

# DARBY TOWNSHIP

## Conway Park Draft Master Plan





### **Township Board of Commissioner**

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- Michael Fitz, Vice President, 3rd Ward Commissioner
- Marvin Smith, 1st Ward Commissioner
- Tamara Taliaferro, 2nd Ward Commissioner
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- Jon Dandridge, Chris Arnold Athletic Association
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- Raquel Holman, Citizen
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### **Project Consultants**



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# 1 Introduction





## Purpose for Study

Conway Park is a 14-acre existing park in Darby Township. The park is the largest open space and recreation area in the Township and is a beloved community space. The master plan process is to explore the development of both active and passive recreational facilities within the park. This public process informed the Township on how the public uses this park today and what improvements would best facilitate park use in the future.

This plan is the result of a collaboration between the public, project stakeholders, the Township project Task Force, Township staff, project consultants, and the Board of Commissioners. This document outlines the planning process and provides a vision for the future of Conway Park.

## Plan Goals

Conway Park is a unique and special place with the potential to be enhanced and serve the public for generations to come. The plan goals were tailored to reflect this and are as follows:

- Develop a master site plan that provides for recreational activities and facilities for people of all ages and that meet the requirements of the Americans with Disabilities Act (ADA).
- Create a vision for an improved public park that respects the Conway Park legacy while restoring ecological systems in the Park.

## Master Planning Process

The master plan is an early step in the improvement process that seeks to develop public consensus for activities and facilities to be included at Conway Park (see Figure 1.1). The master plan provides estimates of probable costs of development. It also outlines a strategy for phasing improvements and for securing funding from a variety of potential sources. The master plan is a guidance document and is intended to be flexible enough to adapt to the future desires and needs of the community.

Following the completion of this master site development plan, the next step toward implementation is to identify and acquire funding for improvements. Once funding is obtained, detailed design and engineering should be completed to develop construction documents. Construction documents will be publicly bid, and a contract awarded for construction. A master plan is typically implemented in phases, dependent on funding, over a period of years. In the case of Conway Park, five (5) to eight (8) phases spanning ten (10) or more years is a realistic period for the implementation of all plan recommendations.

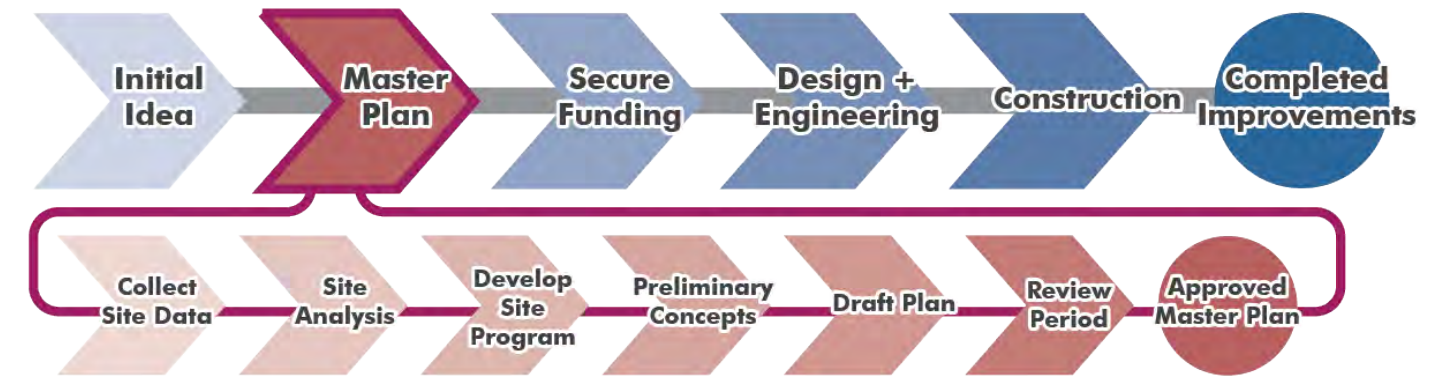


Figure 1.1 Master Plan Process

## Project Team

A project team composed of the Task Force, Township Staff, and Consultants was formed to guide master plan process. The Task Force was comprised of Parks & Recreation Board members, and community residents and leaders. Task Force insights informed and guided the team throughout the process. Township staff led by Township Manager, Nicole Whitaker and Commissioner Taliaferro helped to coordinate the process and provided input and comment on the plan.

Simone Collins Landscape Architecture (SC) served as the project consultant and was responsible for overall facility design, public participation, and overall coordination with the Committee, the Township and project team. SC is a planning and design firm with expertise in parks, trails, greenways, and recreational facilities.

## Public Participation

Community input is a critical component of all successful master plans. The consultants worked with the project team to tailor the public participation process to the project. The 7-month process provided the team with extensive access to citizens' observations, needs, and ideas for the Park and critical feedback on park concepts and plans. The public participation process included four (4) public meetings, four (4) project task force meetings, ten (10) key person interviews, two (2) focus group meetings, one (1) Darby Township Planning Commission meeting, and an online opinion survey. Meeting notes and attendance sheets for each meeting can be found in the appendix of this report. The project schedule is below.

Meeting	Purpose	Date
Township Meeting Kickoff	Project Kickoff	Wed, Nov. 10
Task Force Meeting 1	Approach / Programming	Tues, Jan 4
Public Meeting 1	Project Intro & Programming	Thurs, Jan. 20
Task Force Meeting 2	Initial Concepts Review	Tues, Feb. 8
Public Meeting 2	Initial Concepts Presentation	Mon, Mar. 21
Task Force Meeting 3	Refined Concept Review	Tues, Apr. 5
Public Meeting 3	Draft Plan Presentation	Tues, Apr. 12
Planning Commission Meeting	Draft Plan Presentation	Thurs, April 28
Focus Group Meeting 1	School Children Draft Plan review and feedback	May
Focus Group Meeting 2	DTHS & APHS Alumni Draft Plan review and feedback	May
Public Draft Plan Review	30 Day Period	May-June
Task Force Meeting 4	Plan Comment Review	June
Commissioners Meeting	Final Plan Presentation	July



# Meeting Summary

## Township Kickoff Meeting – November 10, 2021

The consultant introduced the team to the Township and conducted a site walk with the Township representatives. The scope of work was reviewed and confirmed, and a project schedule was set.

## Task Force Meeting 1 – January 4, 2022

This meeting was held virtually. The consultant focused on collecting background information for the site and discussing preliminary goals for the master plan. The consultants led a brainstorming session to gather goals, facts, and concepts for the Park.

## Public Meeting 1 – January 20, 2022

This meeting was held virtually and in person. The project team was introduced to the community and an overview of the master plan process was provided. The consultants led a brainstorming activity session for the Park, gathering the public goals, facts, concepts, and ideas for potential partners.

## Task Force Meeting 2 – February 8, 2022

This meeting was held virtually. The consultant presented the public opinion survey results to date. Initial site concepts were presented, and the committee discussed the program elements that were liked and disliked.

## Public Meeting 2 – March 21, 2022

This meeting was held virtually and in person. The consultant team presented the site work completed to date and the preliminary site concepts. The consultants led a discussion about the Park concepts to gather public input on the concepts and program elements.

## Task Force Meeting 3 – April 5, 2022

This meeting was held virtually. Preliminary Draft Plan elements and refined concept plan were reviewed by the design team. The committee provided feedback on the refined concept plan and determined revisions to be made prior to the public draft plan meeting.

## Public Meeting 3 – April 12, 2022

This meeting was held virtually and in person. The consultants provided a brief overview of the master plan process to date. The draft plan was presented along with cost estimates and implementation strategies. A public discussion regarding the plan was held following the formal presentation. The draft plan was made available for a 30-

day public review period.

## Planning Commissioner Meeting – April 28, 2022

During this in person meeting the consultants provided a brief overview of the draft master plan and discussed the recommendations that are included in the draft report and addressed the Planning Commission Questions.

# Key Person Interviews

Ten (10) key person / key organization interviews were conducted during the master plan process. The interviews provided input from key persons and organizations in the area, including those who have responsibilities in the operations and safety at the park. These included:

- Steven Beckley, Open Space and Trails Manager, Delaware County Planning Department
- Lisa Catania, Township Engineer, Catania Engineering
- Dr. Rodney Grobes, Community Member, Darby Wall of Fame
- Jean Lynch, Regional Advisor, PA Department of Conservation and Natural Resources
- Jamie Anderson, Director, Eastern Delaware County Stormwater Collaborative
- Thomas Thorpe, Director, Darby Township Public Works
- Tiberias Bobo, Fire Chief, Darby Township Fire Company #1
- Michael Sousa, Chief of Police, Darby Township Police Force
- Jaclyn Rhoads, President, Darby Creek Valley Association
- Darby Township Summer League Coordinator

A record of key person interviews can be found in the appendix of this report.

# Public Opinion Survey

Residents of Darby Township and the surrounding area took part in an on-line public opinion survey to provide information on their current recreational habits and what they would like to see at Conway Park. The survey was available online from January 2022 to April 2022. A total of 177 individuals participated in the survey. Most of the respondents (81%) were Township residents who take advantage of park activities, natural areas, or open spaces in and around the

Township and County. Results from this opinion survey can be found elsewhere in this report.

# Data Collection & Methodology

Elements for this plan were compiled using the best available information. This information included site survey conducted by Catania Engineering Associates, Inc. on 09/22/2021, Figure 1.2. The survey was limited to the area South of Linden Ave. Data compiled from PASDA, County GIS data, aerial photography, and site reconnaissance visits where used to develop the base map for the area north of Linden Ave.

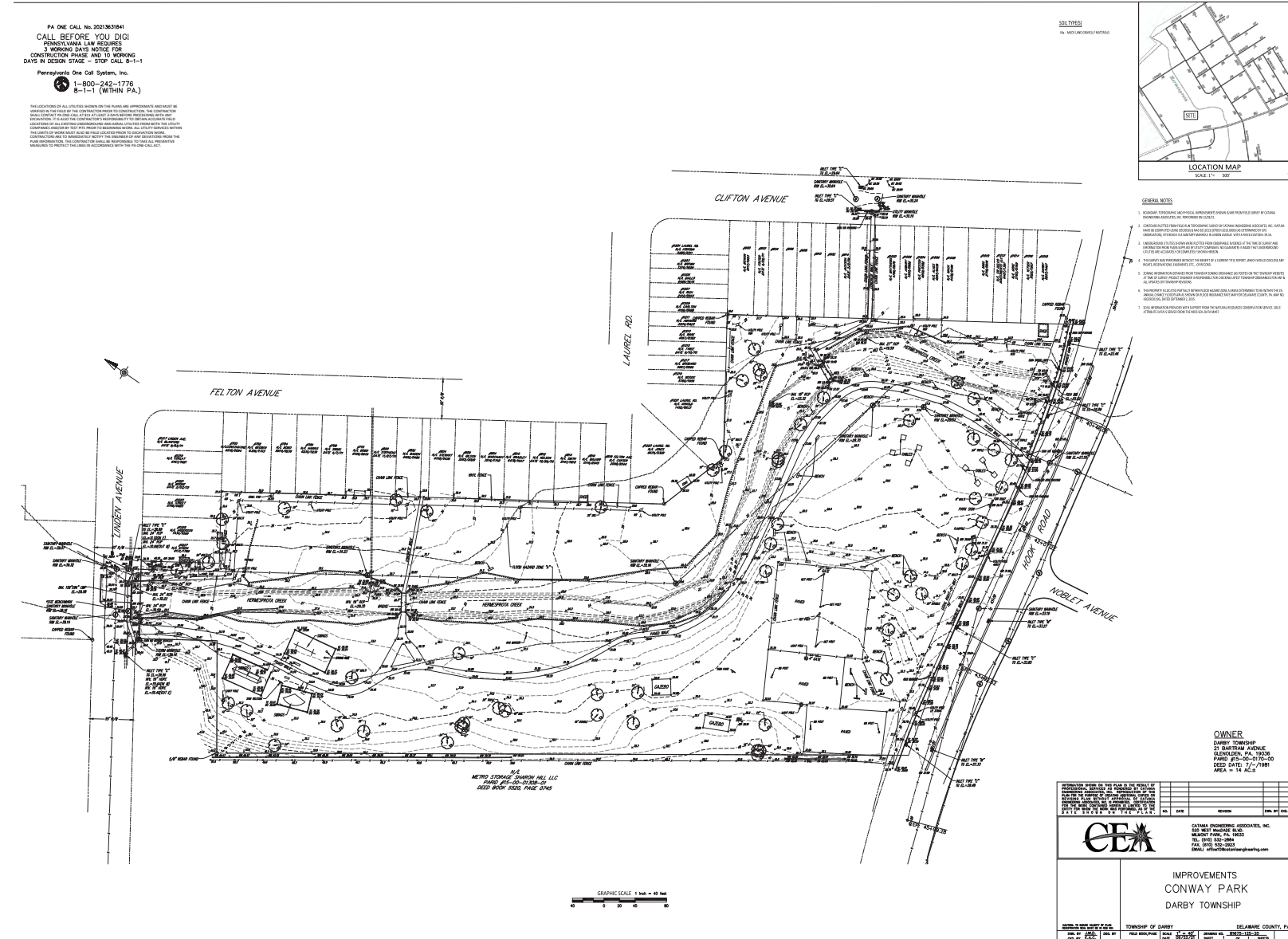


Figure 1.2 2021 Site Survey

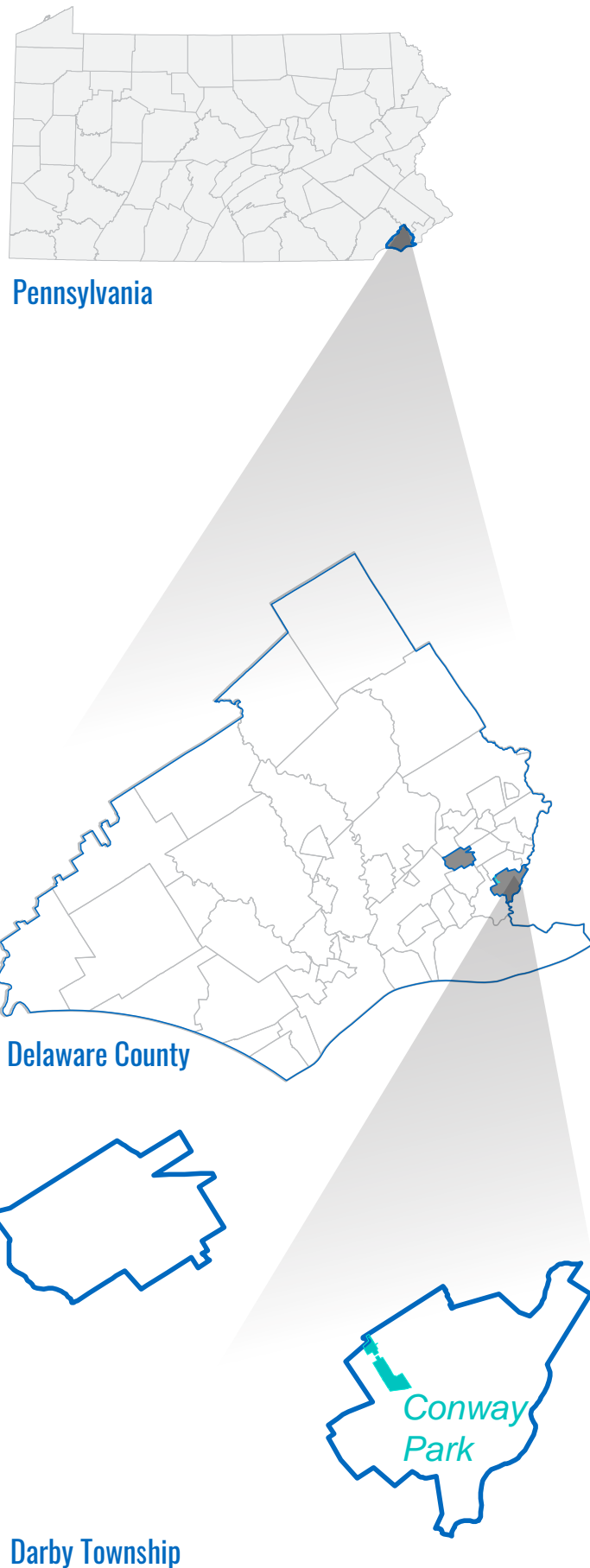




# 2

## Site Inventory & Analysis





Pennsylvania

Delaware County

Darby Township

Site Location

## Site Description

Conway Park is a community park that draws visitors from across the Township. The Park is located along Hook Road and Linden Avenue in the southern portion of Darby Township. The park is bisected by Linden Ave, and the northern portion is undeveloped and currently fenced off to prohibit dumping. The southern portion houses a variety of recreational facilities including a paved walking trail, two basketball courts, two tennis courts, a small playground area, two pavilions, two picnic table groves, and benches. The Hermesprota Creek runs through the site from northwest to southeast dividing the park linearly. The area east of the creek can be accessed by three bridges and walkways connect to the northeastern neighborhoods.

## Regional Context

Darby Township is located in southwest portion of Delaware County, Pennsylvania along the border of Philadelphia. The Township is comprised of two non-contiguous north and south segments. The surrounding municipalities include City of Philadelphia, Sharon Hill Borough, Colwyn Borough, Folcroft Borough, Glenolden Borough, Ridley Township, Upper Darby Township, Aldan Borough, and Collingdale Borough. The park is located 2.5 miles from the I-95 corridor and is within 0.5 miles of the Sharon Hill Septa regional rail train station.

## History

The park was dedicated on July 4th, 1972, and is named after Officer Carson C. Conway, a community leader. A dedication plaque is located at the pedestrian entrance into the park along Hook Road. Prior to being a park, the neighborhood grid of streets extended into the natural areas along the banks of the Hermesprota Creek. Historic imagery dating back to 1937 show areas of residential land uses extending into what is today the park.

The First African Baptist Church, founded in 1903, today is located just north of the park on the corner of Clifton and Laurel Ave. When the congregation first started, their services were held in a home located along the banks of the Hermesprota Creek, in what is today park land. The Reverend Booker W. Watkins led the church from 1936 – 1977. During his tenure, the church grew to be an integral part of the community. A dedication plaque in memory of Reverend Booker W. Watkin is located near the southern park pavilion.

The development of the park in the 1970s coincided with the development of new housing along Clifton Ave, Laurel Rd, Felton Ave, and Linden Ave. The park is surrounded by neighborhood residences which have changed little since their development.

The park is also home to a veterans memorial commemorating, “Those who fought and died in all wars.” The park’s flagpole is located near the veteran’s memorial and the area serves for community gatherings during Memorial Day and Veterans’ Day.

## Demographics

As of the 2020 Census, Darby Township population was 9,279 people over 1.42 square miles. This equates to 6,492 persons per square miles twice as dense as Delaware County and 22 times as dense as Pennsylvania. Since 2010 Township’s population decreased by 0.5%. During that same period, the County’s population grew by 3.2% and the State population grew by 2.4%. The Delaware Valley Regional Planning Commission (DVRPC) 2015-2045 population forecast for Darby Township predicts a 0.22% growth. This is significantly lower than Delaware County’s forecasted growth of 4.10%.

The Township’s age and gender cohorts are in keeping with County and State percentages with 5.7% under the age of 5 years; 20.3% under the age of 18; 17.4% over the age of 65; and 51.6% female. Race & Hispanic Origin percentages are as follows: 55.2% white, 42.9% Black or African American, 0.2 American Indian and Alaska Native, and 1.7% Hispanic or Latino. At 42.9% Darby Township’s Black or African American population is significantly higher than the County and State populations which are 22.7% and 12.0% respectively.

Over the period of 2016-2020 there were 3,747 households in Darby Township. The average household size is 2.48 persons in keeping with the County and State averages. There is a high rate of housing retention with 93.9% of people living in the same home as the previous year; this is slightly higher than the County rate of 89.0% and State rate of 87.8%. In Darby Township, 91.3% of households have a computer and 86.8% have a broadband internet subscription in keeping with County and State rates. In Darby Township 73.3% of households are owner occupied, slightly higher than the County and State rates of 68.7% and 69.0% respectively. Darby Township’s median home value is \$123,7000 significantly lower than the County average of \$247,900 and lower than the State average of \$187,500. However, the Township’s gross rent of \$997 is in keeping with the County average of \$1,109 and State average of \$958.

Regarding education, the Township’s rate for high school graduate or higher of 92.5% is in keeping with County and State rates. The Township’s rate for bachelor’s degree or higher of 15.7% is significantly lower than the County rate of 39.5% or State rate of 32.3%. The Median household income for Darby Township is \$52,517; 31% lower than the County income of \$76,238 and 17% lower than the State income of \$63,627. The 2020 census estimates that 14.6% of Darby residents live in poverty (due to variables is methodology this statistic is not comparable to other geographic levels).

Regarding health, the Township’s rate for persons with a disability, under age 65 years of 11.0% is slightly higher than the County rate of 8.0% and state rate of 9.8%. In Darby Township, persons without health insurance under the age of 65 years is estimated at 7.2% (due to variables in methodology this statistic is not comparable to other geographic levels).

The percent of Darby Township population that makes up their total labor force age 16 years and up is 70.6% this is slightly higher than the County rate of 65.5% and State rate of 62.7%. The mean travel time to work is 32.5 minutes which is slightly higher than the County time of 29.4 minutes and State time of 27.1 minutes.

Utilizing the US Census tool On The Map, the following inflow of workers living outside the Township and traveling to the Township was calculated to get an understanding of who is regularly visiting Darby Township in 2019. Of the 1,144 workers employed in the Township 1,052 or 92% live outside of Darby Township. Of the 4,320 workers residing in the Township, 4,228 or 97.9% travel outside of Darby Township to their primary jobs and 92 or 2.1% of workers are employed in and live in Darby Township.

The Indicator of Potential Disadvantage (IPD) analysis identifies populations of interest under Title VI on Environmental Justice using U.S. Census American Community Survey (ACS) 2015-2019 five-year estimates data and maps these populations in each of the Census tracts in the region via GIS.

Each population group is an “indicator” in the analysis and includes the following:

- Youth
- Older Adults
- Female
- Racial Minority
- Ethnic Minority
- Foreign-Born
- Limited English Proficiency
- Disabled
- Low-Income

Darby Township is divided into three census tracts: 4030.1 and 4030.2 (northern township section) and 4029 (southern township section).

Census tracts 4030.1 and 4030.2 have the IPD average scores of 12 and 15, respectively. Generally, this means that for the cohorts, listed populations are within the community “average”. This indicates that is an average indicator or potential disadvantage.



Census tract 4029 has an IPD score of 25, indicating there is a greater chance of disadvantage for several of the cohorts. Specifically, the following communities exhibited an above average or well above average score.

- Youth – well above average
- Female – well above average
- Racial Minority – well above average
- Disabled – above average
- Low-Income – above average

What this means for the Conway Park Master Plan is that it is important to ensure that these groups are well provided for in the improvement recommendations.

## Township Park System Description

Conway Parks is one of ten parks owned and operated by Darby Township. The Park system is comprised of smaller neighborhood parks with playgrounds and basketball courts along with a series of neighborhood tot lots. Conway Park serves as the Township’s Community Park. The Township also has football and baseball fields at their community center, Residents also have access to additional school district baseball fields located next to the municipal building.

The Township Parks Inventory Includes:

### First Ward:

- Arnold Covert Park

### Second Ward:

- Lincoln Park Playground
- Conway Park

### Third Ward:

- Lawrence Patterson Tot Lot
- James J. Sandone Park
- Oakeola Park Playground

### Fourth Ward:

- Westbridge Park Playground
- Brookwood Park

### Fifth Ward

- Spruce Street Tot Lot & Madison
- Beech Playground

The Township is also in close proximity to regional parks and trails. The Township is within a mile of the John Heinz National Wildlife Refuge, a 1,200-acre freshwater marsh. The refuge includes 10-miles of observation trails, paddle craft creek access, and an environmental education center. The Township is also within 5.5 miles of FDR Park, a 348-acre park that offers active and passive recreational opportunities in the City of Philadelphia. Darby Township is also within one mile of the Cobbs Creek Trail section of the East Coast Greenway. The 2-mile section of trail is in the planning and design stage and will connect the John Heinz National Wildlife Refuge segment of the East Coast Greenway to the Existing Cobbs Creek Parkway Trail.

## Planning Documents

### Darby Township Comprehensive Plan (1975)

The overall goal for the plan was to protect the public health safety and welfare through the creation and maintenance of a physical, economic, and social environment such that Darby Township may become a better place in which to live, learn, work and play. Plan goals include:

**Goal 1:** Improve the environment by provision and maintenance of well balanced, rational land use patterns.

**Goal 2:** Promote the orderly and efficient distribution of goods and services (wholesale and retail).

**Goal 3:** Establish a viable recreation program and strive to make optimum use of existing land for recreational purposes.

**Goal 4:** Provide transportation facilities for the safe and convenient movement of people and goods among places of residence, employment, education, shopping, and recreation.

**Goal 5.** Provide adequate community services for all Township residents.

The redevelopment of Conway Park is in keeping with Goal 3. The community park is long overdue for improvements to provide for the community’s active recreational needs, including gathering spaces, and access to nature via the natural systems of the Hermesprota Creek.

## Delaware County 2035 Open Space, Recreation and Greenway Plan (2015)

The County Open Space, Recreation, and Greenway Plan serves as a guide and resource for county-wide, multi-municipal, and municipal open space planning efforts. The plan examines open space policies and trends and makes recommendations regarding open space, recreation, and greenway needs and opportunities. The plan goals are:

- **Conserve** - Conserve the natural and cultural resources of the County
- **Enhance** - Increase and enhance the environmental and/or recreational value of developed and undeveloped lands
- **Connect** - Develop a greenway network that connects natural features and people to community and regional destinations

The plan identifies Conway Park a General Greenway Hub and the Hermesprota Creek as a conservation greenway. Conway Park is within a mile of two Primary Trail corridors in the County: the Heinz Refuge Trail network and the Cobbs Creek Trail.



Delaware County Open Space and Greenway Network.

**Conway Park**  
 Volume II: Countywide Greenway Plan  
 Chapter 2: Greenway Vision and Process



## Darby Creek Watershed River Conservation Plan (2002)

The Darby Creek Watershed River Conservation Plan (RCP) was undertaken for the highly urbanized and extremely complex Darby Creek watershed that includes 31 municipalities and four counties.

The RCP sets a vision of the watershed's future by inventorying the significant river resources, identifying potential threats to the resources, and recommending restoration, maintenance, or enhancement options in the form of a set of management strategies.

The plan identifies ten goals for the watershed. The most relevant to the Conway Park site includes:

- Restore Stream and Tributary Corridors, Provide Riparian Buffers, and Protect and Restore Wetlands.
- Restore Floodplain where Feasible. Remove fill and abandoned structures. Prevent future filling and encroachment.
- Improve Stormwater Management. Manage Quantity and Quality for both new development and re-development.
- Educate. Educate residents, municipal officials, teachers, and others, and increase awareness of the stream, the watershed, and its resources and problems.

## Darby Creek Watershed Action Plan (2002)

The Darby Creek Watershed Action Plan was prepared as part of the Chester County, Pennsylvania Water Resources Compendium in conjunction with the Chester County Watersheds Plan. The Darby Creek Watershed Action Plan was prepared to provide the planning and strategies necessary to accommodate existing land use and planned growth in a manner that is consistent with the natural characteristics of our streams and aquifers, and to sustain: ground water recharge, stream baseflows, stable stream channels, the flood-carrying capacity of streams and their floodplains, the water quality of streams and ground water, and riparian and aquatic living resources.

Plan goals include:

- Reduce stormwater runoff and flooding throughout the watershed.
- Restore water quality of "impaired" streams and protect unimpaired streams from further degradation.
- Increase public access and recreational uses of streams.

Recent invasive plant removal from the banks of the Hermesprota Creek in Conway Park.

## Eastern Delaware County Stormwater Collaborative (2018)

This Pollutant Reduction Plan (PRP) was developed for the Eastern Delaware County Stormwater Collaborative (EDCSC). The EDCSC is a partnership of 11 municipalities, including Darby Township, in the eastern part of Delaware County that are all located within the Darby and Cobbs Creek Watersheds. The EDCSC was created in 2010 to maximize resources, reduce redundancy, and allow the municipalities to better achieve the requirements of their MS4 permits. The member municipalities are committed to improving stormwater management as well as restore the health and vitality of the local waterways. The PRP outlines the actions that the municipalities have taken or will take to address pollutant loads within the MS4 that drain to the Darby and Cobbs Creeks. These actions include public participation, mapping of outfalls and other discharges, description of pollutants of concern in the watershed as determined by PADEP pollutant load calculations best management practices (BMPs) selection, identification of potential funding sources and partners, and operation and maintenance (O&M) activities.

Pollutants of concern for Hermesprota creek are identified as polychlorinated biphenyls (PCBs) and Siltation. The PCB pollutant concerns are located in the area of the Folcroft Annex located downstream of the site in the John Heinz National Wildlife Refuge. The plan identified the implementation of a 35-foot width riparian buffer along stream at Conway Park for load reduction.

## DCNR Pennsylvania Statewide Comprehensive Outdoor Recreation Plan 2020-2024 (2020) (SCORP)

The goal of Pennsylvania's 2020-2024 Statewide Comprehensive Outdoor Recreation Plan is to help all Pennsylvanians achieve greater access and enjoyment from experiences in the Commonwealth's abundance of local and state parks, state and national forests, trails, rivers, lakes, game lands, and other recreation spaces.

Plan priorities fall into five categories each with their own recommendations and actions: 1. Health and Wellness, 2. Recreation for All, 3. Sustainable Systems, 4. Funding and Economic Development, and 5. Technology

Each priority has recommendations and actions. As an established park located in a densely populated area, many of the SCORP recommendations that relevant to Conway park. These include:

Trail damage to park trail located within the creek floodplain.



## Health and Wellness Recommendations:

- Support programs that connect health and outdoor recreation; and
- Create walking and biking networks that provide safe, close-to-home access to recreation and encourage healthy behavior in communities.

## Recreation for All Recommendations:

- Enhance recreational amenities to fit the needs and expectations of underserved people.

## Sustainability Recommendations:

- Protect and conserve lands and waters considering the impacts of climate change on outdoor recreation; and
- Design outdoor recreation areas to minimize impacts on the environment or conflicts among user groups.

## Funding and Economic Development Recommendations:

- Build strategic coalitions to maximize the economic impacts of outdoor recreation in Pennsylvania; and
- Demonstrate the benefits and impacts of nature-based solutions to addressing community needs.

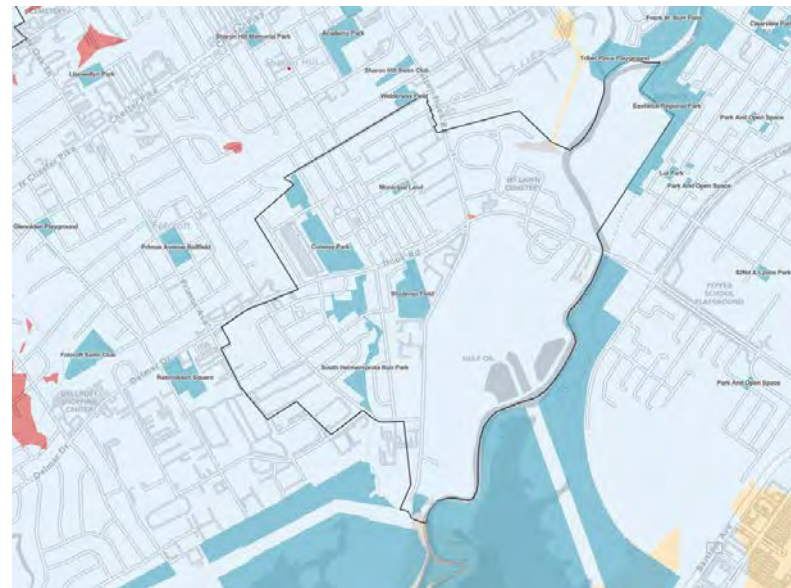
## Technology Recommendations:

- Increase mobile connectivity in outdoor recreation; and
- Enrich the understanding of the natural, cultural, and historic aspects of the outdoors through technology

## Local Access to Outdoor Recreation

In follow up to the 2020-2024 SCORP, DCNR, together with the Trust for Public Land and We Conserve PA, developed online mapping tools that illustrate who in Pennsylvania has access to outdoor recreation within 10-minutes of their home and identifies the communities that lack equitable access to recreation.

In Darby Township 100% of residents live within a 10-minute walk of a park, trail, or open space. The following demographic segments are located within a 10-minute walk of parks and trails:



Map of level of need is based on population density, youth population density, and low-income population density within each county.

Within greater area of Delaware County 77% of residents live within a 10-minute walk of a park, trail, or open space area. Areas that are in high need, closest to our site include Glenolden, Sharon Hill, and Prospect Park.

## 10-Minute Walk Municipal Stats: Darby Township

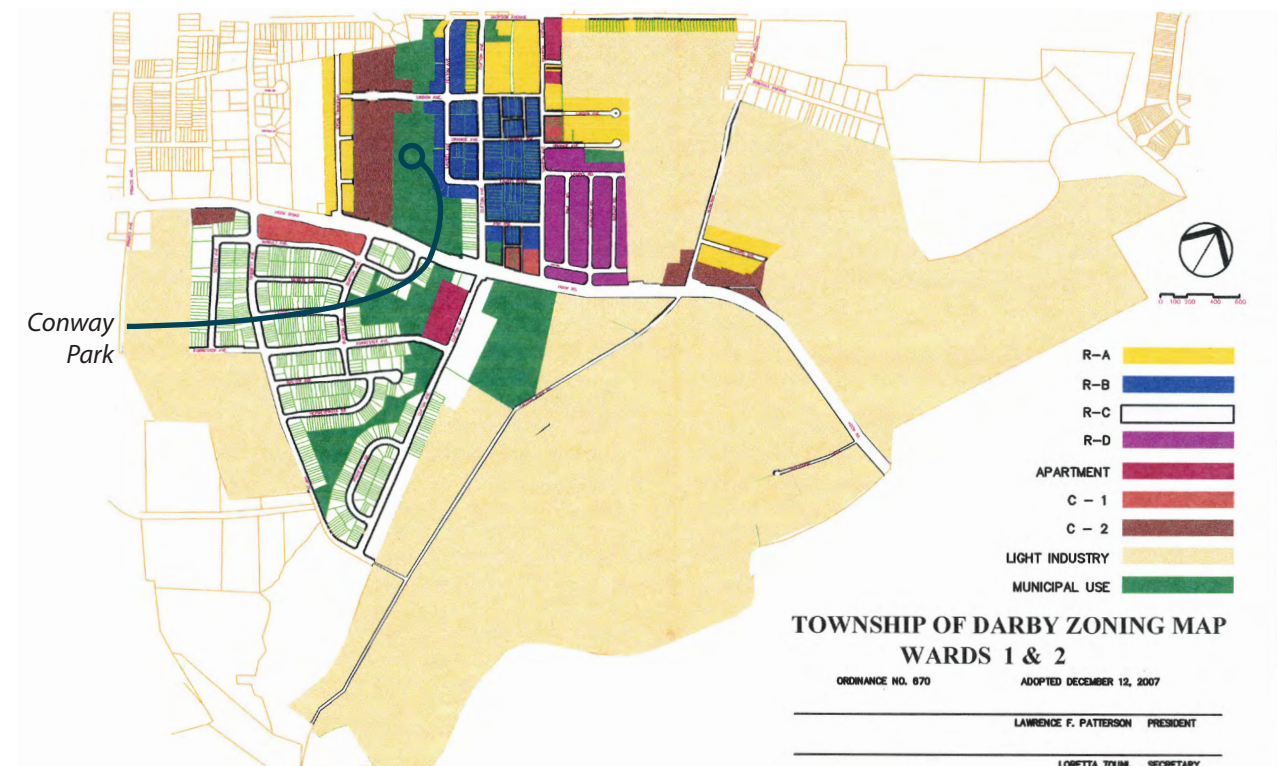
<b>Total Population Served</b>	<b>9,137</b>
Population Served (%)	100%
Kids Served	2,400
Kids Served (%)	100%
Adults Served	5,122
Adults Served (%)	100%
Seniors Served	1,611
Seniors Served (%)	100%
Low Income Households Served	1,781
Low-Income Households Served (%)	100%
Medium Income Households Served	1,123
Medium-Income Households Served (%)	100%
High Income Households Served	749
High-Income Households Served (%)	100%
Whites Served	4,975
Whites Served (%)	100%
Minorities Served	4,163
Minorities Served (%)	100%

## Zoning & Surrounding Land Use

Conway Park is zoned Municipal Use. Municipal uses include, but are not limited to, recreation parks and playgrounds, administration buildings, libraries, community centers, senior citizen centers, and highway and maintenance buildings and grounds. There are no defined setbacks for this district.

The area northeast of the park is zoned R-B and R-C consists of denser residential housing. The area southwest of the park is zoned C-2 and is home to the recently developed commercial space Metro Self Storage.

## Deed Restrictions



Ward 1 & 2 Darby Township Zoning Map

Prior park improvements were completed with the use of Federal Land & Water Conservation Funds (LWFC). Under the agreement the following clause protects the recreational use of the land:

SEC. 6(f)(3) No property acquired or developed with assistance under this section shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

The deed restriction prohibits the development of buildings within the park excepting for the development of park restrooms and storage for park needs only. Any new park signage should note that the park development has received funding from LWCF

## Easements & Rights of Way

As per the Catania Engineering Associates Survey dated 2021 there are no identified easements within the park. There is an existing sewer line and gas lines that runs along the length of the Hermesprota Creek however no easement is noted with the utility lines. There are three access easements outside of the park that connect the park to the residential streets to the northeast. These vary in width from 10 to 12-feet in width.

Two roadways have frontage along the park. Linden Ave that bisects the park has a 60-foot right-of-way. Hook Road (S.R. 2015) along the southern park boundary has a 120-foot right-of-way.



# Site Inventory

## Soils & Geology

The site is located in the Lowland and Intermediate Upland Section of the Atlantic Coastal Plain Providence. The area is comprised of flat upper terrace surface cut by shallow valleys; and falls within the Delaware River floodplain. The site's geology consists of: Wissahickon Formation of probably lower Paleozoic age, as Oligoclase-mica schist, the Pennsauken and Bridgeton Formations undifferentiated, of tertiary age, as Feldspathic quartz sand and Trenton Gravel, of Quaternary age, as Gravelly sand.

The majority of the site (70%) is comprised of urban soils or "Made land" soils these include areas of Made land, gravelly materials (Ma) and Made land, silt and clay materials (Mc). Along the stream corridor is an area of Chewacia silt loam, this soil type is typical to floodplains. The northern portion of the site has an of Glenelg channery silt loam at 8 to 25 percent slopes, moderately eroded (GeC2) and Glenelg channery silt loam, 15 to 25 percent slopes, moderately eroded (GeD2) these soils are typical to hillsides and are consider well drained with medium runoff potential for GeC2 and high runoff potential for areas of GeD2.

## Topography

Due to its location in the Delaware River floodplain the site is relatively flat lacking any dominate topographic features. The site high point is located in the northern portion of the park and is approximately 70-feet above mean sea level. The low point of the park is located where the Hermesprota Creek exits the site at the Hook Road Bridge and is 17-feet above mean sea level. The Hermesprota Creek forms a gentle valley through the site however the creek itself has steeply incised banks typically 6-feet lower than the floodplain area.

The site has been manipulated by humans to level off areas for use creating areas of steep slopes. The southern portion of the park just west of the basketball courts has steep slopes (20%+-). Steep slopes also occur behind the existing playground along the site boundary adjacent to the metro self-storage. The center of section north of Linden Avenue has steep slopes.



*The park is mostly level with areas of steep slope created by development of past park improvements*

## Hydrology

The Hermesprota Creek is a first order tributary of Darby Creek and is 3.54 miles total in length with a drainage basin of 1.82 square miles. The creek enters the site from the north and traverses through the center of the site before exiting the site at Hook Road. The stream water quality chapter 93 designation is Warm Water Fishery by PA DEP in 2007. The Hermesprota Creek is listed as a 303(d) Category 5 impaired stream by PA DEP. Section 303(d) is the list of impaired waters that require development of a TMDL (Category 5). Once a TMDL (total maximum daily load) is approved by EPA, these waters will be placed in Category 4a until water quality standards are achieved. The rating was last updated in 2018 and the cause of impairment is listed as Urban Runoff/Storm Sewers.

There is a mapped Flood Hazard Zone "A" associated with the Hermesprota Creek that runs through the park. This represents areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies (this area has historically been referred to as a 100-year flood plain). Structures are prohibited within the floodplain area and no fill material can be placed within the floodplain without the review and permitting of the Township.

There are no stormwater controls currently on site, however there are stormwater pipes that discharge into the Hermesprota Creek within the park. The recent development of the Metro Storage Unit has a retention basin located adjacent to the park along Linden Ave. Since the development of the Metro Storage site there has appeared to be a change in drainage patterns across the western portion of the park with areas of collected flows causing erosion in the park.

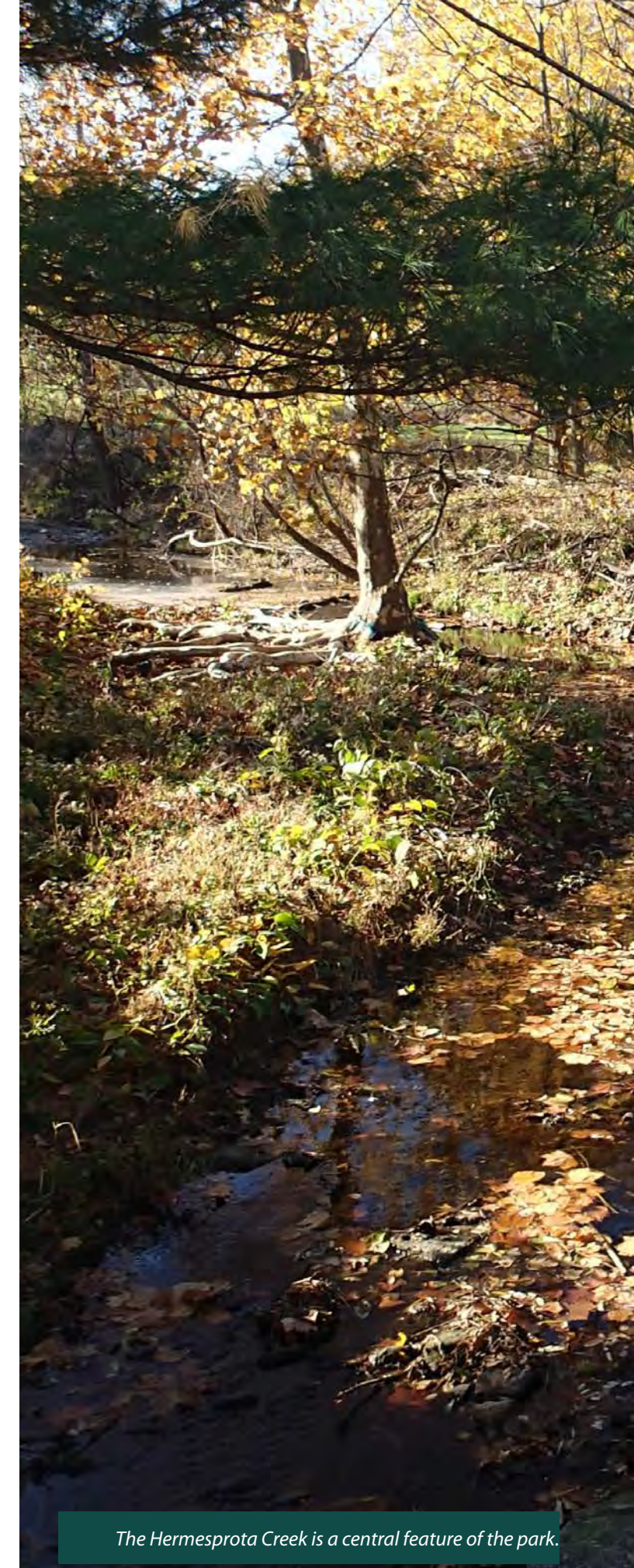
## Flora & Fauna

The park vegetation is primarily open lawn with several mature shade trees. Denser clustering of trees can be observed along stream corridor with some understory plantings. The stream corridor is dominated by invasive plant species. In 2021 the Township targeted two invasive plant species for removal, *Ailanthus altissima* (Tree of heaven) and *Fallopia japonica* (Japanese knotweed).

Site fauna is typical of suburban/urban environments. However, the stream corridor and the close proximity to the John Heinze Wildlife Refuge offers the potential for the site to serve as a wildlife corridor. Deer are present within the area and protection from deer browsing and rutting will need to be considered for any future plantings.

## PNDI Potential Impacts

A Pennsylvania Natural Diversity Inventory (PNDI) report was generated for the southern portion of the park – the buffer generated by the PNDI boundary cover the northern portion of the site as well. PNDI Reports are generated by



*The Hermesprota Creek is a central feature of the park.*



the Pennsylvania Department of Conservation and Natural Resources and are used to identify and potential threatened, endangered, and species of concern that may be located within a site so that measures can be taken to protect them during any construction activities. To protect the species, they are not identified in the report but if a site has a species of concern, it is required that follow up be completed with the reviewing agency to determine if additional survey work is required.

The Conway PNDI report identified three sensitive species under the jurisdiction of the PA Fish and Boat Commission (PFBC), these species could be plants or animals and are most likely associated with the stream corridor. At the master plan level there is no need to follow up with the PFBC at this time. However, should implementation of park improvements be pursued the engineer or designer should follow up with the PFBC.

## Environmental Issues

The Hermesprota Creek's health is a key environment concern of the park master plan and the community. The need to address the stormwater flows into the creek as well as establish a healthy riparian buffer and stabilized stream banks have been addressed by many prior plans as noted above.

The Township has undertaken some of the first steps of restoring a native riparian buffer by starting the process to eradicate the invasive Japanese Knotweed along the banks of the Hermesprota Creek. Eastern Delaware County Stormwater Collaborative (SDCSC) has been successful

in securing a Growing Green Grant for restoration of 700 linear feet of the stream bank. This will be key in follow up to the Township's work to create a robust and beautiful riparian buffer along the creek. Additionally, EDCSC have a grant request pending to National Fish and Wildlife Fund (NFWF) for additional funding towards the project.

Historically the park lacks any stormwater controls for its impervious surfaces. During design and engineering of park improvements the development and implementation of stormwater best management practices (BMPs) these may include above surface water quality BMP's such as rain gardens or bio-swales or below surface water retentions systems that will help to infiltrate stormwater and/or slow the release of collected stormwater runoff during large rain events.

## Utilities

There is currently no water or sanitary service to the park. There is limited electrical service to the lighting for the courts area. Electrical Service is mounted to the light post. Water and sanitary lines run in the Hook Road right-of-way along the park frontage. A gas line enters the park from western portion of the Hook Rd right-of-way and runs through the park along the western edge of the Hermesprota Creek before continuing east in the Linden Ave right-of-way. A sanitary line enters the site from the Hook Rd right-of-way just west of Hermesprota Creek and runs along the western edge of the creek prior to crossing the creek and continuing along the eastern edge until entering the Linden Ave right-of-way and continuing to the west. Separate water and gas

lines are located in the Linden Ave right-of-way however, the water line is only located east of the Hermesprota Creek. Above ground electrical lines run along the northern right-of-way of Hook Road and the southern right-of-way of Linden Ave and provide street lighting along the park frontage. Within the park above ground electrical service lines extend along the rear yards of the Felton Ave and Clifton Ave residences.

## Circulation and Access

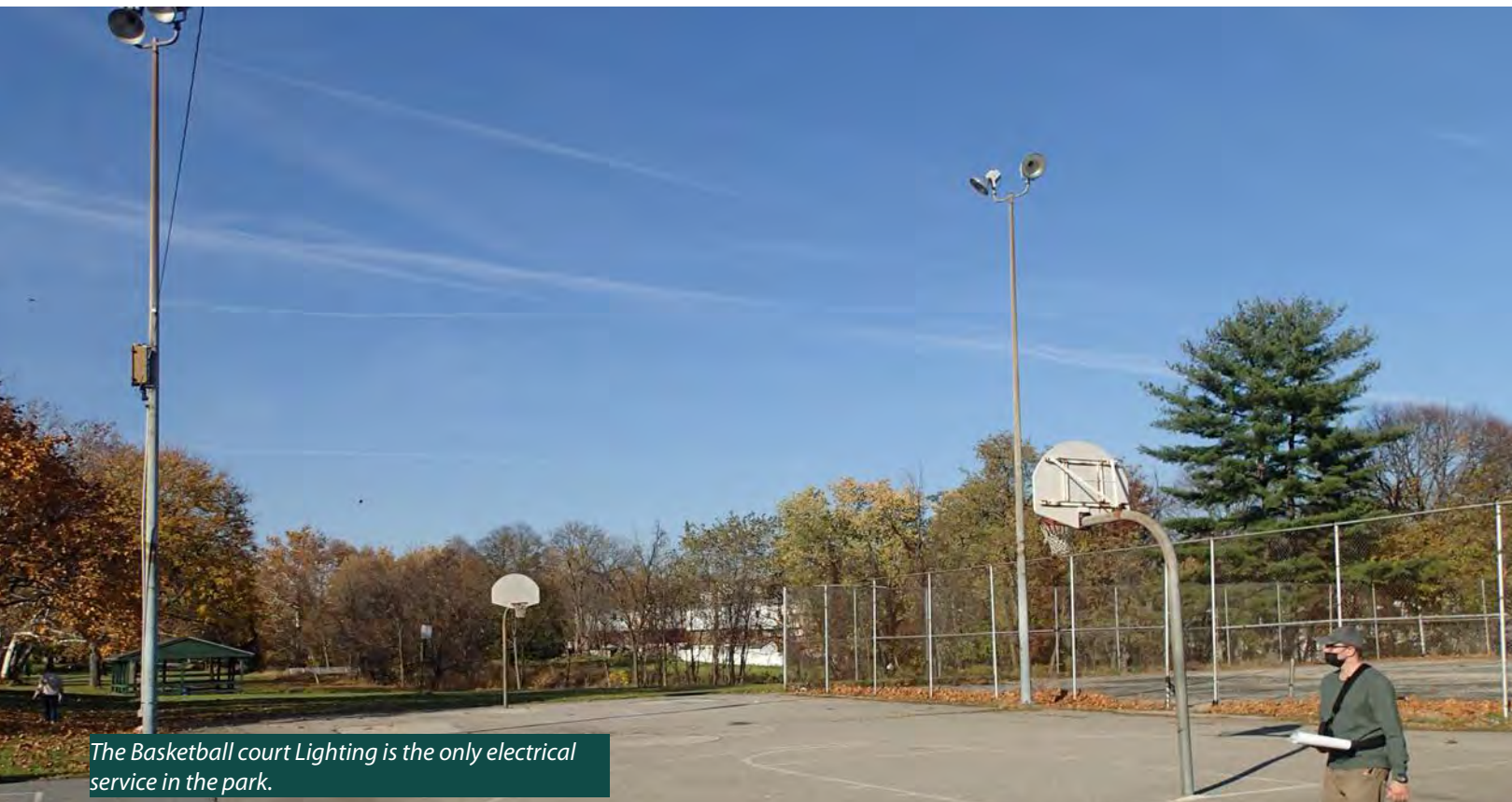
There is no existing vehicular access drives or parking areas within the park. The site does have frontage along two roads: Hook Road (S.R. 2015) and Linden Avenue. Hook Road is a State Road in the area of the park, it is four lanes wide (two eastbound lanes and two west bound lanes,) has generous 10-foot-wide shoulders and has a center jersey barrier divider. The road is posted 35 MPH however the highway design is conducive to much higher speeds of traffic. The area in front of the park is signed as no parking. However, during large community events parking is common in the road shoulder. During public meetings, many residents raised concerns about the safety of the roadway.

Linden Ave is a municipal road. In the area of the park the roadway is 24-feet wide and on-street parking can be accommodated on the southern side of the road.

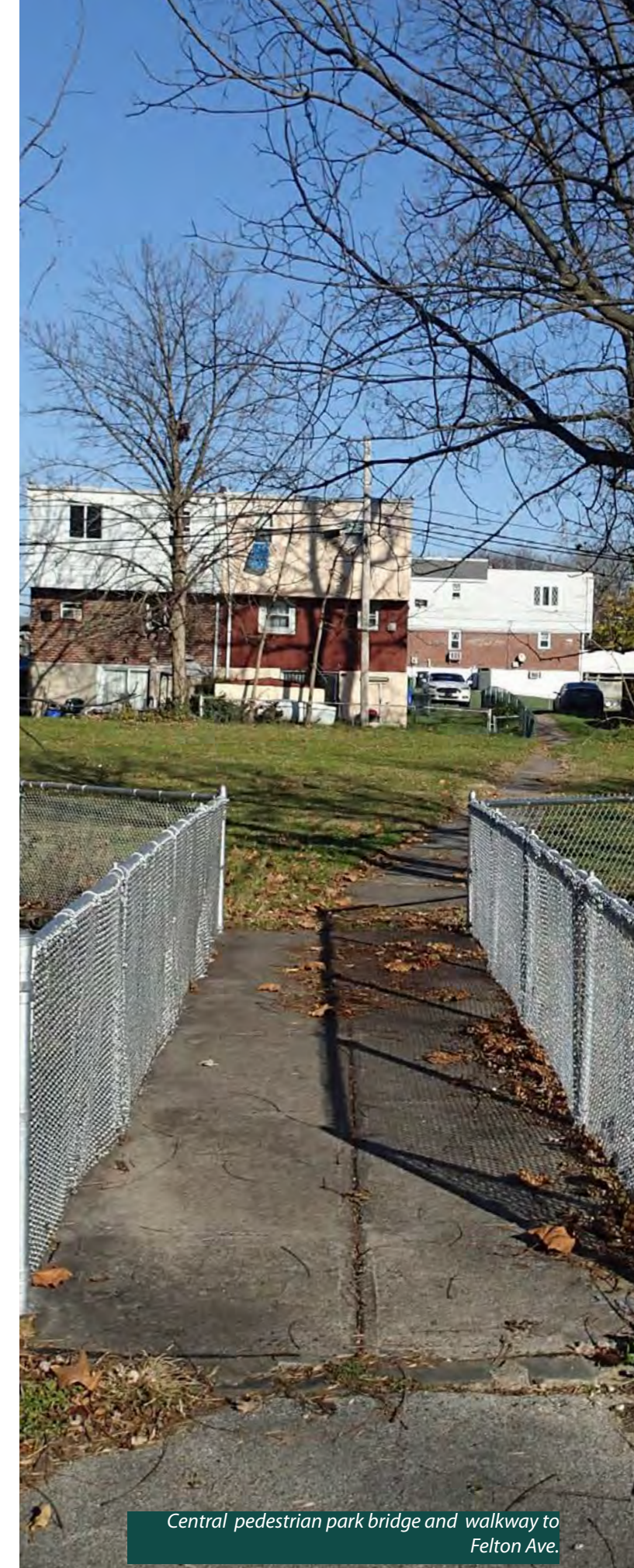
There are sidewalks along the park frontage of Hook road and Linden Ave providing pedestrian access. The sidewalks along Linden Ave have gaps between Hermesprota Creek bridge sidewalk and the sidewalks to the east. A central park walkway runs from Hook Road to Linden Ave along the western edge of the creek. The asphalt walkway varies in width from 8 to 12' wide. A majority of the walkway is located within the floodplain with sections directly adjacent to the top of bank of the Hermesprota Creek. These sections are low lying and difficult to maintain. The walkway walk serves as a connection form Hook Road to Linden Avenue but does little to connect park facilities to one another. It is signed no motorized vehicles however with no vehicular controls, vehicles can easily access the drive and often use it to drive up to the pavilion area.

There are three pedestrian entrances into the park. Two are from Felton Avenue and one is from Clifton Avenue. These connect from the adjacent residential streets into the eastern portion of the Park. The concrete walkways are 4 to 5-feet in width, with some portions in need of repair. Each walkway leads to pedestrian bridge crossing of the Hermesprota Creek that connects to the existing central walkway.

The northern section of the park is currently fenced off along Linden Avenue to prohibit unauthorized activities. There are currently no park facilities in this portion of the park.



The Basketball court Lighting is the only electrical service in the park.



Central pedestrian park bridge and walkway to Felton Ave.





Current park pavilions offer gather space for small to medium size groups.

## Structures and Facilities

All park structures and facilities are located in the west side of Hermesprota Creek in the southern portion of the site. At the northern end are three playground areas. Please see the text below for more details. There are two pavilions located in the central portion of the park. The northern most pavilion is 20-feet by 24-feet in size and the second is 15-feet by 34-feet in size. The larger pavilion has an adjacent wall with a dedication plaque to Rev. Watkins. Both pavilions have concrete pads, are constructed out of dimensional lumber, and are in fair condition. There is no electrical or water service to the pavilions. Each pavilion is surrounded by lawn and lack accessible pedestrian walkways.

Two basketball courts located along Hook Road. The courts are 84-feet by 50-feet in size meeting a standard outdoor court size and are oriented properly, running north/south. However, the safety area around the courts varying in widths from 3-feet to 7-feet falling short of the recommended 10-foot-wide safety area. The goal posts are set in the base line of the court not confirming to the 4-foot offset from the area of play. The court has lighting is outdated and not in keeping with modern sports lighting standards. The basketball courts are not enclosed with fencing however a 10-foot-tall fence is located between the courts and Hook Rd to contain errant balls.

Two tennis courts are located directly adjacent the basketball courts. The courts are the standard size 78-feet by 36-feet with a total play area for both courts confirming the standard safety zone of 120-feet x by 112-feet. The courts are enclosed by fencing to contain play. The courts are in poor condition and currently out of use. The surface is dominated by severe cracking and the net post are rusted.

## Playground Safety Audit

There are three play areas located in the park near the Linden Ave pedestrian entrance. Each area connects to the central walkway with a concrete pad but are disconnected from each other. The play areas are bounded by landscape ties but are in open lawn condition with no safety play surfacing.

The northernmost play area has a triple bay of 8-foot high swings with six belt swings. Though older in age and perhaps original to the park the swings are in fair condition and appear to conform to current swing design standards. The area between landscape ties is 32-feet wide just meeting the appropriate fall zone width for the swings. The concrete foundations of the swings post set at grade and exposed. The lawn areas beneath the swings are worn and eroded creating a tripping hazard and access issues for younger children.

The second play area is for younger children ages 2 to 5 and contains two bays of tot swings and two bouncers. The area is located completely within the floodplain of Hermesprota Creek. The area dimension of 32-feet width accommodates

the swings and the bouncers have 6-foot-wide clear zones around them. The equipment is older and in fair condition. There is a bench for caregivers located outside of the play area but lacks an accessible walkway to the bench or play area.

The final play area contains a modern play structure from Landscape Structure PlayBooster® Series and appears to have been installed in the past 5 years. The play structure is geared towards climbing and sliding; it includes a transfer station to facilitate access but does not offer any at grade play activities. It appears that the structure was set higher above natural grade to accommodate the installation of safety play surface that has not been installed to date. The Township has a grant in hand that should include the installation of play surface in 2022. The current area is 39-feet long by 23-feet wide; though the length does accommodate the play structure's fall zone the width is undersized. There is a bench for care givers located outside of the play area but lacks an accessible walkway to the bench or play area.



The swing area lacks an accessible safety play surface.



The existing tennis courts have severe cracking and are not able to be resurfaced without a full reconstruction.



The new park play structure was set at an elevation to accept the installation of safety surface.



# Opportunities and Constraints

## Community

This commitment of the community is one of the greatest assets of the park. The park has a robust user group that is committed to see the park improved. Recent funding campaigns have been successful in the installation of new picnic tables and benches throughout the park. Additional funding is in hand to install grills and solar bollard lighting in the area of the picnic groves. The park serves both the local community as well as an important place for former Township residents to come back to for reunions and gatherings.

## Hermesprot Creek

The Hermesprot Creek is the center of the park and offers both constraints and opportunities. The creek and its floodplain need to be respected; the master plan should remove any encroachments and fill from the floodplain as well as establish a riparian buffer through the planting of native trees and shrubs. This will greatly improve the visual corridor and current uses of the park spaces.

However, as an impaired stream, funding opportunities are available that will not only help to address the stream health but can help to uplift the natural environment of the entire park. The waters of the creek are a natural play opportunity. The master plan can allow for safe interaction with the creek as a key way to inspire and educate children and adults alike about the importance of our riverine systems

## Access

In its current condition, the park is not fully accessible per the Americans with Disabilities Act (ADA) standards. The primary walkway is disconnected from park facilities and seating along with areas of steep grades are the biggest challenges for access through the park. In the area of the playground the lack of a level stable safety play surface may offer a barrier to play for some children and their caregivers. There is large opportunity to address these issues and provide a space that can be enjoyed by people of all abilities.

## Topography

The gentle topography interspersed with areas of steep slope offer opportunities to create better access throughout the park through the careful realignment of pathways, thoughtful grading, and plantings. For example, the steep grades and natural bowl shape of the hillside in the northern section of park offer the opportunity to create a small lawn amphitheater or gathering space. The current unnatural plateau grading of the tennis courts could be regraded to allow for natural lawn seating between new play courts.

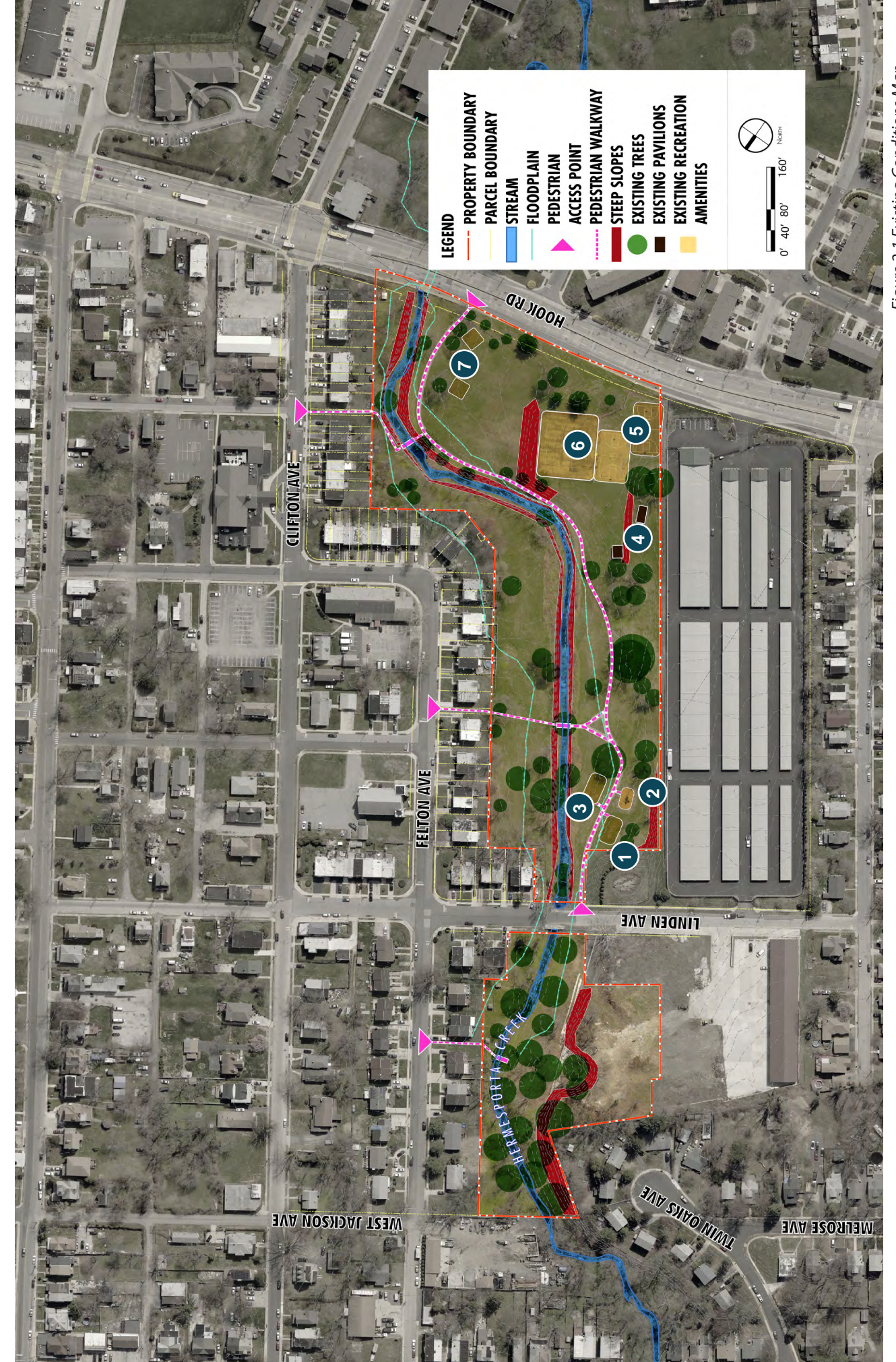


Figure 2.1 Existing Conditions Map

- 1 Swing Set
- 2 5-12 Playground
- 3 Tot-Lot Playground
- 4 Pavilions (2)
- 5 Basketball Courts (2)
- 6 Tennis Courts (2)
- 7 Picnic Grove (2)





# 3

## Activities Analysis & Recommendations





# Community Needs & Uses

Community needs and uses were identified through the public process. Conway park functions as both a neighborhood park and community park for Darby Township. Of the survey respondents over 69% lived within a one-half-mile of the park. When asked what type of recreation people are looking for at Conway Park it is apparent that the offerings of the park need to meet a wide array of uses for the community ranging from a place to play, enjoy the outdoors, to a place for exercise. Throughout the process a four major community needs were identified:

## Trails & Universal access

Walking and biking trails were the number one facility requested for the park in the public survey. People noted the importance of being able to walk or run along a loop trail and experience all the areas of the park. The conditions and gradients of some walkways makes traversing the park difficult for people with disabilities. The park master plan should assure access to all areas of the park.

## Community Gathering

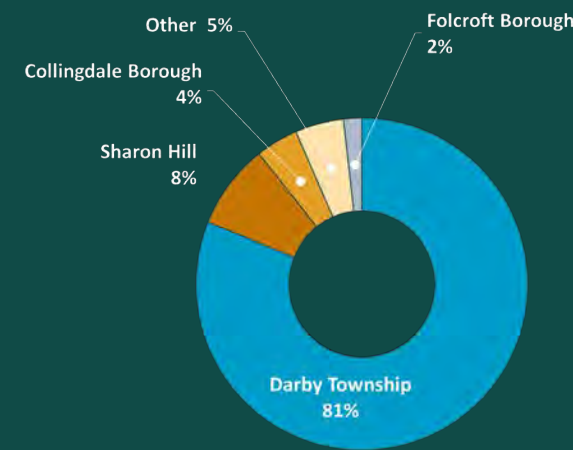
In both the public survey and meetings there was a clear message that Conway Park is a key place for community and family gatherings. It ranked as the top two favorite activities at Conway Park in the survey. It was determined that the new park facilities should offer various spaces to facilitate a range of sizes for picnics and gatherings.

## Creek Access

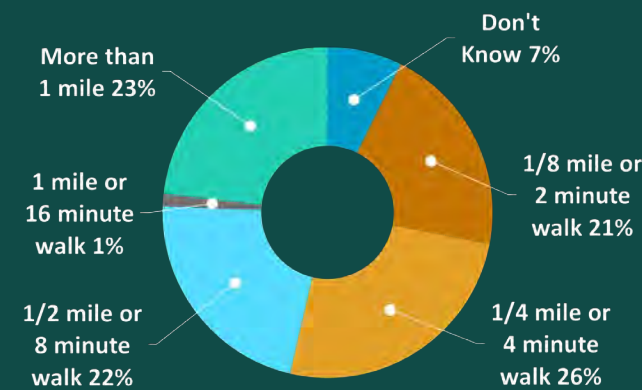
Providing for informal creek access for unstructured play was a key element requested by the community. Many of the adults that attended public meetings have strong memories of interacting with and playing in Hermesprota Creek.

## Activities for all ages

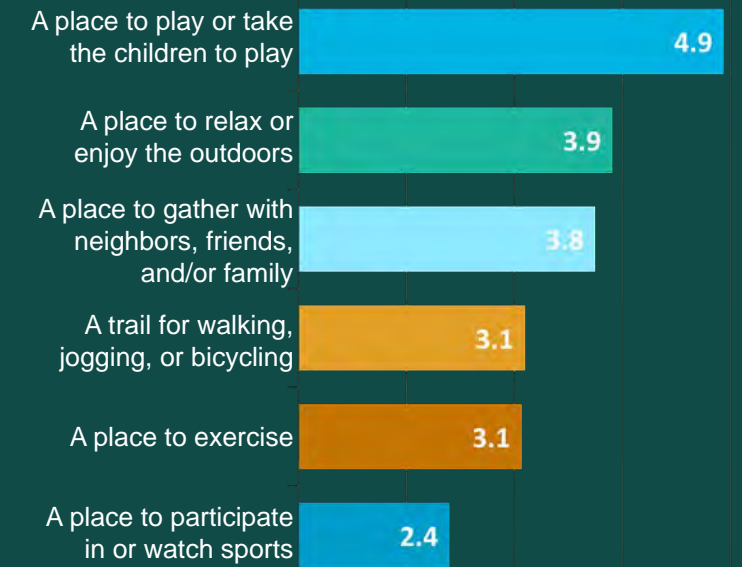
When asked to rank how various age groups are served by current park facilities, every age group ranks below three out of five. It was important to the community that all ages and abilities be provided with meaningful recreational opportunities. In many cases the elements proposed in the master plan are not new to the park. However, the master plan strives to create spaces around the new elements to create spaces for community members to interact.



Respondents Municipality - 173 Total response

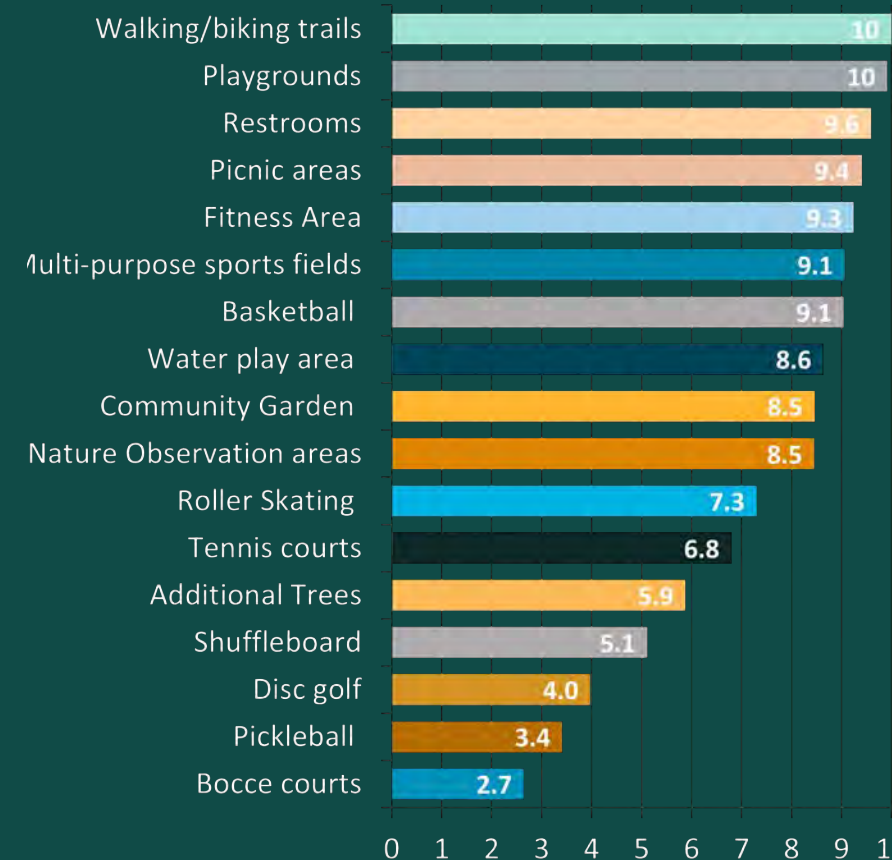


Where respondents live in relation to Conway Park



Ranked recreational opportunities respondents want from Conway

Lowest Rank 1      Average Rank 3.5      Highest Rank 6



Ranking of new or improved facilities respondents would like to see included at Conway Park



## Design Standards

### Township Zoning and SALDO Ordinances

There are no defined setbacks or coverage standards in the Municipal Use Zoning District. Development of the park should conform to relevant sections of zoning code specifically, the in regard to park signage and proposed improvements located within the floodplain.

The Township does not have a Subdivision and Land Development Ordinance (SALDO). In accordance with the Code of Ordinances (2017) the Township follows the Delaware County applicable regulations.

### Uniform Construction Code

Pennsylvania's statewide building code is referred to as Uniform Construction Code (UCC). Enforcement of the UCC began in April 2004, since then over 90% of Pennsylvania's 2,562 municipalities, Darby Township included, have elected to administer and enforce the UCC locally. The UCC includes various industry building standards including the International Building Code (IBC). A listing of the full code can be found at the following link: <https://www.dli.pa.gov/ucc/Pages/default.aspx>

### Universal Design Standards (Accessibility)

The Americans with Disabilities Act (ADA) Standards for Accessible Design serve as a base line accommodation standard for building accessibility in the United States. These are standards mandated by Federal statute. Public recreation improvements must be designed following the most recent edition of the ADA Accessibility Guidelines for Buildings and Facilities. The most recent version of the ADA Accessibility Guidelines for Buildings and Facilities can be found at: <http://www.ada.gov>. The UCC includes compliance with the ADA Accessibility Guidelines for Buildings and Facilities. These standards will play a key role in the design of Conway Park to assure that universal access is achieved, and the facilities function for users of all abilities.

Additional guidelines have been developed to provide guidance for outdoor recreation facilities including trails. The goal of Conway Park is to propose a trail system that is to develop a trail system that is as inclusive as possible. The full guidelines can be found at: <http://www.access-board.gov/guidelines-and-standards/recreation-facilities>

### American Society for Testing Materials (ASTM) standards

ASTM International, founded as the American Society for Testing and Materials, is a nonprofit organization that develops and publishes approximately 12,000 technical standards, covering the procedures for testing and classification of materials of every sort. ASTM standards are used for the basis of assuring construction materials and methods are sources and installed properly. Where applicable the development of Park infrastructure should comply with ASTM standards. Examples of such work include the placement of asphalt and concrete walkways.

### Consumer Product Safety Commission (CPSC)

CPSC administers and enforces several federal laws. These laws authorize the agency to protect the public against unreasonable risks of injuries and deaths associated with consumer products. As such the CPSC sets standards for safety on playgrounds. The development of playgrounds in the park should comply with all relevant CPSC codes.

### Permits

#### The National Pollutant Discharge Elimination System (NPDES) Permit

A federal permit that is administered at the state level, the overall goal of the NPDES permit is to improve water quality. Projects that disturb over one (1) acre of land require to obtain an NPDES permit for Stormwater Discharges Associated with Construction Activities.

The permit plans are divided into two (2) parts. The Erosion & Sedimentation Pollution Control plans (ESPC) are to be implemented by the contractor throughout construction activities until the site is stabilized by permanent plant growth. The Post Construction Stormwater Control Plans (PCSC) are to be constructed during the project and maintained by the site owner for the life of the project.

#### DEP Chapter 105 Water Obstruction & Encroachment General Permits

In addition to NPDES permit, DEP may require a Chapter 105 Water Obstruction & Encroachment General Permit. These permits are required when construction activities impact existing waterways and wetlands. The floodplain of the Hermesprota Creek should be reviewed during schematic design to determine if wetland habitat exists grading. Any work within the area of the Creek may require as Chapter 105 permit.

### Stormwater Best Management Practices (BMPs)

The Pennsylvania Handbook of Best Management Practices for Developing Areas, by the PA DEP, offers numerous solutions for handling on-site stormwater. Where feasible BMPs should focus on vegetated / surface solutions to create opportunities that combine planting improvements with stormwater management and for education. BMPs that might be implemented at the Park include:

- Protect and restore forest buffers.
- Protect / utilize natural stormwater flow direction.
- Habitat restoration.
- Soil amendments.
- Native tree and shrub planting.
- Rain gardens.
- Bio-swales.

Due to the small size of the park and location in the watershed some stormwater may need to be controlled using subsurface retention facilities. These facilities require site-specific soil tests to determine site suitability and the infiltration rates of the existing soils.

Incorporation of these BMPs into park development will have a direct positive impact on preserving and enhancing water quality. The opportunity for education exists through the placement of interpretive signage to educate park visitors about watershed water quality and how BMPs can positively impact this site.

Stormwater Best Management Practices may also help the Township in achieving its mandated township-wide goals in its MS4 (Municipal Separate Storm Sewer System) permit. As improvements are being designed at Conway Park, there should be coordination with the Township Engineer on how park improvements might positively impact the MS4 permit and plan.

### Sustainable Site Design & Green Infrastructure

#### Native Plant Material & Invasive Plant Removal

The use of native plants supports the vision of enhancing the natural ecosystems within the Park. The planting design for the Park should include canopy and understory trees, shrub and herbaceous plant understory. Habitat restoration in some areas of the site should include native riparian buffer plantings. Native plant materials can create an attractive landscape that will help reduce long-term maintenance costs. Native plants are generally resistant to most pests and diseases and once established, require little or no



*Development of a native plant riparian buffer will help with flooding and provide wildlife habitat.*



irrigation or fertilizers. In addition to the above benefits, native plants provide food and habitat for indigenous fauna.

Disturbed lands often allow invasive plant materials to establish on a site. A program for controlling invasive plant species within the Park should be undertaken. The Township should seek to replant areas of invasive removal with native plants. This is a labor-intensive task, ideally suited for volunteers, including school, church, or scout groups.

### Maintenance and Establishment of Riparian and/or Forest Buffers

Areas within or near the park boundaries that could benefit from enhanced buffer protection included the Hermesprot Creek and the existing forest canopies within the park. Enhancement of these areas should include management of invasive species; restoration of understory plantings; and additional tree planting.

### “Green” Practices

Choices in materials have the potential to affect the health of a site ecosystem as well as the larger environment. Every material has a life cycle cost, including raw materials and natural resources, product manufactured, and delivery for use. Closer consideration of the sustainability of a materials life cycle can have far reaching benefits. Sustainable material practices include (SITES, 2014):

- Re-use of existing site materials.
- Purchase local and sustainably produced plants and materials.
- Consider the full life cycle of materials. Consider the end life of a product. Can it be deconstructed and re-used?
- Work towards zero net waste in demolition, construction, and management.

Additional guidelines on green building standards are included in the SITES and LEEDS programs.

### The Sustainable Site Initiative (SITES)

The SITES criteria promote sustainable land development and management practices for sites with and without buildings. SITES standards focus on site development practices and are often overlooked by “green” building standards. The SITES “system” rates projects based on management of site hydrology systems, soils, plants, material selection, and human health and wellbeing. The U.S. Green Building Council (USGBC), a SITES stakeholder, plans to incorporate SITES into future LEED requirements.

Additional information can be found at: <http://www.sustainablesites.org/>

### LEED

Also developed by the USGBC, the LEED program is a globally recognized, highly effective green building rating system that strives to “optimize the use of natural resources, promote regenerative and restorative strategies, maximize the positive and minimize the negative environmental and human health impacts of the building industry, and provide high quality indoor environments for building occupants”. More information about the LEED program can be found at: <https://new.usgbc.org/leed>

## Design Elements and Facility Standards

### Multi-use Loop Trail

An 8 to 10-foot-wide asphalt loop trail is proposed to provide an ADA-compliant trail throughout the Park. The wider width will provide for an array of anticipated users including biking, running, walking, and roller skating. The asphalt surface will provide a level and stable walkway while minimizing maintenance in areas where slopes exceed 3 percent. Trail shoulders should be 2-feet in width, level, and maintained as mown lawn. Trail running slopes should conform to the Access Board Accessible Trail Standards with the goal of maintaining a slope of less than five percent (5%) for the entire trail system. Trail cross slope should not exceed 2% and the surface should be clear and level free of any vertical obstructions. Along the trail, benches are recommended in regular intervals to allow for users to stop and rest. Benches should be located at least two (2) feet from the edge of the trail.

### Secondary Walkways

A system 5-foot-wide asphalt walkways are proposed to provide an ADA-compliant connections to proposed Park facilities. The material provides an economical, level and stable walkway while minimizing maintenance. Along longer walkways, benches are recommended in regular intervals to allow users to stop and rest.

### Basketball Courts

Two (2) basketball are proposed for Conway Park for both recreational play and for summer league programs. The basketball courts should be 50 feet by 84 feet with a minimum 10-foot-wide paved safety zone maintained around the outside edges of the court. Courts should be oriented so the direction of play is north-south. Fencing, ten feet in height, should be considered behind the goal areas but is not required to surround the courts. Inclusion of LED court lighting will extend use into the evening hours year-round. Tiered Lawn seating should be associated with each court to accommodate team and spectator seating of approximately 50 people per court.



Colorful basketball courts designs like Philadelphia's Strawberry Mansion can be a way of including community art to enliven a space



Pickleball is one of the fast growign sports in the country with a wide appeal to older adults.



Splash pads offer many municipalities a safe and economical solution to incorporating water play into their parks.

### Pickleball Courts

Four (4) pickleball courts proposed for recreational play. Pickleball is a paddleball sport with elements of tennis, table tennis, and badminton, and is played with two or four players. This game has increased in popularity in recent years, especially with seniors, who are often underserved when it comes to public recreational facilities. Playing doubles, the courts will accommodate up to 16 players at a time accommodated small neighborhood should on be formed in the future.

Pickleball courts should be 20 feet wide by 44 feet long, inclusive of 2-inch-wide lines. The minimum total playing area of 30-feet wide by 60-feet long is required however a 10-foot surrounding margin is recommended for a court area of 40-feet by 64-feet. Courts should be oriented, so the direction of play is north-south. Fencing, ten feet in height, enclose the courts. Spector seating is not anticipated for pickleball however benches should be included in the area for participants to sit at while waiting to play.

### Playground(s)

A single, centrally located playground is proposed for the park. By definition, playgrounds nurture knowledge, discovery, and curiosity through play. A successful playground helps children to build fitness, confidence, imagination, and social

### Splash Play Area

A splash play or zero-depth water play area is a plaza with water play elements that can be both artful and playful. Water does not pool or accumulate on the ground in zero depth water play features. Systems can be designed as water pass through or recirculating and filtered systems. Pass through systems is less expensive to install and maintain however there are higher cost associated with operations due to water costs and sewer costs.

A recirculating system collects water via drain inlets, filters, treats, and recirculates it in a closed system through a series of pumps. This system has higher initial costs and requires regular maintenance. However, the long-term cost of operating the system is much less. In a recirculating system water chemistry is maintained to meet the safety standards for public pools. With modern single source manufactures, the treatment and testing of water is automated.

Splash Play systems can be user actuated and programed to save on electricity and water. The plaza surface can be pavers or colored concrete installed in a range of colors and designs. The area can operate as a seating plaza in cool months. Zero depth water play areas are an economical solution to providing non-fee and safe water play opportunities within communities. The area for the spay play needs to be served by electrical, water and sanitary sewer access.





Outdoor gyms offer fitness options to the public free of membership fees.



Park restroom was high on the list of public request for Conway park.



Game tables are an easy way to offer alternative recreation options in a park.

## Outdoor Fitness Area

A plaza area containing outdoor fitness equipment should be located near a park entrance along the multi-use trail. A 1,500-square foot area is proposed to house equipment creating a full body, outdoor gym experience to help people meet their physical goals. Equipment should be geared towards a range of teen and adult ages and included ADA accessible features. Poured in place rubber safety surface will create an even, stable, low maintenance surfaces.

## Community Pavilion

A large community pavilion can provide a place for people to gather while simultaneously functioning as a small event space and for rentals. The existing pavilions are well used; however, both are approaching the end of their serviceable lives. Design of new pavilions should be economical and durable while offering a quality of design that helps to reinforce a cohesive park identity. The new pavilion is approximately 44-feet long by 24-feet wide accommodating approximately 50 people seated at picnic tables. Picnic tables should be durable, easily cleaned, and should accommodate wheelchairs access. Utility service to the pavilion should include electrical and water for a drinking fountain and hose bib to facilitate cleaning.

## Restroom & Storage Pavilion

A Restroom & Storage Pavilion will provide a park restrooms and storage as well as a smaller picnic pavilion for rentals. Design of the pavilion should be economical and durable while offering a quality of design that helps to reinforce a cohesive park identity. The new pavilion is recommended to be approximately 44-feet long by 24-feet with half of the pavilion being enclosed space for restrooms and storage and the other half being a small open-air pavilion accommodating 10-20 people. Picnic tables should be durable, easily cleaned, with 50% accommodating wheelchairs access. Utility service to the pavilion should include electrical, water, and sewer. A drinking fountain with bottle filler should be included in the pavilion area.

Proposed restroom facilities should conform to current ADA standards for stalls and sinks. Fixtures should be durable and low maintain. Consideration should be given to two or three single/family occupancy toilets as opposed to separate women's and men's restrooms. Since Conway is a community park consideration should be given to heating the restrooms for year-round use.

## Shade Pavilions

Smaller pavilions 20-feet by 20-feet should accompany the basketball and pickleball court areas to provide shade for participants and spectators. Utility services should include electrical and water. Site furnishings should be movable to accommodate different types of uses. Picnic tables should be durable, easily cleaned, and accommodate wheelchairs.

At the basketball courts area, the shelter will also serve as a corralling area for summer league programs. Electrical systems at this location should accommodate the setup of AV equipment.

## Game Table Plaza Area

A small plaza area would house tabletop games and serve as an informal gathering area for older children and adults. The plaza should be located in close proximity to the basketball courts. Consideration should be given to including outlets for charging and access to wi-fi (however with the increased availability of 5G networks, it should be determined if a wi-fi hotspot is required in the park).

## Memorial Plaza & Darby Wall of Fame

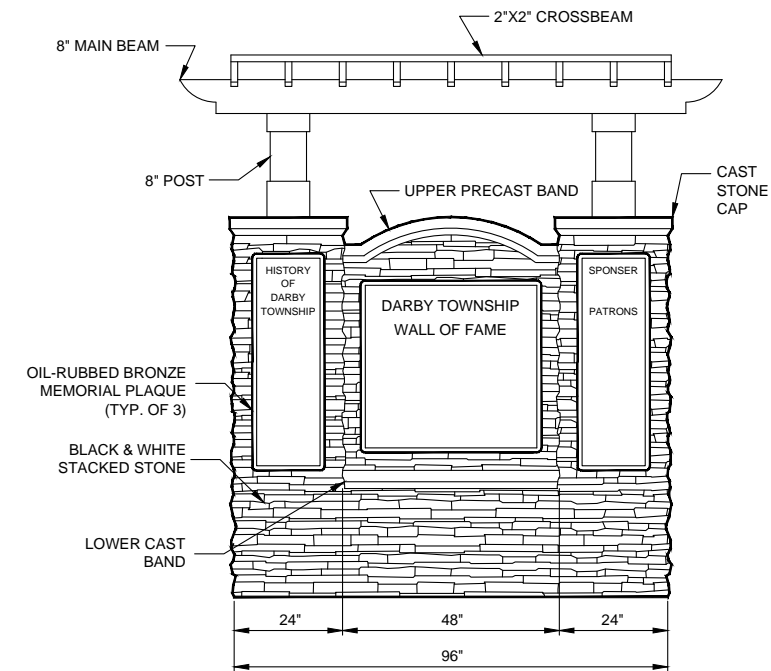
A small plaza 15-20 feet in diameter would provide a setting for a Darby Wall of Fame. The memorial wall with a shade trellis would note Darby Township history, list names of integral community members from throughout the township's history and have a place for donor names as well. The plaza should be located within the interior portion of the park separate from Hook Road and the multi-use loop trail to allow for people to stop and reflect on the community's history. Consideration should be given to relocating the Veterans memorial into the area as well. Tree and ornamental plantings should define the plaza area offering year-round interest and color. 2 to 4 benches will provide for seating within the plaza.

## Amphitheater & Gazebo/Stage

A small lawn amphitheater / sitting area has been identified to serve as a small community gathering place. The amphitheater should be sited in an area of naturally sloping topography. Tiers of lawn areas retained by concrete seat walls should accommodate event attendance of approximately 150 people.

The amphitheater centers on a small Gazebo, 20-feet in diameter. Sit in a centrally plaza area at the base of the amphitheater, the gazebo is envisioned to be slightly elevated (18 to 24-inches) above the plaza to serve as a stage area for the amphitheater. Utility services should include electrical and water and electrical systems at this location should accommodate the setup of AV equipment.

The amphitheater will serve as a place for events to happen such as concerts, wedding ceremonies, reunions, or other performances. The amphitheater will also serve as an informal gathering place for people to sit and enjoy the park on a daily basis.



CONCRETE MONUMENT WITH ARBOR TRELLIS

NOT TO SCALE

A community member's concept image for the Darby Township Wall of Fame.



A small lawn amphitheater offers a dynamic space for many different types of community events.





Stepped boulders can allow for informal stream access while serving to protect the banks from erosion.



Recent fundraising efforts has led to the installation of new benches and picnic tables in the park.

## Community Garden

A community garden offers opportunities for a dedicated user group to have a constant presence within the park while working to serve the community. A fenced in area of 75-long by 40-feet wide would accommodate 24, 6 by 3-foot raised beds. Three to five of the beds should be wheelchair accessible. The garden surface should be permeable stone dust and 5-feet wide to accommodate wheelchairs turning. A small shed of 50-square feet will provide storage space for garden tools and supplies.

The area is not intended to be rented as individual plots but to be maintained by a local club with the produce being donated to a local charity or food-bank. In more successful community gardens a head gardener, either a volunteer or paid staff, would be scheduled to be on site to help teach community members gardening and address gardening questions. If construction of the garden is funded with DCNR or state funds, access to the area must be allowed to all members of the public and produce cannot be sold for profit.

## Informal Creek Access & Natural Picnic Area

Safe stream access is to be developed in conjunction with streambank restoration. Due to the steep nature of the stream bank a series of boulder steps would provide a level area for adults and children to transition down the stream bank and reach the water's edge. The boulders would also serve for a natural sitting area to observe the streamside wildlife and nature.

Located in close proximity to the creek, a natural picnic area will provide for this use in an attractive setting. An informal ring of trees would define the picnic area with boulders for informal seating, and impromptu picnics and play.

## Site Furnishings

Site furnishings provide needed amenities and create a sense of uniformity in the park landscape. These improvements include benches, trash receptacles, and signage. In high-use areas, these amenities should be chosen to be durable, cohesive with the design and materials of elements in the park and surrounding neighborhood and meet ADA standards. Along walkways, benches should be placed periodically. Half of all new benches in the park should be ADA accessible with direct access from a paved area and an adjacent paved area for a wheelchair. Trash receptacles should be strategically placed at park entrances and high use areas such as the court areas, playgrounds, and pavilions. The recently installed tables and benches donated by local high school alumni are a good choice. New park furniture should be similar.

## Park Signage

New park signs are proposed at the Hook Road and Linden Avenue Entrances. Park Rules Signage should note park regulations, hours of operations, emergency contact numbers, and other relevant information. Opportunities for educational signage along the Hermesprot Creek to highlight planned restoration work should be included. Park signage should be thoughtfully designed and placed frugally in the park so that they do not distract from the beauty of the park but create a welcoming atmosphere.

Signage should note that the Park acquisition was been funded via the Land and Water Conservation Fund (LWCF). Should future improvements be funded through the Department of Conservation and Natural Resources (DCNR) or other agencies, those funding sources should also be noted in new park signage.

## Ecological Improvements

### Streambank restoration

Significant portions of the Hermesprot Creek and been eroded. The Eastern Delaware County Watershed Alliance has been successful in securing a Growing Greener grant through the PA Department Environmental Protections for the Township to stabilize approximately 700 linear feet of stream back restoration. The Alliance is also pursuing additional funding for stream restoration from the National Fish and Wildlife Foundation (NFWF).

Plans for park improvements should be coordinated with the streambank restoration/ Any future projects work should be pursued to ensure a full restoration of the stream within the boundaries of the park. In the area north of Linden Ave., there may be opportunities to marry park facility improvements with floodplain enhancements such as the re-establishment of wetlands.

### Riparian Buffer

In coordination with the streambank restoration, a riparian buffer should be established along the length of the Hermesprot Creek. A riparian buffer is an area along the stream maintained with native vegetation that helps stabilize floodplain soils and helps to slow down floodwaters during storm events. A 35-foot buffer is recommended for the stream corridor and should focus on the planting of native shade and understory trees in combination with native understory shrubs. The planting should be selected to offer both wildlife habitat and year-round color and interest.

### Tree Planting

The re-establishment of a tree canopy throughout the park will also benefit the stream corridor. Areas of lawn that are not usable due to such things as wet soils should be considered for denser plantings of trees. Initially, these areas could still be maintained as low mow grasses that only require periodic mowing. As the canopy is established lawn may be more difficult to maintain and native understory shrubs and ground cover should be planted in these areas.



Streambank restoration often includes tree planting and establishment of a riparian buffer.





Figure 3.1 Concept Plan 1

- 1 Roller Skate Loop with Central Plaza
- 2 Pickleball Courts (4)
- 3 Civic / Splash Pad Area
- 4 Memorial Area
- 5 Playground
- 6 Creek Access
- 7 Pavilion
- 8 Restroom & Storage
- 9 Basketball (3)
- 10 Fitness Area
- 11 Picnic Grove (2)

## Preliminary Concept Plans

Based on preliminary site analysis, field reconnaissance, and preferences outlined during the first two Master Plan Task Force meetings and the first public meeting, the consultant team created three preliminary concept plans. The concepts were a way to explore relationships between potential park improvements and to identify preferred program elements.

### Concept 1

Concept 1 proposes a multi-use path that moves along the western edge of the Hermesprota Creek with a loop around the southern picnic area at Hook Road. A network of secondary paths connects to the different facilities of the park including a new walkway east of the creek connecting the two southern park bridges and neighborhood access

points. The proposed civic open lawn and splash pad area are located just south of Linden Avenue on axis with the central bridge. A new playground area is proposed north of the open lawn area, a central location in the park.

Redeveloped basketball courts are maintained along Hook Road, with a third new court. A fitness area is located along Hook Road. A pavilion and a restroom and storage pavilion is proposed between the playground and basketball courts. Existing picnic groves are maintained along Hook Road.

Creek access is proposed on the eastern side of the Hermesprota Creek. In the area north of Linden Ave, a roller skate loop with central plaza and pickleball courts (4) are proposed.



Figure 3.2 Concept Plan 2

- 1 Dog Park
- 2 Community Garden
- 3 Playground with Landform Elements
- 4 Civic/ Splash Pad Area & Lawn Seating
- 5 Stream Access
- 6 Nature Based Play
- 7 Restroom & Storage
- 8 Pavilion (2)
- 9 Dropoff Area
- 10 Basketball (2)
- 11 Fitness Area & Pickleball (2)
- 12 Picnic Grove (3)

### Concept 2

An interlocking chain of primary pathways connecting park elements is proposed. Entrances to the park occur along Hook Road while maintaining existing neighborhood accesses. A playground is proposed south of Linden Avenue on axis with the central bridge. A lawn amphitheater with a splash pad area are located south of the playground area. Restroom & storage pavilion is proposed adjacent to the lawn seating.

The backdrop to the amphitheater is a stream access area allowing for informal crossing of the stream. Proposed in the area east of the Hermesprota Creek, opposite the stream access area, is a nature-based playground.

A reconfiguration of the existing courts into two basketball courts, two pickleball courts, an outdoor fitness area and shade pavilion are proposed.

A new picnic grove is suggested along the Hermesprota Creek. Two new community pavilions are proposed for the area between the courts and the amphitheater. A vehicular drop-off circle from Hook Road is proposed.

The area east of the creek includes a new walkway connecting the two southern park bridges, neighborhood access points and proposed community garden. For the area north of Linden, the loop trail is extended to a proposed fenced-in dog park.





Figure 3.3 Concept 3

- 1 Tiered Seating Area
- 2 Floodplain Pond
- 3 Boardwalk with Gazebo & Splash Pad
- 4 Fitness Area
- 5 Stream Access
- 6 Playground

- 7 Restroom/ Storage / Small Pavilion
- 8 Basketball (3)
- 9 Plaza -Game Tables & Memorials
- 10 Pickleball (2)
- 11 Pavilion (2) & Picnic Groves (3)

## Concept 3

The primary loop trail is located away from the creek and pushed to the outer edges of the park. The northern end of the loop trail would cross the creek along a new bridge relocated closer to Linden Ave. The southern end of the trail would cross the creek along a widened Hook Road sidewalk, eliminating the southern bridge. The playground area is proposed south of Linden Avenue on axis with the former central bridge. The former bridge location is proposed as an improved stream access area allowing for informal, steppingstone crossing of the creek.

A reconfiguration of the existing courts into three basketball courts, two pickleball courts, and a game plaza are

proposed. A proposed restroom and storage pavilion are located north of the court area. In the southern portion of the park along the creek two pavilions and a new picnic grove are proposed.

East of the Hermesprota Creek near the central neighborhood access point, a fitness area is proposed. North of Linden Avenue a lawn amphitheater with a gazebo stage area takes advantage of the change in grade. In the amphitheater plaza a splash pad is proposed. A new floodplain pond with boardwalk forms the backdrop of the stage area. A new bridge south of the pond provides access to the neighborhood entrance.

## Public Consensus

Concept 3 was widely supported for the configuration of the multi-use loop trail and the for the amenities in the currently undeveloped portions of the park. However, it was determined that only two basketball courts were required and that the pavilions should stay central to the park and the southern area along Hook Road be maintained as an open area. Based on feedback from the public and the Task Force, the team developed a draft master plan. The following program elements were identified by the public and task force for inclusion in the draft plan:

- Multi-use Loop Trail
- Basketball Courts
- Pickleball Courts
- Playgrounds
- Splash Pad Area
- Fitness Areas
- Plaza Spaces
- Pavilions
- Restroom and Storage
- Creek Access
- Picnic Groves
- Community Garden

## Draft Master Plan

The plan divides into seven parts: Multi-Use Loop Trail, Basketball Court Area, Picnic Areas, Memorial Area, Playground Area, East of Creek, and North of Linden. The following are a list of key improvements in each area.

### Multi-use Loop Trail

In the southern portion of the park the trail creates a 0.42-mile loop using the existing pedestrian bridges. No improvements to the bridges are proposed at this time. However when it comes time to replace the bridges, the new clear deck widths should be 5-feet wide minimum. The trail crosses Linden Ave with a tabled (or raised) pedestrian crosswalk and loops through the northern portion of the site adding an additional 0.28 miles to the loop trail system. The trail will direct access from each of the three neighborhood entrances, the Linden Ave Sidewalk, and the Hook Road sidewalks. The neighborhood entrances should be improved to ensure walkways are level and free of tripping hazards. The neighborhood entrances should be clearly defined as public entrances into the park through inviting gateway

features such as durable signage, arches or plantings. Other improvements include:

- Elimination of existing trail from riparian buffer and floodplain areas.
- 0.7-mile loop trail
- Vehicular access controls at Linden Ave and Hook Road
- Fencing along Hook Road to control pedestrian movement and access along roadway frontage.
- Tabled (or raised) pedestrian crosswalk
- Universal access into all areas of the park

### Basketball Court Area

The basketball court area has been re-envisioned to create a dynamic area providing a range of activities targeted toward a teens and young adults. Improvements include the removal of the two tennis courts, configuration of the new basketball courts into the interior of the park to allow for the multi-use loop trail to pass around them, and regrading of the area to allow for tiered seating at each court. A new game table plaza and shade pavilion function as a gateway or entrance into the area and provides an informal space for friends and spectators to gathering. Area improvements include:

- Removal of existing two (2) tennis courts
- Elimination of existing trail from riparian buffer and floodplain areas.
- Two (2) new basketball courts with improved lighting
- ADA walkway access to courts from multi-use loop trail
- New spectator seating
- New shade pavilion
- Games table plaza
- New stormwater management BMP's

### Picnic Area

There are three types of picnic areas located within the park. At Hook Road, the newly installed picnic areas shall remain, and three areas are proposed that would have ADA surfacing directly connecting to the multi-use trail for ADA access. Centrally located in the southern portion of the park are two new pavilions. A new community picnic pavilion is situated at the top of the hill offering views out over the Hermesprota Creek. The restroom pavilion is located between the community pavilion and playground with the pavilion portion overlooking the playground area. ADA walkways connect the pavilions to the multi-use loop trail. New grills are proposed at each picnic grove and the community pavilion. A third natural picnic area is proposed in the area east of Hermesprota Creek



## Memorial Area

Located at the base of the slope below the Community Picnic Pavilion is the Memorial Plaza & Darby Wall of Fame. A gently graded lawn ringed by trees is proposed in the area between the pavilion and plaza allowing for an informal sitting area for small gatherings and ceremonies. A secondary walkway connects the plaza area to the multi-purpose trail at the playground to the north and the pavilion area to the south. The riparian buffer of the Hermesprota Creek forms the backdrop of the plaza. Area improvements include:

- Elimination of the existing trail from riparian buffer and floodplain areas.
- Memorial Plaza & Darby Wall of Fame
- Relocation of veteran's memorial and park flagpole
- Pavilion with restroom and storage
- Tree plantings

## Central Playground

The goal for this area is to provide for expanded play experience that conforms to modern safety standards. The play area is located near the central pedestrian bridge and has been located entirely outside of the floodplain. The area of play is divided into two age groups with the northern playground intended for children ages 5-12 and the southern play area intended for ages 2-5. Area improvements include:

- Removal of existing play areas from the floodplain and riparian buffer area
- Multi-use loop trail around perimeter of play area
- ADA compliant poured-in-place play surface.
- Benches and trash receptacles
- Tree plantings
- Lawn hill side for informal play and sitting.

## East of Creek

The goal for this area is to reconnect the community with the creek, maintain open lawn areas for neighborhood use, and provide park amenities appropriate to the area to spread out park use into underused areas. Area improvements include:

- Fitness area
- Streamside boulder creek access
- Nature-based picnic grove
- Riparian buffer & tree plantings

## North of Linden

The area North of Linden has been underutilized to date. The goal for this area is to expand park use into this area. This area divides naturally into an upper plateau and a lower area along the creek. The central feature of this area is a lawn amphitheater with a gazebo/stage area. It is situated into a natural bowl of the landscape with the Hermesprota Creek as its backdrop. In the plaza at the base of the amphitheater is the proposed water splash pad creating a play destination in the park. The development of the amphitheater will require site grading. Currently all features in this area are located outside of the floodplain. However, during design and engineering, consideration should be given to raising the area of the plaza to insure it is not flooded. Area improvements include:

- Amphitheater with gazebo/stage
- Splash pad
- Pickleball courts
- Community garden
- Shade pavilion
- Riparian Buffer & tree plantings

## Vehicular Site Access

Traditionally, Conway Park has had no parking located within the park. During the master plan process options were explored to locate parking in the area north of Linden Avenue. However, this small area could not provide very much parking, it conflicted with pedestrian entry here, and it would be located far from proposed pavilions. It was determined that parking here was not a wise choice. Likewise, during the concept phase a pedestrian drop off circle was explored off of Hook Road. The concern with this type of access is that it would become a de-facto parking lot. The community felt strongly that offering parking within the park would ultimately take away from much needed green space.

However, it is necessary that ADA parking be located at the park to provide full access to the community. The plan recommends the inclusion on-street ADA parking spaces at the following locations:

- South side of Linden Ave. – 2 spaces
- Felton Ave. - north neighborhood access point – 1 space
- Felton Ave, - central neighborhood access point – 1 space
- Clifton Ave. - south neighborhood access point – 1 space

Improvements to the curbs and sidewalks at these locations will be required to facilitate ADA access into the park at these locations.

## Plan Key

- |                                    |                                      |                                       |
|------------------------------------|--------------------------------------|---------------------------------------|
| 1 Multi-use Loop Trail             | 6 Restroom & Storage Pavilion        | 11 Tabled Pedestrian Crosswalk        |
| 2 ADA Picnic Grove                 | 7 Memorial Plaza                     | 12 Amphitheater & Gazebo/Stage        |
| 3 Basketball Courts (2)            | 8 Creek Access & Natural Picnic Area | 13 Splash Pad Area                    |
| 4 Gametable Plaza & Shade Pavilion | 9 Fitness Area                       | 14 Pickleball Courts & Shade Pavilion |
| 5 Community Pavilion               | 10 Playground                        | 15 Community Garden                   |



Figure 3.4 Draft Master Plan





Figure 3.5 ADA Accessibility Map

## Existing Maintenance Capacity

The park is currently maintained by Darby Township Public Works Department. In keeping with other Township parks, Conway Park is generally well maintained. Current routine maintenance includes trash removal, pathway repairs, and grass mowing.

## Maintenance Responsibilities

The Park designs seeks to minimize landscape maintenance costs while providing a beautiful and functional park. While the many of the site maintenance task will be the same, new improvements will require regular inspections and periodic repairs. The new park design will address many of the current drainage issues in the park, alleviating the current maintenance associated with poor drainage. However, the additions of restrooms and the water splay pad will add to the current park maintenance regime.

Walkways should be regularly inspected and maintained. Regular inspections and periodic repairs of park structures and playgrounds will be necessary to maintain the quality of facilities. Regular maintenance of the restroom facility and trash removal will be required at a frequency based on the season of use. Restrooms should be locked at night to deter vandalism. If a recirculating water system is selected for the splash pad, then daily checks of drains, filters, and logging of water chemistry is required.

Mowing of lawn areas should be done on a regular basis with frequencies increasing during the growing season. Proposed low mow areas should be mowed twice a month in the early spring and as needed during summer and fall.

Currently, the Township does not remove snow from walkways within their parks. However, this level of operations may be something to be considered in the future.

The following is an outline of basic monthly maintenance tasks that should be completed. The frequency (by month) of these maintenance tasks is indicated in parentheses.

### January

- Inspect walkways / make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Clean restroom once weekly (4)
- Trash Removal weekly (4)
- Snow removal from primary walkways (as required).

### February

- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Signage inspection and repairs (1)
- Inspect and mechanically remove invasive plants (1)
- Clean restroom once weekly (4)
- Trash Removal weekly (4)
- Snow removal from primary walkways (as required).

### March

- Inspect structures / make repairs (1)
- Inspect trees for winter damage / perform work (1)
- Inspect BMP's, remove debris (1)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Clean restroom once weekly (4)
- Inspect and mechanically remove invasive plants (1)
- Trash Removal weekly (4)
- Snow removal from primary walkways (as required).

### April

- Inspect walkways, bridges & culverts/make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Clean restroom twice weekly (8)
- Trash Removal weekly (4)
- Mow lawns biweekly (2)
- Fertilize, aerate and over seed fields (1)

### May

- Open Restrooms Clean twice weekly (8)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Mow lawns weekly (4)
- Mow Low Mow Areas biweekly (2)
- Open Splash Pad for the Season

### June

- Clean restroom twice weekly (8)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Mow lawns weekly (4)
- Mow Low Mow Areas (1)
- Daily splash pad inspections (30)

### July

- Clean restroom twice weekly (8)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Mow lawns weekly (4)
- Daily splash pad inspections (30)

### August

- Clean restroom twice weekly (8)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Mow lawns weekly (4)
- Daily splash pad inspections (30)

### September

- Clean restroom twice weekly (8)
- Inspect walkway, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Mow lawns weekly (4)
- Mow Low Mow Areas (1)
- Daily splash pad inspections (30)
- Close splash pad for the season

### October

- Inspect structures / make repairs (1)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Mow lawns biweekly (2)

### November

- Inspect trees / prune as required (1)
- Inspect walkways, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Fall planting bed/ leaf clean-up (1)
- Snow removal from primary walkways (as required).

### December

- Inspect walkway, make repairs (1)
- Inspect play equipment weekly / make repairs (4)
- Trash Removal weekly (4)
- Snow removal from primary walkways (as required).







# 4 Implementation



# Cost Estimates of Capital Improvements

Probable costs for development of Conway Park were established based on unit cost from construction projects of similar scope and scale and reflect prevailing wage rates that are required for publicly bid construction projects. The probable cost of development for the capital Improvements at Conway Park is estimated at \$ 2,968,600 (see Figure 5.1). Included in the total estimated cost are design and engineering fees of \$ 356,232 (estimated at 12% of the total site improvements); and a construction contingency of \$ 296,860 (estimated at 10% of the total site improvements). A detailed cost estimate for proposed improvements is provided in the appendix of this report.

Conway Park Master Plan Draft Cost Summary		
<b>1. Lower Picnic Area</b>	<b>\$</b>	<b>65,700</b>
Total Proposed Site Improvements	\$	50,200
Mobilization, E&S, Stormwater Allowances	\$	4,300
Construction Contingency (10%)	\$	5,100
Design & Engineering (12%)	\$	6,100
<b>1a. D&amp;R Canal Park Connection</b>	<b>\$</b>	<b>529,100</b>
Total Proposed Site Improvements	\$	406,700
Mobilization, E&S, Stormwater Allowances	\$	32,800
Construction Contingency (10%)	\$	40,700
Design & Engineering (12%)	\$	48,900
<b>3. Pavilions &amp; Memorial Area</b>	<b>\$</b>	<b>712,400</b>
Total Proposed Site Improvements	\$	547,800
Mobilization, E&S, Stormwater Allowances	\$	44,000
Construction Contingency (10%)	\$	54,800
Design & Engineering (12%)	\$	65,800
<b>4. Playground</b>	<b>\$</b>	<b>584,000</b>
Total Proposed Site Improvements	\$	449,100
Mobilization, E&S, Stormwater Allowances	\$	36,000
Construction Contingency (10%)	\$	45,000
Design & Engineering (12%)	\$	53,900
<b>5. East of Creek</b>	<b>\$</b>	<b>168,900</b>
Total Proposed Site Improvements	\$	129,900
Mobilization, E&S, Stormwater Allowances	\$	10,400
Construction Contingency (10%)	\$	13,000
Design & Engineering (12%)	\$	15,600
<b>6. Former Playground</b>	<b>\$</b>	<b>81,600</b>
Total Proposed Site Improvements	\$	62,600
Mobilization, E&S, Stormwater Allowances	\$	5,100
Construction Contingency (10%)	\$	6,300
Design & Engineering (12%)	\$	7,600
<b>7. North of Linden</b>	<b>\$</b>	<b>826,900</b>
Total Proposed Site Improvements	\$	635,900
Mobilization, E&S, Stormwater Allowances	\$	51,000
Construction Contingency (10%)	\$	63,600
Design & Engineering (12%)	\$	76,400
<b>Total Estimated Project Costs</b>	<b>\$</b>	<b>2,968,600</b>

Figure 4.1 Summary of Project Cost

# Project Phasing

Improvements to Conway Park will be implemented in phases as funding is obtained. Discussions with the Township on project priorities resulted in the phasing plan (see figure 5.2). The phasing plan is a strategic and designed approach toward implementation; however, if funding opportunities for specific projects become available before others, the phasing plan can be revised to accommodate specific funding opportunities.

## Phase 1. Playground Improvements \$ 584,000

Phase 1 focuses on the redevelopment of the new playground area. Work includes the installation of the safety play surface, play equipment, accessible walkways, site furnishings, and plantings.

## Phase 2. Perimeter Path & Restroom Pavilion \$ 554,575

This phase focuses on the development of the multi-use loop trail, south of Linden Avenue and the addition of a third ADA picnic grove near the existing two picnic grove.

## Phase 3. Basketball Court Area \$ 392,237

This phase focuses on the redevelopment of the two basketball courts. This work will include site grading, play court development, walkways, games table plaza, shade pavilion, stormwater management BMPs, and tree planting.

## Phase 4. Basketball courts completion, fitness & nature area \$ 380,000

Phase 4 includes the completion of the basketball court area with the installation of court lighting and construction of the spectator seating areas. In the area east of Hermesprot Creek the phase includes the development of the outdoor fitness area and the stream access area and nature picnic area are proposed in this phase. The last element of this phase includes the extension of the multi-use trail to the area north of Linden Ave.

## Phase 5. Amphitheater & Spray Play \$ 506,400

Phase 5 includes the development of the amphitheater area. Work will include site grading; seat walls, central plaza with splash pad and the gazebo/ stage structure.

## Phase 6. Pickleball, Community Gardens & Memorial Plaza \$551,389

Phase 6 includes the development of the pickleball courts and the adjacent shade. Also included in this phase is the community garden area. In the are south of Linden Ave this phase also included the development of a new Community Pavilion and the Darby walk of fame plaza area.



Figure 4.2 Phasing Plan



## Funding Sources

The following is a summary of grants, programs, funds, and other potential partnerships/sources that can assist with the funding of Conway Park improvements. Various sources can be pursued during Park improvement phases, based on availability of funds aligning goals of partner agencies, and Township priorities for each year.

### Pennsylvania Department of Conservation & Natural Resources (PA DCNR)

#### Community Conservation Partnership Program (C2P2)

The Community Recreation and Conservation Program through the PA DCNR Community Conservation Partnership Program (C2P2) provides funding to municipalities and authorized nonprofit organizations for recreation, park, trail, and conservation projects. These include planning for feasibility studies, trail studies, conservation plans, master site development plans, and comprehensive recreation park and open space and greenway plans. In addition to planning efforts, the program provides funding for land acquisition for active or passive parks, trails and conservation purposes, and construction and rehabilitation of parks, trails, and recreation facilities. Typically, these projects require a 50% match, which can include a combination of cash and/or non-cash values. Following completion of a park master plan, an implementation or construction grant is the next stage grant from DCNR. Grant applications for the C2P2 program are accepted annually—usually in April.

More information can be found at: <http://www.dcnr.state.pa.us/brc/grants/grantpolicies/index.htm>

#### Land and Water Conservation Fund (LWCF)

The Land and Water Conservation Fund (LWCF) State Assistance Program, established in 1965, is a federal source of funding distributed to all states by the U.S. Department of the Interior's National Park Service.

The program provides matching grants for the acquisition and development of public outdoor recreation areas and facilities. DCNR administers the LWCF Program for Pennsylvania.

More info at: <https://www.dcnr.pa.gov/Communities/Grants/Pages/default.aspx>

#### DCNR Forest Buffer Program

The Riparian Forest Buffer Program through PA DCNR provides funding for organizations implementing a variety of

forest buffers including conventional riparian forest buffers and multi-functional buffers. Pennsylvania has a goal of planting 95,000 acres of riparian buffers by 2025 to improve state waterways and the Chesapeake Bay. There is no match required to be eligible for this grant. Grant applications are usually accepted October to late December.

DCNR has provided funding to County Conservation Offices. Grants awards are made by the local conservation office for the planting of multi-functional buffers.

More information is available on the PA DCNR website: <https://www.dcnr.pa.gov/Conservation/Water/RiparianBuffers/Pages/default.aspx>

### Pennsylvania Department of Community and Economic Development (PA DCED)

#### Commonwealth Financing Agency (CFA)-Greenways, Trails and Recreation Program (GTRP)

The Greenways, Trails, and Recreation Program (GTRP) provides funding for: public park and recreation area projects, greenway and trail projects, and river or creek conservation projects. The program requires a 15% local cash match of the total project cost and DCED share must not exceed \$250,000. Applications are typically due in June.

More information can be found at: <https://dced.pa.gov/programs/greenways-trails-and-recreation-program-gtrp/>

### DELCO Green Ways Municipal Grant Program

Delaware County is assisting municipalities and non-profit organizations with grant funding for projects that advance County goals to: CONSERVE open space and natural features; ENHANCE their environmental and recreational uses; CONNECT communities, cultural/historic resources, and natural features These goals form the foundation of Delaware County's 2015 Open Space, Recreation, and Greenway Plan. There is no match required and grants can be as large as \$500,000.00 for construction projects. Engineering and design can also be funded through the program. Grant applications are typically due in late summer of each year. <https://www.delcopa.gov/planning/pdf/greenspace/GreenWaysUsersGuide2021.pdf>

### Pennsylvania Department of Environmental Protection (DEP)

#### DEP Growing Greener Watershed Protection Program

Funded through the state Growing Greener Environment Stewardship Funds, applications should be targeted toward clean-up of non-point source pollution. The grant will fund local watershed-based conservation projects with the average award totaling \$150,000 and requires a 15% match from a non-DEP fund source. Applications are typically due in January.

More information on this program can be found at the DEP website: <http://www.dep.pa.gov/Citizens/GrantsLoansRebates/Growing-Greener/Pages/default.aspx>

#### Environmental Education

The Pennsylvania Environmental Education Grants Program awards funding to schools, nonprofit groups, and county conservation districts to develop new or expanded current environmental education programming. The funds are administered through the Pennsylvania Department of Environmental Protection for projects ranging from creative, firsthand lessons for students and teacher training programs to ecological education for community residents. Educational Resources, including exhibits, educational signage, and demonstration projects, also qualify for funding. Grant applications cannot exceed \$3,000 and require no match, however it is recommended. Applications are due in December and awarded in April.

More information can be found at: <http://www.dep.pa.gov/citizens/environmentaleducation/grants/pages/default.aspx>

#### DEP Non-Point Source Implementation Programs Grant

Provides funding assistance for projects aimed at implementing Pennsylvania's Non-point Source Management Program. Targeted projects include control of urban runoff, and natural channel design/stream bank stabilization projects. The grant will fund local projects with the average award being \$200,000. Applications are typically due in July.

More information on this program can be found at the DEP website: <http://www.dep.pa.gov/Business/Water/PlanningConservation/NonpointSource/Pages/default.aspx>

### PennVEST (Pennsylvania Infrastructure Investment Authority)

PennVEST offers both grants and low interest loans for projects that help to manage stormwater and improve water quality. Several recommendations for Trexler Preserve may attract PennVEST funds, since they include stormwater BMPs.

More information can be found at: <https://www.pennvest.pa.gov/Information/Funding-Programs/Pages/default.aspx>

#### Clean Water State Revolving Fund (CWSRF)

The PENNVEST Clean Water State Revolving Fund (CWSRF) provides affordable financing for wastewater and certain other projects throughout Pennsylvania for the construction, improvement, extension, expansion, repair or rehabilitation of wastewater collection, treatment or disposal facilities, storm water management, nonpoint source pollution controls including but not limited to agricultural best management practices and watershed and estuary management.

The program offers low interest loans with flexible terms and principal forgiveness funds where applicable and available.

PENNVEST performs similarly to a bank for the CWSRF program in Pennsylvania and manages the financial aspects of the fund, while the Department of Environmental Protection is the technical arm for the program. The seed money for the CWSRF has been distributed to states annually under Congressional authorization pursuant to the Clean Water Act of 1987. The funds and the program are administered nationally by United States Environmental Protection Agency (EPA).

More info at: <https://www.pennvest.pa.gov/Information/Funding-Programs/Pages/Clean-Water-State-Revolving-Fund.aspx>

### Pennsylvania Fish & Boat Commission (PFBC)

#### State Wildlife Grants Program (SWG)

Created in 2000 by Congress, SWG has enabled the Pennsylvania Fish & Boat Commission and Pennsylvania Game Commission to direct conservation efforts toward species in decline or vulnerable to decline, with the goal of preventing endangered species listings. State Wildlife Grant funding to Pennsylvania has ranged from \$1.5 to \$2.5 million per year, shared equally between the Fish & Boat Commission and Game Commission.



The State Wildlife Grants program (SWG) is the nation's core program for preventing species from becoming endangered. This program provides needed funds to states to develop and implement conservation actions identified in their State Wildlife Action Plan. These funds benefit wildlife and their habitat, including species not hunted or fished.

Since 2001, the Pennsylvania Fish & Commission has supported more than sixty fish, amphibian, reptile, and freshwater invertebrate conservation projects through State Wildlife Grant funding, including research, species surveys, habitat improvement, and other efforts.

More info at <https://www.fishandboat.com/Resource/StateWildlifeGrantProgram/Pages/default.aspx>

## U.S. Forest Service

### National Urban and Community Forestry Advisory Council

The National Urban and Community Forestry Advisory Council (NUCFAC) is a Congressionally designated advisory council to the Secretary of Agriculture on urban forestry and related issues. The 1990 Farm Bill created NUCFAC to bring together the wide variety of voices raised about a common concern: the present health and future preservation of America's urban forests. NUCFAC was founded to synthesize the full spectrum of views into a consistent vision, as a foundation for practical policy on urban forestry and related natural resources.

NUCFAC evaluates innovative grant proposals that help to implement the Ten-Year Action Plan and recommends them for funding to the Secretary of Agriculture.'

More info at: <https://www.fs.usda.gov/managing-land/urban-forests/ucf/nucfac>

## National Fish and Wildlife Foundation

NFWF supports conservation efforts in all fifty states and U.S. territories. More than 18,600 projects have been supported since founding – are rigorously evaluated and awarded to some of the nation's largest environmental organizations. Financial commitments since the organization's founding total \$6.1 billion.

### Delaware River Restoration Fund

The Delaware River Restoration Fund (DRRF) is dedicated to improving the water quality and accelerating restoration of habitats of the Delaware River and its tributaries. The fund was launched in late 2013 to help community-based nonprofits, municipalities and landowners efficiently work together to clean up and restore polluted waters and improve habitat in strategic geographies within the Delaware Watershed.

The DRRF awards approximately \$2 million per year in competitive grants for three priority strategies: stewardship of working lands and delivery of agriculture conservation practices; restoration of wetlands, floodplains and stream corridors; and promoting adoption of green infrastructure in urban/suburban landscapes. The fund also commits a subset of resources to grants that propose innovative conservation approaches. In six years, the fund has invested a total of \$14.7 million in ninety projects, leveraging more than \$23.36 million in conservation resources.

More info at: <https://www.nfwf.org/programs/delaware-river-program>

### The Five Star and Urban Waters Restoration Program

The Five Star and Urban Waters Restoration Program focuses on the stewardship and restoration of coastal, wetland and riparian ecosystems across the country. Its goal is to meet the conservation needs of important species and habitats, providing measurable and meaningful conservation and educational outcomes. The program requires the establishment and/or enhancement of diverse partnerships and an education/outreach component that will help shape and sustain behavior to achieve conservation goals.

To date, the Foundation has funded over 800 projects in fifty states, including the District of Columbia, Puerto Rico, and the U.S. Virgin Islands, through this program. More than \$18 million in grants has leveraged more than \$67 million in other funds or donated services.

More info at: <https://www.nfwf.org/programs/five-star-and-urban-waters-restoration-grant-program>

## Open Space Institute (OSI)

Established in 1964, the OSI seeks to preserve scenic, natural and historic landscapes for public enjoyment, conserve habitats while sustaining community character, and help protect the environment. OSI uses policy initiatives and ground-level activism to help accomplish its goals.

### Delaware River Watershed Protection Fund

Launched in 2014, the Delaware River Watershed Protection Fund seeks to ensure abundant, clean water through support of land protection and improved land use planning, as part of the broader Delaware River Watershed Initiative, a coordinated effort involving sixty-five organizations working together to protect and restore clean water in the Delaware River watershed. The Initiative, generously supported by the William Penn Foundation and now entering a second phase, supports land protection, restoration and water quality monitoring in eight regions of the watershed. The William Penn Foundation has also commissioned an assessment of the contribution of capital

investments in protection and restoration to ensure water quality.

The Fund also makes short-term, low-interest loans to bridge gaps in public or private funding for land protection projects. The Delaware River Watershed Protection Fund now has \$11 million available to support land acquisition; not more than \$2.2 million will be allocated for Farm Buffer Grants.

More info at: <https://www.openspaceinstitute.org/funds/delaware-river-watershed-fund>

## Legislative Funding

State and federal elected officials can sometimes include items into legislation for worthy projects in their districts. A conversation between county and municipal officials and legislators is the way to begin this process. This type of funding should be targeted toward capital improvement projects.

## Private Foundations

There may be regional corporations and foundations that support public works such as park development. Competition for these funds is usually brisk, but opportunities should be researched. Funding is often to non-profit organizations. Foundations and institutions represent another potential source of funding for education-related site improvements and programming. Grants are available to support student field trips, provide teacher training in science, and provide other educational opportunities. Education tied to research can increase the pool of potential funds. The science community and research institutions are the logical starting points for solicitation foundation funds.

## Schools and Local Organizations

Local schools and local organizations may also be of assistance in several ways. Local scout groups and mountain bike community are two such examples. These groups might get involved with club, fundraising events, and park cleanup days. The school faculty might incorporate the Park, especially the proposed environmental education areas and nature trails, into various curricula with students helping to develop and volunteer time to maintain the Preserve as part of a classroom assignment or after school club. While the amount of funds raised may be relatively small, this process builds constituents and support that is critical to the long-term success of the Preserve.

## Donation Opportunities

It is recommended that the Township create a list, with prices, of physical donation opportunities for the park consistent with the plan. Rather than having physical markers in the park noting the donation (which can become cumbersome over time) a list of donors might be prominently displayed on the Townships Parks website or a funders' donation wall at a central location.



