



High Falls Overlook

Feasibility Report



City Project No. 19324

High Falls Overlook Feasibility Report

City Project No. 19324
Rochester, New York

Prepared for:



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Feasibility Study
For
High Falls Overlook
Rochester, Monroe County, New York

City Project No. 19324
December 2021

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I. Introduction

a. Purpose

Funded by Empire State Development through the City of Rochester's ROC the Riverway initiative, the purpose of this study was to comprehensively investigate the former Station No. 4 structure; provide recommendations regarding its demolition, rehabilitation, or replacement; and prepare conceptual designs for the enhancement of the southern portion of the High Falls Terrace Park.



Figure 1 - Historic postcard of High Falls

b. Background

Construction on the former RG+E hydropower Station No. 4 began around 1885. This first phase is believed to be the section of the structure located to the southwest, directly adjacent to the falls. The building was expanded over the next twenty years, specifically in 1892 and 1905 with the 1892 addition being the eastern section of the building and the 1905 construction located to the north. This information was informed by historical photographs and Sanborn mapping, which also depict the former industrialization of the site currently occupied by High Falls Terrace Park.

From a structural inspection of the building completed in 1993 by David Fingado (formerly of RG&E), it is believed that the station was sealed off by RG+E in 1991 and fenced off to prevent public access. In 2013, the former Station No. 4 and the eastern half of the High Falls ledge were purchased by "Friends of the Garden Aerial," who remain the current property owner.

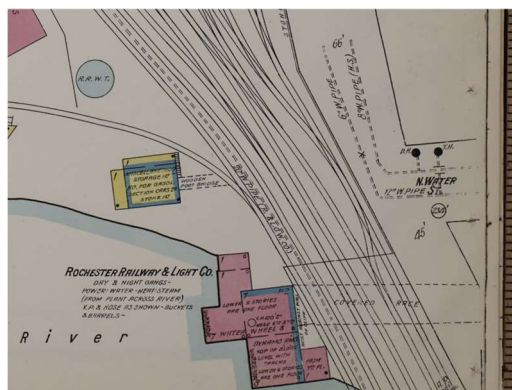


Figure 2 - 1911 Sanborn Fire Insurance Map

Existing information related to the structural condition of Station 4 is limited to a 2014 Preliminary Structural Assessment by Larson Engineers, internal CCTV footage from 2014 collected by Jamko Technical Solutions, and RG&E structural reports from 1993. Blueprints or other construction plans that depicted the substructure and foundation systems were not available.

Improvements are currently proposed for the northern portion of High Falls Terrace Park through the Brewery Line Trail Project designed by McCord Landscape Architecture, PLLC with construction to commence in 2022.

c. Executive Summary

Extensive investigation of Station No. 4 and the adjacent areas was undertaken to determine the feasibility of re-use of the structure as a tourist overlook. These investigations posed many challenges due to the severity of the environmental conditions and the related safety hazards for the investigators. Over the course of

almost a year, a team of expert consultants gathered the data required to determine the condition of the primary structural elements: foundations, masonry walls, interior framing supports, and rock face. *Upon compilation and review of all the data, it was determined that re-use of the structure, either through rehabilitation or replacement, was infeasible due to the poor condition of the structure and the costs and safety hazards to undertake the extensive improvements required. As such, it is recommended that the structure either remains as is or is demolished.*

Improvements to High Falls Terrace Park were also explored as a component of this project. Since the Station No. 4 Overlook was eliminated as a potential amenity, the project team explored other options to improve the southern end of the park. Ultimately three schematic design options were created that will improve and enhance the viewsheds from the park, increase visibility and public safety, and provide additional programming in the form of sculptures, restroom facilities, and a zipline launch.



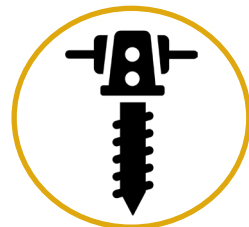
Figure 3 - Drone photo of Station No. 4

II. Station No. 4

The assessment of Station No. 4 started with a series of in-field investigations by consultants. As summarized in the figure on the following page, these investigations included subwater surface foundation scanning by ASI Marine, hands-on structural assessment by Vertical Access, vibration measurements by Foundation Design, and drone scanning of both the structure and adjacent cliff profile by HUNT-EAS and MG3D. Then, evaluations of community connectivity, access, and scenic views were performed to place the structure in relation to its context. With this data in hand, alternatives were explored, including leaving as is, demolition, rehabilitation for reuse, or complete replacement. The investigations, findings, and recommendations are summarized in the following pages.

Station 4 - High Falls Overlook

A ROC the Riverway Project - Rochester, NY



Drilling

Obtain boring samples at the top of the ridge to determine the integrity of the soil and rock surrounding the structure.



Marine Sonar

Conduct a below water bathymetry survey to capture if scour or undermining has occurred at the structure foundation/river bottom interface.



Remote Televising

Perform remote visual inspection by extending closed circuit televising cameras into the substructure to assess the internal building conditions and any degradation of steel members.



Rappelling

Deploy an industrial ropes access team to rappel down the structure and conduct a hands-on, close visual survey of the exterior walls, with hammer sounding and probing as necessary to determine the condition of the materials.



Hazardous Materials Testing

Collect various samples of potential hazardous construction materials for testing.



Drone Survey

Conduct an exterior drone survey of the structure to collect 3D point cloud data and high resolution pictures.



Vibratory Sensors

Place crack and vibration sensors on or near structure for analysis of structural integrity.

a. Summary of Investigations and Assessments

i. Foundations

To assess the condition of the subwater surface building foundations, ASI Marine gathered data utilizing both Multi-beam Echo Sounder System and Two-Dimensional Imaging Sonar. The Multi-Beam System yielded basic bathymetric data of the plunge pool and adjacent areas while the Imaging Sonar provided profile-like images of the foundations and adjacent floor of the river. In general, the foundations were found to be intact, and no scouring was evident. The foundation area closest to the falls may have been constructed on a debris pile, but this was not able to be confirmed; the remainder of the foundation appeared to be bearing on bedrock.



Figure 5 - Sonar Profile of Foundation

ii. Structure & Masonry

Vertical Access utilized their expertise in building inspections and rope access techniques to provide a hands-on inspection of the exterior of the building that would have otherwise been impossible. With the use of site-specific rigging systems, they rappelled down the face of the building in several locations. During these investigations, cracking was observed in all accessible facades, with significant cracking (greater than 1 inch wide) at several locations. Bulging and loose brick were also identified in all facades. In all, the exterior masonry was determined to be in poor condition with large areas of instability and twenty Priority 1



Figure 6 - Vertical Access team rappelling from Station No. 4

conditions, which represent poor conditions and the most concerning structural deficiencies. According to the report, “Poor condition refers to a system, material, or item that has lost most of its intended structural, waterproofing, or aesthetic function.” In summary, Vertical Access found that *“the masonry was in poor condition exhibiting displacement, vertical crack systems and sections of unsecured masonry that may call into question the structural integrity of the former Station 4 structures.”*

iii. Vibration

Historically, perceptible vibrations have been noted in the vicinity of the falls and Central Avenue Dam. In certain situations, vibrations can have impacts on the structural integrity of the buildings or create conditions that would be unpleasant for visitors to the potential overlook. Therefore, Foundation Design, P.C. gathered vibration data from two locations on the building during low to moderate river flow periods. Vibrations were documented at levels that were perceptible and potentially disturbing to pedestrians, but not high enough to be a structural concern. However, additional testing would be necessary to determine vibration levels during peak river flows, which may exceed allowable structural tolerances at some locations.

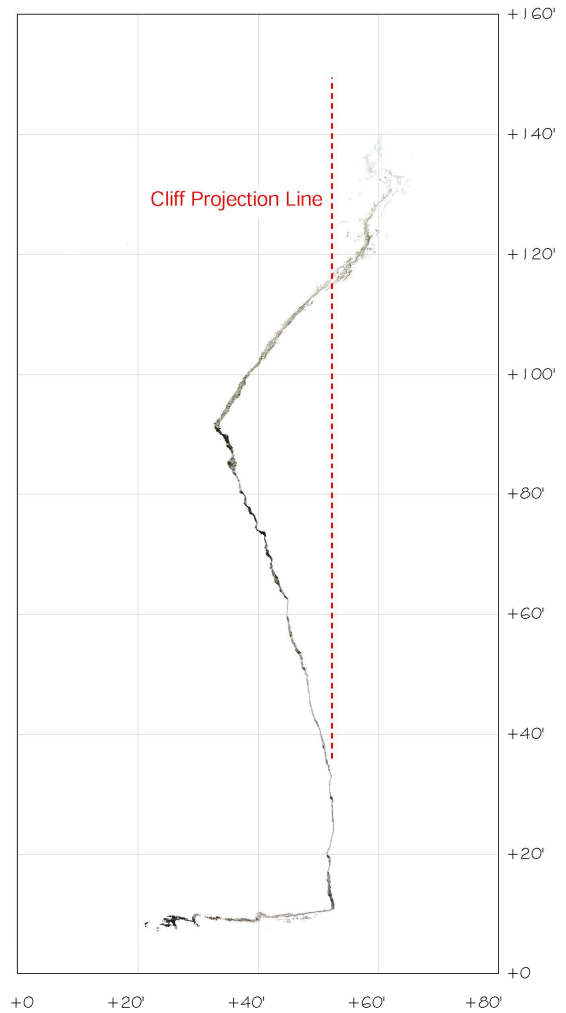
iv. Rock Face Scan

Using a drone with side view LiDAR capabilities, MG3D performed a 3D point-cloud scan of over 500 feet of the rock face from Station No. 4 and proceeding northerly. HUNT-EAS processed the data cloud into complete model of the cliff and created cross-sections at regular intervals for assessment by geotechnical engineers. These cross-sections show that the basal erosion of the cliff has created overhangs along most of the area analyzed, with average overhangs of 20 feet and a maximum overhang of over 40 feet at the location most proximate to Station No. 4.

Transposing this data onto the topographical survey established a cliff-projection line, which demonstrates the point at which the maximum erosion of the cliff has occurred. Based upon previous experience with the bedrock strata in this area and its angle of fracture, it was

determined that 1. ground level improvements are to be more

than 40 feet back from the cliff projection line, 2. improvements at a distance between 20 and 40 feet from the cliff projection line are required to extend to bedrock, and 3. no improvements are permitted within 20 feet of the cliff projection line. This information was critical to assessing the potential access schemes to Station No. 4 and to delineating the scope of proposed improvements in High Falls Terrace Park.



6 Section 6
1" = 20'-0"

Figure 7 - Cliff Profile Developed from Scan

v. Scenic Views

360-degree photographs were obtained atop the existing Station No. 4 roof and at intervals along the gorge wall progressing northerly through High Falls Terrace Park. Using these spherical photographs, the team assessed the viewshed potentials at various locations, looking for unique perspectives of the falls, the plunge pool basin area, and the extending Genesee River Valley. These views were also shared with the assembled Project Advisory Committee to gather additional input on the locations that offered dramatic or unique vistas.

Atop Station No. 4, the preferred viewing locations were at either the northernmost point (closest to the building edge) or westernmost point (closest to the falls). The closer to the railway that one progressed, the views were considered less desirable, reinforcing that the full tourist overlook effect would require viewing locations that were as far north as possible.

Views from the Pont de Rennes Bridge and High Falls Terrace Park Overlook (also referred to as the High Falls Terrace Platform) were ranked by the Project Advisory Committee as similarly or more impressive than the views from atop Station No. 4.



Figure 8 - Scenic View from atop Station No. 4



Figure 10 - Scenic View from High Falls Terrace Park Overlook



Figure 9 - Scenic Views from Pont de Rennes looking South and North

vi. Access

Pedestrian access to the potential platform was evaluated from three approaches: 1. from High Falls Terrace Park to the east, 2. From the former High Falls Festival Site to the west, and 3. from the Inner Loop under the CSX railway bridge.

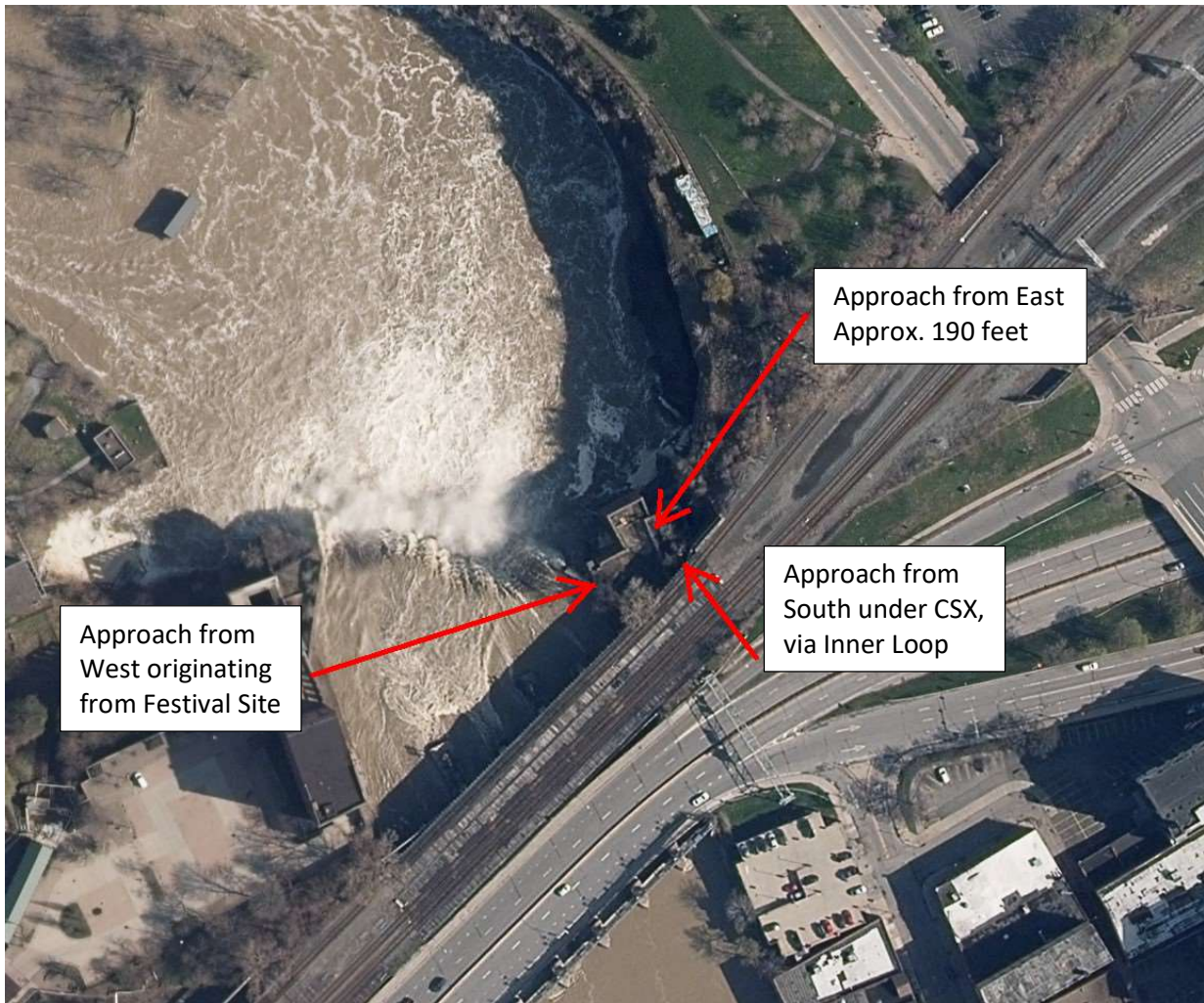


Figure 11 - Access Approaches

Approach from the East

An approach from High Falls Terrace Park was strongly preferred by the Project Advisory Committee and was considered the primary approach for consideration. This approach would provide significant programming to the southern portion of the park and would allow for the most direct connection to existing and future pedestrian circulation.

The nearest point of the cliff to the east is separated from the center of the structure by approximately 65 feet horizontally and more than 30 feet vertically. After visual inspection and review of the cliff scan data, it was determined that any bridge abutment would need to originate at a significant distance from the cliff due to the condition of the rock face and degree of undermining evident at this location. In addition, CSX right of way restrictions would force the pedestrian access point further to the north from this most proximate location.

Ultimately, it was estimated that the bridge abutment would be approximately 190 feet to the northeast from Station No. 4, as measured from the portion of the structure with an intact deck. This location generally aligns with the abutment location proposed in the 2015 High Falls Pedestrian Access Improvement Study, which investigated the feasibility of a potential new pedestrian bridge across the High falls. It was determined that it was not feasible to locate the abutment closer to the proposed scenic overlook. ADA accessibility would require that the elevation of the platform be raised approximately 20 feet above the existing concrete deck. Refer to the 2015 study for additional information regarding this approach. Since access from this location had already been suggested and analyzed, it was determined that further exploration within the scope of this study was unnecessary.

Approach from the West

A westerly approach would allow the platform to connect to the former High Falls Festival Site with the additional benefit of a walkway that passes directly over the river and the falls. This site currently draws tourists to view the falls area and a former waterpower shaft. An approach would require a bridge extending more than 300 feet over the Genesee River, likely utilizing existing piers adjacent to the railway or new piers located within the river. The 2015 High Falls Pedestrian Access Improvement Study included several options for a pedestrian access from this approach. Since it had already been studied, it was determined that further exploration within the scope of this study was unnecessary, and neither the structural integrity of the existing piers nor feasibility of new piers were assessed.

Approach from the South

The structure is currently accessed via an access easement that extends from the Inner Loop right of way under the CSX Railway. The existing access is unimproved, consists of a dirt path at a slope of approximately 17%, and is open to the CSX railway above without debris protection or drainage. Historic retaining walls that likely contained the former raceway are intact though in fair to poor condition. An improved approach would include renovation of this entire area – including a series of ADA ramps, walkways & stairs with railings, overhead debris protection, lighting, and informational signage. This would require significant coordination and approval by CSX, including

the negotiation of an expanded access agreement or, preferably, sale of the underlying property for City ownership & operation.

Accommodation would need to be afforded in the future Inner Loop North project to provide improved pedestrian access and signage as the current sidewalk poses safety concerns in its proximity to high-speed traffic. These improvements would be within the existing New York State Department of Transportation right of way.

The Project Advisory Committee considered this approach as the least desirable since it would be difficult for tourists to locate and did not allow for direct connectivity to existing civic infrastructure such as the High Falls Terrace Park or the festival site.

b. Findings

i. Summary of Structural Condition

Based on observations, investigations, and reports provided by multiple consultants, previous reports provided by the City of Rochester, and historical data, the reuse of the former RG+E Power Station No. 4 is not feasible or recommended. The condition of several important elements to the structural integrity of the building are very poor, including the upper floor and framing level, intermediate floor levels, and exterior brick and stone building envelope.



Figure 12 – Significant Cracking and Unsecured Brick

From information that has been gathered from the 1993 RG+E report on Station No. 4 it appears that the structure was sealed, and the area was fenced off in or around 1991 to prevent site access. At that time, the “roof”



Figure 13 - Cracking of Masonry

or upper framing level was deemed to be unsafe. It was recommended that the structure be demolished or some form of weathertight roof that did not transfer loading to the interior framing be constructed to prevent further deterioration. Nearly thirty years ago, this report expressed concern that if left as is for any period of time the structure may deteriorate to a point beyond repair. It

does not appear that any additional efforts were taken to protect or stabilize the structure since then, and the concerns expressed have been realized.

When the upper portion of the building was demolished, there were no substantial efforts made to make the upper framing and slab of the structure weather tight. Moisture has been able to filter through the structure for decades. In addition to the moisture infiltration from the roof, it appears that water is entering the structure in the location where the raceway was located. The combined moisture from these different mechanisms has facilitated the deterioration of steel and wood framing members within the building. These members have deteriorated to the point that they have either collapsed or are no longer capable of supporting a load.

The multi-wythe brick and stone walls that remain, forming the exterior envelope of Station No. 4, are in poor condition. Hands-on inspections revealed that there is major vertical cracking at multiple locations. Displacement of the brick is evident in the vicinity of these cracks, along with several other areas of displacement due to bulging of the outer courses of brick. Substantial areas of loose mortar and brick are present including sections of brick that have broken free from the building and collapsed. This deterioration is likely the result of several different issues: the proximity to the falls leads to constant exposure to moisture, freeze thaw cycles, the age of the structure, lack of maintenance, rust jacking, and no adequate roof.

The condition of the framing levels themselves make reuse of the structure difficult. These intermediate framing levels are integral in the structural integrity of this type of construction. Any efforts to stabilize and repair or supplement this framing would be a substantial undertaking. However, the combination of the framing condition and extensive masonry deterioration would severely limit the feasibility of performing any interior framing rehabilitation in a safe manner.



Figure 15 - Unsecured Brick

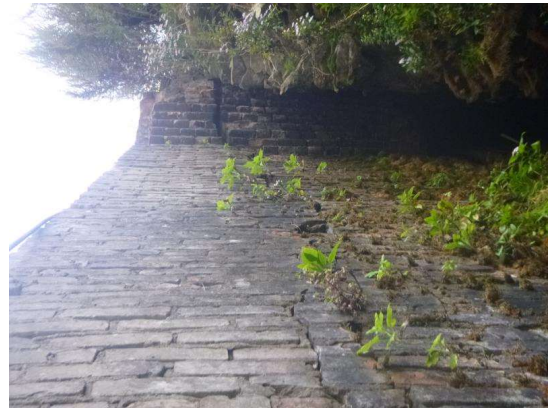


Figure 14 - Horizontal Displacement of Brick

Based on the condition of the exterior envelope, interior framing, and the site access constraints, the reuse of the existing structure is not feasible. The structure in its current condition is unsafe, not capable of supporting any additional load, and should be closed to occupancy. Stabilization and repair of this structure is not feasible due to both the extensive improvements required and the improbability of performing this work in a safe manner.

ii. Exploration of Alternatives

Leave As-Is with Site Security Improvements

One option for the former RG+E Station 4 is to leave the building as is. With this option the building will continue to deteriorate, likely being most noticeable in the continued collapse of the current roof deck and superstructure. The building has been gradually deteriorating for some time, and it could continue in this manner for the foreseeable future. As the outer shell is constructed of thick, multi-wythe brick walls it could withstand the additional collapse of the roof and floor systems before complete collapse. Minor improvements that would control the mechanism of collapse were explored but were determined to be infeasible.

The building will continue to deteriorate, however, and more sizable and visible collapses of exterior walls of the building will become increasingly probable. Site access should be restricted to protect public safety.

Rehabilitate for re-use

As indicated in the findings, rehabilitation for re-use was determined to be structurally infeasible due to the condition of the brick masonry walls and the interior framing elements.

Demolish

Demolition would entail removal of the upper, brick portion of the structure, potentially down to the existing stone foundation. The brick, concrete, steel, and wood materials demolished would be removed from the site. With the existing foundations left in place, consideration should be given to leaving the bottom 20 feet of the building in place as a representative historical remnant of the existing structure.

Demolition would eliminate the uncertainty of when and how portions of the building may collapse over time. The foundation and remnant to be left in place would continue to deteriorate but sudden and significant collapse of the remaining structure would be unlikely.

The demolition would be conducted from the river level with use of barges and cofferdams resulting in temporary stream disturbance. River access would need to be obtained from RG&E's former BeeBee Station parcel in order to get the barges and heavy equipment in place.

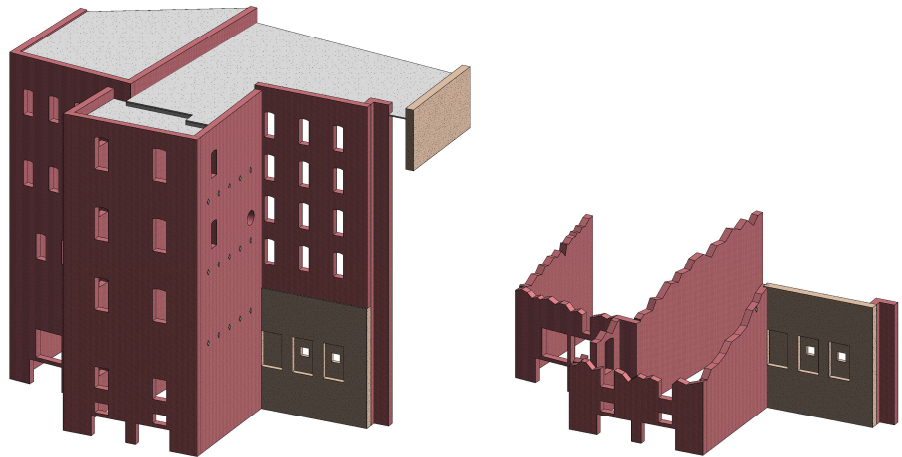


Figure 16 – Model of Existing Station No. 4 (left) and Potential Remnant (right)

Demolish and Replace

Once the building has been demolished, it is possible to construct a replacement structure in the same location. Two methods for this replacement structure were considered in the course of this study.

Cantilevered Platform

A viewing platform could be provided via a cantilevered platform that sits at a similar height to the upper level of the current structure. This would require a combination of foundations on the top of the cliff and micro-piles into the vertical rock face of the bedrock allowing a structure to cantilever out from the cliff.

This option was determined not to be feasible for two reasons: 1. Previous projects within the vicinity of Station No. 4 have had poor results with the use of micro-piles into the face of the bedrock. 2. The rock face appears to be located near or more likely on the property currently owned by CSX. Any foundation that allows for the cantilever, including access for construction would need to be well within CSX

property and adjacent to the existing bridge piers that are over 100 years old.

Pier

A second option for a replacement viewing platform would be supported by a pier that could extend up from the lower river level. Further investigation of this option was not undertaken during this study as the aforementioned 2015 Study considered several similar approaches. Regarding the construction of the pier depicted in Figure 17, the 2015 Study noted: “Pier 2 would be founded northeast of Station 4, adjacent to the building, and be approximately 135’ tall. [The pier] would be concrete and founded on rock sockets drilled into the rock.” Refer to that study for addition feasibility information and costs.



Figure 17 - Visualization from 2015 Report showing Pier concept.

c. Recommendations

i. Demolition

Controlling for costs, demolition is a preferred alternative as it allows for a controlled removal of building material and would reduce potential impacts to the unseen rock face and adjacent areas; however, demolition is very costly and would require significant accommodations to provide safe conditions for both workers and stream ecology.

Upon demolition, portions of the rock face that abut the existing railroad and the waterfall would be exposed to the elements for the first time in over a hundred years. Limited information is available regarding the condition of this face and the existing penetrations (such as piping), which may be encountered during demolition. It should be anticipated that monitoring will be conducted, and a treatment may need to be applied once the building has been removed and the rock face can be examined. Demolition would allow for this work to be planned and executed in a more controlled manner.

Building demolition would require advanced coordination with several agencies and organizations to obtain the proper permits, access agreements, and safety coordination. These agencies include the U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, New York State Department of Environmental Conservation (Class B Stream Disturbance), RG&E, New York State Canal Corporation, City of Rochester, and New York State Department of Transportation.

ii. Leave As-Is with Site Security Improvements

Leaving the structure in place is also an acceptable alternative due to the location of the structure and the limited potential impacts from a collapse. It does not appear to pose a major risk if an uncontrolled collapse of the structure occurs, except for any unknown impact to the rock face behind it. As previously indicated, it is not possible to determine the interaction between the building and the rock face at this time.

Additional measures should be provided to secure the building and restrict unauthorized access. Approximately 120 feet of 8 ft tall security fencing should be installed along both the southern and northern edges of the railroad bridge. It is not recommended that a gate is installed as this may encourage unauthorized access. “No trespassing” signage should be installed on the southern fence, with additional signage provided on the northern fencing indicating that the building is unsafe, and collapse may occur. Any visible debris, existing stairs, or other evidence of previous access should be removed, and gravel installed in order to deter the growth of unwanted vegetation. Proposed improvements in this area will require coordination between several involved parties including the building owner, CSX, NYSDOT, and the City of Rochester.

While the structure remains, any access will require significant safety measures such as rappelling equipment, tie offs to appropriate anchors, hard hats and similar PPE, and appropriate training. This would include situations for inspection, maintenance, or other temporary improvements such as an art installation as was suggested by the Project Advisory Committee. If an art installation is pursued, consider innovative methods such as the use of drone-mounted, painting mechanisms. The area should also be monitored regularly to maintain the security fence and to provide additional measures if unauthorized access to the area persists.

iii. Coordination with Inner Loop North Study

The City is evaluating options for changes to the existing section of Inner Loop to the south of the project area which is adjacent to this project site.

There are viewsheds from the Inner Loop looking northerly under the CSX Railway line that are akin to those experienced from portions of Station No. 4 at points closest to the railway. Opportunities for pedestrians to stop and enjoy these views should be considered, including dedicated viewing areas that cantilever north from the Inner Loop.



Figure 18 - Scenic View from Inner Loop

Interpretive signage could also be considered in this area that describes the former Station No. 4, its operations over several decades as the power source for Rochester's streetcar system, and subsequent ownership by Rochester Rail and Light Co. (the predecessor to RG&E).

III. High Falls Terrace Park

Previous studies had envisioned a connection point to a platform at Station No. 4 originating from the south end of High Falls Terrace Park. Upon determination that a platform at Station No. 4 is infeasible, the southern end of the park was then evaluated for other improvements and increased amenities. In particular, improved viewsheds from this location are critical as the viewing potential from Station No. 4 was eliminated. The following describes the goals, conditions, and Schematic Recommendations for High Falls Terrace Park. This study is intended to build upon the improvements that are proposed in the Brewery Line Trail Project, anticipated to begin construction in 2022.

a. Goals

i. Enhance the south end of the park

The existing retaining wall and overlook structure creates a physical barrier for park users who wish to experience the southern portion of the site and its views beyond. Schematic plans should address these visibility issues.

ii. Improve public safety for the south end of the park

Homeless encampments and undesirable behaviors are known problems at the southern portion of the site. Overgrown vegetation and low visibility into this space contribute to these issues. Schematic plans should address these issues of visibility and vegetation in this area.

iii. Improve overlook

The existing overlook structure is currently operating at limited capacity. Originally constructed to house equipment related to a laser light show, the structure no longer serves this function. The existing tunnel access is proposed to be removed in the Brewery Line Trail project. The remaining structure will continue to block southern views from the site and limits accessibility due to its elevation. Schematic plans should study future modifications to this structure.

iv. Increase and enhance views south to High Falls

The existing retaining wall, overlook structure, and dense forested edge of the park currently impedes southern views to High Falls and the Rochester skyline beyond. Schematic plans should address southern views from the park.

v. Locate zipline launch site with an option for restrooms

The Schematic Plans should aim to introduce additional park programming and activity in the High Falls area with the intent of creating additional value and safety within the existing community asset. While accommodating future amenities, such as a zipline, it is expected that portions of the plan can be progressed as funding allows, with or without a zipline.

b. Existing Conditions

i. Circulation

St. Paul Street Connections

Pedestrians traveling from the south access the site through a small triangular seating area with signage at the southeastern portion of the site. Pedestrians traveling from the southeast cross at the Cumberland Street intersection or travel past the site and loop back using the proposed mid-block crosswalk before the Ward Street intersection.

Cyclists from the south are signaled to use the east sidewalk under the CSX bridge and then are ramped down to a dedicated bike lane on the North side of St. Paul Street after going through the railway underpass. Cyclists use either the Cumberland Street mid-



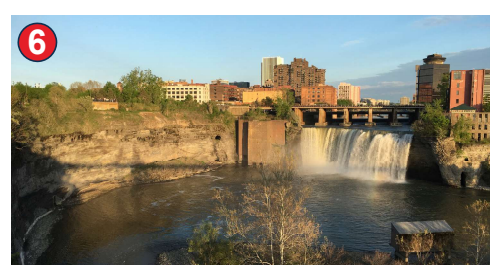
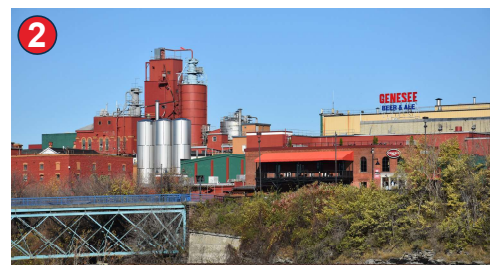
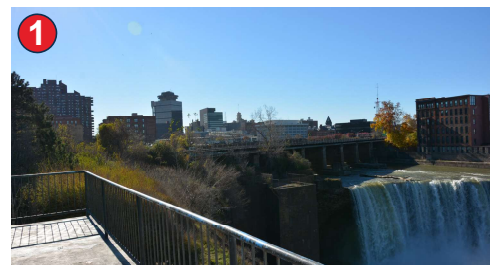
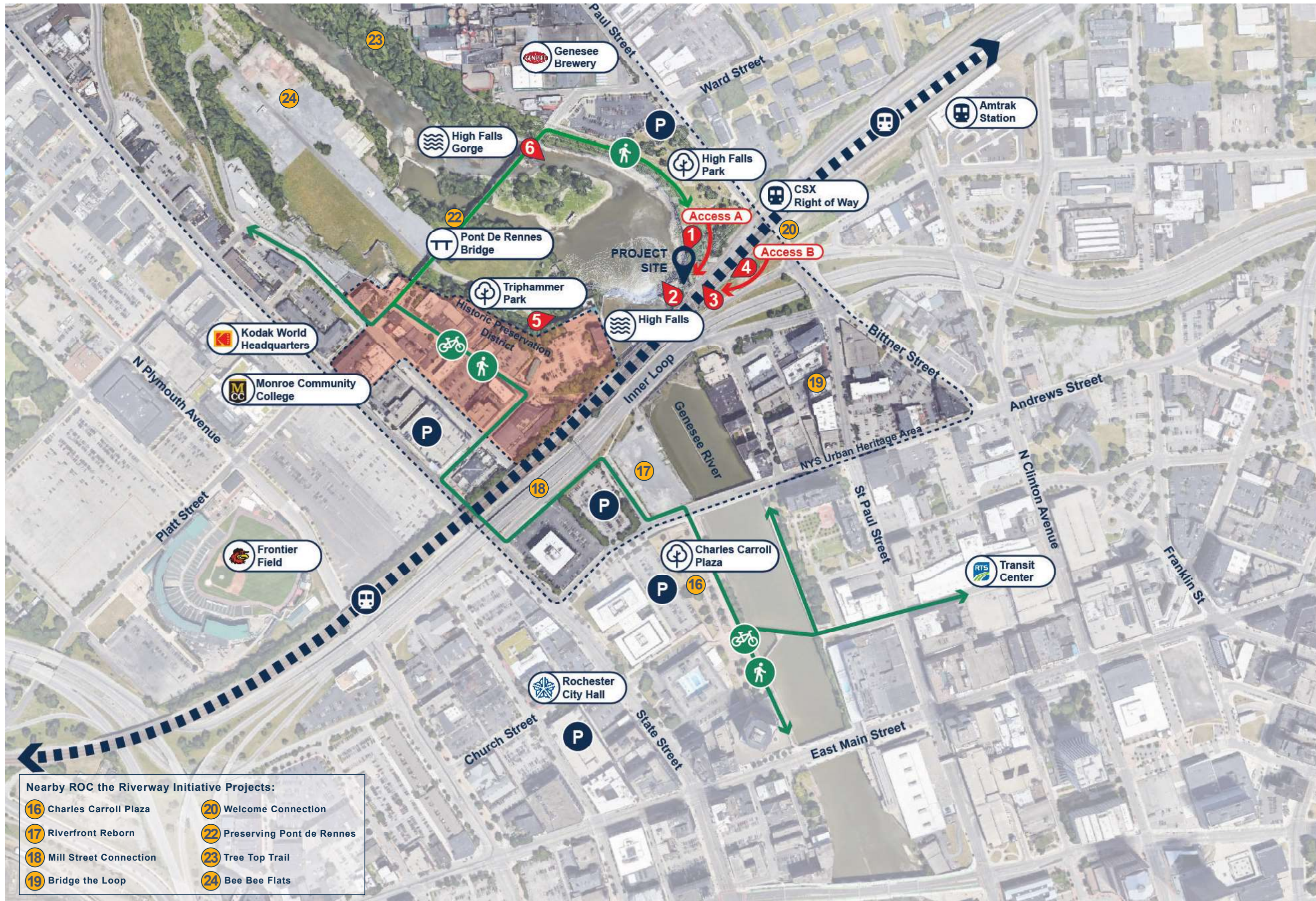
Figure 19 - High Falls Terrace Park entrance at St. Paul Street

block crossing or the Ward Street intersection crosswalks to access the site.

Pedestrians and cyclists traveling from the north can access the site through a triangular seating area by the existing parking area in the northern portion of the site. Pedestrians traveling from the northeast side of the park can cross at the Ward Street Intersection crosswalk.

Pont De Rennes Bridge / Genesee Riverway Trail Connections

The Genesee Riverway Trail approaches the site from the north and west via the Pont De Rennes pedestrian bridge that spans across the Genesee River. From the eastern end of the bridge looking south there is an existing trail (Genesee Riverway Trail) that connects to the park. This trail parallels the cliff edge and former rail line through the adjacent right of way and across the site. This existing trail has a metal railing that runs continuous with the concrete (or asphalt) surfacing along the park edge. The Brewery Line Trail project provides an expanded path system through High Falls Park. The project creates numerous gathering locations and amenities along the expanded Brewery Line Trail that includes boulders, bench seating, accent paving, and play equipment. This project was the starting point for the zip line studies to expand on the park improvements and further develop the park programming with the addition of zip-line facilities. As part of a Roc the Riverway initiative, the City is also proposing improvements to the approach to the Pont de Rennes Bridge and the bridge itself; the design of these improvements are ongoing at the time of this report.



On-Site Connections

There are several existing asphalt pedestrian paths cutting across the site that connect the parking lot, the two pedestrian entrances along St. Paul Street, the Genesee Riverway Trail, and the overlook structure location. The park allows access to the overlook, has lawn areas, and various seating options.

ii. Overlook, Grade, and Vegetation

The top of the existing overlook structure is approximately 16 feet above the pedestrian entrance on St. Paul Street. From the park's southeast corner heading west, the site rises to a utility access entrance and a 10-foot-high retaining wall, where grade continues to rise parallel to this wall on either side. West of the retaining wall, there is a narrow lawn area and a 7-foot-high ramp leading to the existing



Figure 21 - Overgrowth at south end of park

overlook structure that runs parallel with the cliff edge. The site slopes gently away from the bottom of the pedestrian ramp to the north, following the cliff edge. The existing retaining wall, pedestrian ramp, and overlook structure block the expansive scenic views of the falls and the city to the south from within the park. Additionally, the cliffside vegetation grows above the existing asphalt trail in many locations, limiting views into the gorge.

c. Schematic Plan Alternatives

Schematic Plan A

This plan retains the current design for the “Brewery Line Trail Project” paths and seating locations as well as the existing overlook structure. To the south of the overlook structure, a gradually sloping lawn area is proposed. To further enhance the views along the gorge in this area, the plan includes selective clearing of cliffside vegetation and the addition of viewing scopes. Interpretive signage is proposed along the cliff edge to educate park users of the history and promote the use of the entire park. The plan proposes a zipline launch site on top of the existing overlook while minimizing the disturbance to the existing overlook structure and ramp.

Schematic Plan B

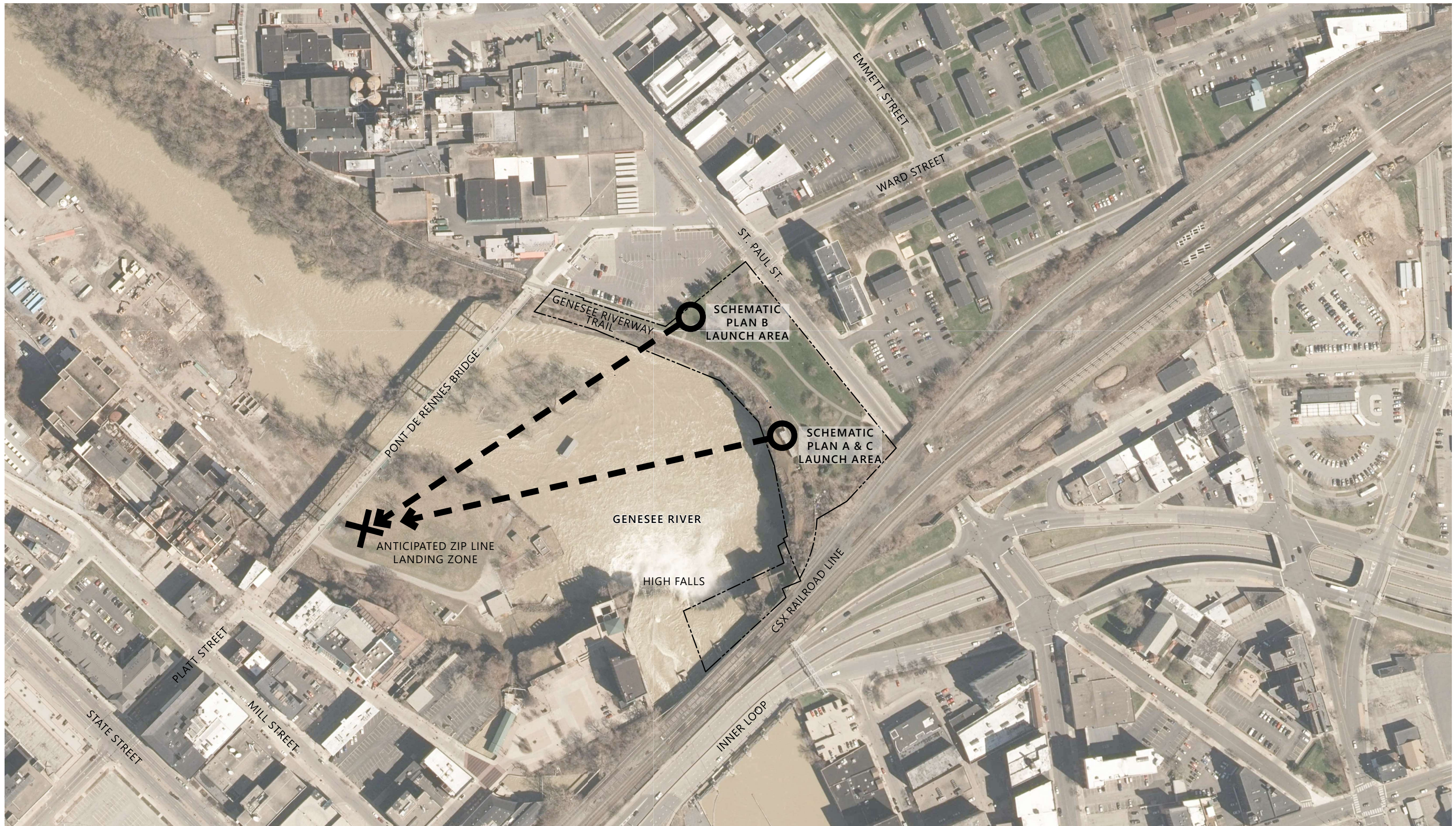
On the southern portion of the site, improvements enhance the views of High Falls, the Genesee River gorge, and the City of Rochester skyline. The overlook views to High Falls and ease of use are improved by creating a consistent grade from St. Paul Street to the renovated overlook structure connection. This renovation is achieved by partially removing the top portion of the existing overlook and removing the existing retaining wall and pedestrian ramp. The lowering of the overlook structure and removal of the wall and ramp will facilitate the gently sloping lawn and new asphalt pathways proposed. The overlook use is also improved by providing terraced seating, more open views by selectively clearing cliffside vegetation, adding viewing scopes, and providing interpretive signage along the cliff edge. Schematic Plan B proposes the zipline launch site on top of a proposed restroom/ storage building near the existing on-site parking.

Schematic Plan C

This plan removes the existing pedestrian ramp and retaining wall to allow for a gently sloping lawn from St. Paul Street to the overlook location. Additional seating and selective clearing of cliffside vegetation is proposed to further enhance long distance views to the High Falls, the Genesee River gorge, and the City of Rochester skyline. Viewing scopes, lean rails, and interpretive signage are placed along the cliff edge to promote site use and educate park users. The plan proposes a zipline launch site on top of the partially demolished overlook structure.

St. Paul St. Mid-block Pedestrian Crosswalk

Stakeholders voiced safety concerns currently posed to pedestrians accessing the park by crossing St. Paul Street in the vicinity of St. Falls Terrace apartment building. In addition, trail users need to connect to the Genesee Riverway Trail that heads northwest from the southern park entrance. To alleviate these conditions, a mid-block crosswalk is considered on each of the schematic plans; however, a crosswalk in this location may be too close to the existing signalized crossing to the north and impacted by the decreased visibility of vehicles travelling north through the underpass. This will need to be investigated in more detail.



High Falls Overlook

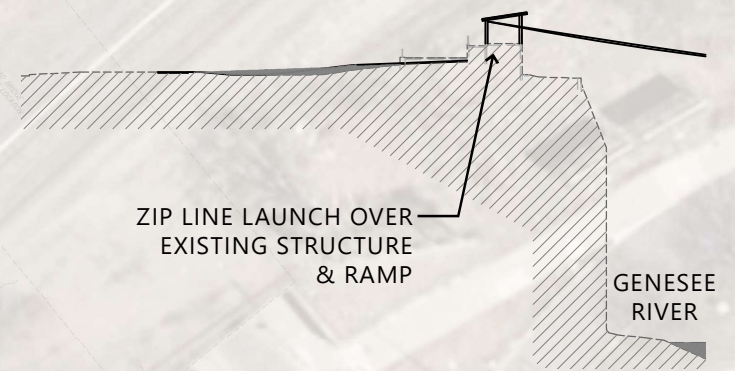
Overall Plan

Rochester, New York / Concept Development
November 10, 2021





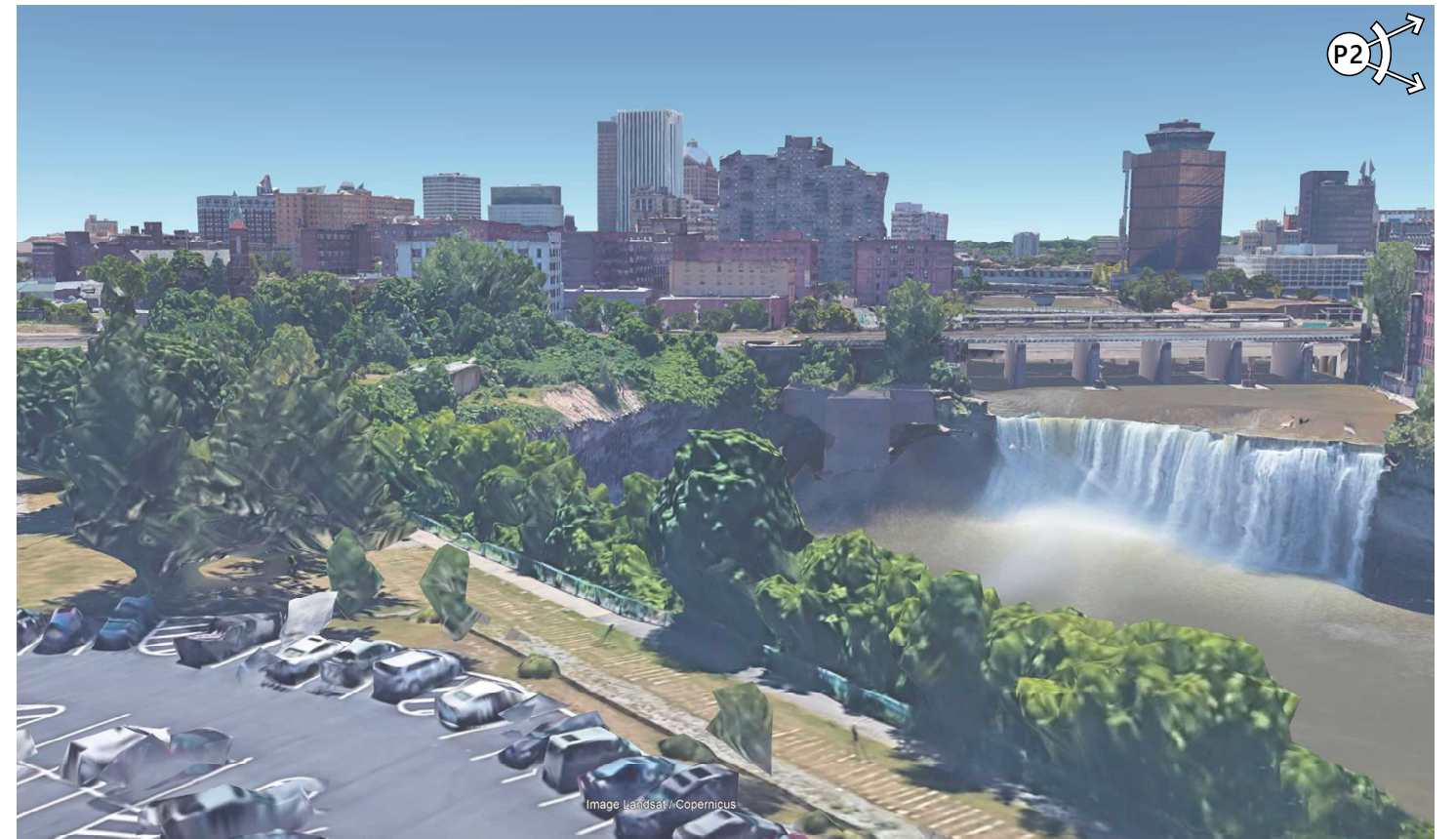
- Legend**
- A** Existing Structure to Remain
 - B** Zip Line Launch Deck On Top of Existing Structure
Approximate Location – Final Location is Based on
Future Structural Recommendations
 - 1** Pedestrian / Bicycle Crossing & Curb Cut
Final Location to be Determined
 - 2** Sculpture to be Determined
 - 3** Power Center for Future Event Programming
 - 4** Sign / Entry Feature "First City Park"
 - 5** Asphalt Walks
 - 6** Open Lawn
 - 7** Remove Evergreen Trees Near Park Entrance
 - 8** Groundcover & Understory Shrubs
 - 9** Remove Trees in Open Lawn Area,
Tree Plantings as Shown
 - 10** Deciduous Trees to Remain -
Periphery / Selective Pruning
 - 11** Remove Vegetation to Increase Park Safety
 - 12** Metal Railing to Match Existing
 - 13** Selective Pruning / Clearing to Improve Views South
 - 14** Regrade Area to Enhance Views to the South
 - 15** Interpretive / Historical Sign
 - 16** Viewing Scope
 - 17** Concrete Stairs
 - 18** Metal Guard Railing and Modular Paving
at Existing Overlook
 - 19** Ramp to Remain
 - 20** Refurbish Metal Railing
 - 21** Seating Area



**SITE SECTION A-A'
NTS**



P1 Perspective - Overlook Existing



P2 Perspective - Zip Line Launch Existing



P1 Perspective - Overlook Proposed



P2 Perspective - Zip Line Launch Proposed

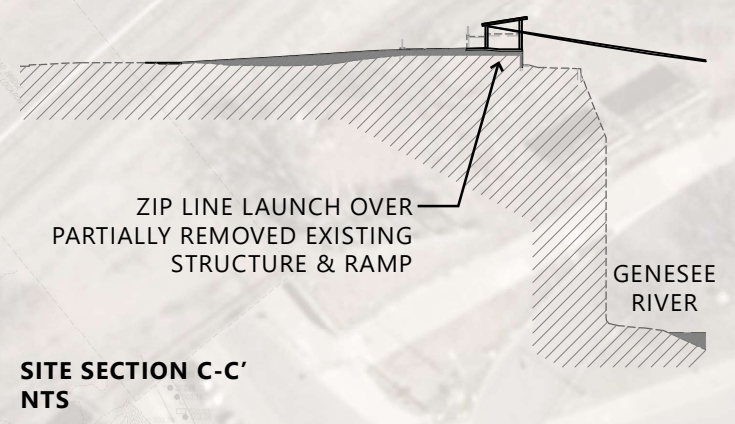


High Falls Overlook
Schematic Plan B Perspectives

Rochester, New York / Concept Development
 November 10, 2021

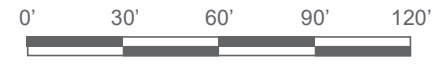


- Legend**
- A** Partially Remove Existing Structure
 - B** Zip Line Launch Deck On Top of Existing Structure
Approximate Location – Final Location is Based on Future Structural Recommendations
 - 1** Pedestrian / Bicycle Crossing & Curb Cut
Final Location to be Determined
 - 2** Playable Structure / Sculpture to be Determined
 - 3** Power Center for Future Event Programming
 - 4** Park Sign / Entry Feature "First City Park"
 - 5** Asphalt Walks
 - 6** Open Lawn @ 6.5% Slope
 - 7** Remove Evergreen Trees Near Park Entrance
 - 8** Remove Trees in Open Lawn Area,
Tree Plantings as Shown
 - 9** Deciduous Trees to Remain -
Periphery / Selective Pruning
 - 10** Remove Vegetation to Increase Park Safety
 - 11** Metal Railing to Match Existing
 - 12** Regrade Area to Enhance Views to the South
 - 13** Selective Pruning / Clearing to Improve Views South
 - 14** Proposed Bench Seating
 - 15** Interpretive / Historical Sign
 - 16** Viewing Scope ∞
 - 17** Remove Ramp
 - 18** Refurbish Metal Railing
 - 19** Seating Area
 - 20** Interpretive Signage Lean Rail
- Metal Cap with Graphic Content





High Falls Overlook
Brewery Line Trail Plan
 Rochester, New York / Concept Development
 November 10, 2021



IV. Cost Estimates (See Appendices for Detailed Cost Estimates)

Station No. 4 Alternatives

	Estimated Cost of Construction (2021 Dollars)	Construction Contingency (10%)	Construction Subtotal	Incidentals (20%)**	Total Project Budget
Site Security Improvements (Leave As-Is Option)	\$ 65,427.00	\$ 6,542.70	\$ 71,969.70	\$ 25,189.40	\$ 97,159.10
<i>Security fencing, signage</i>	\$ 48,427.00				
<i>Remove debris, grade & topsoil</i>	\$ 12,000.00				
<i>MPOT, Mobilization, permits, misc.</i>	\$ 5,000.00				
Demolition of Station No. 4	\$ 3,080,805.00	\$ 308,080.50	\$ 3,388,885.50	\$ 677,777.10	\$ 4,066,662.60
<i>Demolition, Mobilization, Insur.</i>	\$2,620,000.00				
<i>Site Security and Wall Repair</i>	\$ 110,427.00				
<i>RGE Access Road Repair</i>	\$ 96,000.00				
<i>Bond, Permits, Misc.</i>	\$ 254,378.00				

**Includes Design, RPR, and Legal.

"Site Security Improvements" uses 35% given small project size and potential coordination permit challenges

High Falls Terrace Park Improvement Alternatives

	Estimated Cost of Construction (2021 Dollars)	Construction Contingency (10%)	Construction Subtotal	Incidentals (20%)**	Total Project Budget
HFTP Schematic Option A	\$ 1,599,030.00	\$ 159,903.00	\$ 1,758,933.00	\$ 351,786.60	\$ 2,110,719.60
<i>Demolition</i>	\$ 77,352.00				
<i>Earthwork</i>	\$ 281,570.00				
<i>Sidewalk</i>	\$ 28,800.00				
<i>Zipline</i>	\$ 450,000.00				
<i>Site Furnishings</i>	\$ 177,000.00				
<i>Plantings</i>	\$ 10,295.00				
<i>Mobilization, Bonds, Insurance, OHP, Misc.</i>	\$ 317,758.00				
<i>Estimating Contingency</i>	\$ 256,255.00				
HFTP Schematic Option B	\$ 2,378,043.00	\$ 237,804.30	\$ 2,615,847.30	\$ 523,169.46	\$ 3,139,016.76
<i>Demolition</i>	\$ 137,352.00				
<i>Earthwork</i>	\$ 280,642.00				
<i>Sidewalk</i>	\$ 39,940.00				
<i>Zipline</i>	\$ 400,000.00				
<i>Restroom and Launch Building</i>	\$ 405,000.00				
<i>Amphitheatre Seating</i>	\$ 100,000.00				
<i>Site Furnishings</i>	\$ 147,000.00				
<i>Plantings</i>	\$ 14,450.00				
<i>Mobilization, Bonds, Insurance, OHP, Misc.</i>	\$ 472,563.00				
<i>Estimating Contingency</i>	\$ 381,096.00				
HFTP Schematic Option C	\$ 1,811,927.00	\$ 181,192.70	\$ 1,993,119.70	\$ 398,623.94	\$ 2,391,743.64
<i>Demolition</i>	\$ 137,352.00				
<i>Earthwork</i>	\$ 280,642.00				
<i>Sidewalk</i>	\$ 30,200.00				
<i>Zipline</i>	\$ 450,000.00				
<i>Amphitheatre Seating</i>	\$ 100,000.00				
<i>Site Furnishings</i>	\$ 153,000.00				
<i>Plantings</i>	\$ 10,295.00				
<i>Mobilization, Bonds, Insurance, OHP, Misc.</i>	\$ 360,065.00				
<i>Estimating Contingency</i>	\$ 290,373.00				

**Includes Design, RPR, and Legal.

V. Community Involvement

Throughout the investigation and evaluation process, a diverse group of stakeholders (Project Advisory Committee) was engaged to gain community input and leverage a variety of perspectives on key project decisions. The participants included the building owner, tourism representatives, nearby business owners, industry experts, community organizations, and City technical staff. The Project Advisory Committee met three times over approximately eight months; meeting minutes with a list of all participants are included in the appendices.

At the first meeting, the Project Team reviewed the data gathered during the Inventory and Assessment Phase of the project, including preliminary recommendations regarding the potential reuse of Station No. 4. Feedback was solicited from the group on three critical items: 1. Key elements to make the project successful; 2. Preferences of access paths to a potential platform; and 3. Scenic viewshed locations from atop Station No. 4 and the rim of the gorge.

By the second meeting, it had become clear that a platform at the location of Station No. 4 was infeasible; therefore, perspectives were solicited on the benefits of demolishing the structure compared with allowing it to collapse in an uncontrolled manner. Early concept ideas from a design charrette of High Falls Terrace Park were also presented with significant time devoted to gathering feedback that could direct the design process.

At the last meeting, the Project Team presented the 90% complete schematic designs and received feedback on the preferred alternative (Schematic B). The Project Advisory Committee was very engaged in the meeting and provided helpful insights on how the improvements would impact the community, including adjacent businesses to the north and the residential properties across St. Paul Street.

In addition to this community involvement, it is expected that the funding agency, Empire State Development, will provide opportunity for public comment on this prepared report.