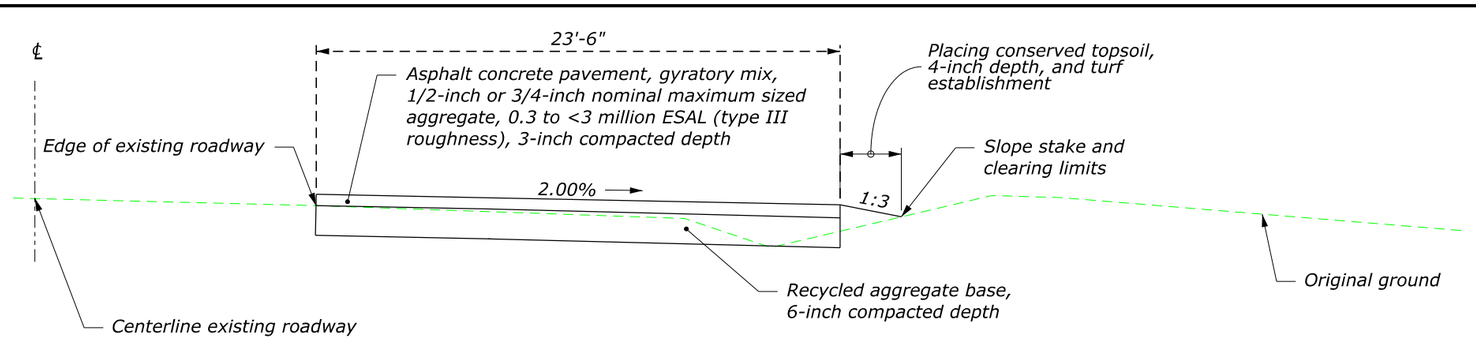
Equipment parking on old road bed



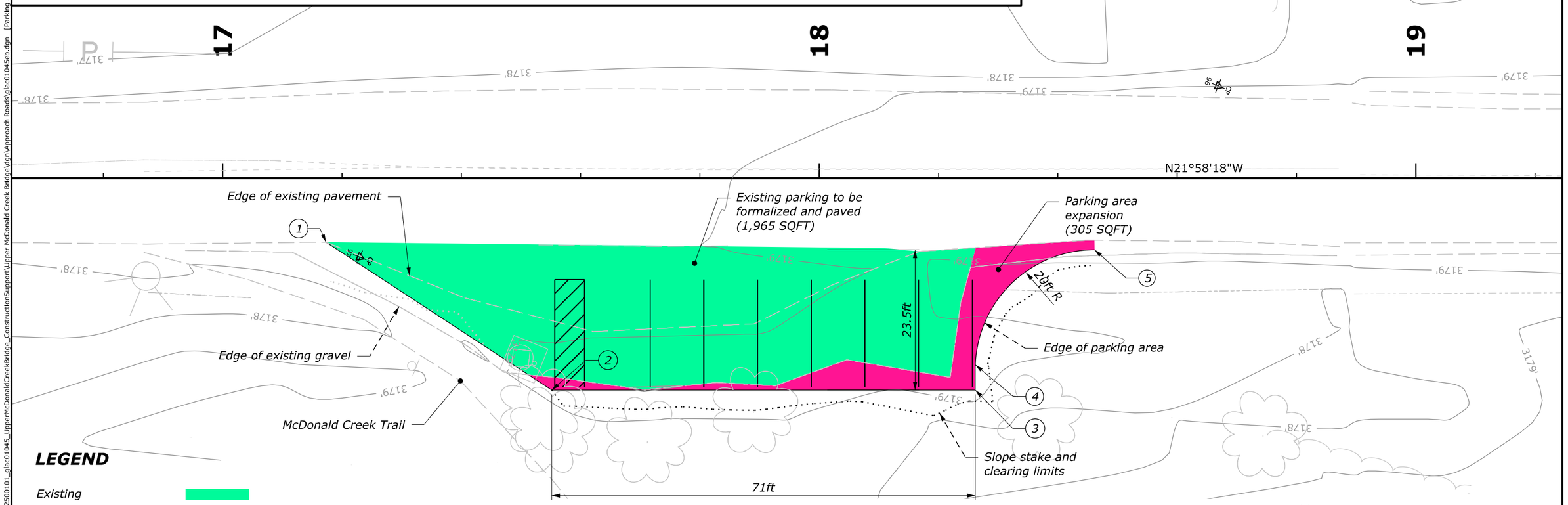

CROSS SECTION AT GOING-TO-THE-SUN ROAD END OF NEW BRIDGE

NPS PMIS No. 308104 NPS Drwg. No. 117/175230

| STATE | PROJECT | SHEET NUMBER |
|---|---|---|
| MT | PRA GLAC 10(45) | E.2 |




## PARKING AREA TYPICAL SECTION




**LEGEND**

Existing

New Disturbance Area

NOTE:

1. Do not remove or disturb any trees.

## PARKING AREA COORDINATE TABLE

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|---|---|---|---|---|
| 1 | 1628956.501 | 912945.267 | 3178.72 | EOP, Edge of Mainline |
| 2 | 1629000.859 | 912954.102 | 3178.44 | EOP, Edge of Parking Area |
| 3 | 1629066.702 | 912927.538 | 3178.66 | EOP, Edge of Parking Area |

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|---|---|---|---|---|
| 4 | 1629065.393 | 912924.292 | 3178.73 | EOP, End of Radius |
| 5 | 1629076.457 | 912898.262 | 3179.66 | EOP, End of Radius, Edge of Mainline |

Scale in Feet

10 0 10 20 30 40

# MCDONALD CREEK TRAILHEAD PARKING LAYOUT

\\rpa-hln-04\shared\Highways\FHWA22500101_glac01045_UpperMcDonaldCreekBridge_ConstructionSupport\Upper McDonald Creek Bridge\dgn\Approach Roads\glac01045eb.dgn [Parking Area]

7 September 2022 2:49 PM