

City of Shamokin Volunteer Park

Master Plan and Foot/Bike Bridge Feasibility Study **FINAL**

MARCH 2025



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Executive Summary

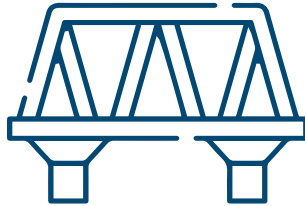


1.0 Executive Summary

1.1 Introduction

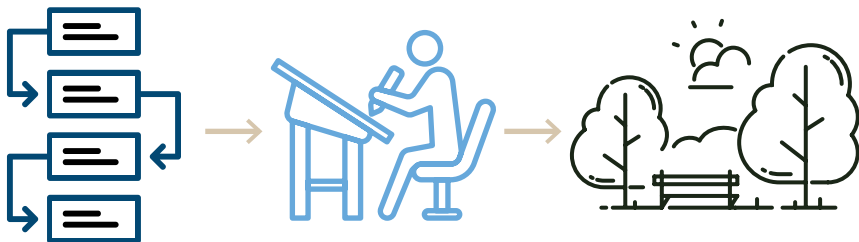
PURPOSE

The Volunteer Park Master Plan in Shamokin, PA, aims to **enhance** community pride, **encourage** volunteerism, **improve** accessibility, and **support** local, economic, and social development. Key goals include designing a park that celebrates past and future contributions by volunteers and studying the feasibility of a foot/bike bridge to connect Volunteer Park with nearby Claude Kehler Park. This bridge would increase connectivity, provide safer access to pedestrians across Shamokin Creek, and tie into regional rail-trail initiatives, establishing Shamokin as a central hub in the trail network. This master plan would foster a community-centered space, improve infrastructure for safe pedestrian and bicycle use, and bolster tourism by integrating Volunteer Park into broader revitalization efforts.



Planning Process

The initial task of the planning process was to gather background data, review existing plans, and meet with various stakeholders to receive feedback and direction for the Master Plan. Meetings were held in-person with individual stakeholders and groups who provided guiding thoughts, ideas, obstacles, and an overall background of their respective organizations and the park. An online survey was distributed to the community to receive additional feedback for the Master Plan, the results of which are detailed in Section 2.5. The results of the data collection, plan review, interviews, and public survey contributed to the conceptual plans presented within the Master Plan.



1.2 Existing Conditions

Overview Map



Facility Inventory

The facilities at Volunteer Park are all in very good condition, with recent updates to the seating areas, lighting, security, waste bins, pavilions, and sidewalks. Currently, there are two covered picnic pavilions, with two additional ADA accessible picnic tables situated at the center of the park. Throughout the park along the pathways are benches, light poles, trees, flower beds, and waste bins. At the center of the central pathway is a stone fountain, which will be repaired and updated in Spring 2025. There is an emergency siren located adjacent to the central pathway, which is utilized by local emergency management. The parking lot adjacent to the park is utilized primarily by local adjacent businesses, but also offers ample parking for park users.

Activity Analysis

Volunteer Park is currently utilized as a day-use area, allowing for picnicking, open space activities, community events, and passive recreation. The City holds several events here throughout the year, with one of the largest being the annual Easter Egg hunt. The park serves as an overflow space during events held across Shamokin Creek at Claude Kehler Park and bandstand.



Currently, Volunteer Park is not directly connected to Claude Kehler Park, resulting in little use during events such as concerts or fundraisers. Local volunteer groups have provided support for projects, resulting in educational signage along the creek, near planter beds, and within areas of riparian forest restoration.

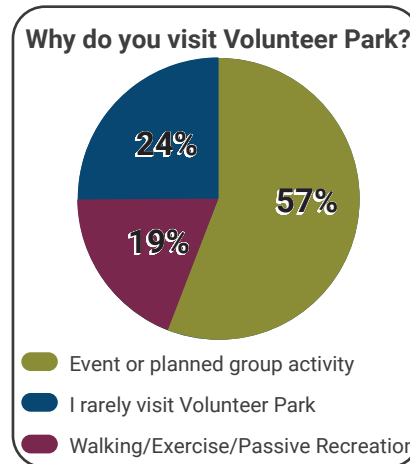
1.3 Public Participation Overview

PROCESS

The Larson Design Group (LDG) team conducted interviews, public meetings, and an online survey to gather community input on the park's needs. By engaging directly with local users, they collected valuable insights to guide the planning process. This feedback is essential in designing a functional and successful outdoor space tailored to the community's needs.

RESULTS

Public feedback indicated that more amenities, events, and better connectivity would increase Volunteer Park's use. Suggested additions included a food truck area, terraced seating, and a playground. These insights guided the next phase: Visioning.



1.4 Goals and Visioning

GOALS

Beginning the project with a set of goals is essential to shaping the scope of the task at hand. The goals for this project align with previously conducted city and regional plans, such as 2020 Go! Shamokin Strategic Plan, 2020 EPA Rebuilding Action Plan, Northumberland County Non-Motorized Rail Trail, and more, identified in Section 2.3. Results of engagement and modern planning practices also went into the development of the goals.

The major goals of the project are the following:

1. Connect Volunteer Park and Claude Kehler Park.
2. Inspire community pride, enhance volunteerism, support economic and social development.
3. Improve safety and accessibility.

VISIONING

The future Volunteer Park will include elements of design and amenities that have been emphasized in the stakeholder/public engagement process, and those which the team at LDG feel are the best fit for the site and the City of Shamokin. The visioning portion of the planning process includes sketching and taking quick notes of concepts and ideas to later refine.

1.5 Objectives of Bridge Feasibility Study

1. Identify the viability and constructibility of each of the three bridge locations before providing a recommendation on the best position.
2. Research the most efficient truss design and applicable parameters, such as paint color, finish, and more.
3. Ensure that the chosen design includes safety features for all users while maintaining environmental protection during and after construction.
4. Provide preliminary construction cost estimates, including discussion on future maintenance costs.
5. Develop conceptual drawings to assist with displaying the recommended bridge type and location.

Master Plan



2.0 Master Plan

2.1 Plan Introduction

PURPOSE

In Fall 2024, the City of Shamokin contracted with LDG to develop a Master Plan for Volunteer Park and conduct a feasibility study for a pedestrian bridge across Shamokin Creek, ultimately connecting Claude Kehler Park with Volunteer Park. The Master Plan is intended to be utilized by key officials to determine capital improvement projects, policy decisions, funding opportunities, and management practices to further enhance Volunteer Park's facilities and operation.



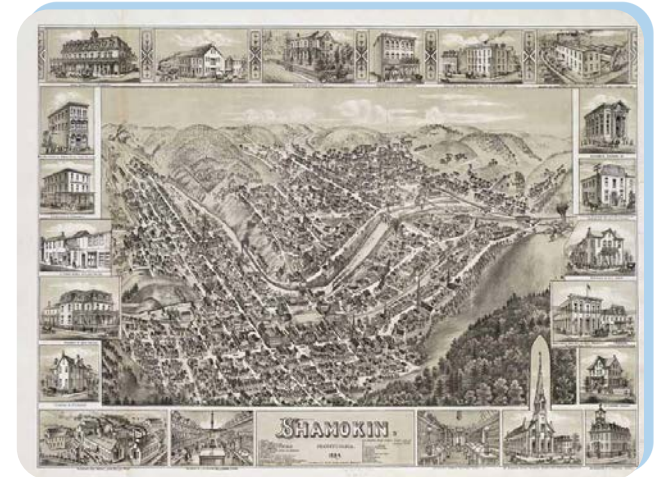
PLANNING PROCESS

The planning process began with the collection of background data and a review of existing plans. To gain further insight, meetings were held with a variety of stakeholders, both individually and in groups. These discussions provided valuable feedback about the park such as ideas, challenges, and an understanding of the stakeholders' organizations. Additionally, an online survey was distributed to the community to gather further input. See Section 2.5 for a summary of results. This combination of data collection, stakeholder meetings, plan reviews, and public survey responses laid the foundation for the development of the conceptual plans presented in the Master Plan.

2.2 Background and Demographics

PARK AND CITY HISTORY OVERVIEW/GEOGRAPHIC LOCATION

Shamokin, Pennsylvania, located in Northumberland County, has a rich industrial heritage rooted in anthracite coal mining, which spurred significant growth in the late 19th century. The City also developed textile industries, with one of the largest textile facilities in the U.S. However, Shamokin's economy and population have declined since these industries waned, leading to economic challenges typical of many post-industrial towns in Pennsylvania's Coal Region. Today, Shamokin is pursuing economic revitalization with a specific focus on transforming its downtown area along Independence Street, the City's main commercial corridor.



The City aims to leverage its geographic advantage and proximity to nearby attractions like the Anthracite Outdoor Adventure Area, Knoebels Amusement Park, and the Weiser State Forest, all contributing to over 1.3 million annual visitors in the region. Key revitalization goals include enhancing pedestrian-friendly infrastructure, improving the streetscape, and stimulating economic activity through mixed-use development. Furthermore, Shamokin is addressing environmental and public safety challenges, such as stormwater management and crime prevention, as part of its comprehensive plan for community and economic redevelopment.

NATURAL RESOURCES/ISSUES (ACID MINE DRAINAGE)

Acid mine drainage (AMD) has significantly impacted Shamokin. AMD is a byproduct of mining operations, where water reacts with sulfide minerals in the coal and surrounding rock to form sulfuric acid. This acidic water leaches heavy metals from the rock, contaminating streams, rivers, and groundwater.

Key Impacts on Shamokin:

Water Pollution: AMD has severely polluted local waterways, such as Shamokin Creek, turning its water orange or red due to iron precipitation. The water's high acidity and heavy metal content have made it inhospitable to aquatic life, resulting in the loss of biodiversity.

Environmental Degradation: AMD has destroyed aquatic ecosystems in and around Shamokin, limiting the area's ability to support fish and plant species. This damage has cascading effects on local wildlife and the overall health of the environment.

Economic Consequences: The environmental damage has hindered recreational opportunities, such as fishing and tourism, that could have supported the local economy. Cleaning up AMD is costly, further straining financial resources in the area.

Community Health and Quality of Life: AMD contamination has raised concerns about the safety of drinking water and the long-term health effects on residents. Moreover, the visible environmental damage contributes to a negative perception of the region.



Mitigation Efforts:

Efforts to address AMD in Shamokin include constructing treatment systems, such as passive wetlands and active water treatment facilities, to neutralize acidity and remove metals. Community groups and government agencies work together to restore waterways and reduce ongoing pollution from abandoned mine lands.

Despite these efforts, AMD remains a significant challenge, reflecting the lasting legacy of coal mining in the region and the ongoing need for environmental remediation and sustainable management.

DEMOGRAPHICS

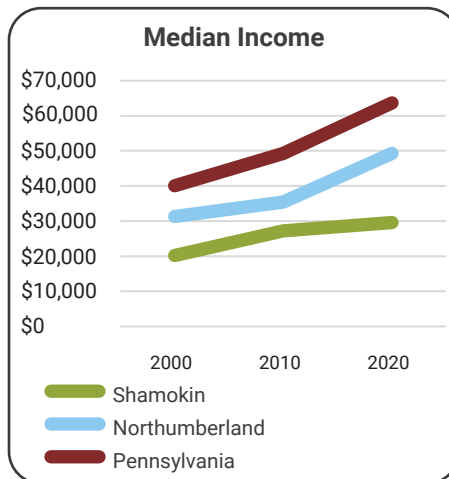
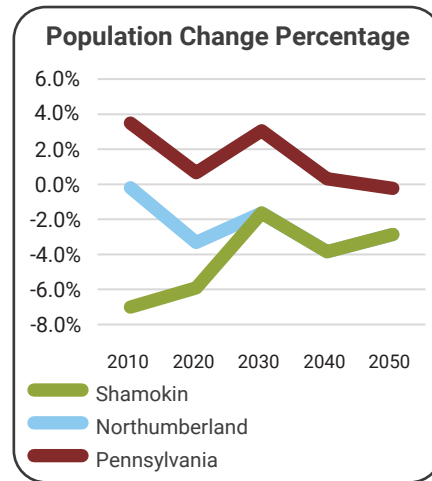
To understand Volunteer Park's demographic context, an analysis was conducted that compared the City to Northumberland County and the State of Pennsylvania. The following analysis looks at population, income, and age as three key demographic themes describing current and historical demographic trends in and around Shamokin.

Population Trends

Over the past two decades, Shamokin has experienced a significant population decline. From 2000 to 2020, the population decreased from 8,009 to 7,007, reflecting a 12.5% drop. Northumberland County also saw a population decrease, though less pronounced, from 94,556 in 2000 to 91,234 in 2020, a 3.5% decline. In contrast, Pennsylvania's population grew from 12,281,054 in 2000 to 12,794,885 in 2020, an increase of 4.2%. This indicates that while Shamokin and Northumberland County are facing population declines, the state overall is experiencing growth.

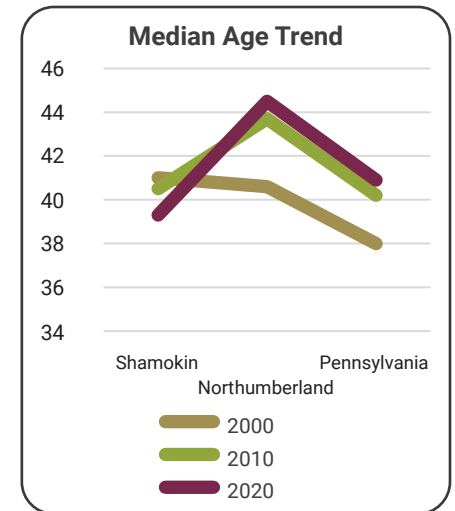
Median Income Trends

The median household income in Shamokin has seen modest growth over the years. In 2000, the median income was \$25,000, which increased to \$30,000 by 2020. Northumberland County's median income grew from \$35,000 in 2000 to \$42,000 in 2020. Pennsylvania, on the other hand, saw a more substantial increase in median income, from \$40,000 in 2000 to \$55,000 in 2020. This indicates that while incomes are rising in Shamokin and Northumberland County, they are not keeping pace with the state average.



Median Age

The median age in Shamokin has been increasing, indicating an aging population. In 2000, the median age was 38.5 years, which rose to 42.3 years by 2020. Northumberland County shows a similar trend, with the median age increasing from 40.2 years in 2000 to 44.1 years in 2020. Pennsylvania's median age also increased but at a slower rate, from 38.0 years in 2000 to 40.8 years in 2020. This suggests that both Shamokin and Northumberland County are aging faster than the state average.



Demographic Takeaways

Three key themes can be derived from the demographic analysis. The themes below ultimately help guide the development of a park in order to meet the needs of Shamokin's residents and support the community's growth and well-being.

Population Decline: With Shamokin experiencing a significant population decline of 12.5% from 2000 to 2020, the park master plan should focus on creating attractions and amenities that can help retain and attract residents. This could include developing family-friendly facilities, organizing community events, and enhancing the overall appeal of the park to make it a central hub for social and recreational activities.

Catering to an Aging Population: The median age in Shamokin has increased from 38.5 years in 2000 to 42.3 years in 2020, indicating an aging population. The park master plan should incorporate features that cater to all ages including older adults, such as accessible walking paths, seating areas, and activities that promote health and wellness for seniors. Ensuring the park is inclusive and accessible to all age groups will be crucial.

2.3 Plans Review

2020 GO! SHAMOKIN

Goals 4 and 5, along with advancing critical infrastructure, are key components of the Go Shamokin! Plan and have significant implications for Volunteer Park in Shamokin, PA:

Goal 4: Addressing Blight and Vacancy with Pop-Up Solutions: This goal emphasizes activating vacant spaces, which can be applied to nearby areas around Volunteer Park by introducing temporary, community-driven events. For example, pop-up markets or small festivals in and around the park can transform the area, drawing residents and visitors alike, thus improving perceptions of safety and liveliness in Shamokin.

Goal 5: Creating Multi-Purpose Public Spaces: This goal highlights the importance of creating flexible, multi-use spaces in downtown Shamokin for events and daily community engagement. Volunteer Park could serve as a venue for family-friendly programming, concerts, or small outdoor gatherings. Such spaces support economic development by increasing foot traffic and providing a central area for social engagement, enhancing Volunteer Park's role as a civic asset.

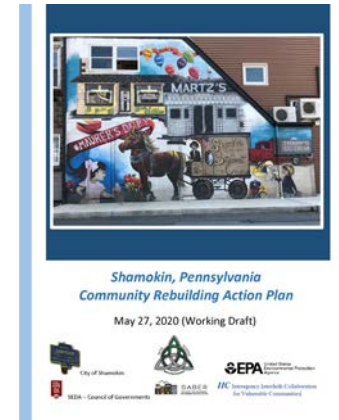
Advancing Critical Infrastructure: Improvements to infrastructure are essential for public spaces like Volunteer Park, as they ensure the park remains accessible, safe, and appealing. Efforts to enhance pedestrian and bike pathways, connect the park to other parts of the city, and manage stormwater are vital. These enhancements will not only support daily park use but also make Volunteer Park a more resilient and integral part of the community, especially as it becomes more linked to Shamokin's economic and tourism goals.

Overall, these goals and infrastructure improvements will position Volunteer Park as a vibrant and welcoming community hub.

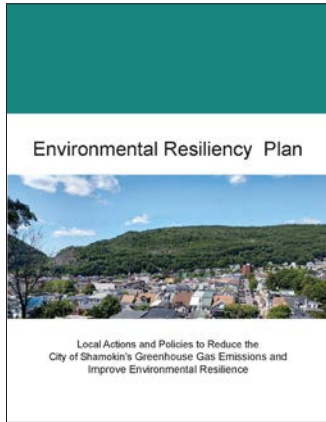


2020 EPA REBUILDING ACTION PLAN

The Shamokin Environmental Resiliency Plan (2021) outlines strategies for increasing Shamokin's sustainability, resilience, and environmental health amid climate change. The plan addresses core issues, including energy independence, reduction of greenhouse gas emissions, and preparation for climate impacts like extreme heat and flooding. It incorporates goals to enhance local infrastructure, promote renewable energy, reduce waste, and improve transportation and green spaces to mitigate environmental risks. The plan for Volunteer Park in Shamokin will likely impact its development by promoting green infrastructure and resource conservation. Key actions, such as creating walkable spaces, installing energy-efficient features, and using green stormwater management, align with the plan's objectives. These improvements would support the role of Volunteer Park as a community hub role while also addressing Shamokin's environmental and climate challenges.



2021 ENVIRONMENTAL RESILIENCY PLAN



The Shamokin Environmental Resiliency Plan is designed to enhance Shamokin's resilience to environmental changes, particularly those related to climate and sustainability. This plan includes actions to reduce greenhouse gas emissions, improve energy efficiency, and strengthen the city's infrastructure against risks like flooding and extreme heat. For Volunteer Park in Shamokin, this plan could lead to:

Green Infrastructure Enhancements:

Improvements such as rain gardens or pervious surfaces to manage stormwater, helping to mitigate flooding and enhance the park's resilience to heavy rains.

Energy-Efficient Lighting and Facilities: By potentially incorporating solar panels or LED lighting in park facilities, the plan supports energy independence and reduces long-term utility costs.

Beautification and Environmental Education: Enhancements to green spaces like Volunteer Park may include landscaping with native plants, creating a healthier ecosystem, and offering educational opportunities for residents and visitors about sustainability.

Enhanced Public Health and Accessibility: The plan aims to make public spaces more accessible, encouraging walking and biking while reducing car dependency, which benefits local air quality and community health.

These initiatives align Volunteer Park with Shamokin's larger environmental goals, making it a model for resilience and sustainability in the community.

AOAA REGIONAL TRAIL MASTER PLAN



The AOAA Trail Master Plan for Northumberland County, including Shamokin, PA, outlines a 35-mile non-motorized rail trail aimed at linking multiple communities from Sunbury to Mount Carmel. Key impacts on Shamokin are as follows:

Enhanced Recreation and Health: By providing a scenic, safe environment for walking, biking, and running, the trail promotes active lifestyles and addresses local health challenges related to sedentary lifestyles, such as obesity and diabetes.

Economic Development and Tourism: As a unique recreational attraction, the trail is anticipated to draw visitors to Shamokin, boosting local businesses through increased foot traffic, especially for restaurants, shops, and accommodations. Trail access points near Shamokin could host events, increasing visitor stays and spending.

Community Connectivity: The trail provides a convenient travel route between local towns, allowing residents easier access to neighboring areas. This connectivity fosters a stronger community network across the county.

Youth and Family Retention: The trail aims to enhance the quality of life for families and young people, making the area more attractive for current and prospective residents by providing safe outdoor spaces and recreational opportunities.

Environmental and Structural Challenges: The plan addresses potential obstacles, including abandoned mine lands and structural assessments of old bridges, ensuring public safety through mitigation efforts such as signage and trail maintenance.

This plan positions Shamokin as part of a larger, sustainable recreational initiative, encouraging long-term economic, health, and social benefits for the community.

2.4 Existing Conditions

OVERVIEW MAP



FACILITY INVENTORY

Volunteer Park's facilities are in excellent condition, with recent upgrades to seating areas, lighting, security, waste bins, pavilions, and sidewalks. The park features two covered picnic pavilions and two centrally located ADA-accessible picnic tables. The pathways are lined with benches, light poles, trees, flower beds, and waste bins. A stone fountain sits at the center of the main pathway and is scheduled for repair and updates in Spring 2025. An emergency siren, managed by local emergency services, is positioned nearby. The adjacent parking lot, primarily used by local businesses, provides ample space for park visitors.

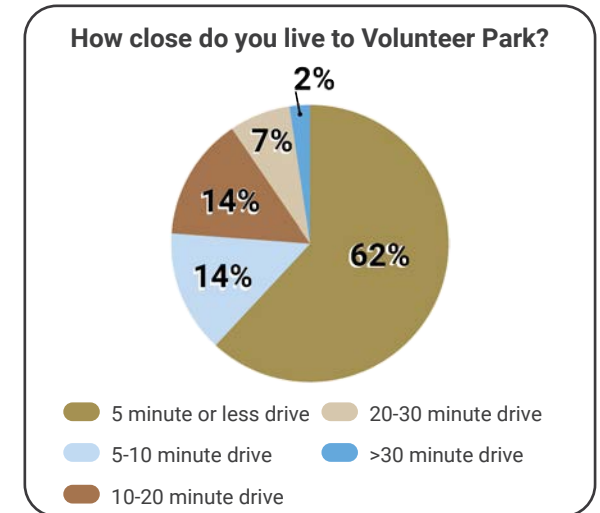
ACTIVITY ANALYSIS

Volunteer Park functions as a day-use area for picnicking, open space activities, community events, and passive recreation. The city hosts several annual events here, including the popular Easter Egg Hunt. It also serves as overflow space for events at Claude Kehler Park across Shamokin Creek, though the lack of a direct connection limits its use during concerts and fundraisers. Local volunteer groups have contributed to park projects, adding educational signage along the creek, near planter beds, and in areas where a riparian forest is being restored.

2.5 Stakeholder/Public Participation Overview

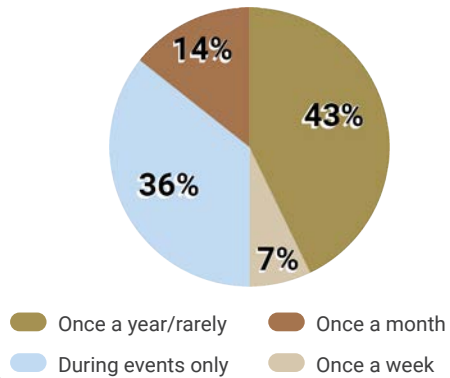
Public participation occurred in the Winter of 2024 through on-site interviews of key stakeholders and a public survey conducted from late October through early December. Survey responses show that the typical user of Volunteer Park lives less than five minutes away from the park, but may only use the park once a year during events. As such, the typical park user drives to Volunteer Park primarily to participate in an event or activity.

Since 62% of the users stated that they live within five minutes of Volunteer Park, it is important to consider their paths to and from the park. If the user's experience to access the park is treacherous or difficult on foot, then the user will opt to drive instead. There must be thorough consideration taken to site accessibility. The addition of the footbridge from Claude Kehler Park would make a significant positive impact on those who live close to the parks, as Claude Kehler is easier to access through sidewalks. Visitation to Volunteer Park would likely increase just with the addition of the footbridge and even more so with additional amenities.



A total of 36%, or over one-third of respondents, said that the location of Volunteer Park is its greatest asset. This response, in combination with individuals saying additional events and activities would increase their visitation to the park, aligns directly with the goal of inspiring community pride and social development.

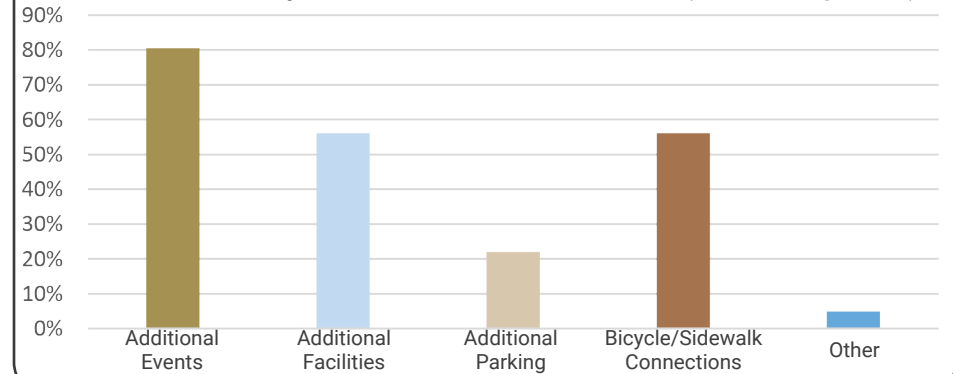
How often do you visit Volunteer Park?



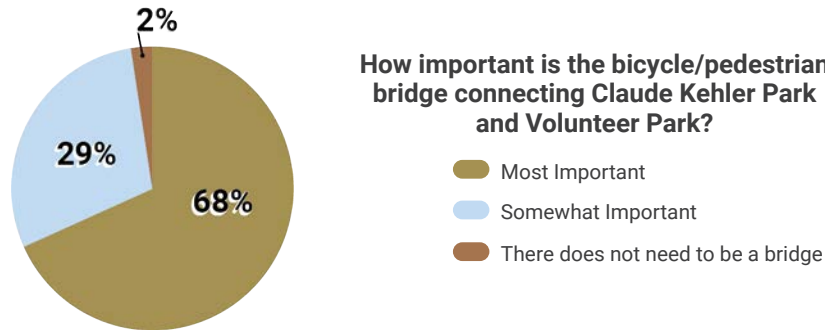
Why do you visit Volunteer Park?



What would increase your visitation to Volunteer Park? (Of total responses)



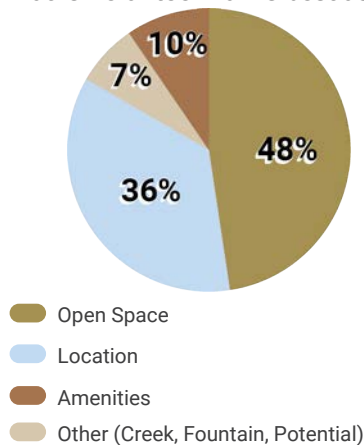
How important is the bicycle/pedestrian bridge connecting Claude Kehler Park and Volunteer Park?



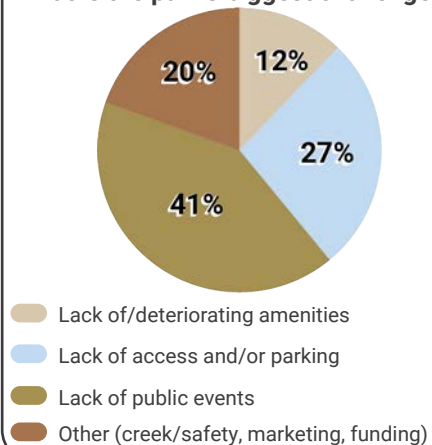
What additional assets, facilities, or amenities would you like to see?

- More Trees
- Playground
- Signage
- More Tables
- Walking Trail
- Music Events
- Restrooms
- Food Trucks

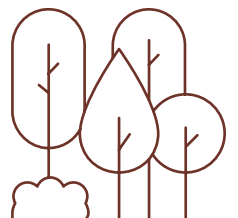
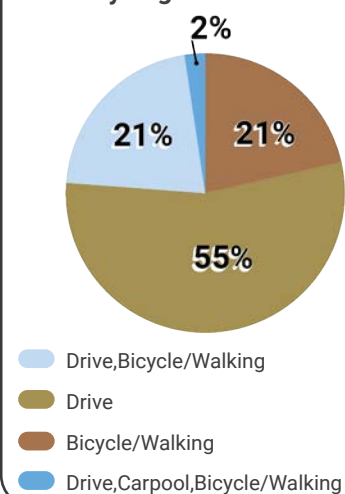
What is Volunteer Park's best asset?



What is the park's biggest challenge?



How do you get to Volunteer Park?



2.5 Visioning and Goals



VISIONING

The vision of Volunteer Park is to enhance the space through connection and conveniences that will inspire pride and social responsibility in the people of Shamokin. By creating a multi-use community space in an underutilized area, small-scale support of local economics and development can be realized through food trucks, farmer's markets, seasonal events, festivals, and more. Volunteer Park would not be what it is today without the help of the many volunteers of Shamokin and the surrounding region. Honoring these individuals will be a focus in the final plan.

GOALS

Volunteer Park has the potential to become an asset for the community and a foundation of connection, pride, and development. The following major goals aim to transition the park to a well-used, safe, accessible space through fostering social interaction, community engagement, and local economic growth for the people of Shamokin.

Connect Volunteer Park and Claude Kehler Park.

1. Prioritize the installation of a state-of-the-art footbridge connecting Volunteer Park and Claude Kehler Park, including adequate lighting, durable and appealing materials, and proper signage.
2. Allow Park users free access to and from Volunteer Park to Claude Kehler Park and utilize both areas during events to maximize space.

Inspire Community Pride, Enhance Volunteerism and Support Economic and Social Development.

1. Develop features such as seating areas, shaded tables, and food truck vendors that support social gatherings and contribute to local economics.
2. Celebrate the history of Shamokin and its many volunteers by incorporating signage or a dedicated monument.

Improve Safety and Accessibility

1. Incorporate universal design principles so everyone can have a place at Volunteer Park.
2. Engage community members in event programming, safety committees, and upkeep initiatives to keep the Park clean and inviting.

2.6 Opportunities and Constraints

VOLUNTEER PARK

Opportunities

1. Connecting Clyde Kehler Park and Volunteer Park would offer access to parking, concession stands, restrooms, community gardens, and a bandshell facility.
2. Using the river as a learning opportunity for local schools to host educational programs would open the eyes of students to the world of conservation and the types of efforts that are made to remediate water.
3. Volunteer Park has an area of open space that can be used for anything from sports to fairs to business events, and rental fees could assist with the cost of maintenance.

Constraints

1. Ensuring the upkeep of the park area will be a maintenance cost that could strain financial resources in the future.
2. The size and shape of the park is somewhat limiting as to what can be added and where.
3. Security features like lighting, surveillance, and/or fencing may be necessary to ensure safety and prevent security risks.

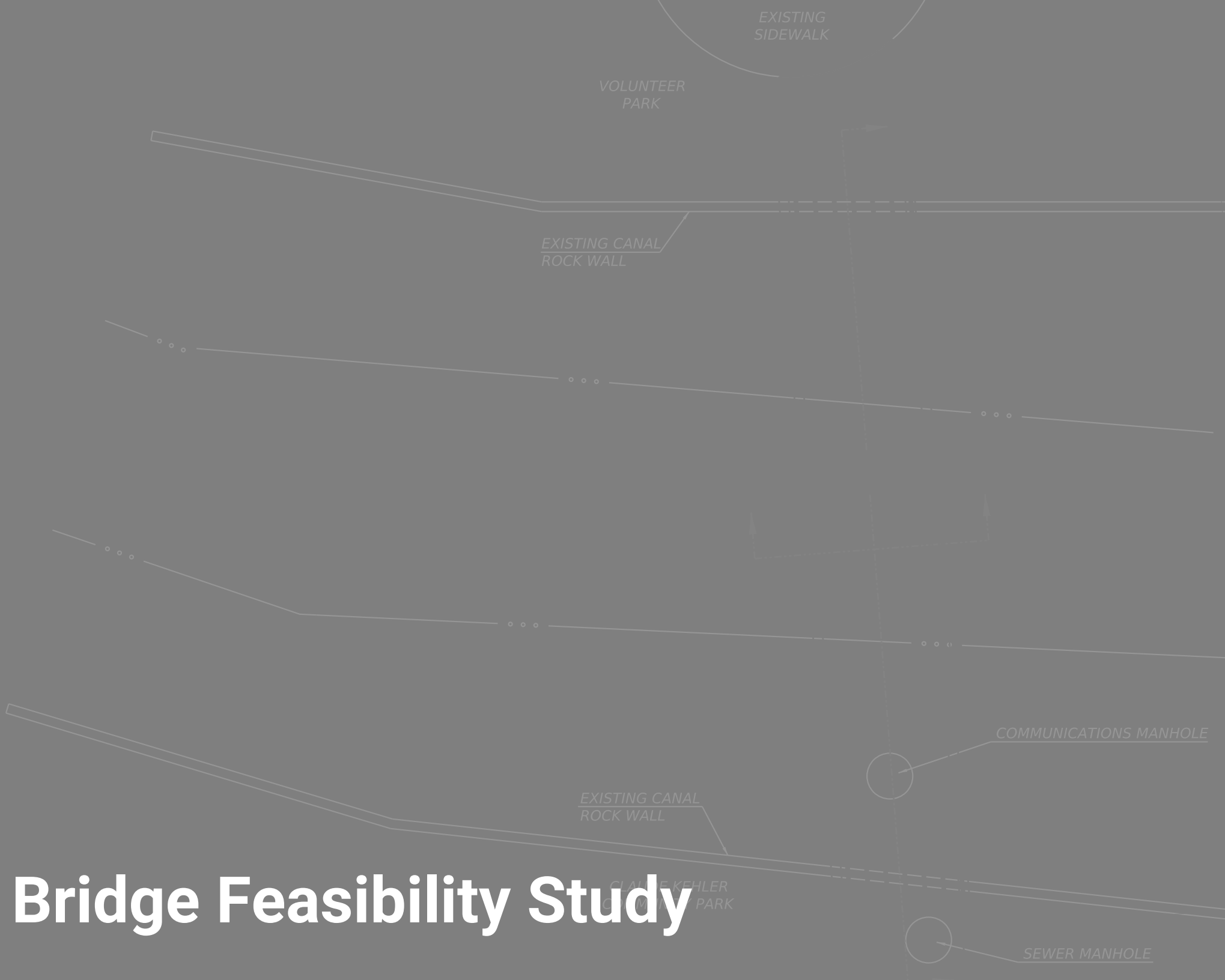
BICYCLE/PEDESTRIAN BRIDGE

Opportunities

1. When standing in Volunteer Park, a clear line of sight can be seen to Claude Kehler Park. The bridge connection is missing; it seems it should have been there from the start. The need for connection is apparent, as current residents use the rail bridge despite warnings against this.
2. The bridge connection would support the Northumberland County Rail Trail.

Constraints

1. The elevations from the Volunteer Park side to the Claude Kehler Park side differ slightly, and the rock retaining walls need to be cleared by the bridge completely for them to remain in place.
2. Utilities may be impacted slightly, relocated would likely be necessary for most of the bridge options.



Bridge Feasibility Study

3.0 Bridge Feasibility Study

This report, commissioned by the City of Shamokin, provides a feasibility study for developing a pedestrian bridge connecting Volunteer Park to Claude Kehler Park. The bridge would be designed to serve multiple users, including pedestrians, bicyclists, and others, and will allow for a safe crossing for all users. The bridge is to serve as a centerpiece of the connected parks and will also support the proposed Northumberland County Rail-Trail by offering much needed parking and access to other amenities.

The objectives of this feasibility study include the following:

1. Identify the viability and constructibility of each of the three bridge locations before providing a recommendation on the best position.
2. Research the most efficient truss design and applicable parameters, such as paint color, finish, and more.
3. Ensure that the chosen design will include safety features for all users, while also maintaining environmental protection during and after construction.
4. Provide preliminary construction cost estimates, including discussion on future maintenance costs.
5. Develop conceptual drawings to assist with displaying the recommended bridge type and location.

A project area location map is shown below with the three options for the bridge location. Additional figures, typical sections, and plan details are provided within the report.

The alternatives presented in this report were identified based on discussion with the City of Shamokin staff, aerial mapping/photography, and a site visit to the existing parks. The site visit helped to identify utility conflicts, existing grading challenges, elevation differences between the canal's rock walls, and other factors that could impact the constructibility of the project. Cultural and natural resource investigations were not evaluated in this study. Regardless of location, the proposed bridge would be constructed with a low chord at or above the existing railroad bridge elevation to ensure no hydraulic impacts.

For this study, there are three bridge locations that were identified as possible alternatives:

1. Westernmost Bridge / Furthest Downstream
2. Central Bridge
3. Easternmost Bridge / Furthest Upstream



BRIDGE LOCATION 1 – WESTERNMOST BRIDGE

Bridge 1 location spans Shamokin Creek near the confluence of Carbon Run with Shamokin Creek. This bridge is located furthest downstream of the existing railroad bridge. The southern approach (Claude Kehler Park side) has an obstruction in the form of an existing building. The foundation of the existing building is in poor condition, with cracking and blocks falling away. As such, the building would need to be demolished and removed to make way for the new structure. The bridge does not align with the center of Volunteers Park, and an extended pathway would need to be built to the bridge approach.

The south rock wall is 4'-6" tall, while the north rock wall is 8'-0" tall. Therefore, there is a 3'-6" elevation difference along the structure. The normal clear span between the front face of each wall is 63'-0", while the normal clear span to minimize disruptions to the rock walls and allow for them to remain in place is 73'-0".

Utility impacts are minimal. There is an existing propane tank attached to a nearby building, and there are two underground electrical boxes located around the existing building that would need to be relocated.



BRIDGE LOCATION 2 – CENTRAL BRIDGE

Bridge 2 location spans Shamokin Creek within the center of both Claude Kehler Park and Volunteers Park. The bridge lines up with an existing concrete pathway near the pavilion on the Claude Kehler Park side, while also lining up with a central fountain and proposed hotel on the Volunteers Park side.

The south approach will require some minor regrading due to a 3'-0" height difference between the top of the rock wall and the sidewalk if the bridge ties in at the rock wall. The bridge could also be extended to avoid impact in this area.

The south rock wall is 4'-6" tall, while the north rock wall is 6'-6" tall. The existing concrete pathway on the left side is approximately 3'-0" above the top of the rock wall. The normal clear span between the front face of each wall is 72'-0", while the normal clear span to minimize disruptions to the rock walls and allow for them to remain in place is 80'-0".

Utility impacts are moderate. There are two nearby sewer manholes with a sewer overflow outlet pipe located within the vicinity of the bridge. Also, there is a communications manhole located within the canal under where the bridge would span. There is also a UGI natural gas pipeline that is located directly to the right of the concrete approach path on the Claude Kehler Park side. These utilities would most likely need to be relocated.



BRIDGE LOCATION 3 – EASTERNMOST BRIDGE

Bridge 3 location spans Shamokin Creek by running parallel to the existing railroad bridge. This bridge would be constructed near the active railroad bridge and offer a much safer crossing option than the railroad bridge which residents use despite no trespassing signs. The bridge is on the edge of both parks and is not a centerpiece item. Approach work would be required on either side to extend the current pathways and connect to the bridge. The south approach will require some minor regrading due to a height difference between the top of the rock wall and the sidewalk if the bridge ties in at the rock wall. The bridge could also be extended to avoid impact in this area.

The south rock wall is 5'-2" tall, while the north rock wall is 4'-6" tall. Therefore, there is an 8" elevation difference along the structure. The normal clear span between the front face of each wall is 77'-0", while the normal clear span to minimize disruptions to the rock walls and allow for them to remain in place is 87'-0".

Utility impacts are high. Currently, there is an overhead utility line and guy wire that runs across Shamokin Creek close to the location of the proposed bridge. In addition to this, there is an underground natural gas pipeline that runs within the area and along the existing railroad structure. This also coincides with underground gas tanks located near the ambulance building on the Volunteers Park side of the stream. Utilities would need to be relocated, including the underground gas tanks for the excavation and construction of the bridge's north abutment.



3.1 Comparison of Bridge Locations

Each location provides benefits and drawbacks in relation to constructibility, utility disruption, aesthetic appeal, and more. Listed below are the pros and cons for each bridge location:

Bridge 3 location was eliminated from consideration due to concerns with the nearby utilities that would be disrupted by the construction of this bridge. There are underground gas tanks near the ambulance building on the Volunteer Park side that would be impacted by excavation for the bridge substructure. Also, a gas pipeline, overhead utility line, and guy wire would all need to be relocated due to excavation and the bridge's location. This is also coupled with the location being at the park's edge and close to an active railroad bridge. This can lead to a safety concern, eliminating this location as a viable option.

Bridge 1 location was considered less favorable than the location of Bridge 2. Bridge 1 has some benefits, which include having the shortest span and least utility impacts. The downside with this location, though, is that it would require the demolition of an existing building and would require new paths to be placed to connect to the structure. This location is also behind a building, which can lead to a safety concern as there is no line of sight to the bridge from the road. For these reasons, this location is not recommended.

For the reasons stated above, Bridge 2 is the recommended location for the new structure. This location allows for the bridge to be the centerpiece of the parks and is centrally located to allow for maximum usage by pedestrians and bicyclists alike. There are also existing pathways that will tie into the approaches for both sides of the structure. The structure aligns with the existing fountain and proposed hotel and will allow for an aesthetically appealing line of site. This option would involve moderate utility impacts, but the benefits of this location far outweigh the drawbacks.

Bridge 1 (Westernmost Bridge)	
Pros	Cons
1. Shortest span of all three alternatives (approximately 63'-0"). 2. Minimal utility impacts.	1. Requires removing existing storage building (added cost). 2. Structure is not centerpiece of park. 3. Highest elevation difference of all structures (requiring more re-grading). 4. Not the preferred choice of the City of Shamokin.

Bridge 2 (Central Bridge)	
Pros	Cons
1. Preferred choice of the City of Shamokin. 2. Becomes the centerpiece of the park. 3. Conveniently ties together the main thoroughfares of both parks. Lines up very well with the central fountain and proposed hotel.	1. Moderate utility disruption. 2. Slight grading difference between the end of the existing path and the wall that will require the bridge to have a larger span or for there to be backfill.

Bridge 3 (Easternmost Bridge)	
Pros	Cons
1. Smallest elevation difference (requiring less re-grading).	1. Underground gas tanks located next to the ambulance building. 2. Longest span of all the bridges (77'-0"). 3. Not the preferred choice of the City of Shamokin. 4. Gas pipeline runs underground in area. 5. Overhead utility line & guy wire run directly in conflict with the location of the bridge. 6. Located next to an active railway (once a week currently). 7. Structure is not centerpiece of park.

3.2 Superstructure Types & Delivery Discussion

The type of steel truss bridge will mainly be a result of the span length requirements, with aesthetic considerations also present. All alternative locations will utilize a similar truss type, as all the span lengths fall between 63'-0" to 87'-0". With this difference only being 24'-0", span length limitations will not be in effect.

In addition to this, splices will play a key factor in the cost of the structure. A longer bridge span will result in the bridge needing to be delivered in two separate sections, resulting in a higher cost. With the project site being in a downtown portion of Shamokin, the number of splices may not be controlled by the span length of the bridge, but rather by the turn radii requirements of the truck. The maximum number of splices that can occur is three to four, depending on the number of available bays at the fabrication plant, and the minimum length of a bridge section is 20'-0". These sections would be spliced together on site by the contractor, and then a crane would be utilized to lift the full-length bridge.

The types of trusses that can be utilized for the span length requirements are displayed below:

Connector Truss

- This style of truss follows a simple Pratt truss with two parallel top and bottom members, vertical members spaced along the truss, and diagonal members connected between the verticals.
- Standard truss will only have one diagonal per bay, but additional members could be added to create an 'X' shape, which will improve aesthetic appeal.
- This style of truss is a more standard pedestrian design and will have a historic look.
- Span length is limited to 200'-0" for pedestrian bridges. Bridge can be flat or cambered up to 1% of the span length.



Keystone Truss

- This style of truss follows a similar Pratt truss design, except the top member is a parabolic curve that spans from each end of the bridge. The vertical and diagonal members tie into this top parabolic member and the bottom horizontal member.
- This superstructure type will typically be more expensive than the Connector type.
- This structure has high aesthetic appeal and is a unique design when comparing typical truss bridges.
- Span length is limited to 250'-0" for pedestrian bridges. The center depth of the curve will be approximately 10% of the total bridge span length.



Additional truss types are available but have been excluded due to being designed for longer span lengths, heavier loads, or express time requirements.

SUBSTRUCTURE TYPES

After investigation, it was found that the most efficient substructure to use for the pedestrian bridge would be a reinforced concrete spread footing. This foundation will look like an inverted 'T', where the abutment will be vertical from the footing. The bridge superstructure will then be placed on bearings, which are attached to the abutment. It is possible for this substructure unit to be precast concrete, which then can be placed in the excavated area with a crane. The depth of the abutment and footing will be approximately 6'-0" to 9'-0" tall, though this will require a geotechnical investigation. It is also possible for the abutment to be placed flush with the existing canal rock wall and then have an architectural finish applied to it to match the existing rock wall aesthetics. Another option is to set this foundation back from the rock wall, expanding the bridge span, but minimizing impact to the rock wall.

FINISH OPTIONS

For the finishing options, there are a few selections that will assist in creating a unique and centerpiece structure, while also properly protecting the bridge from corrosion. Options, like painting the bridge, can have a grand effect in making the structure stand out, but there are added initial and maintenance costs. Therefore, it is important to review each method accordingly to find the most cost-effective option, while also finding an option that fulfills that centerpiece criteria. The four main options for finishing the bridge are as follows:

Weathering Steel

- Protective patina forms as the structure is exposed to weather.
- Minimal maintenance costs due to the regenerative nature of the patina.
- Provides an antiquated appearance and “rust” color, which can be beneficial in drawing attention to the structure.
- Salt is very damaging to weathering steel and this option cannot be used if de-icing salt will be placed on the bridge deck.



Painted Steel

- Steel members are painted with a surface coating mixture to minimize corrosion.
- Offers customization due to there being no limit to choice of color (any color that Sherman Williams carries), which will help with the structure being a centerpiece. Orange and red will fade the quickest, which is only an aesthetics concern.
- Added maintenance costs due to structure needing to be repainted to minimize rust. Will need repainted approximately every 30 years, though this can vary depending on damage.



Painted Weathering Steel

- Provides a protective patina as the painted surface wears off.
- Addition of paint allows for customization options that pure weathering steel does not have.
- Costly up front, but minimal maintenance costs if not repainted. If the choice is to repaint, there will be additional maintenance costs every couple of years.
- Structure retains centerpiece status with painted surface or with protective patina.
- De-icing salt is very damaging to weathering steel and this option cannot be used if it will be placed on the bridge deck.



Galvanized Steel

- Provides a protective layer of zinc on the surface that will corrode before the steel.
- Extends the steel's lifespan while also minimizing maintenance costs.
- Very high up front cost.
- Minimal customization options and steel will be a shiny silver color.



Overall, each option has added benefits and drawbacks that can assist in protecting the bridge while also creating a unique structure that stands out within the park. It is recommended that the painted steel be chosen for the bridge structure. This will allow for the structure to look however is desired and will offer protection from corrosion without risk of failure due to de-icing salt.

DECK OPTIONS

For the deck options, there are a few materials that can be utilized to create an aesthetically appealing bridge, while also maximizing functionality and minimizing maintenance costs. The two main deck options are as follows:

Concrete

- Slightly more expensive initially due to formwork required but minimizes long-term maintenance costs due to extra durability.
- Larger member sizes, but less members required to support the concrete. Therefore, minimal differences in steel cost between the other options.
- Allows for paint to be applied for murals or other things to increase aesthetic appeal.



Composite Decking (Trex)

- This option allows for the deck to look like it is made of wood while also having the additional durability of being made with plastic.
- Lower additional cost, but more maintenance costs in the long-run due to the decking needing to be replaced as boards get damaged or degrade.
- Replacement planks are readily available at any department store.

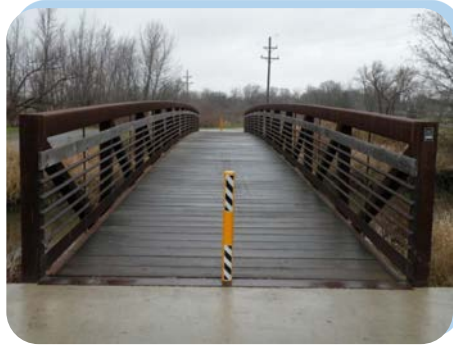


Fiberglass Reinforced Plastic (FRP) paneling was also researched, but this option was deemed to be not viable due to the high initial cost mixed with additional long-term maintenance costs. Also, there are only two plants within Pennsylvania that can produce FRP paneling, which can lead to difficulties in gaining replacement panels.

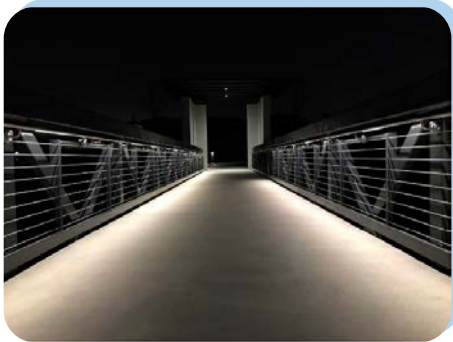
Overall, both decking options have aesthetic strengths in terms of painting for concrete and the wood finish that Trex has. The difference is that the concrete deck will minimize long-term maintenance costs when compared to the Trex option. Therefore, it is recommended that a concrete deck be utilized.

3.3 Security Analysis

For the security analysis of the proposed bridge, there are three main items that can be incorporated to enhance pedestrian safety and minimize damage to the structure. First, protective bollards should be placed at both approaches of the structure. Due to the width of the bridge being 12'-0" for the shared-use path, it is possible that a four-wheeled all-terrain vehicle (ATV) is driven across the structure. As such, protective bollards should be installed to allow for fluid pedestrian and bicyclist movements while prohibiting any motorized vehicles from entering and using the structure. After a discussion with the City of Shamokin, it is recommended that these protective bollards be removable so that City maintenance vehicles can cross the bridge to access both sides of the park.



Next, lighting can be applied to the bridge to provide additional security during the night. Due to the prefabricated steel truss bridge being made of hollow structural section (HSS) steel, it is practical for the wiring raceway to be installed within the hollow member. The fabricator would then be able to place access panels along the member so that installation and repair could occur. Lighting could come in any form, from standard light poles to lights attached to the toeplate that casts down onto the pathway. As discussed with City of Shamokin officials, these lights should hinder graffiti and preserve the structure's integrity.



Finally, safety railing should be included so that pedestrians and bicyclists are safe when crossing the structure. Many different types of railing options are available. Included in these are a horizontal angular steel option or vertical picket fencing with a pipe handrail. Cost is very similar between both options, with the main difference only being the aesthetics (horizontal vs. vertical railing).



3.4 Cost Estimate

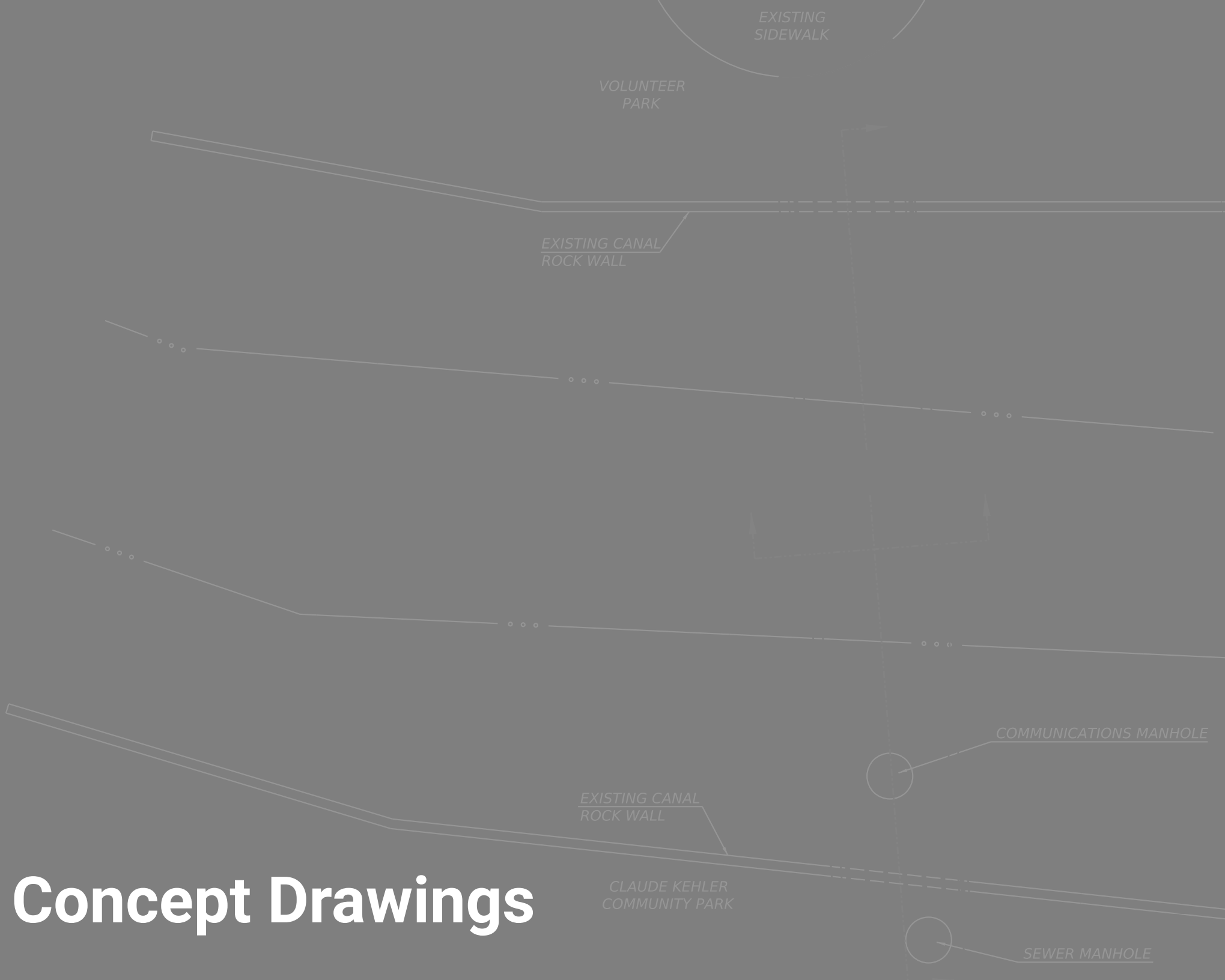
	80'-0" Connector	72'-0" Connector	80'-0" Keystone	72'-0" Keystone	80'-0" Connector X-Bracing
Structure	\$195,600	\$175,270	\$232,800	\$208,600	\$219,500
Construction Items	\$260,400	\$314,730	\$263,200	\$317,400	\$262,500
Subtotal	\$456,000	\$490,000	\$496,000	\$526,000	\$482,000
Contingency (20%)	\$92,000	\$98,000	\$100,000	\$106,000	\$97,000
Total	\$548,000	\$588,000	\$596,000	\$632,000	\$579,000

For the cost estimates, it is found that the 80'-0" Connector bridge is the cheapest option, with the 72'-0" Keystone bridge being the most expensive. The reason the 72'-0" bridges are more expensive than their respective 80'-0" counterparts is mainly due to the deeper foundation that is required when the abutment becomes integral with the existing rock wall. This leads to more excavation and concrete, which increases the cost. The structure costs were found through an estimate from a bridge prefabricator, where the Keystone structures were more expensive due to their added complexity. The quoted values from the prefabricator were increased by 20% to account for taxes and erection costs. A 20% contingency was added on to the subtotal due to the design being in the conceptual phase, with added complexities and costs being possible as the design further progresses. See Appendix B for preliminary cost estimates.

Future maintenance costs should be considered in the design. Using a concrete deck will lower the maintenance costs throughout the lifecycle of the bridge, mostly because it will not need to be replaced numerous times like the trex option. Also, as for the finish of the bridge, the painted steel is the most cost-effective choice in terms of upfront and long-term maintenance costs. While the galvanized steel would have a lower maintenance cost when compared to the painted option, the upfront cost makes it much more expensive overall. Also, the weathering steel option would be more cost effective as it would have minimal maintenance costs. Weathering steel is designed to resist natural corrosion, however, exposure to de-icing salts can significantly accelerating rusting/deterioration and therefore is not recommended in this application. Overall, the painted steel option is the most practical and cost-effective option, even though it will need to be repainted approximately every 30 years.

3.5 City Preference

After meeting with the City of Shamokin officials on January 8, 2025, it was found that the City preferred the Connector truss option over the Keystone version. This was mostly due to there being a safety concern of people climbing the parabola of the Keystone truss and because the Connector truss has a more historic look. The City also requested that a rendering occur of an 80'-0" Connector truss with two diagonals per bay, making x-bracing, to improve the aesthetic appeal of the bridge. Also, the City preferred the painted steel finish, and believes that a white or soft gray color would be the best suited option for the paint color. The City concurs with the concrete deck option on the bridge. As such, all conceptual drawings can be found within Appendix A, which includes the City preferred option of the 80'-0" Connector truss with x-bracing.



Concept Drawings

4.0 Concept Drawings

PARK OPTIONS - CONCEPT 1



VOLUNTEER PARK | PROPOSED CONCEPT 1
DECEMBER 2024

PARK OPTIONS - **CONCEPT 2**



VOLUNTEER PARK | PROPOSED CONCEPT 2
DECEMBER 2024



PARK OPTIONS - **CONCEPT 3**



VOLUNTEER PARK | PROPOSED CONCEPT 3
DECEMBER 2024





EXISTING
SIDEWALK

VOLUNTEER
PARK

EXISTING CANAL
ROCK WALL

COMMUNICATIONS MANHOLE

EXISTING CANAL
ROCK WALL

CLAUDE KEHLER
COMMUNITY PARK

SEWER MANHOLE

Concept Narratives

5.0 Concept Narratives

CONCEPT 1	CONCEPT 2	CONCEPT 3
		
- Food Truck Area: Located in the northwest corner, offering diverse dining options. - New Footbridge: Connects Volunteer Park to Claude Kehler Park, improving accessibility for concerts, events, and fundraisers. - Shaded Picnic Tables: Shade sails provide a comfortable dining and relaxation space. - Rain Garden: Enhances aesthetics, improves stormwater management, and filters water into Shamokin Creek. - Updated Signage: Guides visitors and provides historical, ecological, and botanical information. - Community Development: Supports entrepreneurship through food trucks, craft fairs, and pop-up markets. - Safety Enhancements: Improved lighting, clear visibility, signage, fencing, and bollards.	- Terraced Seating Platform: Provides a scenic gathering space for relaxation and live performances. - New Footbridge: Connects Volunteer Park to Claude Kehler Park, improving accessibility for concerts, events, and fundraisers. - Shaded Picnic Tables: Shade sails provide a comfortable dining and relaxation space. - Rain Garden: Enhances aesthetics, improves stormwater management, and filters water into Shamokin Creek. - Updated Signage: Guides visitors and provides historical, ecological, and botanical information. - Community Development: Supports entrepreneurship through food trucks, craft fairs, and pop-up markets. - Safety Enhancements: Improved lighting, clear visibility, signage, fencing, and bollards.	- Accessible Playground: A safe, engaging space for children at the park's center. - New Footbridge: Connects Volunteer Park to Claude Kehler Park, improving accessibility for concerts, events, and fundraisers. - Shaded Picnic Tables: Shade sails provide a comfortable dining and relaxation space. - Rain Garden: Enhances aesthetics, improves stormwater management, and filters water into Shamokin Creek. - Updated Signage: Guides visitors and provides historical, ecological, and botanical information. - Community Development: Supports entrepreneurship through food trucks, craft fairs, and pop-up markets. - Safety Enhancements: Improved lighting, clear visibility, signage, fencing, and bollards.



Integrated Final Concept

6.0 Integrated Final Concept



VOLUNTEER PARK | PROPOSED CONCEPT 4 - FINAL
JANUARY 2025



FINAL CONCEPT NARRATIVE

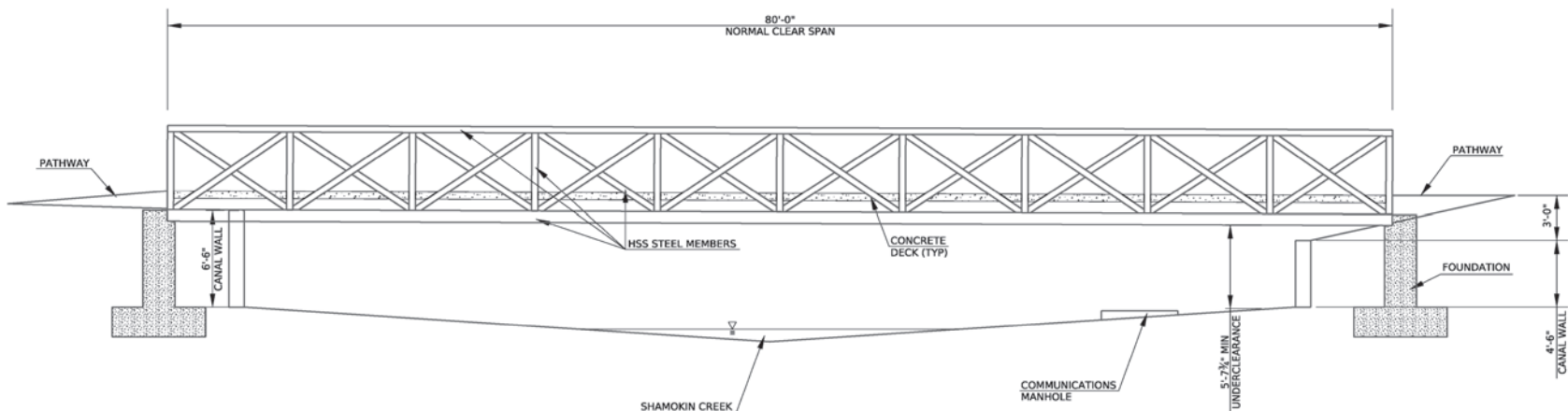
Volunteer Park has been transformed into a vibrant gathering space for the Shamokin community. A newly constructed footbridge now connects it to Claude Kehler Park, making it easier for visitors to enjoy concerts, fundraisers, and seasonal events.

A modern playground offers children a safe place to explore, while nearby picnic tables with sleek shade sails provide a comfortable spot for families to relax. A designated food truck area brings local vendors to the park, creating a lively dining experience. Enhancing sustainability, a new rain garden helps manage stormwater while supporting native plant life.

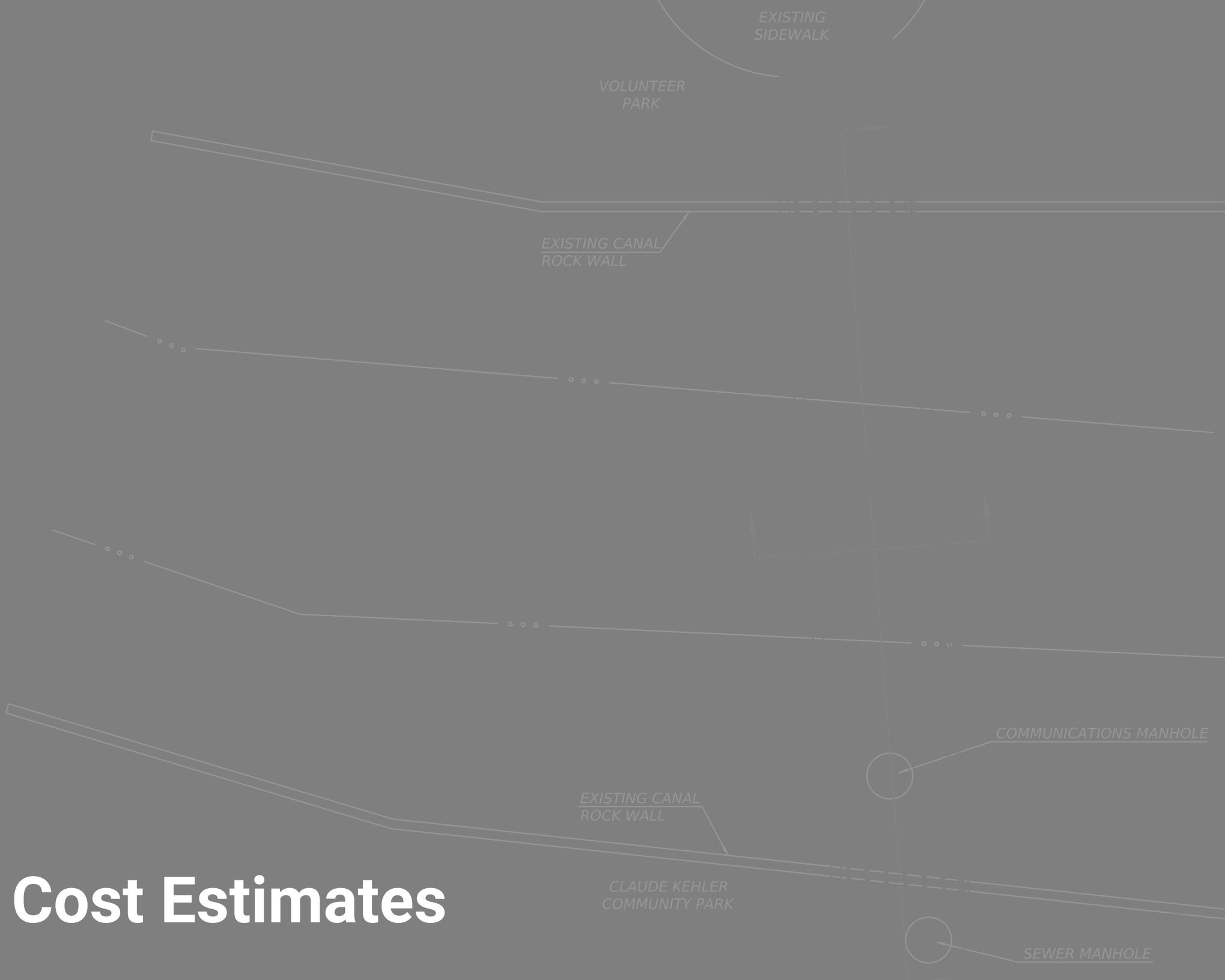
New wayfinding and educational signage improve navigation and share insights into local history and ecology. Convenient bike racks encourage cycling, making the park more accessible and eco-friendly.

Beyond recreation, Volunteer Park serves as a community incubator, hosting pop-up markets, educational programs, and small business events. Enhanced lighting and open sightlines ensure a safe, welcoming environment for all.

With these upgrades, Volunteer Park has become a dynamic destination, fostering connection, creativity, and local pride in Shamokin.



Cost Estimates



7.0 Cost Estimates

PARK COST ESTIMATES

Equipment Schedule				
Material	Quantity	Cost per Unit	Unit	Total Cost
ADA Play Set	1	\$20,700	Per Set	\$20,700
ADA Swing Set	1	\$6,700	Per Set	\$6,700
Shade Sail	2	\$15,000	Per Shade	\$30,000
Bench	6	\$1,450	Per Bench	\$8,700
Bike Rack	2	\$3,240	Per Rack	\$6,480
Signage	5	\$500	Per Sign	\$2,500
Flagpole	1	\$3,290	Per Pole	\$3,290
Post and Rail Fence	605	-	Per Fence	\$7,178
Seating/ Platform	1	-	Per Platform	\$5,000
Equipment Total				\$90,548

Plant Schedule				
Plant Type	Quantity	Cost per Unit	Unit	Total Cost
Blue Flag Iris	12	\$7.88	Per Planting	\$95
Swamp Milkweed	10	\$6.00	Per Planting	\$60
Soft Rush	8	\$6.00	Per Planting	\$48
Blue Star	12	\$6.00	Per Planting	\$72
Mistflower	24	\$6.37	Per Planting	\$153
Blazing Star	24	\$7.88	Per Planting	\$189
Planting Cost	90	\$0.60	Per Planting	\$54
Plant Total				\$671

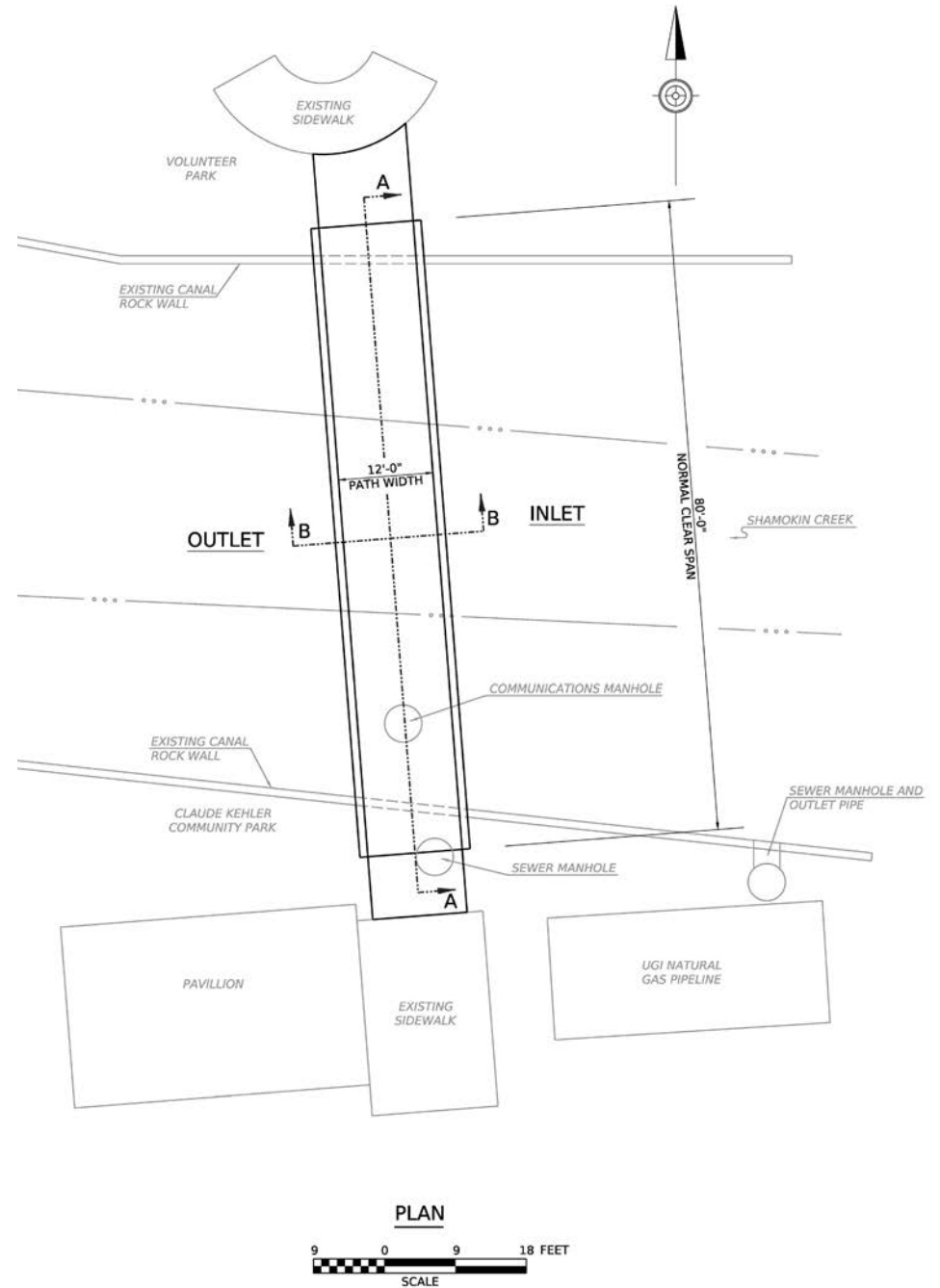
Material Schedule				
Material	Quantity	Cost per Unit	Unit	Total Cost
Food Truck Parking	400	\$7.85	Per SF	\$3,139
Playground Mulch	930	\$3.10	Per CY	\$2,883
Topsoil	75	\$50.00	Per CY	\$3,750
Concrete Sdwk Ext.	150	\$6.44	Per SF	\$966
Materials Total				\$10,738

Utilities				
Utility Type	Quantity	Cost per Unit	Unit	Total Cost
Water Hookups				
Fountain Area	1	\$40,926	Per Hookup	\$40,926
Food Truck	1	\$25,926	Per Hookup	\$25,926
Electric Hookup				
Fountain Area	1	\$9,750	Per Hookup	\$9,750
Food Truck	1	\$7,250	Per Hookup	\$7,250
Utilities Total				\$83,852

Maintenance and Operations				
Maintenance and Operations Type	Quantity	Cost per Unit	Unit	Total Cost
Operations	12	\$500	per Month	\$6,000
Maintenance and Operations Total				\$6,000
Total Materials				\$191,809
Contingencies (25%)				\$47,952
Park- Wide Improvements Grand Total				\$239,761

BRIDGE COST ESTIMATES

	80'-0" Connector	72'-0" Connector	80'-0" Keystone	72'-0" Keystone	80'-0" Connector X-Bracing
Structure	\$195,600	\$175,270	\$232,800	\$208,600	\$219,500
Construction Items	\$260,400	\$314,730	\$263,200	\$317,400	\$262,500
Subtotal	\$456,000	\$490,000	\$496,000	\$526,000	\$482,000
Contingency (20%)	\$92,000	\$98,000	\$100,000	\$106,000	\$97,000
Total	\$548,000	\$588,000	\$596,000	\$632,000	\$579,000





Phased Capital Development Program

8.0 Phased Capital Development Program

PHASED CAPITAL DEVELOPMENT TIMELINE

To construct the integrated final concept, the following Phased Capital Development Timeline lays out a timeline for project completion and associated costs. This suggested timeline is based on City priorities and is subject to change based on funding, updated priorities, or other circumstances.

Short Term (0 to 2 Years)			
Improvement	Quantity	Cost per Improvement	Total Cost
Post and Rail Fencing	605 LF	\$11.86 per LF	\$7,178
Concrete Sidewalk Extension	150 SF	\$6.44 Per SF	\$966
Signage	5	\$500 Per Sign	\$2,500
80'-0" X-Connector Bracing	1	Per Bridge	\$482,000
Short Term Total			\$492,641
Contingencies (25%)			\$123,160
Short-Term Grand Total			\$615,801

Mid Term (3 to 5 Years)			
Improvement	Quantity	Cost per Improvement	Total Cost
Shade Sail	2	\$15,000 Per Sail	\$30,000
Benches	6	\$1,450 Per Bench	\$8,700
Bike Racks	2	\$3,240 Per Rack	\$6,480
Rain Garden (Plantings and Topsoil)	1	*See Park Cost Estimates	\$4,421
Food Truck Parking	400	\$7.85 Per SF	\$3,140
Mid Term Total			\$52,741
Contingencies (25%)			\$13,185
Mid-Term Grand Total			\$65,926

Long Term (6+ Years)			
Improvement	Quantity	Cost per Improvement	Total Cost
ADA Play Set w/Mulch	1	*See Park Cost Estimates	\$23,883
ADA Swing Set	1	Per Set	\$6,700
Flag Pole	1	Per Pole	\$3,290
Water Hookups			
Fountain Area	1	Per Hookup	\$40,926
Food Truck	1	Per Hookup	\$25,926
Electric Hookups			
Fountain Area	1	Per Hookup	\$9,750
Food Truck	1	Per Hookup	\$7,250
Long Term Total			\$117,725
Contingencies (25%)			\$29,431
Long-Term Grand Total			\$147,156

8.1 Funding Opportunities and Gaps

To successfully implement the phased capital development plan for Volunteer Park, multiple funding sources can be leveraged by the City. These include federal, state, and local government grants, public-private partnerships, community fundraising, and volunteer or in-kind gestures from the community.

GOVERNMENT GRANTS & PUBLIC FUNDING

Pennsylvania Department of Conservation and Natural Resources (DCNR)

- Pennsylvania Conservation Partnerships Program (C2P2) - Supports park development, trail connections, and recreational facilities.
- Recreational Trails Program (RTP) - Provides funding for trails, connectivity, and accessibility improvements.

Federal Grants and Programs

- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant - Supports pedestrian and bike infrastructure, which would include the proposed pedestrian bridge.
- National Park Service Land and Water Conservation Fund (LWCF) - Offers funding for park enhancements and recreational spaces.
- U.S. Department of Transportation Safe Streets and Roads for All (SS4A) Program - Supports pedestrian safety improvements, such as lighting and secure crossings

State and Local Infrastructure Grants

- Pennsylvania Department of Community and Economic Development (DCED) - Offers grants for public spaces that enhance the opportunity for community engagement.
- Pennsylvania Greenways, Trails, and Recreation Program - Provides funding for green infrastructure, stormwater management and recreational space improvements.
- Local Government Funding - The City of Shamokin may choose to decide to fully fund the improvements through available development funds.
- Event, Vendor, and Rental Fees - The City may require fees from vendors during seasonal events and rental fees from park users to assist with funding future events or ongoing maintenance of the park.

Public-Private Partnerships & Corporate Sponsorships

- Local Business Sponsorships - Partnering with local businesses provides opportunities for private funding of park elements such as benches, playgrounds, pavilions, and food truck areas in exchange for branding and recognition.
- Chamber of Commerce & Local Economic Development Programs - Working jointly with local entities provides pathways to secure funding for economic revitalization initiatives, marketing, and programming of Volunteer Park.

Nonprofit & Philanthropic Contributions

- Local & Regional Foundations - Seeking funding through local environmental, recreation, and community-based programs such as the Pennsylvania Environmental Council (PEC) or Keystone Fund may offer additional funding sources to assist with the development of Volunteer Park.
- National Nonprofits Supporting Parks & Green Spaces - The Trust for Public Land, Rails-to-Trails Conservancy, and the National Recreation and Park Association (NRPA) offer grants for public parks and connectivity projects.
- Community Fundraising & Crowdsourcing - By organizing and partnering with community groups, Shamokin may raise additional funds or obtain volunteer people-power to assist with funding or construction of certain projects.

FUNDING GAPS

Initial Capital Shortfalls

- While grants may cover significant portions of infrastructure costs, matching the grant requirements may pose as a barrier.
- Phased implementation Challenges - Some funding sources are only available for specific project types, making it difficult to align funding streams with the parks phased approach. By allowing flexibility in the development of Volunteer Park, Shamokin may be able to cast a wider net in searching for grant opportunities based on timelines.

Long-Term Maintenance & Operations Funding

- While initial construction costs can be secured through grants, volunteer hours, and donations, sustainable funding and volunteer hours for routine maintenance will be an ongoing challenge for the City.

Revenue Generation Limits

- Revenue from vendor fees and rentals may fluctuate throughout the year, creating inconsistent funding for operations during the winter months.
- Market Constraints - The local economy of Shamokin may limit the number of businesses willing to sponsor or invest in the park
- Public Perception & Affordability Concerns - Implementing user fees may face community resistance, limiting funding income through facility rentals at the park.

8.2 Maintenance, Operations, and Revenue

PERSONNEL

Full Time Employee

- The City will need to dedicate an already existing employee with the task of managing Volunteer Park and related events, or add staff to specifically manage the park, events, maintenance and other items permanently.

Part Time Employees

- During events and peak utilization, Shamokin will need to add staff or coordinate with existing staff to handle the maintenance, operations, and upkeep of Volunteer Park. Staff may be seasonal in nature, offering flexibility to the City during peak utilization, seasonality, and large events.

MAINTENANCE AND OPERATIONS

Regular Maintenance

- Lawn care & landscaping (Mowing, trimming, planting, and weeding)
- Trash & recycling collection (Emptying bins and litter removal)
- Restroom & facility cleaning
- Playground & equipment inspections (Checking for damage and conducting as needed repairs)
- Trail & pathway upkeep (Clearing debris and resurfacing as needed)
- Event logistics & setup (Coordinating vendors, setting up seating, managing power hookups, and coordinating crowds/parking)

Infrastructure & Facility Upkeep

- Bridge inspections & minor repairs
- Pavilion & seating area maintenance
- Lighting system checks (Bulb replacements and wiring inspections)
- Signage upkeep (Repairing/replacing damaged, outdated and old signs)
- Winterization & snow removal (Clearing pathways and protecting structures)
- Spring & fall cleanups (Removing fallen leaves and preparing flower beds)

Safety & Security Measures

- Routine security patrols (Coordination with local law enforcement and security cameras may be utilized to reduce crime)
- Emergency preparedness checks (Ensuring sirens, first aid stations, and emergency exits are functional)

REVENUE

Event and Vendor Fees

- Throughout the year, Shamokin may host several events at Volunteer Park where vendors, food trucks, local organizations, and businesses may participate for a fee.

Facility Rentals

- Volunteer Park may be rented out by businesses or community groups for a fee, and individual facilities such as the band shell, pavilions or other amenities may also be rented out for a fee.

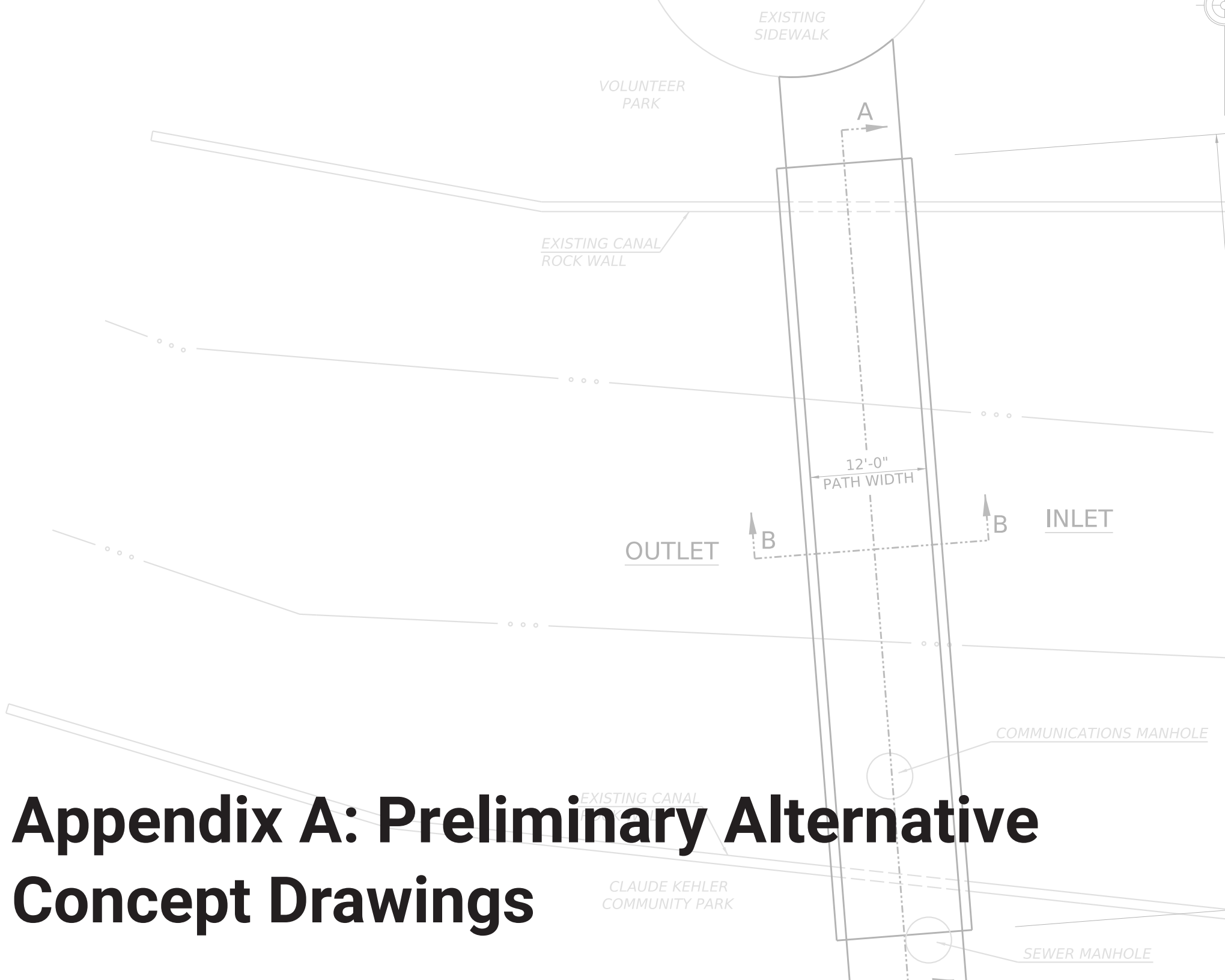
Parking Fees or Donations

- Implementing voluntary donation-based parking for large events and accepting in-kind donations from the local community may offer supplemental income for the city or volunteer hours for park maintenance.

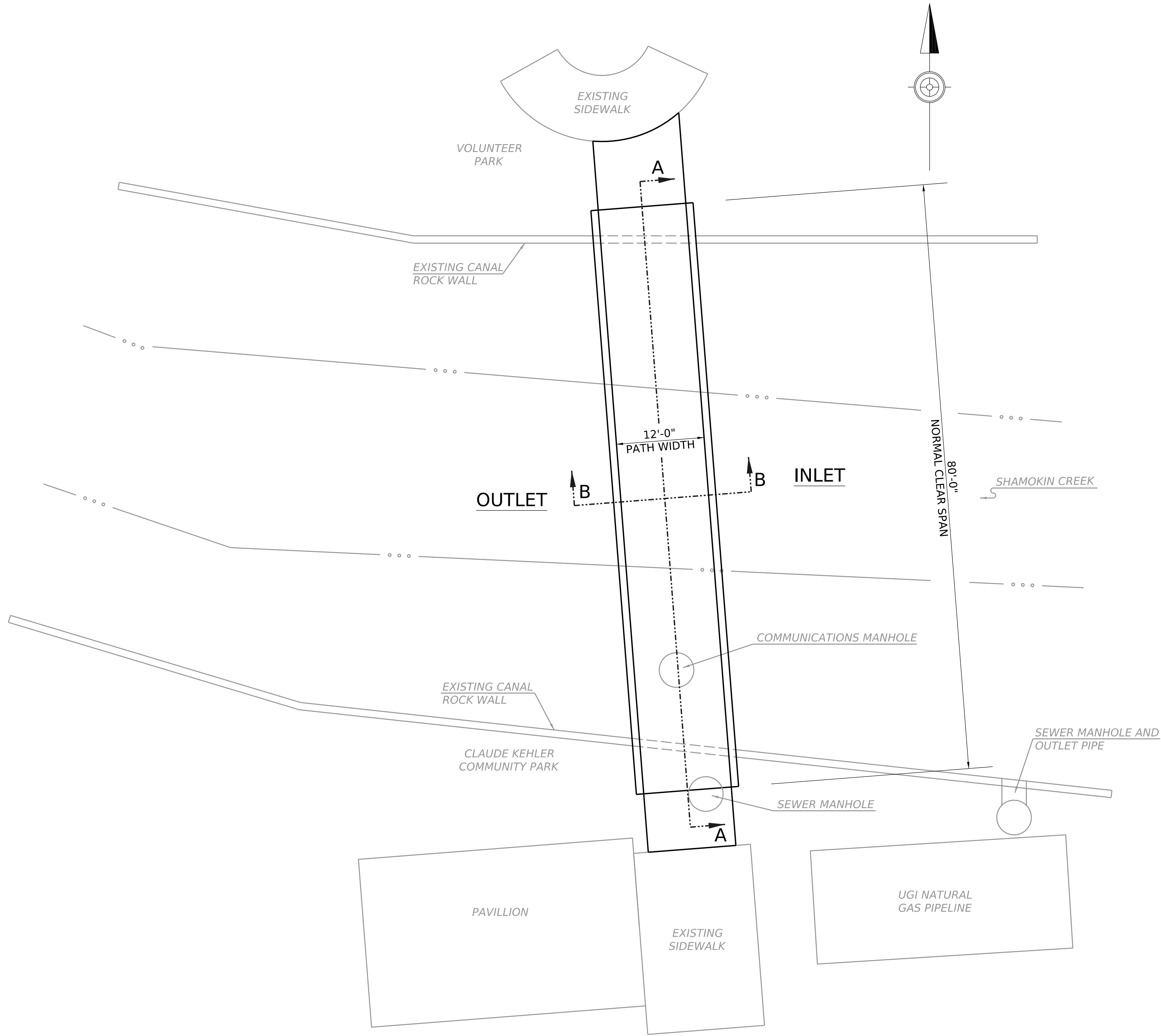
Park Conservancy or “Friends of Volunteer Park” Group

- Establishing an independent funding source through memberships, fundraising events, and dedicated donations offers a sense of community ownership and source of continual supplemental funding.

Appendix A: Preliminary Alternative Concept Drawings



PLOTTED: \$\$\$DATE\$\$\$



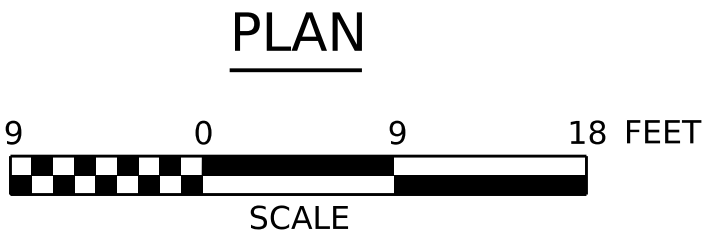
NOTE:

- FOR SECTION A-A AND B-B, SEE SHEET 2

Mark	Description	By	Chk'd	Recm'd.	Date
REVISIONS					

LEGEND:

— . . . — EXISTING WATER EDGE



*PRELIMINARY
DRAWING
OR
INFORMATION*

This drawing and/or information shall be used for reference purposes only, as details and content are subject to change.

Signature and Date: _____

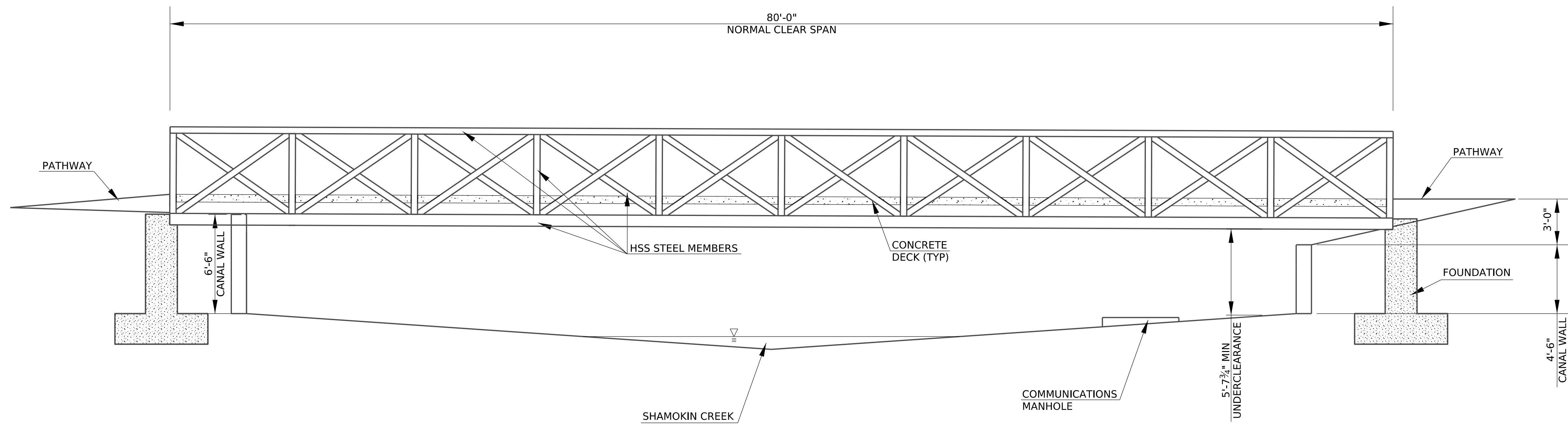
PREPARED BY:



LARSON DESIGN GROUP
1780 ROUTE 522
SELINGSGROVE, PA 17870

**CITY OF SHAMOKIN
NORTHUMBERLAND COUNTY**
Bridge Option 5
OVER SHAMOKIN CREEK
80'-0" PREFABRICATED CONNECTOR TRUSS X-BRACING
GENERAL PLAN

SHEET 1 OF 2

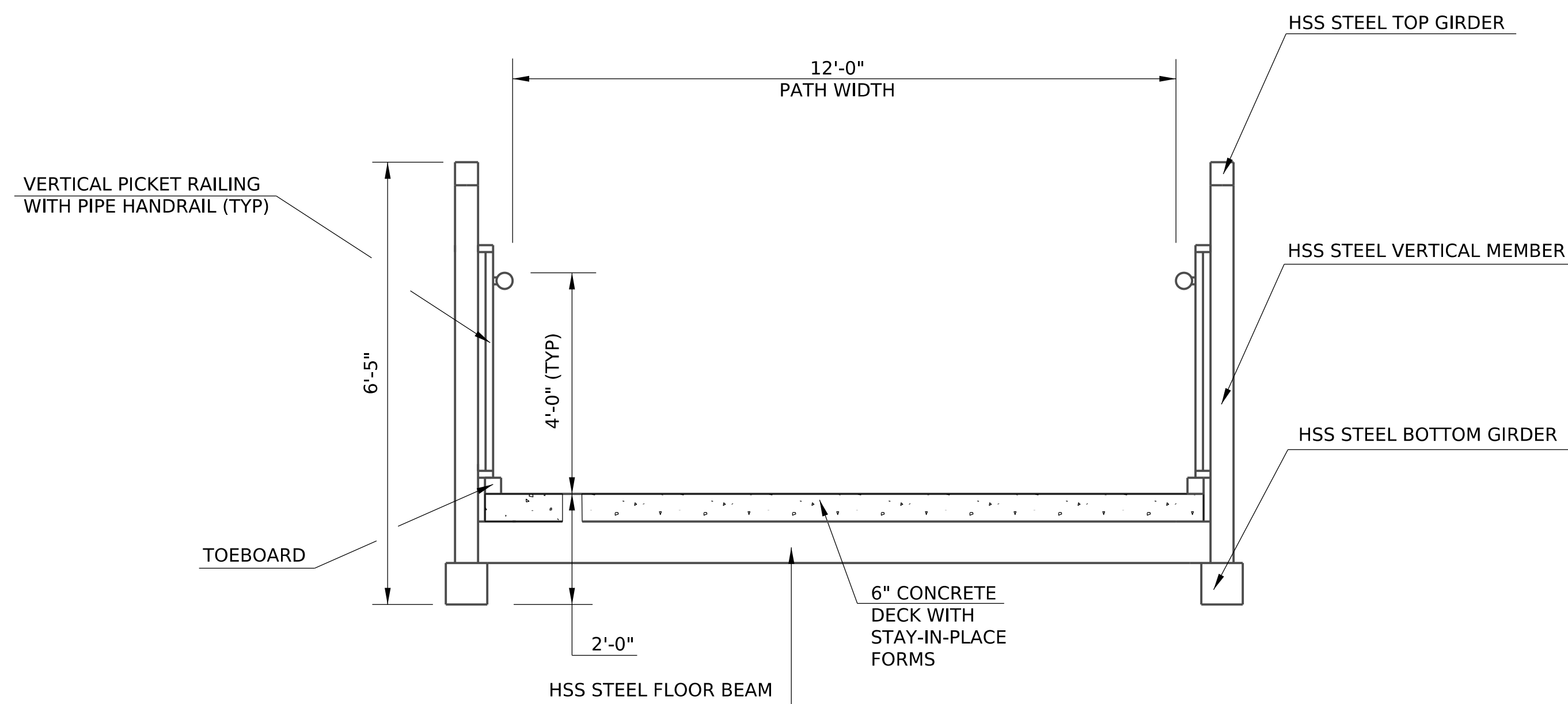


ELEVATION (SECTION A-A)

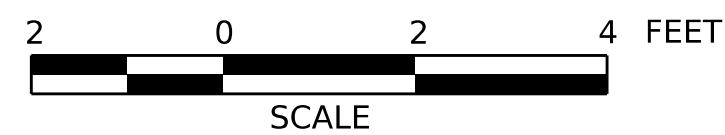


NOTE:

RAILING NOT INCLUDED FOR CLARITY. SEE TYPICAL SECTION DETAIL.



TYPICAL SECTION PREFABRICATED CONNECTOR TRUSS (SECTION B-B)



Mark	Description	By	Chk'd	Recm'd.	Date
REVISIONS					

**PRELIMINARY
DRAWING
OR
INFORMATION**

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CITY OF SHAMOKIN
NORTHUMBERLAND COUNTY

Bridge Option 5
OVER SHAMOKIN CREEK

80'-0" PREFABRICATED CONNECTOR TRUSS X-BRACING
ELEVATION & TYPICAL SECTION

SHEET 2 OF 2