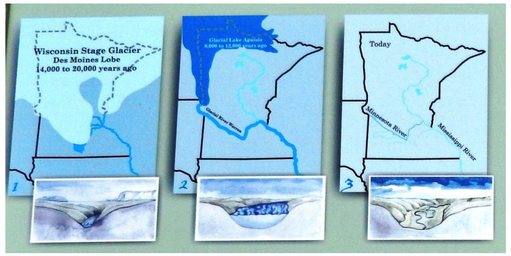
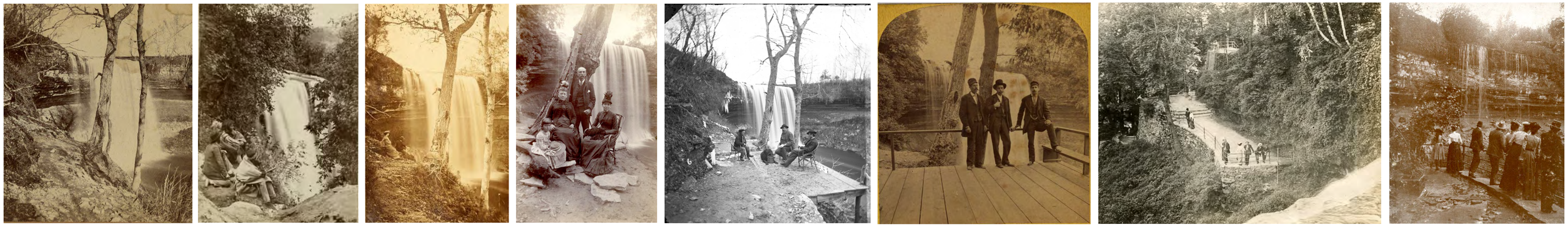
Minnehaha Falls Background Info and Full History



Minnehaha Falls is a dynamic landscape that formed over 8,600 years ago when Glacial River Warren (an outlet of Glacial Lake Agassiz) suddenly discharged and carved an enormous valley through southern Minnesota. The Falls at that time emptied directly into the Mississippi River and have been moving westward ever since. The water eroded the sedimentary rocks and exposed the resistant Platteville Limestone. The soils around the Falls today are still highly erodible and along with the movement of groundwater through the bedrock, that is especially noticeable in the winter.

Minnehaha Regional Park and Minnehaha Falls is located on traditional, ancestral, and contemporary Dakota homeland. Minnehaha Falls may not have the spiritual significance of other nearby sites, such as Bdote, Coldwater or Owamniyomni Dakota people considered the falls an important place where all could gather in peace. All water is alive, sacred, and healing to the Dakota people. In fact, the name Minnehaha is a Dakota name, a compound word – Mni- means 'water,' and haha means – 'curling' or together mnihaha – 'waterfall.' The translation 'laughing waters' is incorrect. The incorrect translation became popular after Mary Henderson Eastman, who was not Dakota, published her book, "Dacotah" in 1849 which is clearly from a non-Dakota point of view. Since time immemorial continuing through today this place has been culturally important place for people to gather. After the arrival of Europeans and it has also had a variety of infrastructure, facilities and amenities imposed upon it through time.

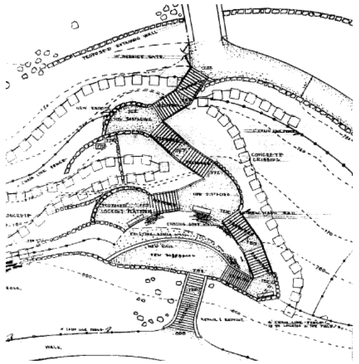
After the arrival of Europeans, Minnehaha Falls was made iconic thanks to the Song of Hiawatha poem by Henry Wadsworth Longfellow. It is a fine poem by a famous poet. He never actually visited the site, and the poem has contributed to a fictionalization of aspects of indigenous culture. There is a statue and plaque honoring the characters of the poem that has been prominently placed in the Creek, a garden with the words of the poem inscribed at a prominent vantage point, and even a 2/3 replica of his house that was constructed in the early 1900s by a wealthy Minneapolis businessman. There is also a sculpture called 'The Eyes of Little Crow' honoring one of the great leaders of the Dakota People, Ta Oyate Duta. In response to the mistreatment and suffering of his people caused by the US government, he led the Dakota in the US-Dakota War. After the war, he was killed, his body mutilated, and his bones put on display by the Minnesota Historical Society until 1915, being finally returned to his family for proper burial in the 1970's. The sculpture is a portrait mask of Ta Oyate Duta with the eyes left empty. The void is filled only by the surrounding trees that invites viewers to see the world as it was, is, and could be through his eyes.

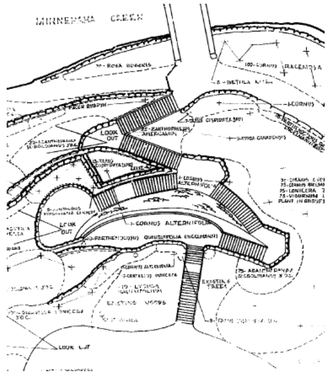


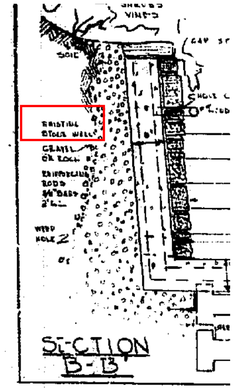
After the Park Board took ownership of Minnehaha Regional Park, an early era of construction began. During this time a simple wood platform and small log-supported cantilever was constructed on one of the high plateaus next to the falls. This served as a well-used spot where numerous photos were taken in the mid- to late-1800s. In 1889, the MPRB built a huge stone platform just where the photographers used to have people pose, along with a web of stacked stone and concrete retaining walls and concrete stairs for site access. Not everyone liked this behemoth. Charles "Father of Minneapolis Parks" Loring wrote: *"The park board have undoubtedly made one serious mistake, which will someday be rectified. It grew out of the fact that for years a wood platform was used by a photographer, when romantic visitors, and lovers, wished their pictures taken, with the falls for a background. The public little realize how near we came to have the beautiful crescent destroyed by a building, which was to be let to the said photographer. Minnehaha will always be an attractive place, and some day the falls and the crescent below them will be restored to their natural condition. Every stone that has been built into the walls and steps will be removed, and until this is done, I do not wish to visit the spot again. The sight of that last wall cost me a sleepless night, and the thought of it now gives me unpleasant feelings."* *Thanks to http://urbancreek.com/ for some of the historical images.*

The retaining walls eventually failed and eroded the hillslope, which is still visible today. Some remain functional and other remnants remain in the landscape. The walls, stairs and viewing platforms were modified and reconstructed as a maintenance project in the 1930s through the Works Progress Administration, (WPA) during the Great Depression. In 1940 and 1941, the WPA developed plans to repair and improve the South Stair. Many of the plans indicate new surfacing, new walls, and many that detailed where existing walls were located. Even detail sections illustrated the new walls to be built atop and around the existing walls. This is not an ideal way to construct infrastructure, but is the way the work was done back then. Currently there is a mix of infrastructure present on the site. The infrastructure alignment, materials, and construction methods have changed many times through history.

Minnehaha Falls WPA Work and Current Condition





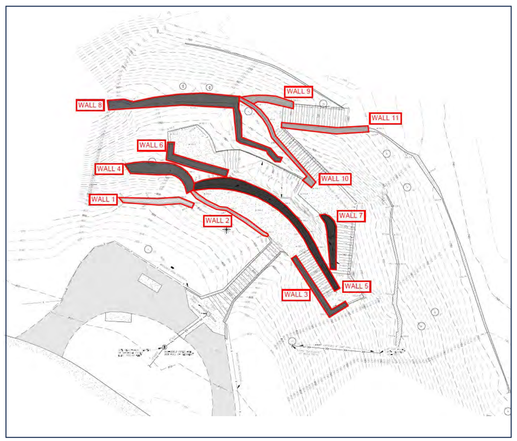


The retaining walls from the late 1800's eventually failed and eroded the hillslope, which is still visible today. Some remain functional and other remnants remain in the landscape.

The walls, stairs and viewing platforms were modified and reconstructed as a maintenance project in the 1930s through the Works Progress Administration, (WPA) during the Great Depression. In 1940 and 1941, the WPA developed plans to repair and improve the South Stair. Many of the plans indicate new surfacing, new walls, and many that detailed where existing walls were located. Even detail sections illustrated the new walls to be built atop and around the existing walls. This is not an ideal way to construct infrastructure, but is the way the work was done back then.

Historic Walls
- c. 1900 Stone Walls
- c. 1900 Concrete Wall
- c. 1942 Stone Walls

The infrastructure alignment, materials, and construction methods have changed many times through history. Currently there is a mix of infrastructure present on the site.



Rating Legend

- A = GOOD
- B = FAIR — MINOR VENEER LOSS, MINOR CRACKING
- C = AVERAGE — MODERATE VENEER LOSS, MODERATE CRACKING
- D = POOR — MAJOR VENEER LOSS, MAJOR CRACKING, UNDERMINING, NO OR DETERIORATED CONCRETE CORE
- F = FAIL

Wall Rating

WALL 1 = B
NOTES: OLDER WALL, LESS THAN 3' IN HEIGHT, UNKNOWN CONDITION BEHIND WALL.

WALL 2 = B
NOTES: OLDER WALL, LESS THAN 3' IN HEIGHT, UNKNOWN CONDITION BEHIND WALL.

WALL 3 = D
NOTES: CONCRETE CORE IN GOOD CONDITION, UP TO 4" SEPERATION BETWEEN PIECES, MAJOR VENEER LOSS AT STEPS.

WALL 4 = D
NOTES: MAJOR CRACKING ADJACENT TO WALL 5.

WALL 5 = F
NOTES: SURFACE COVERING PEELED AWAY FROM CONCRETE CORE, DRAIN PIPES ARE NOT EXPOSED AND CLOGGED, PARTIALLY UNDERMINED, REBAR EXPOSED.

WALL 6 = D
NOTES: CONCRETE CORE HIGHLY DETERIORATED.

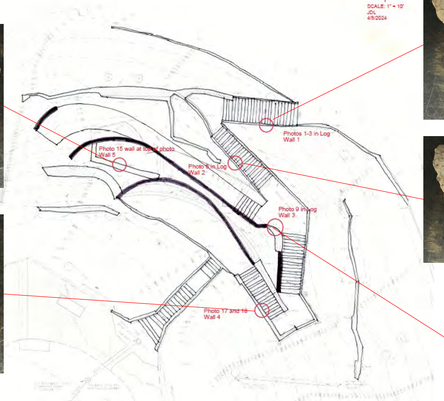
WALL 7 = F
NOTES: CONCRETE CORE HIGHLY DETERIORATED, WALL FAILED DUE TO EROSION AND ROOT PRESSURE.

WALL 8 = D
NOTES: MAJOR CRACKING ADJACENT TO WALL 10, ENDS OF WALL SHOW MAJOR CRACKING AND EROSION.

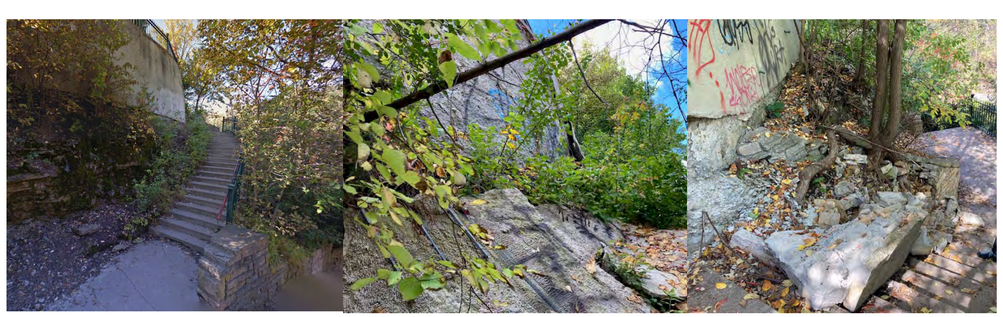
WALL 9 = C
NOTES:

WALL 10 = C
NOTES: CONCRETE CORE IN GOOD CONDITION. MAJOR VENEER LOSS AT STEPS.

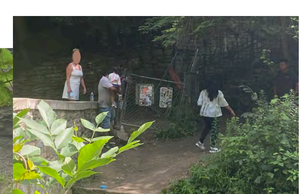
WALL 11 = C
NOTES: WALL IS STRAIGHT AND DOES NOT SHOW SIGNS OF BOWING. NO CONCRETE CORE ENCOUNTERED.

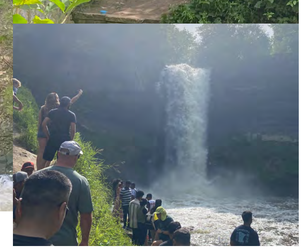


The core sampling and other investigative testing we have completed points to a high level of degradation of the structure. The cracking and failure of the stone-veneered concrete retaining walls, concrete stairs, concrete viewing areas, and degradation of the handrails requires complete reconstruction of a majority of the infrastructure. This condition allows an opportunity to fully consider whether to replicate the existing infrastructure or to reimagine this infrastructure to better reflect the full cultural and historical significance of this space, allow better access for people of all abilities, work better with existing site conditions, and have a lighter touch on the landscape.



Currently, the south portion of Minnehaha Falls is largely inaccessible to the public due to the deteriorated condition of stairs and walls, eroding slopes, and instability of certain pathways and access points. The current condition does not reflect the cultural or historical importance of this space.





We also know people have a strong desire to access the base of the Falls to view them and take photos. This activity leads directly to more erosion and further degradation of the majesty of the Falls. This points to opportunity to allow for purposeful access and viewing, that will hopefully result in more respectful behavior of this space.

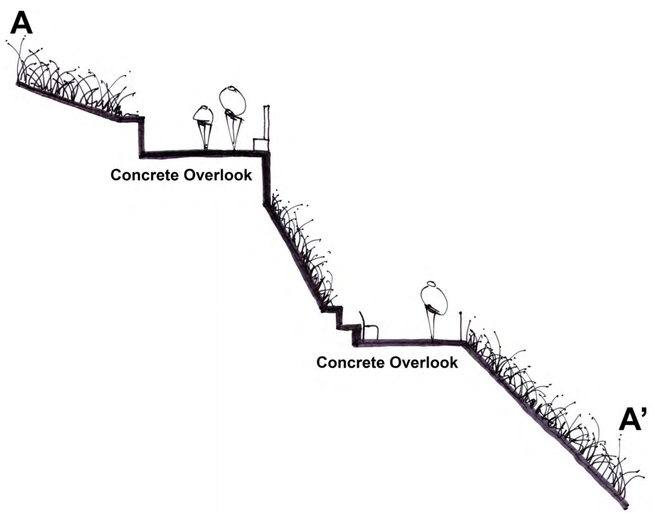
CONCEPT A - Replicate WPA Stone Veneer Infrastructure

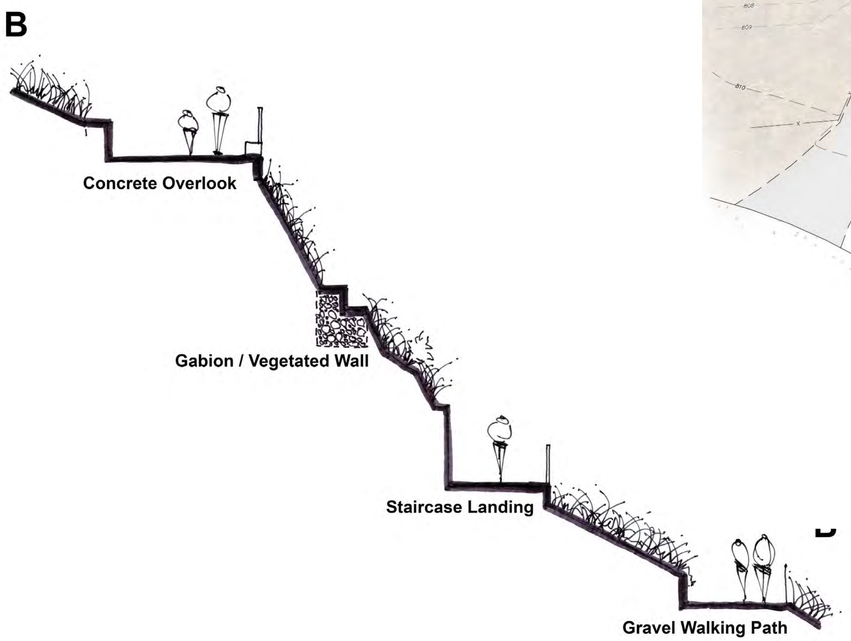
Narrative:

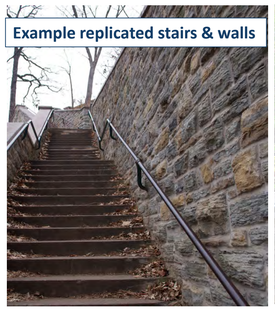
A design and layout that largely rebuilds and replicates existing viewing areas and staircases along the current alignment. The middle viewing area would be removed and relocated to the base of the Falls to accommodate desire and save construction costs. The new purpose-built viewing area at the base of the Falls would accommodate people wanting to get a close-up view, while also keeping them off the hillslope and out of unsafe areas. Materials for construction would include stone veneer concrete retaining walls with traditional green steel handrails along the staircases and viewing areas with gabion walls placed within the landscape to retain the slope. This option would most closely match existing infrastructure along the north slope of the Falls and the rest of the park, which were installed as a maintenance project by the WPA in the early 1940s. This option would likely have the longest duration of construction and highest cost, and highest impact to the landscape of the three concepts.

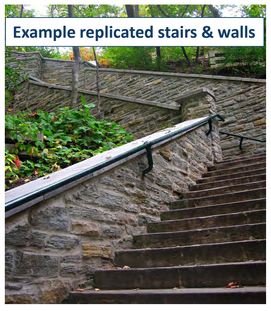
CONCEPT A - Replicate WPA Infrastructure

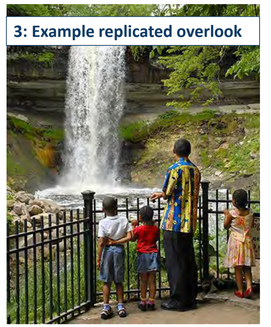
Scan here to tell us your opinion











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Minnehaha Falls South Slope Access and Viewing Areas

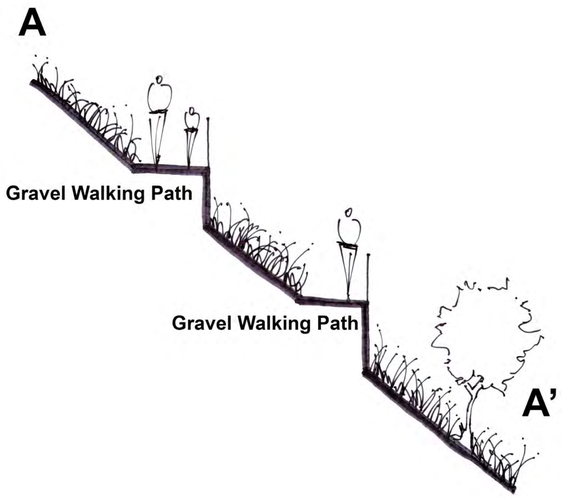
CONCEPT B - Restorative Landscape with Natural Stone

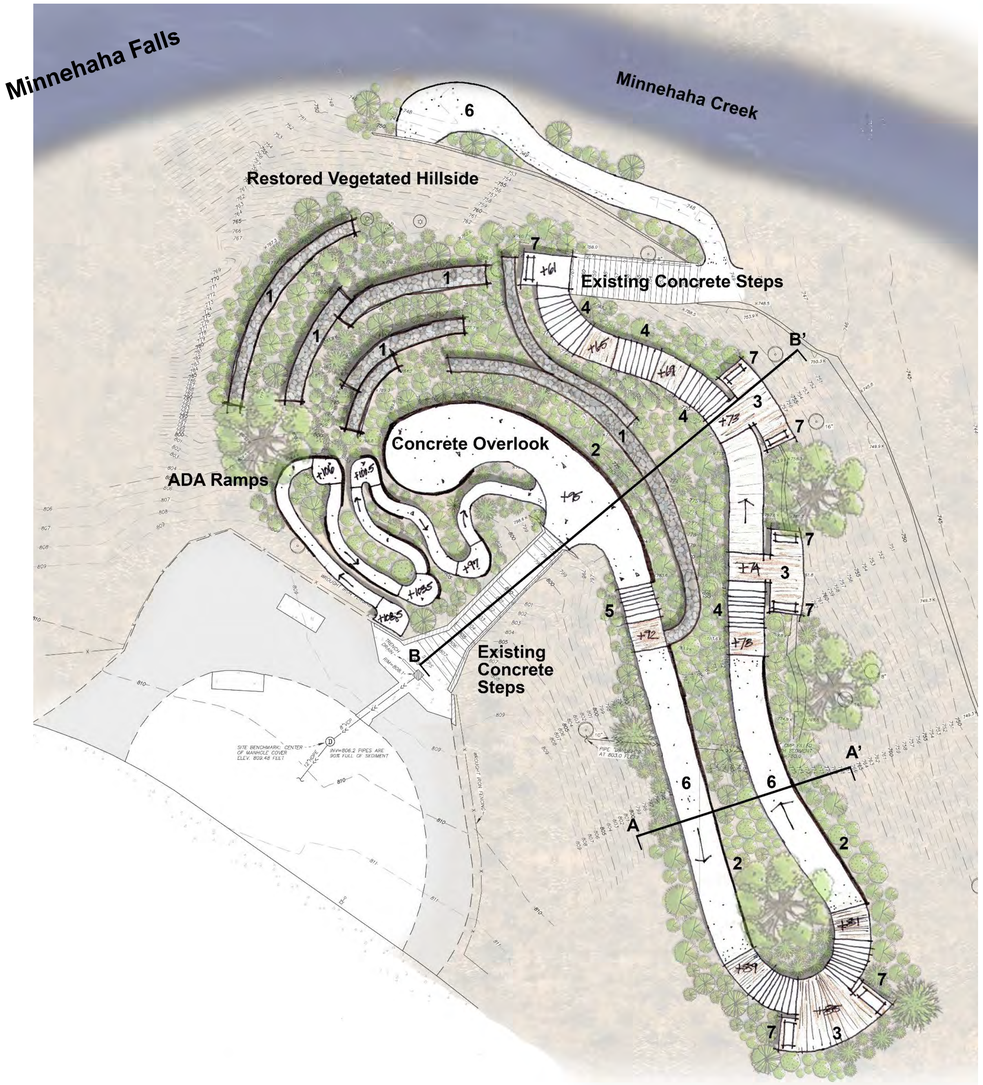
Narrative:

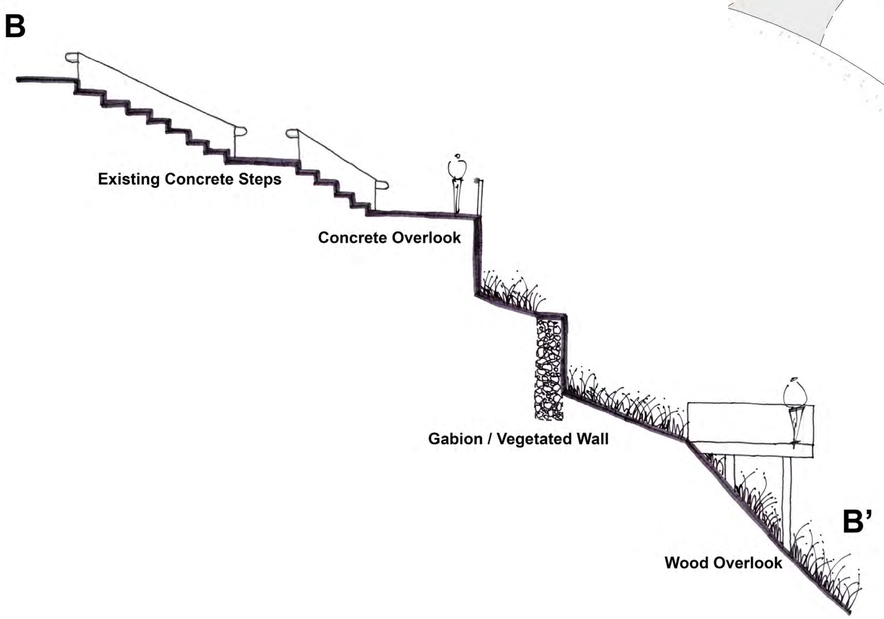
A layout that reimagines access along a sloped trail with some stairs that weaves its way through the landscape and allows for rest and viewing areas with interpretive elements. This design would work with the topography of the site and use sustainable trail grading techniques along with gravel surfacing and natural stone steps to provide to provide safe and easier access for people with a variety of mobility capabilities. The option for simple steel handrails along the trails and stairs with tempered glass balustrades at viewing areas lend an opportunity to view the landscape in a whole new way. The landscape would be restored with deep-rooted native plantings suitable for shaded, damp hillslopes. A new purpose-built viewing area at the base of the Falls would accommodate people wanting to get a close-up view, while also keeping them off the hillslope and out of unsafe areas. This option would be a departure from the aesthetic of the surrounding existing infrastructure along the north slope of the Falls and the rest of the park, which were installed as a maintenance project by the WPA in the early 1940s. This option would likely have a moderate cost and duration of construction along with lower annual maintenance costs.

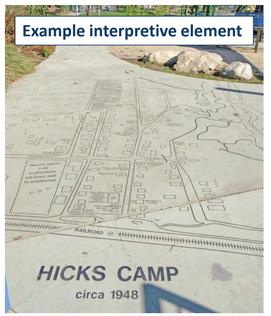
CONCEPT B - Restorative Landscape - Stone

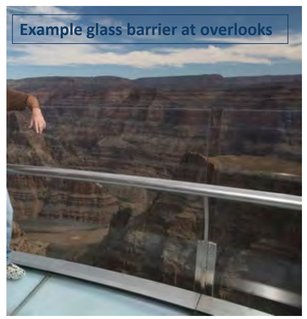
Scan here to tell us your opinion











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Minnehaha Falls South Slope Access and Viewing Areas

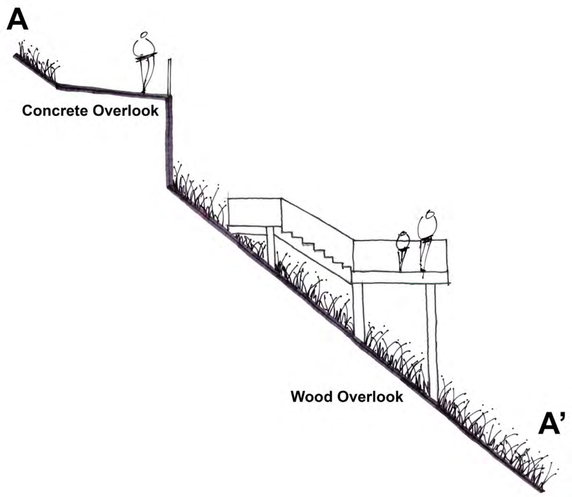
CONCEPT C - Restorative Landscape with Wood and Steel

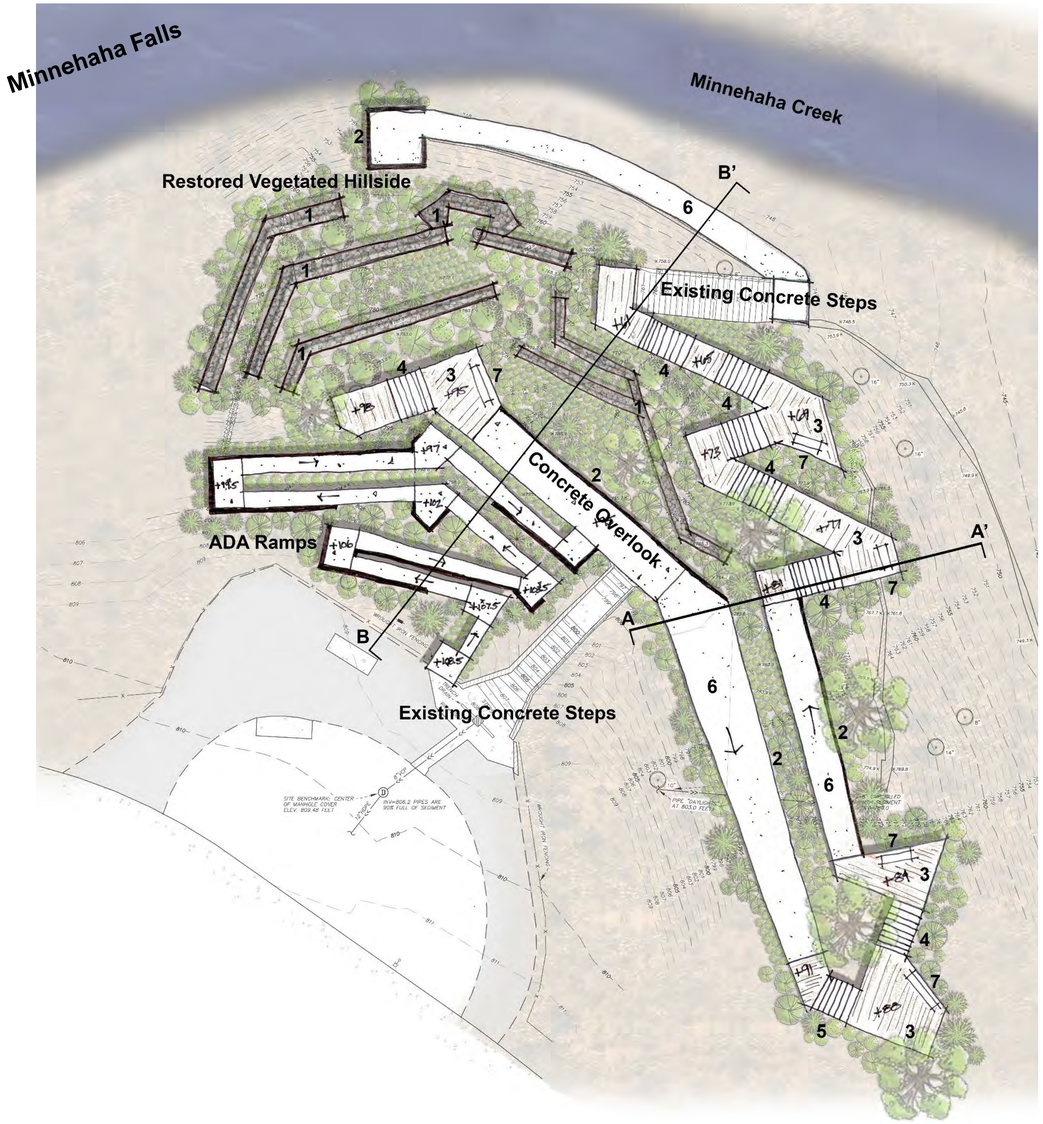
Narrative:

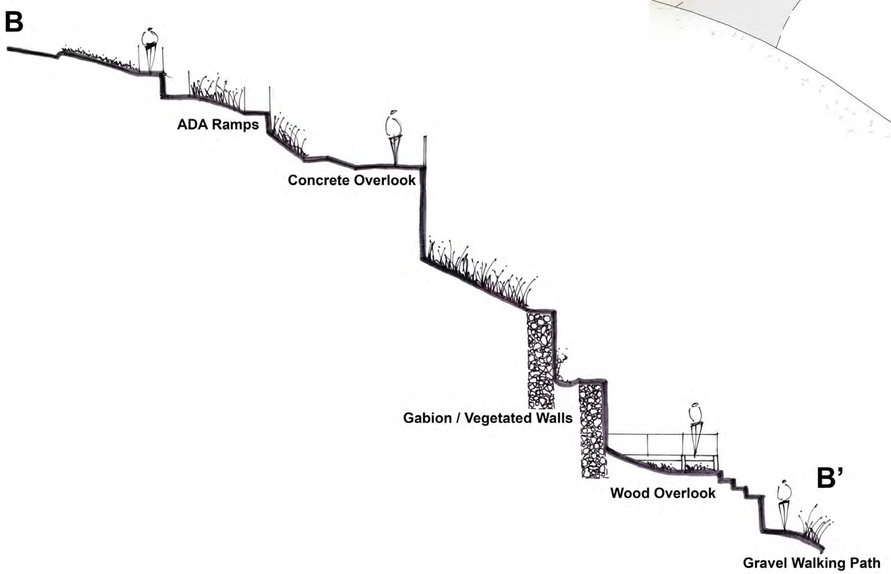
A more substantial departure from the traditional layout and materials, this angular layout that reimagines access along a sloped trail with some stairs that navigates its way through the landscape and allows for multiple rest and viewing areas with interpretive elements. This design works with the topography of the site and would use sustainable trail grading techniques along with thermally treated wood and steel elements to provide to provide durable, safe and easier access for people with a variety of mobility capabilities with a light touch on the landscape. The wood walking surfaces would have design elements and a slip resistant coating applied periodically to keep users stable and safe. The landscape would be restored with deep-rooted native plantings suitable for shaded, damp hillslopes. A new purpose-built viewing area at the base of the Falls would accommodate people wanting to get a close-up view, while also keeping them off the hillslope and out of unsafe areas. The option for artistic handrails along the trails and stairs with tempered glass balustrades at viewing areas lend an opportunity to view the landscape in a whole new way. This option would be a departure from the aesthetic of the surrounding existing infrastructure along the north slope of the Falls and the rest of the park, which were installed as a maintenance project by the WPA in the early 1940s. This option would likely have a moderate cost and duration of construction along with moderate annual maintenance implications.

CONCEPT C - Restorative Landscape - Steel & Wood

Scan here to tell us your opinion

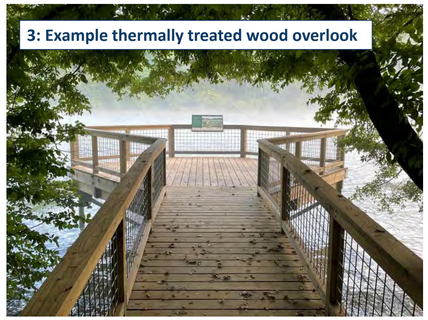




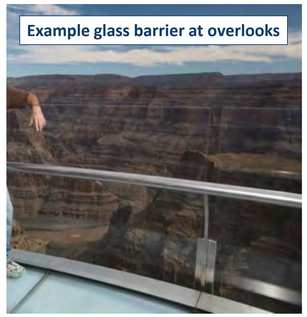



4: Example thermally treated wood stairs

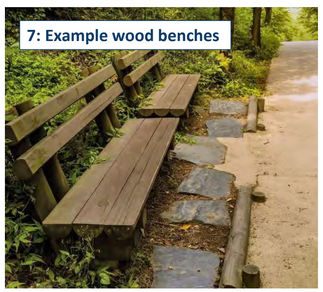

5: Example wood & steel stairs


3: Example thermally treated wood overlook

Example interpretive signage


Example glass barrier at overlooks


Example artistic railing


7: Example wood benches


1: Example vegetated retaining wall

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