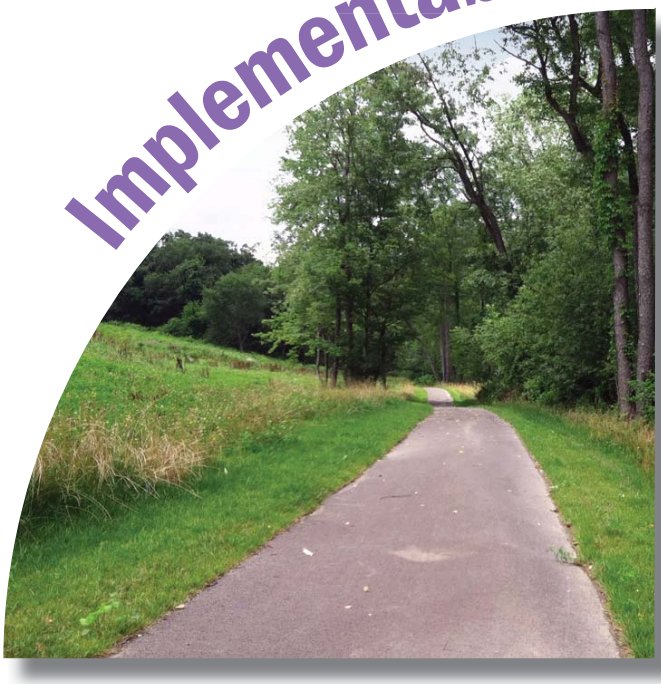
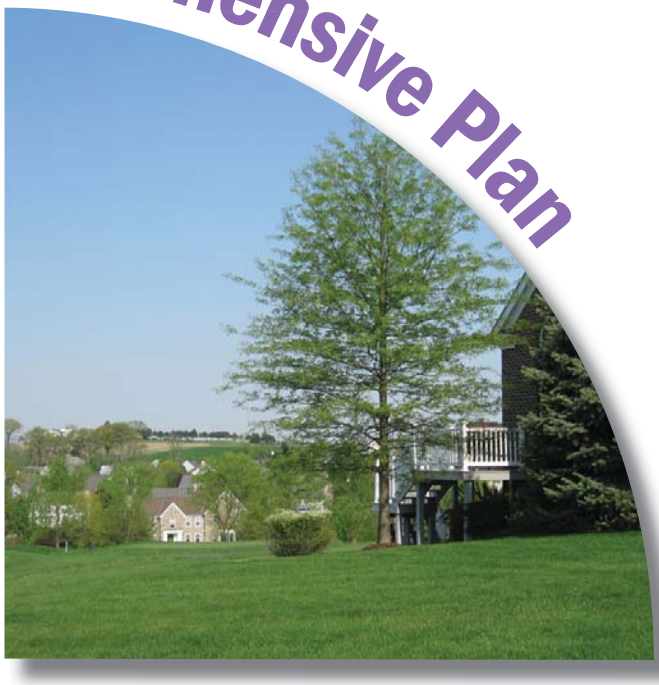
2016

The Township of Pine

PERFORMANCE WORKBOOK

Implementable Comprehensive Plan and Comprehensive Recreation Plan





TOWNSHIP OF PINE

OFFICIAL RESOLUTION NO. 939

RESOLUTION OF THE BOARD OF SUPERVISORS OF THE TOWNSHIP OF PINE ADOPTING A NEW IMPLEMENTABLE COMPREHENSIVE PLAN (WHICH INCLUDES A COMPREHENSIVE RECREATION PLAN), PURSUANT TO THE PROVISIONS OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE

WHEREAS, the Board of Supervisors of the Township of Pine previously adopted a Comprehensive Plan for the Township of Pine, by Resolution No. 670 on April 1, 2003; and

WHEREAS, the Township of Pine has experienced substantial residential and commercial growth since 2003 and additional such growth is expected in the future; and

WHEREAS, the Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, Act 247, as reenacted and amended December 21, 1988, P.L. 1329, Act 170 (53 P.S. Section 10101, et seq.), as amended, now provides that a municipality's Comprehensive Plan be reviewed at least every ten (10) years; and

WHEREAS, the Township of Pine previously decided to pursue the review of its prior Comprehensive Plan through consideration of the adoption of an Implementable Comprehensive Plan which would include therein a Comprehensive Recreation Plan;[1]

WHEREAS, the Township of Pine has engaged community planners Pashek Associates of Pittsburgh, PA, to assist it in the above-mentioned review and consideration through

[1] Such review and consideration were financed in part by an Allegheny Places Municipal Planning Grant under the administration of the County of Allegheny and in part by a Community Conservation Partnerships Program Grant under the administration of the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation (contract number BRC-TAG-20-64).

consultation with: the Township's Board of Supervisors, its Planning Commission, and special Steering Committees (with such special Steering Committees comprised of members of: the Board of Supervisors; Planning Commission; Township administrative staff; Parks and Recreation Commission; Environmental Advisory Council; and representatives from the Township's business community and the community at-large); and

WHEREAS, Pashek Associates, after substantial review and in consultation with the above-mentioned groups and individuals, has assisted in the preparation of multiple documents entitled "Performance Workbook" and "Workbook Appendices," which documents collectively comprise the new Implementable Comprehensive Plan (including a Comprehensive Recreation Plan) for the Township of Pine; and

WHEREAS, such a new Implementable Comprehensive Plan (including a Comprehensive Recreation Plan) for the Township of Pine shall be hereinafter referred to as the "Plan"; and

WHEREAS, in preparing the Plan, Pashek Associates and the above-mentioned groups and individuals have made careful surveys, studies and analyses of various factors affecting the Township of Pine, including (but not limited to):

a) housing, demographic, and economic characteristics and trends;

b) amount, type and general location and interrelationships of different categories of land use;

c) general location and extent of infrastructure and transportation and community facilities;

d) natural features affecting development;

e) natural, historic and cultural resources;

f) the prospects for future growth;

g) recreation needs (including, inter alia, land access and acquisition, park and recreation-related operating policies, and updates to facilities within the existing Pine Community Park and its Pine Community Center); and

WHEREAS, the Plan contains all of the basic elements for a Comprehensive Plan, as mandated by the pertinent section of the Pennsylvania Municipalities Planning Code (53 P.S. Section 10301); and

WHEREAS, copies of a draft of the Plan were previously sent to (among others): the Department of Economic Development of Allegheny County, the Pine-Richland School District, and the Township's contiguous municipalities, including: Township of Cranberry, Township of Adams, Township of Marshall, Township of Richland, Town of McCandless, Township of Hampton, and Borough of Bradfordwoods; and

WHEREAS, the Township's Planning Commission held a public meeting, pursuant to public notice, on January 11, 2016 to consider the Plan and then forwarded it (with comments) to the Township's Board of Supervisors; and

WHEREAS, in accordance with the Charter of the Township of Pine, a copy of the draft of the Plan was also separately provided to the Township's Environmental Advisory Council and also to the Township's Parks and Recreation Commission for review and comment; and

WHEREAS, in addition to the legally required minimum distribution and solicitation of input, the Township of Pine has taken further action to encourage public participation in the development and the review of the Plan, including (among other actions): multiple meetings of different focus groups representing residents, business enterprises, emergency services

providers, and recreational/environmental interests; the posting of survey questionnaires on the Township's website (www.twp.pine.pa.us); notifications of upcoming meetings concerning the Plan provided to Township residents and businesses via mailings, personal distributions at other Township-sponsored events, and press releases; placement of drafts of the Plan upon the Township's web site (www.twp.pine.pa.us); and multiple, informal "open house/town meetings" discussions and presentations concerning various elements of the Plan.

WHEREAS, the Board of Supervisors of the Township of Pine has received review comments upon the Plan from the Department of Economic Development of Allegheny County and various other interested parties and has considered those review comments, as well as those of the Township's Planning Commission and of the public from the Planning Commission's public meeting of January 11, 2016; and

WHEREAS, on February 16, 2016, the Board of Supervisors of the Township of Pine held a properly advertised public hearing on the Plan and has also considered the public comments made at such public hearing; and

WHEREAS, there have been no substantial revisions to the proposed Plan which would necessitate any further public hearings or public notice prior to its adoption; and

WHEREAS, the Board of Supervisors of the Township of Pine believes that all legal requirements of the Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, Act 247, as reenacted and amended December 21, 1988, P.L. 1329, Act 170 (53 P.S. Section 10101 et seq.), have been complied with and that adoption of the Plan is in the best interest of the Township of Pine and its residents and citizens.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the Township of Pine that the Implementable Comprehensive Plan (including Comprehensive Recreation Plan) for the Township of Pine, bearing a draft date of November 2, 2015, as prepared with the assistance of Pashek Associates and consisting of both a Performance Workbook and Workbook Appendices which contain narrative text, and various maps, charts, tables, figures, and appendices relating to the subjects set forth on Exhibit "A"[2] hereto, shall be and is hereby adopted as the official Comprehensive Plan (and Comprehensive Recreation Plan) of the Township of Pine, replacing all of its prior adopted Comprehensive Plans, including but not limited to its 2003 Comprehensive Plan (previously adopted on April 1, 2003 by prior Resolution No. 670).

All previously-adopted Resolutions of the Township of Pine which are inconsistent with or in conflict with the terms of this Resolution are hereby repealed.

RESOLVED and ADOPTED this 16TH day of FEBRUARY, 2016, by the Board of Supervisors of the Township of Pine by the following vote:

	Yes	No	Other (Abstention, Absent, etc.)
Michael J. Dennehy, Jr., Chair	✓		
Philip D. Henry, Vice-Chair	✓		
Edward J. Holdcroft	✓		
Frank J. Spagnolo	✓		
Pasquale (Pat) D. Avolio	✓		

[2] Exhibit "A" consists of five (5) pages incorporated herein by reference and comprising the "User's Guide," "Table of Contents," "Executive Summary," "Key Issue Strategies," and a listing of Appendices from said Plan.

ATTEST:

Scott D. Anderson, AICP
Township Manager/Secretary

TOWNSHIP OF PINE

Chair, Board of Supervisors

Vice-Chair, Board of Supervisors

Supervisor

Supervisor

Supervisor

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Using this Plan

User's Guide

A comprehensive plan in workbook form

This workbook is a new take on the long-lived idea of comprehensive planning.

It is an action-oriented workbook full of checklists, how-to's and useful references. When the township finishes a task, it can mark it as complete, or even take the page out of the binder and move it to the recycle bin.

This workbook is the record of the planning work that was done by the citizens, elected officials, appointed officials and professional staff of the Township of Pine in 2014-15. It was those individuals who decided what issues were important to tackle in the coming years; this workbook summarizes the community's thought process and provides practical next steps, timelines and other tools for moving forward.

We tried to write in plain language, not jargon.

Vision: The important result of the Township of Pine's comprehensive plan is to complete a community thought process that involves citizens, township officials, staff members, as well as other experts in deciding what's important to the community and what to do about those "Key Issues."

Workbook organization: The workbook has various sections, explained below:

Introduction: This section includes a summary of the plan and acknowledgement of the groups and individuals who contributed ideas, guidance and expertise.

Key Issues: The heart of the workbook are the four Key Issue sections, which represent the big topics that the township wanted to address in the coming years. The sections are color coded to be easy to find, and also to make topics quickly identifiable if someone who is using the workbook regularly wants to shuffle pages around. The sections are:

- **Connectivity and Trails**
- **Community Character and Appearance**
- **Parks & Recreation**
- **Public Infrastructure**

Other Topics: Population growth has been the main cause of change in Pine Township for about three decades. This section provides research, data and analysis to explore how Pine has been and will be affected by continuing and changing growth patterns.

Appendices: Additional, helpful information or extra detail is available in the appendices of this workbook, under separate cover. The first appendix is a "case study" of how this innovative plan came together, including an honest and full reflection about lessons learned. The case study also shows how this plan aligns with requirements of the state's Municipalities Planning Code and the expectations set forth by the state Department of Conservation and Natural Resources. Other appendices provide examples that help convey ideas mentioned in the workbook. Some appendices contain the important background information. Some contain contextual information that could be helpful to a reader who wants to know more.

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Introduction

Introduction

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Key Issues

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Community Character & Appearance.....Section 3
Parks & Recreation.....Section 4
Public Infrastructure.....Section 5

Other Topics

Population Growth and Township Resources.....Section 6

Workbook Appendices

Under separate cover.

Executive Summary

The Comprehensive Plan and Comprehensive Recreation Plan

Input from the public and township officials, expressed as hopes, concerns, ideas and suggestions, mainly fell into four categories:

- **Connectivity and Trails**
- **Community Character and Appearance**
- **Parks & Recreation**
- **Public Infrastructure**

Focus groups helped define the main topics in each category that the Township now plans to pursue. Some are more feasible than others. Some are highly desireable but not very feasible. Some would probably be fairly easy to accomplish but aren't a very high priority.

The plan views the township's future holistically by aligning a comprehensive planning process and a comprehensive recreation planning process. The result is a workbook that meshes strategies that normally would be divided into separate plans. Separate funding streams within the township and grants from Allegheny County and the state Department of Conservation and Natural Resources supported development of this plan. It carefully follows state and local approval processes, and rests solidly on a foundation of public input. It emphasizes action-oriented next steps.

This plan gives labels, called "tiers" to future tasks — all of which the Township plans at this time to complete in the next 5 to 10 years. There are Tier 1, Tier 2 and Tier 3 Implementation or Management Strategies, defined below.

Some Tier 3 strategies might be pursued first, particularly if they are not very expensive or difficult. A Tier 1 strategy might start later or take longer even if everyone is working toward success. It also should be noted that the tier ratings were established during the preparation of this plan in 2015, and may change depending on external circumstances such as tax revenues, the overall economy, new laws or regulations, or the availability of funding.

WHAT THE TIERS MEAN

Tier 1: High priority and high feasibility
Tier 2: High priority and medium feasibility, or medium priority and high feasibility
Tier 3: Low priority and high feasibility, any priority and low feasibility, or statement of support for high-priority existing position.

The implementation and management strategies appear in summary on the next page.

Key Issue strategies

Connectivity & Trails

- Connect Pine-Richland school complex and Pine Community Park - **Tier 1**
- Connect Pine Community Park and North Park - **Tier2**
- Connect Pine Community Park and Route 19 - **Tier 2**
- Complete missing links in existing routes - **Tier 2**
- Add features, amenities, maps, signs - **Tier 3**

Community Character & Appearance

- Create attractive community gateways - **Tier 1**
- Create or maintain extensive tree cover - **Tier 1**
- Preserve or maintain natural areas - **Tier 3**
- Review land-use designations as township is built out - **Tier 3**
- Maximize township "brand" recognition - **Tier 3**
- Preserve or maintain distinctive structures and rural icons - **Tier 3**
- Limit future overhead wires and visibility of utilities - **Tier 3**
- Illustrate design standards - **Tier 3**

Parks & Recreation

- Update Pine Community Park - **Tier 1**
- Access to or aquisition of additional park land - **Tier 2**
- Review and update park and recreation-related operating policies - **Tier 3**
- Develop a Community Center marketing plan - **Tier 3**
- Explore adding aquatic features / facilities - **Tier 3**

Public Infrastructure

- Improve / extend stormwater management - **Tier 2**
- Identify potential areas of in need of public sanitary sewers - **Tier 2**
- Inventory township-owned facilities and property and schedule replacement/maintenance - **Tier 2**
- Employ data mapping to assess needs, prioritize future work - **Tier 2**
- Support planned transportation improvements - **Tier 3**
- Develop protocol for working with Southwestern Pennsylvania Commission - **Tier 3**

Acknowledgements

The preparation of this plan would not have been possible without the guidance and contributions of the Steering Committees, as well as the input given from local residents and officials. We would like to thank and recognize the following people and groups for their efforts to make the plan possible:

The preparation of this Implementable Comprehensive Plan was financed in part by a grant from Allegheny County through the AlleghenyPlaces Municipal Planning Grant program.

This project was financed in part by a grant from the Community Conservation Partnerships Program, Keystone Recreation, Park and Conservation Fund under administration of the Pennsylvania Department of Conservation and Natural Resources, Bureau of Recreation and Conservation.

Comprehensive Plan Steering Committee

Michael J. Dennehy, Jr.
Pasquale (Pat) D. Avolio
Michael Hansen
Don Keys
John Lombardo
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Angelo Spagnolo
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Comprehensive Recreation Plan Steering Committee

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Board of Supervisors

Michael J. Dennehy, Jr., *Chair*
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Edward Holdcroft
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Professional Staff

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Township Staff
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Continued on next page

Environmental Advisory Council

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Bill Campbell, *Vice Chair*
Robin Gandley, *Secretary*
David. P. Chavara
Cheryl Wist
John Zerrer

Parks & Recreation Commission

John Gill, *Chair*
Richard Miller, *Vice Chair*
Kimberly Pierson
Cindy Olshavsky
Don Keyes
Greg DiTullio

Additional contributors

Connectivity and Trails working group
Public Infrastructure working groups:
- Transportation
- Sanitary Sewer Authorities from Breakneck Creek, McCandless Township and Marshall Township
- Stormwater Management

Community Character and Appearance groups:
- Rich-Mar Rotary Club
- North Way Christian Community
- Pine-Richland High School students
- Environmental Advisory Council
- Planning Commission

Regional Partners working group
Northern Regional Police Chief Robert Amann

In collaboration with

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MKOTYK
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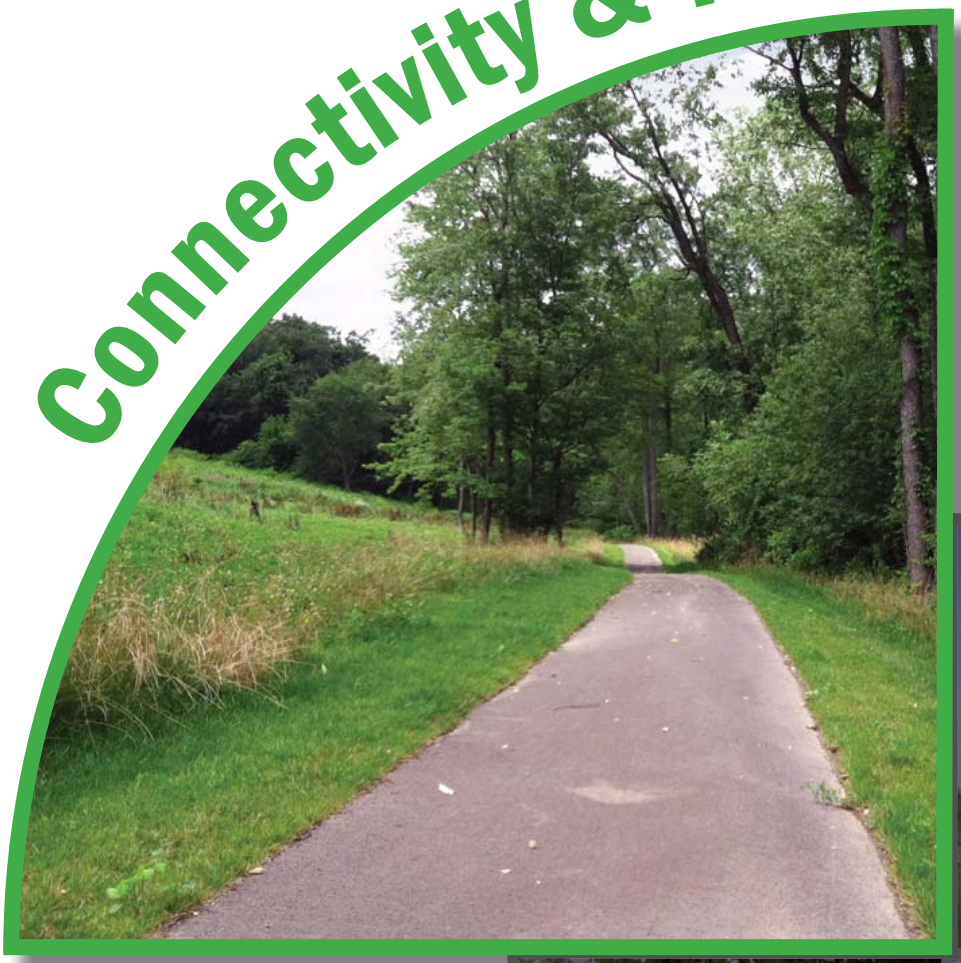
Connectivity & Trails



Inside:

- Link Pine-Richland School Complex and Community Park
- Link Community Park and North Park
- Link Community Park and Route 19
- Complete “missing links” for pedestrian and bicycle routes
- Add cycling amenities and wayfinding, and create trail maps
- Support Rachel Carson Trails Conservancy’s plans to enhance and connect Harmony Trail
- Connect with Rachel Carson Trailhead in North Park

KEY ISSUE:

Connectivity & Trails

Overview

Introduction

The township's increasing population combined with a growing interest in walking and biking have led residents to state a desire for a comprehensive network of routes in the community. Though interest is currently very high, according to public input for this plan, it is not new. More than a decade ago, in 2003, the Township of Pine conducted a trail feasibility study that suggested specific bike and pedestrian routes and next steps. Some of these steps have been completed. However, new conditions should be taken into account as the trail study is revised.

Vision: The Township of Pine supports and encourages human-powered transportation; affords residents opportunities for recreation and fitness activities; and creates connections between key locations within and beyond the township by providing safe routes for walkers and cyclists.

Talking Points

A working group of bike-pedestrian trail experts and enthusiasts helped suggest connections between places in Pine.

- The public process for this comprehensive plan rated connectivity and trails as the top issue for the coming years.
- A working group of bicycle/pedestrian transportation experts and enthusiasts identified three routes as the top priorities for the Township of Pine.
- Other connections should also be added over time.
- The preference, by far, is for designated mixed-used trails, and that should be the ultimate goal.
- More immediately, the township can develop safer routes for pedestrians and cyclists for the three highest priority connections.

Validation

A 2003 survey indicated that three of every four residents supported development of a trail system, and that four of every five residents believe trails are important community assets.

In 2014, citizens who added their voices to the public involvement process rated new trails and connectivity as the top issue. Pine residents cited these reasons: to provide opportunities for exercise, for safe mobility, to protect open space and ecological systems, and to afford people access to nature and outdoors.

A network of trails is very likely to increase property values and promote health, according to studies:

- **Property value.** Most studies show that trails make home sales easier and/or increase property values. (A few studies show no effect.) One of the most recent studies, conducted in the Cincinnati area, found that housing prices went up by nine dollars for every foot closer a house was to an entrance of a walking and biking trail. (Parent & vom Hofe, 2013).

- **Health.** Trails provide the means for people of all ages to exercise conveniently via biking, walking and running. Studies have documented, for example, that walking can reduce rates of chronic disease and ease rising health-care costs with only a modest increase in the number of activity-related injuries (Lee & Buchner, 2008); that dogs and owners who take walks experience more health benefits than those who do not (Bauman, Russell, Furber, & Dobson, 2001); that exercise and physical activity are associated with better quality of life and health outcomes (Penudo & Dahn, 2005).

Family fun on a mixed-use trail.

Connectivity & Trails

Implementation and Management Strategies

Tier 1 - BIKE AND/OR PEDESTRIAN ROUTE TO LINK SCHOOL COMPLEX AND COMMUNITY PARK:

Develop safe routes between the Pine-Richland School complex and Pine Community Park. Create a plan to acquire land or easements, construct surfaces, add signs, signals and other fixtures. Create a plan for securing funding. *(Please see Pages 2-11 to 2-16.)*

Tier 2 - BIKE AND/OR PEDESTRIAN ROUTE TO LINK PINE COMMUNITY PARK AND NORTH PARK:

Develop safe routes between Pine Community Center and North Park. Create a plan to acquire land or easements, construct surfaces, add signs, signals and other features. Create a plan for securing funding. The long-term preference is to construct a dedicated multi-use trail, which would connect the two parks in the safest and most direct way. Though this would be highly desirable, the probable expense and challenge of feasibility keep this from being a top recommendation. More immediately, the township will identify on-street/shared-road routes for cyclists, and sidewalk/pathway routes for pedestrians. Further, this plan acknowledges the interest and support of the Rachel Carson Trails Conservancy for a potential hiking trail between North Park and Pine Community Park. *(Please see Pages 2-19 to 2-20.)*

Strategies continue on next page

Tier 1: High priority and high feasibility
Tier 2: High priority and medium feasibility, or medium priority and high feasibility
Tier 3: Low priority and high feasibility, any priority and low feasibility, or statement of support for high-priority existing position.

The tier ratings were established during the preparation of this plan in 2015, and may change depending on external circumstances such as tax revenues, the overall economy, new laws or regulations, or the availability of funding.

Connectivity & Trails
Implementation and Management Strategies

Continued from previous page

Tier 2 - BIKE AND/OR PEDESTRIAN ROUTE TO LINK PINE COMMUNITY PARK AND ROUTE 19: Develop safe routes between Pine Community Center and Route 19. Create a plan to acquire land or easements, construct surfaces, add signs, signals and other fixtures. Create a plan for securing funding. *(Please see Pages 2-21 to 2-22.)*

Tier 2 - COMPLETE MISSING LINKS: Continue to develop sidewalks, roads and/or trails that connect neighborhoods and key community locations, closing existing gaps. *(Please see Page 2-23.)*

Tier 3 - TRAIL MAPS / WAYFINDING / SIGNS: The township should develop digital and printable maps of completed routes, and post directional signs throughout township. *(Please see Page 2-24.)*

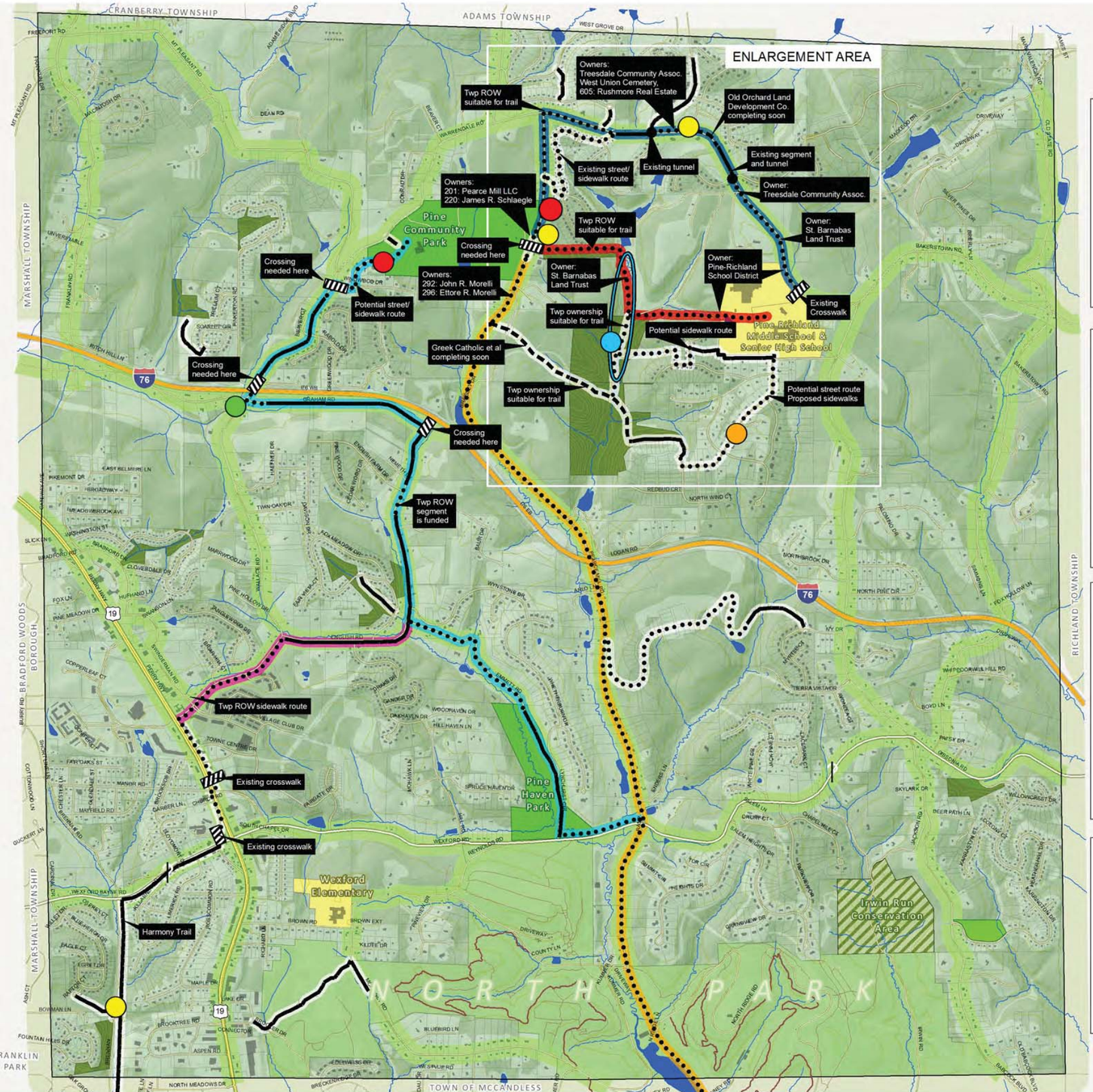
Tier 3 - CYCLE STATION: The township should install facilities that enhance safety and convenience. *(Please see Page 2-24)*

Tier 3 - BEYOND PINE: The township should seek opportunities to look outward to help create bike and pedestrian connections. *(Please see Page 2-24.)*

Tier 3 - HARMONY TRAIL: This plan supports the Rachel Carson Trails Conservancy's proposal to identify, enhance and extend the Harmony Trail. *(Please see Page 2-25.)*

Tier 3 - RACHEL CARSON TRAILHEAD: This plan supports the Rachel Carson Trails Conservancy's proposal to identify and enhance a trail segment in the township that connects the Rachel Carson Trailhead in North Park with a proposed route in Richland Township. *(Please see Page 2-26.)*

Connectivity and Trails



Trails & Connectivity

- Proposed Route
- Existing Trails
- Under Development
- Sidewalks
- North Park Trails

Proposed Routes

- Pine-Richland School Complex – Community Park Northern Bicycle-Pedestrian Route
- Pine-Richland School Complex – Community Park Southern Recreational Walking/Hiking Trail Network
- Community Park – North Park Bicycle-Pedestrian Route
- Community Park – North Park Multi-Use Trail Route
- Community Park – Route 19 Bicycle-Pedestrian Route

Issue Areas

- Potential private property access issue
- Potential private property access issue
- Geographic constraint
- Sensitive wetland, flooding area
- Limited on-road visibility, potential private property access issues

Parks, Schools & Open Space

- Township Park
- County Park
- Township Open Space
- Designated Greenway
- School

1 inch = 1,000 feet

Contour Interval = 20 feet

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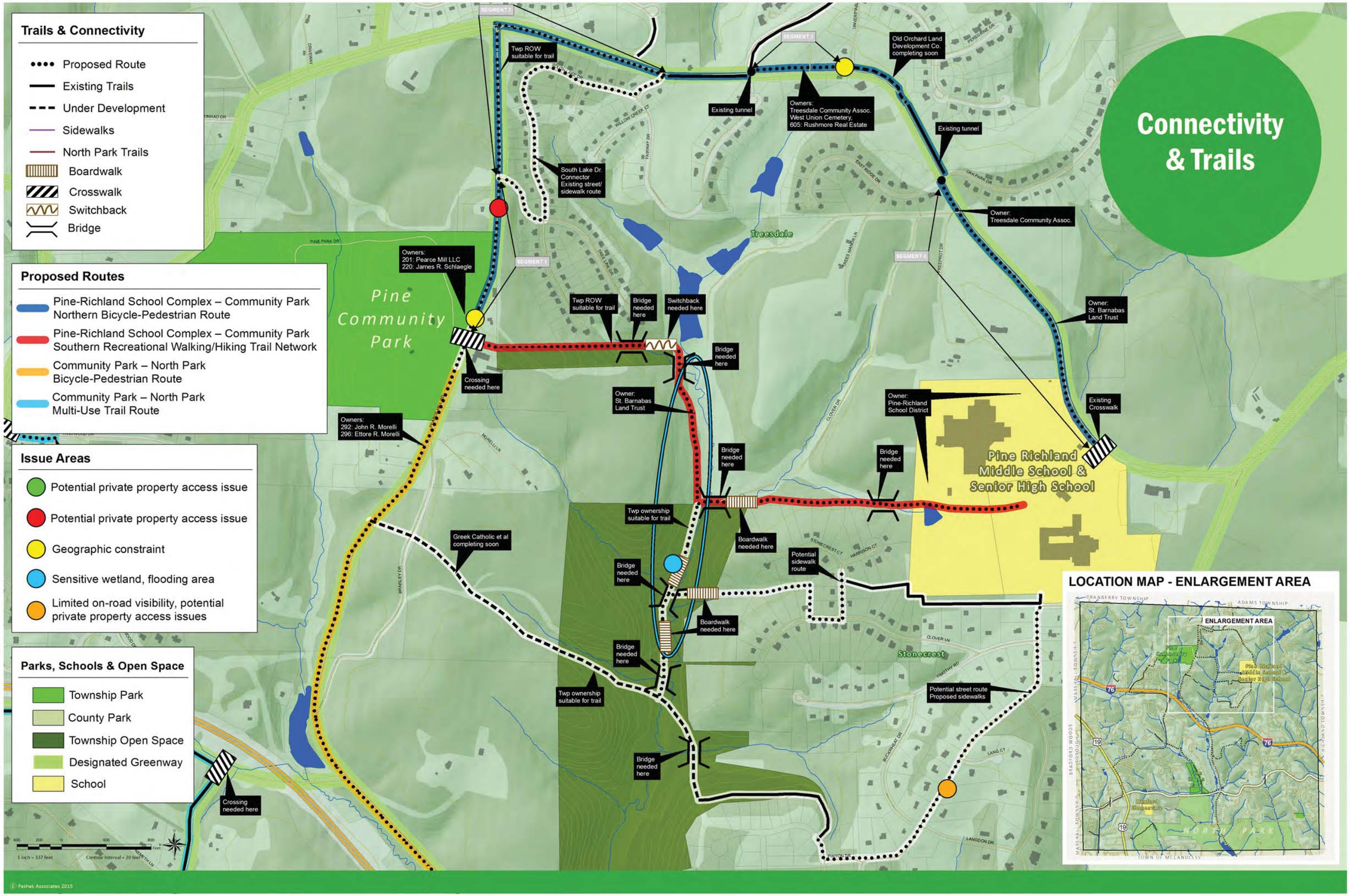
Connectivity & Trails



Link Pine-Richland school complex and Pine Community Park

TIER 1 STRATEGY
HIGH PRIORITY + HIGH FEASIBILITY

Connectivity & Trails

Develop safe walking and/or bike routes between the Pine-Richland school complex and Pine Community Park. Create a plan to acquire land or easements, construct surfaces, add crossings, signs, signals and other fixtures. Create a plan for securing funding.

Talking Points

- Connecting Pine-Richland school complex and Pine Community Park is the highest priority identified by a working group of trail experts and biking/walking enthusiasts.
- Several potential routes could be developed.
- The most feasible walking trail connections "fill in the gaps" between existing trail segments and sidewalks, and by adding a safe crossing on Pearce Mill Road.
- A bicycle connection can be made by "filling in the gaps" on existing trails, widening the trails for multi uses, identifying on-street segments within neighborhoods, and adding a safe crossing on Pearce Mill Road.

Vision: The Township of Pine supports and encourages biking and walking between the Pine-Richland school complex and Pine Community Park by providing convenient, well-marked and safe routes.

Overview: The two routes explained here combine existing trails, sidewalks or streets with acquisition of easements on private property. All will require the installation of a new crossing of Pearce Mill Road (a PennDOT road) in the vicinity of the Municipal Building to gain safe access to the Pine Community Park.

The trails are described briefly here as 1.) Northern bike-pedestrian route; 2.) Southern recreational walking/hiking trail. *(Also, please see Connectivity Map, Page 2-7, and School-to-Park detail map, Page 2-9.)*

Northern bike-pedestrian route: This route utilizes existing and proposed multi-use trails as well as neighborhood streets for cycling and sidewalks for walking.
Route: North from school property, then west along Warrendale Road on proposed segment to East Ridge Drive. Use existing tunnel to cross under Warrendale Road and continue west on proposed and existing trails to Treesdale Drive. Cross under Warrendale via existing tunnel, and continue west on existing trail. Follow South Lake Drive to Tree Line Drive to Pearce Mill Road. Follow proposed trail along Pearce Mill Road to crossing at the Township of Pine Municipal Building. Variations could include additional spurs into neighborhoods and segments that reach the Pearce Mill Road - Warrendale Road intersection.

Southern recreational walking/hiking trail network: This route utilizes existing neighborhood streets for cycling and sidewalks for walking, encourages new sidewalks and shared-use signs on Logan Road, and proposes sustainable hiking/walking trails on township-owned land and in partnership with private property owners.
Route: From school property, west along existing sidewalks to proposed trails through township-owned and acquired private land, to a proposed Pearce Mill Road crossing at the Township of Pine Municipal Building. Other variations could include bike/pedestrian routes along Logan Road, with connections to neighborhoods, which would provide additional entry points to the woodland trails.

Suggested Implementation Plan: Link Pine-Richland school complex and Pine Community Park

❑ **STEP 1:** Township should consider forming a Bike-Pedestrian Advisory Committee that will engage in community education and outreach activities and serve as an advocate for implementing the trail initiatives outlined in the Comprehensive Plan, including the school-park routes detailed here.

☑ **STEP 2:** Identify potential route impacts by parcel and ownership. Note the challenges and opportunities associated with each.

☑ **STEP 3:** Township staff and/or Bike-Pedestrian Advisory Committee members walk and view potential school-park routes to consider desirability, including potential obstacles that could require costly elements such as bridges or steep side-slope construction.

❑ **STEP 4:** Create strategy for securing funding, including Township funding, other public funding, grants and/or donations.

❑ **STEP 5:** Township staff and/or the Bike-Pedestrian Advisory Committee should meet at least twice with neighbors in the areas where school-park routes are proposed to hear concerns and provide information. For the initial meeting, it is important to listen and identify concerns regarding what a trail/route will mean and how it may impact individual properties. With this information, the township and advisory committee can tailor the concept for the routes to respond to the issues, concerns and needs of the property owners. Also, by understanding concerns people may have, the township and advisory committee can best be prepared for a later, second meeting at which they can demonstrate what a pedestrian and/or bike route will be and do versus not be and not do. Ask for permission to go onto individual property to best gain understanding of concerns. Document this request in writing by having individuals complete a form at the first public meeting. Address landowner liability issue up front at the first meeting; the township should consider holding property owners who grant easements harmless from liability. Information at this time could also include the protection afforded by the Pennsylvania Recreation Use of Land and Water Act *(See Appendix B)*.

Some participants at the working group that identified and prioritizes routes and connections within Pine Township.

❑ **STEP 6:** Township staff and Bike-Pedestrian Advisory Committee members re-evaluate the proposed corridor/routes for viability following the first public meeting.

❑ **STEP 7:** Initiate conversation with potential funders such as PennDOT, DCNR, including acquiring grant application schedules.

❑ **STEP 8:** Township staff and advisory committee members develop management, operation and security strategies for the continued operation of the school-park route.

❑ **STEP 9:** Township staff and/or advisory committee members begin informal dialogs with public and private landowners about potential acquisition of easements to determine likelihood of success. Supporting information will include the Model Trail Easement Agreement from the Pennsylvania Land Trust Association *(See Appendix C.*

❑ **STEP 10:** Prepare a plan for the routes to identify the alignment, respond to landowner issues and concerns where possible, and develop an estimate of probable construction costs as well as a financial analysis to project operating costs for the proposed routes. Prepare a plan to show how these costs will be covered. Also, project beneficial economic impact of the proposed bike-pedestrian route(s), using data from exiting comparable trails.

❑ **STEP 11:** Continue pursuing funding.

❑ **STEP 12:** The township and advisory committee conduct a second landowner/neighbor public meeting to explain the revised concept for the routes, including responses to issues, concerns and needs of the property owners as presented in the first meeting, and to answer additional questions.

❑ **STEP 13:** Township staff and/or advisory committee members begin formal dialog with individual landowners about acquisitions, leading to signed agreements.

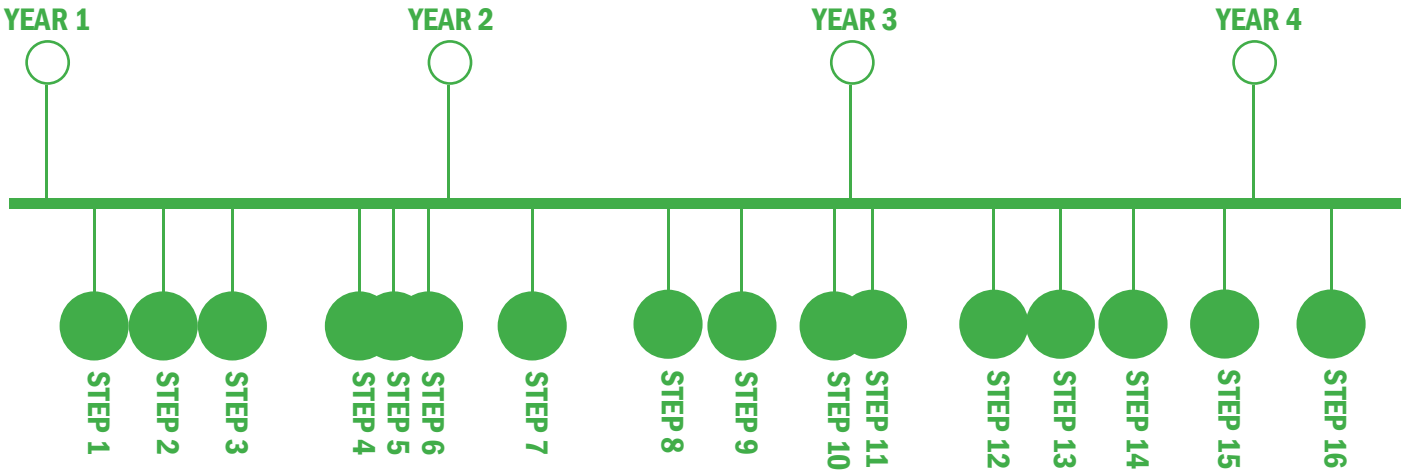
❑ **STEP 14:** Once routes are well defined, the township staff meets with PennDOT and Southwestern Pennsylvania Commission to begin dialog about creating a crossing for Pearce Mill Road.

❑ **STEP 15:** Complete final design, prepare construction documents, and obtain required permits for construction.

❑ **STEP 16:** Construct trail from school to park.

Suggested Timeline:

Link Pine-Richland school complex and Pine Community Park



Cost Estimates: Link Pine-Richland school complex and Pine Community Park

Northern bike-pedestrian route Opinion of Probable Costs *(please see note, next page)*

Segment	Description	Notes	Cost Description	Qty	Unit Cost	Unit Price	Total
Pearce Mill Road Crosswalk	Crosswalk at Pine Park	PennDOT Road, HOP required					
			Painted Crosswalk	1	LS	$1,500	$ 1,500
			Pedestrian Activated Flasher and Advance Warning Signs	1	LS	$40,000	$ 40,000
Pearce Mill Crosswalk Total							$ 41,500
Northern Bike-Ped Route Segment 1	Shared-use path along east side of Pearce Mill Road from Township Building to Tree Line Drive	0.28 miles					
			Earthwork and Grading	5,612	CY	$6	$ 33,672
			Retaining Wall	6,303	SFF	$55	$ 346,665
			Shared Use Path	1,643	SY	$60	$ 98,560
			Protective Barrier	930	LF	$60	$ 55,800
			Seeding	45,150	SF	$0.18	$ 8,127
Northern Bike-Ped Route Segment 1 TOTAL							$ 542,824
Northern Bike-Ped Route Segment 2	Shared-use path along east side of Pearce Mill Road from Tree Line Drive to Warrendale Road, then along south side of Warrendale to South Lake Drive	0.52 miles					
			Earthwork and Grading	8,054	CY	$6	$ 48,324
			Shared Use Path	3,051	SY	$60	$ 183,040
			Tunnel Access	1	LS	$45,000	$ 45,000
			Seeding	68,400	SF	$0.18	$ 12,312
Northern Bike-Ped Route Segment 2 TOTAL							$ 288,676
South Lake Drive Connector (In addition to Segment 2 or as alternative to Segment 2)	Connects Pearce Mill Road and Warrendale Road via existing streets and sidewalks	0.62 miles					
			Trail Signs	6	EA	$250	$ 1,500
			Shared Road Markings	26	EA	$500	$ 13,000
South Lake Drive Connector TOTAL							$ 14,500
Northern Bike-Ped Route Segment 3	Shared-use path along north side of Warrendale Road between Treesdale Drive and developer-installed Old Orchard segment	0.15 miles					
			Earthwork and Grading	2,806	CY	$6	$ 16,836
			Retaining Wall	3,247	SFF	$55	$ 178,585
			Shared Use Path	880	SY	$60	$ 52,800
			Tunnel access	1	LS	$45,000	$ 45,000
			Protective Barrier	465	LF	$60	$ 27,900
			Seeding	22,500	SF	$0.18	$ 4,050
Northern Bike-Ped Route Segment 3 TOTAL							$ 325,171
Northern Bike-Ped Route Segment 4	Shared-use path along south side of Warrendale Road between East RidgeDrive and Pine-Richland school entrance	0.5 miles					
			Earthwork and Grading	4,788	CY	$6	$ 28,728
			Shared Use Path	2,933	SY	$60	$ 176,000
			Tunnel access	2	LS	$45,000	$ 90,000
			Seeding	34,950	SF	$0.18	$ 6,291
Northern Bike-Ped Route Segment 4 TOTAL							$ 301,019
Northern Bike-Ped Route Improvements	Widen existing 5' paths to 10' standard width	0.3 miles					
			Shared Use Path	880	SY	$60	$ 52,800
Northern Bike-Ped Route Improvements TOTAL							$ 52,800

OPTION 1: Northern Bike-Ped Route ADDING South Lake Drive Connector as alternate route	$ 1,524,990
OPTION 2: Northern Bike-Ped Route ADDING South Lake Drive Connector and REMOVING Segment 2	$ 1,236,314

Cost Estimates: Link Pine-Richland school complex and Pine Community Park

Southern recreational / hiking trail route:

From school property, west along existing sidewalks to proposed trails through township-owned and acquired private land, to proposed Pearce Mill Road crossing at the Township of Pine Municipal Building. Other variations could include bike/pedestrian routes along Logan Road and connections to neighborhoods, which would provide additional entry points to the sustainable woodland trails.

Segment	Description	Notes	Cost Description	Qty	Unit Cost	Unit Price	Total
Southern Walking-Hiking Route	East-west recreational trail connects Pine-Richland High School and Township Building	0.35 miles					
			Trail Surface	2,904	SY	$25	$ 72,600
			Bridge 1 - 20' length	1	LS	$67,500	$ 67,500
			Bridge 2 - 8' length	1	LS	$22,500	$ 22,500
			Bridge 3 - 35' length	1	LS	$120,000	$ 120,000
			Bridge 4 - 10' length	1	LS	$30,000	$ 30,000
			Boardwalk	100	LF	$150	$ 15,000
			Switchbacks/climbing turns	10	EA	$3,500	$ 35,000
Southern Walking-Hiking Route							$ 362,600

Pine Crest to Pearce Mill Road Connector	East-west multi-purpose trail, sidewalk and on-street route connects Pine Crest neighborhood with Pearce Mill Road via proposed Sunset Ridge neighborhood	1.39 miles					
			Existing Pine Crest Driveway				$ -
			Bridge - 35' length				By developer
			Shared Use Path				By developer
Pine Crest to Pearce Mill Road Connector TOTAL							By developer

Wetlands Connector	North-south recreational trail connects the Southern Walking-Hiking Route and a developer-installed Pine Crest-Pearce Mill trail	0.35 miles					
			Trail Surface	1,027	SY	$25	$ 25,667
			Bridge - 10' length	1	LS	$30,000	$ 30,000
			Bridge - 10' length	1	LS	$30,000	$ 30,000
			Boardwalk	500	LF	$150	$ 75,000
Wetlands Connector TOTAL							$ 160,667

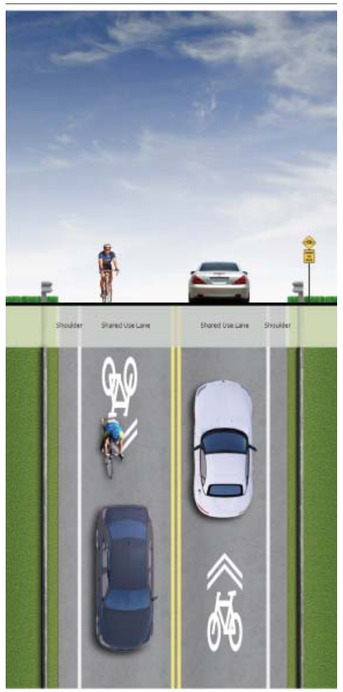
Clover Lane Connector	East-west recreational trail connects the Clover Lane neighborhood with the Wetlands Connector	0.17 miles					
			Trail Surface	499	SY	$25	$ 12,467
			Bridge - 35' length	1	LS	$120,000	$ 120,000
			Boardwalk	250	LF	$150	$ 37,500
Clover Lane Connector TOTAL							$ 169,967

Logan Road Bike-Ped Improvements	Add sidewalks and crosswalks for pedestrians and shared-road markings for cyclists	0.58 miles					
			Concrete Sidewalk	1,701	SY	$150	$ 255,200
			Shared Road Markings	24	EA	$500	$ 12,250
			Crosswalks	2	EA	$1,750	$ 3,500
Logan Road Improvements TOTAL							$ 270,950

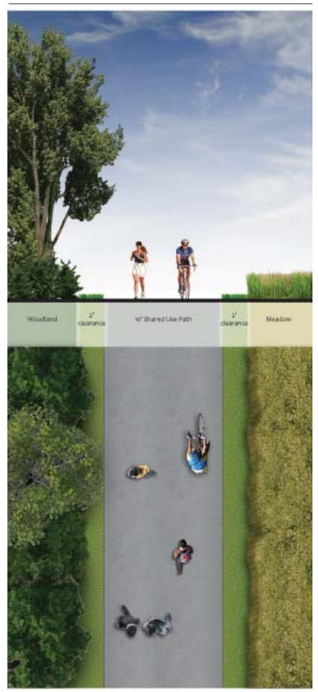
Notes:

- These figures should be used for planning purposes only. As the Township implements this plan, the opinion of probable costs should be updated to reflect final alignments and actual construction required to build the segment.
- This Opinion of Probable Construction Cost is based on 2015 dollar values. To budget for inflation in future years, we recommend a 3.5% annual increase for all work occurring after 2015. The costs assume all construction will be completed through a public bidding process and with Pennsylvania Prevailing Wage Rates being paid to the contractor's employees.

Graphic examples of bicycle and pedestrian trail types and safety features



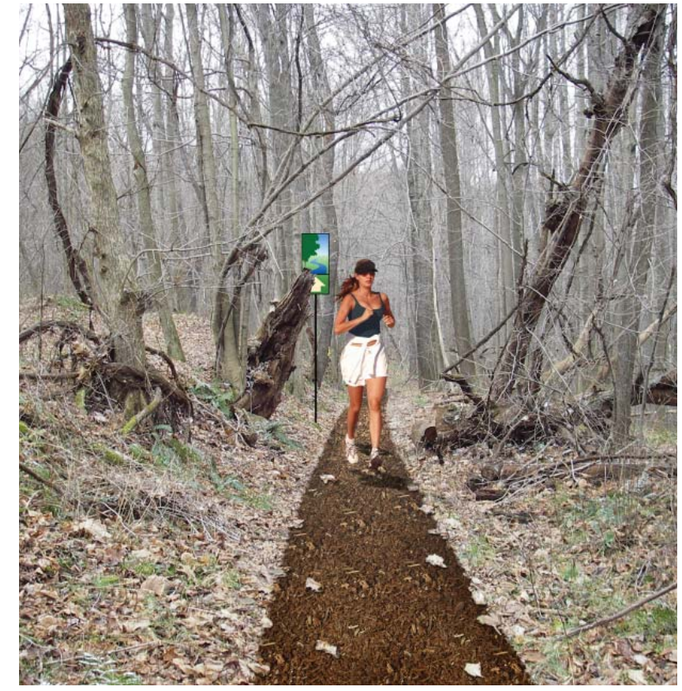
Shared-use roadway



Mixed-use trail

Painting a “sharrow”

Retaining wall makes room for trail along a road.



Natural surface hiking / recreation trail

Sign example

Painted crossing with pedestrian activated flasher. Buffered bike lane to the left.

Buffer segregates motor vehicle traffic from bike lane, mixed-use trail or sidewalk.

Link Pine Community Park and North Park

Develop safe walking and/or bike routes between the Pine Community Park and Allegheny County's North Park. Create a plan to acquire land or easements, construct surfaces, add crossings, signs, signals and other fixtures. Create plan for securing funding.

TIER 2 STRATEGY
HIGH PRIORITY + MEDIUM FEASIBILITY

Connectivity & Trails

Talking Points

- Connecting Pine Community Park and North Park was the second highest priority identified by a working group of trail experts and biking/walking enthusiasts.
- The most feasible route could be completed by "filling in the gaps" between existing trail segments and sidewalks, adding some safe crossings, and reimagining a low-volume road.
- Property ownership, funding and other obstacles have to be overcome.
- A more desirable route would be a designated multi-use trail running along Pearce Mill Road. However, due to anticipated expense and other difficulties, this route is considered a long-term goal.

Vision: The Township of Pine supports and encourages biking and walking between Pine Community Park and North Park by providing convenient, well-marked and safe routes.

Overview: The first route explained here combines existing trails, sidewalks or streets with the acquisition of easements on private property. The second route is a proposed designated multi-use trail that is highly desirable but also considered too expensive and challenging to be undertaken at this time. Both routes would require the installation of at least one new crossing of a PennDOT road.

The trails are described briefly here as: Park to Park bike-pedestrian route and Park to Park multi-use trail. *(Also, please see Connectivity Map, Page 2-7.)*

Park to Park bike-pedestrian route: This route utilizes existing sidewalks and streets as well as existing or proposed multi-use trail segments to connect Pine Community Park at the Community Center with North Park at the intersection of Lyndhurst Circle and Wexford Road (Route 910).
Route: Take an improved Community Park trail past the water tower to Greenwood Drive. Right onto Windwood Drive to proposed crossing at Warrendale Road. South along Warrendale via proposed multi-use trail to meet up with existing multi-use trail. Pass under Interstate 76, and turn east along Graham Road, meeting up with the existing multi-use trail. Turn south via proposed crossing at English Road. Follow the existing and a proposed multi-use trail to Emmett Road. Continue southeast via proposed shared-use roadway and sidewalk (consider making Emmett a one-way street), to Lyndhurst Circle. Cross Wexford Road at a proposed crossing into North Park to a proposed new trailhead and then to existing, proposed or improved trails in North Park.

Park to Park multi-use trail: This route utilizes a proposed multi-use trail along Pearce Mill Road between Pine Community Park and North Park.
Route: Beginning at the Pine Community Park at the proposed multi-use trail along the west side of Pearce Mill Road. Pass under Interstate 76 and continue to follow the trail south to enter North Park.

Suggested Implementation Plan: Link Pine Community Park and North Park

❑ **STEP 1:** Township should consider following the steps set forth in the Pine-Richland School District - Pine Community Park Trail suggested implementation plan.

❑ **STEP 2:** For the Park to Park bike-pedestrian route, proceed with expectation of completing as soon as feasible.

❑ **STEP 3:** For the Park to Park multi-use trail route, proceed with less immediacy, but with the expectation of completing as soon as feasible the planning steps as far as understanding likely obstacles and eventual capital costs.

A cyclist on Pearce Mill Road near the North Park entrance.

Link Pine Community Park and Route 19

TIER 2 STRATEGY
HIGH PRIORITY + MEDIUM FEASIBILITY

Connectivity & Trails

Develop safe walking and/or bike routes between the Pine Community Park and the U.S. Route 19 area high-density residential and commercial zone. Create a plan to acquire land or easements, construct surfaces, add crossings, signs, signals and other fixtures. Create plan for securing funding.

Talking Points

- Connecting Pine Community Park and the Route 19 commercial/residential area was the third highest priority identified by a working group of trail experts and biking/walking enthusiasts.
- The most feasible route could be completed by "filling in the gaps" between existing trail segments and sidewalk and adding some safe crossings.
- Property ownership, funding and other obstacles have to be overcome.
- This connection would enable residents living in the high-density areas of the township to reach Pine Community Park, and also enable residents from much of the township to reach the Route 19 commercial district safely and conveniently on foot or bicycle.

Vision: The Township of Pine supports and encourages biking and walking between Pine Community Park and the Route 19 area by providing convenient, well-marked and safe routes.

Overview: The route explained here combines existing trails, sidewalks or streets with acquisition of easements on private property. It would require the installation of at least one new crossing of a PennDOT road.

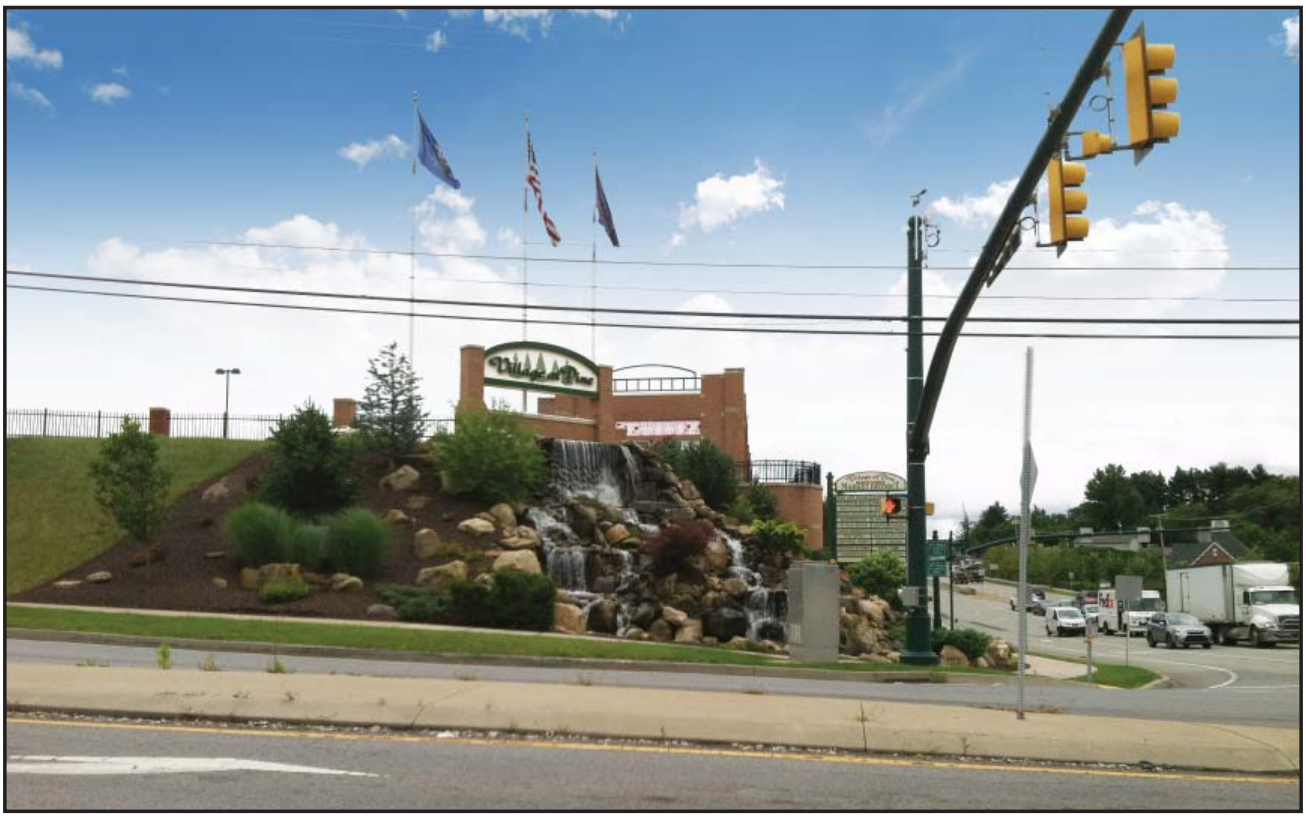
The trail is described briefly here as 5.) Park to Route 19 bike-pedestrian route. *(Also, please see Connectivity Map, Page 2-7.)*

Park to Route 19 bike-pedestrian route: This route utilizes existing and proposed multi-use trails, township roads and sidewalks to connect the Community Park with the high-density commercial/residential area along Route 19.

Route: Beginning at an improved Community Park trail past the water tower to Greenwood Drive. Right onto Windwood Drive to a proposed crossing at Warrendale Road. South along Warrendale Road via a proposed multi-use trail to meet up with the existing multi-use trail. Pass under Interstate 76, and turn east along Graham Road, meeting up with the existing multi-use trail. Turn south via a proposed crossing at English Road. Follow the existing and proposed multi-use trail to a proposed crossing at Wallace Road. Turn south on Wallace Road and on a proposed sidewalk to meet up with the existing sidewalk (consider improving this to serve as a multi-use trail). Connect with sidewalks and existing crossings at Route 19.

Suggested Implementation Plan: Link Pine Community Park and Route 19

- ❑ **STEP 1:** Township should consider following the steps set forth in the Pine-Richland School District - Pine Community Park suggested implementation plan.
- ❑ **STEP 2:** Proceed with the expectation of completing as soon as is feasible.



Wallace Road intersection with U.S. Route 19 at the Village at Pine.

"Fill in the gaps" and improve existing trail segments

TIER 2 STRATEGY
MEDIUM PRIORITY + HIGH FEASIBILITY

Connectivity & Trails

Create safe walking and/or bike routes between the residential neighborhoods and between key destinations within the community by completing missing segments and bringing existing trails up to current standards. Create a plan to acquire land or easements, construct surfaces, add crossings, signs, signals and other fixtures. Create a funding plan.

Talking Points

- If a few missing segments were built, many valuable walking or biking links within the community could spring into use.
- Property ownership, funding and other obstacles have to be overcome.
- Routes could link residential neighborhoods and also key destinations within the community.

Vision: The Township of Pine supports and encourages biking and walking between residential neighborhoods and between key destinations within the community by providing convenient, well-marked and safe routes.

Overview: Over the course of years, the Township of Pine has installed sidewalks and multi-use trails, working with individual property owners and with developers as new neighborhoods were constructed. Some of these trails were initially "routes to no place;" however, as more development occurred, many of these routes now nearly connect with each other. The township should fill in the gaps by completing sidewalks or multi-use trails so that cyclists and pedestrians are able to move safely and conveniently between residential neighborhoods and between other key destinations.

A trail ends along Warrendale Road near Beaver Court, creating a "missing link."

Missing Links: The gaps between existing segments are identified on the Connectivity Map *(Please see Page 2-7)*.

Improvements: Some previously constructed trails are not considered wide enough to accommodate contemporary use patterns. These narrow multi-use trails should be improved to meet current design standards *(Please see illustrations on Page 2-15)*.

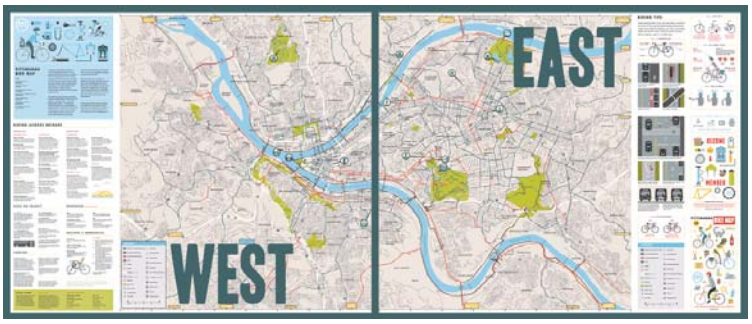
Connectivity & Trails

LOW PRIORITY + HIGH FEASIBILITY

TIER 3 STRATEGY

Trail maps / Wayfinding / Signs

HERE TO THERE: The township should develop digital and printable maps of completed routes, and erect wayfinding signs. This strategy could dovetail with the Community Gateways initiative in the Community Character and Appearance Strategy, Section 3 of this plan.



BikePGH trail map could be an example.

Connectivity & Trails

LOW PRIORITY + HIGH FEASIBILITY

TIER 3 STRATEGY

Cycle station

SAFETY AND CONVENIENCE: The township should install a bicycle repair station and other cycling amenities at Pine Community Park.

Bike repair station provides rack, tools and air. Other amenities could be water fountain, seating and shade.

Connectivity & Trails

STATEMENT OF SUPPORT

TIER 3 STRATEGY

Beyond Pine

LOOKING OUTWARD: This plan encourages efforts to coordinate bike and trail connections with neighboring communities.

Harmony Trail

TIER 3 STRATEGY
STATEMENT OF SUPPORT

Connectivity & Trails

NEW LINK: This plan supports the Rachel Carson Trails Conservancy's recommendations to identify, enhance and extend the Harmony Trail.

The Harmony Trail is one of the conservancy's three primary trails, extending approximately 1 mile along a former rail bed from McCandless Township north to Wexford Road (Orange Belt) in Pine Township.

This plan supports the conservancy's recommendation to identify a hiking trail that connects the Harmony Trail to the Brooktree Corporate Park and its circuit road. The conservancy owns a linear curved parcel that connects to the circuit road near the utility building in the northwest corner of the Brooktree Corporate Campus. Hikers from the southwestern corner of Pine Township can use this route to connect to North Park, across Route 19.

The conservancy is willing to improve this trail, as it is recognized as part of the township's official trail network. *(Please see Connectivity Map, Page 2-7.)* The greatest expense would be a bridge across Wexford Run to connect to the existing Harmony Trail.

This plan also supports the conservancy's recommendation to recognize the opportunity to extend the Harmony hiking trail north of Route 910 / Wexford Road along or adjacent to Brennan Road. This would follow the former right-of-way of the Harmony Short Line and has the potential to extend through Bradford Woods to Marshall Township and its trail system. The hiking trail would be on public roads except for a portion that may require sharing a utility right-of-way.

Harmony Trail runs south along a former rail bed from a parking area on Wexford Road.

Rachel Carson Trailhead

ENCOURAGING CONNECTIONS: This plan supports the Rachel Carson Trails Conservancy's proposal to identify and enhance a trail segment through the Township of Pine that would create new connections with the Rachel Carson Trailhead in North Park and a proposed route in Richland Township.

The Conservancy's most known trail is the Rachel Carson Trail. Its western trailhead is the Beaver Shelter adjacent to Irwin Lake in North Park. From that shelter hikers are now enjoying the Irwin Run Valley and the conservation area land owned by the Allegheny Land Trust. The hiking trail through this parcel connects to Jackson Road in Pine Township, as shown on the township Connectivity Map *(Please see Page 2-7)*.

A hiking route up Jackson Road toward Babcock Boulevard heads toward Richland Township. The Richland Township Comprehensive Plan identifies a gateway site along Gibsonia Road and near the intersection with Montour Road. Montour provides a low-traffic public route toward the Pittsburgh Cut Flower site. This route was considered during the period the Allegheny Land Trust was negotiating for that site and remains an attractive option as Richland Township awaits redevelopment options for the site.

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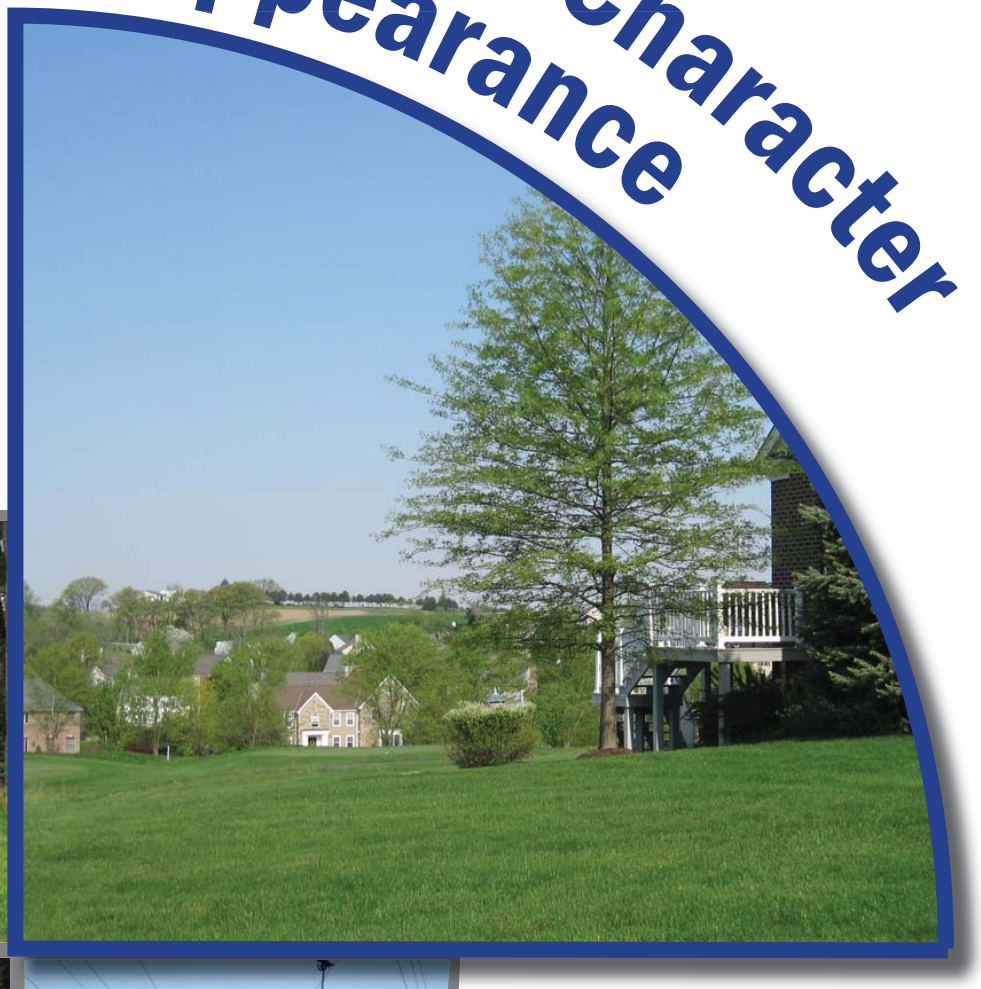
Community Character & Appearance



Inside:

- Create attractive community gateways
- Create or maintain extensive tree cover
- Preserve or maintain natural areas
- Review/update land-use designations as township becomes built out
- Maximize township "brand" recognition
- Preserve or maintain distinctive structures and rural icons
- Limit future overhead wires and visibility of utilities
- Illustrate design standards

KEY ISSUE:
Community Character & Appearance

Overview

Introduction

Growth has changed the township's predominant land use from agriculture to residential within a generation, and has altered its appearance. This rapid growth rate creates a conundrum: Many residents say they chose to live in or move to the Township of Pine because of its "rural character," yet the presence of additional residents changes the very nature of the place. What, exactly, are the features, elements and characteristics that make the township visual appealing and desirable? Through this planning process, we explored the issue, and now present specific strategies to preserve or enhance the community's character and appearance.

Vision: The Township of Pine preserves vestiges of its rural and agricultural past; values scenic views and streetscapes that emphasize tree-cover; retains and maintains natural areas; avoids visual clutter; and defines community gateways and key public spaces.

Talking Points

- Residents highly value the community's appearance, specifically the natural areas, trees and views of rolling hills.
- Today's look should honor the township's rural and agricultural past.
- Five focus groups identified the features, characteristics and elements that "make Pine Pine," through discussion of what participants like and dislike about the township's appearance.
- The specific desired features and characteristics are:
  - Natural areas such as woodlands, steams and watersheds, wetlands, undisturbed hillsides
  - Attractive and noticeable community gateways
  - Extensive tree cover, including more pine trees and other evergreens, as well as street trees and roadside buffers
  - Agricultural elements such as productive fields, pastures, fences and barns
  - Limits on overhead wires and visible utilities
  - Development of one or more outdoor public spaces
  - Limits on visual clutter or eyesores
  - Preservation and maintenance of distinctive older structures

Validation

The Township of Pine's identity and character are aligned with its rural past, though currently just one active farm remains.

Pine's transformation from rural and agricultural land uses to a residential, suburban bedroom community quickly followed the completion of I-279 in 1989. Now the township is predominately residential, with commercial development present in one main corridor and several small pockets. Open space is a significant component of current land use and is highly valued. Developable parcels remain but are going fast. It is likely that this planning cycle will be the township's last opportunity to make any significant changes in future land use before build-out. The township should at this time determine whether changes in land-use designations should be made, and if so, what those changes should be. Moreover, the township should establish policies, programs and projects that retain or enhance the characteristics and features that make the township so appealing.

North Allegheny History Museum

View of the Kennedy/Huggins farm in Pine Township in the early 1900s.

Community Character & Appearance

Implementation and Management Strategies

Tier 1 - DEVELOP ATTRACTIVE COMMUNITY GATEWAYS:

Identify township gateway locations and types, create design standards, estimate costs. *(Please see Pages 3-9 to 3-13.)*

Tier 1 - CREATE OR MAINTAIN AN EXTENSIVE TREE COVER:

Extend and augment tree cover to reinforce the visual impression of rolling, forested hills. Improve forest health. *(Please see Pages 3-14 to 3-22.)*

Strategies continue on next page

Tier 1: High priority and high feasibility
Tier 2: High priority and medium feasibility, or medium priority and high feasibility
Tier 3: Low priority and high feasibility, any priority and low feasibility, or statement of support for high-priority existing position.

The tier ratings were established during the preparation of this plan in 2015, and may change depending on external circumstances such as tax revenues, the overall economy, new laws or regulations, or the availability of funding.

Community Character & Appearance

Implementation and Management Strategies

Continued from previous page

Tier 3 - PRESERVE OR MAINTAIN NATURAL AREAS: This plan enthusiastically supports existing township ordinances that maintain or enhance the condition or streams, wetlands, wooded parcels that make the area seem rural and untouched. *(Please see Page 3-23.)*

Tier 3 - LAND USE DESIGNATIONS AS TOWNSHIP BECOMES "BUILT OUT": Determine whether any changes should be made in land-use designations, and if so, what they should be. *(Please see Page 3-24.)*

Tier 3 - MAXIMIZE TOWNSHIP "BRAND" RECOGNITION: Review and update a visual vocabulary and apply standards consistently on township equipment and property. This includes consistent use of a township logo and color palette, and design standards for fixtures such hydrants, lights, benches, crossings, etc. *(Please see Page 3-24.)*

Tier 3 - PRESERVE OR MAINTAIN DISTINCTIVE STRUCTURES AND RURAL ICONS: Encourage preservation of scenic barns, fences, fields and interesting buildings. *(Please see Page 3-25.)*

Tier 3 - LIMIT FUTURE OVERHEAD WIRES AND VISIBILITY OF UTILITIES: This plan supports existing township ordinances. *(Please see Page 3-25.)*

Tier 3 - ILLUSTRATE DESIGN STANDARDS: The township has strong regulations to promote quality development. Visual examples of some of the requirements help prospective developers better understand the goals of the community and embed required features and elements into proposals. *(Please see Pages 3-26.)*

Community Character & Appearance

Legend

- Existing Wooded Areas
- (A) Reforest/Augmentation Demonstration Project
- Designated Greenway
- (1) Existing Type 1 Gateway
- (3) Proposed Type 1 Gateway

Type 1 - Gateways

1. Eastbound Wexford Road (Orange Belt / Route 910) near the Marshall Township line.
2. Southbound U.S. Route 19 (Perry Highway) near the Marshall Township line– Existing
3. Northbound U.S. Route 19 (Perry Highway) near the McCandless Township line - Existing
4. Intersection of Gibsonia Road (Route 910) and Babcock Boulevard.
5. Intersection of Warrendale Road (Red Belt) and Franklin Road. (southeast corner where boulders are – possibly township property)
6. Intersection of Mt. Pleasant Road and Franklin Road.
7. Intersection of Babcock Boulevard and Bakertown Road (Red Belt).
8. Intersection of Pearce Mill Road and Wexford Road (Route 910).

Type 2 - Gateways

- Existing
- Proposed

Reforestation Demonstration Projects

- (A) Developer-installed buffer (Page 3-17)
- (B) Disturbed open space (Page 3-17)
- (C) Natural unmanaged area (Page 3-19)
- (D) Township park (Page 3-19)

1 inch = 1,000 feet Contour Interval = 20 feet

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Create attractive and highly visible community gateways

Identify the gateways to Pine Township and propose designs or features that help people "know when they're in Pine." Enhance design standards. Identify costs, to assist township in securing funding for new gateway features.

TIER 1 STRATEGY + HIGH PRIORITY + HIGH FEASIBILITY

Community Character & Appearance

Talking Points

- Creating community gateways is one of three top priorities identified by participants in five community focus groups.
- The gateways should clearly convey to visitors and residents that they are in the Township of Pine.
- The gateways should have a consistent appearance and be attractive and noticeable in all seasons.
- The gateways should have a refined and contemporary appearance while also reflecting the community's rural and agricultural past.
- The gateway signs should align with any new branding initiative *(See brand recognition strategy, page 3-24)* or trail map / wayfinding / signs initiative *(See strategy, page 2-24)* that start as part of this comprehensive plan.

Vision: Attractive and highly visible features define community gateways. These gateways clearly communicate arrival into the Township of Pine, foster community pride, and convey a sense of the community's character and rural past.

Overview: Township residents are justifiably proud of their community and want to underscore Pine's distinctiveness through development of unmistakable gateways that communicate to visitors and residents alike that "you are now in the Township of Pine."

Gateways are key locations along important transportation corridors that mark a transition from one place to another. Gateways should foster community pride, help visitors with wayfinding, and stand as attractive landscapes for all passers-by to see and enjoy.

This plan identifies three types of gateways to be established over time, with their scale dependent upon traffic load and visibility. Type 1 gateways mark the busiest transportation arteries and/or intersections near the township's borders with neighboring communities. Type 2 gateways mark township edges along somewhat less-traveled routes, and Type 3 gateways mark relatively quiet through-streets or pedestrian/bike trails.

The Type 1 gateway locations are:

- Eastbound Wexford Road (Orange Belt / Route 910) near the Marshall Township line
- Southbound U.S. Route 19 (Perry Highway) near the Marshall Township line
- Northbound U.S. Route 19 (Perry Highway) near the McCandless Township line
- Intersection of Gibsonia Road (Route 910) and Babcock Boulevard
- Intersection of Warrendale Road (Red Belt) and Franklin Road
- Intersection of Mt. Pleasant Road and Franklin Road
- Intersection of Babcock Boulevard and Bakerstown Road (Red Belt)
- Intersection of Pearce Mill Road and Wexford Road (Route 910)

Suggested Implementation Plan: Create attractive and highly visible community gateways

☑ **STEP 1:** Establish three categories of gateways — Types 1-3 — with their scale depending on traffic load and visibility. The gateways may include plantings and iconic features such as signs, banners, stone walls, boulders and/or fences.

☑ **STEP 2:** Identify the location of Type 1 and Type 2 gateways.

☑ **STEP 3:** Create conceptual designs for each gateway tier: Type 1 gateways are visible at higher speed or amidst traffic or distractions. Type 2 involve a small sign with plantings, visible at lower speed or amidst few distractions. Type 3 gateways involve a simple sign at "human scale" that is visible at very low speed. *(See drawing, Page 3-11.)*

☐ **STEP 4:** Identify funding sources, such as township funding, grants, partnerships or donations.

☑ **STEP 5:** Select one highly significant gateway location to be a pilot project, including identifying the probable costs.

☐ **STEP 6:** Budget money for construction and installation of pilot project.

☐ **STEP 7:** Acquire right-of-way easements from PennDOT or other property owners where applicable.

☐ **STEP 8:** Notify and/or meet with owners of property adjacent to the pilot project location regarding township plans.

☐ **STEP 9:** Complete final design, prepare construction documents, and obtain required permits for construction of the pilot project.

☐ **STEP 10:** Develop management, operation and security strategies for the Type 1 gateway locations, perhaps working with community groups, businesses or regional non-profit organizations.

☐ **STEP 11:** Complete a financial analysis to project the capital and maintenance costs for the remaining gateways.

☐ **STEP 12:** Construct the pilot project gateway.

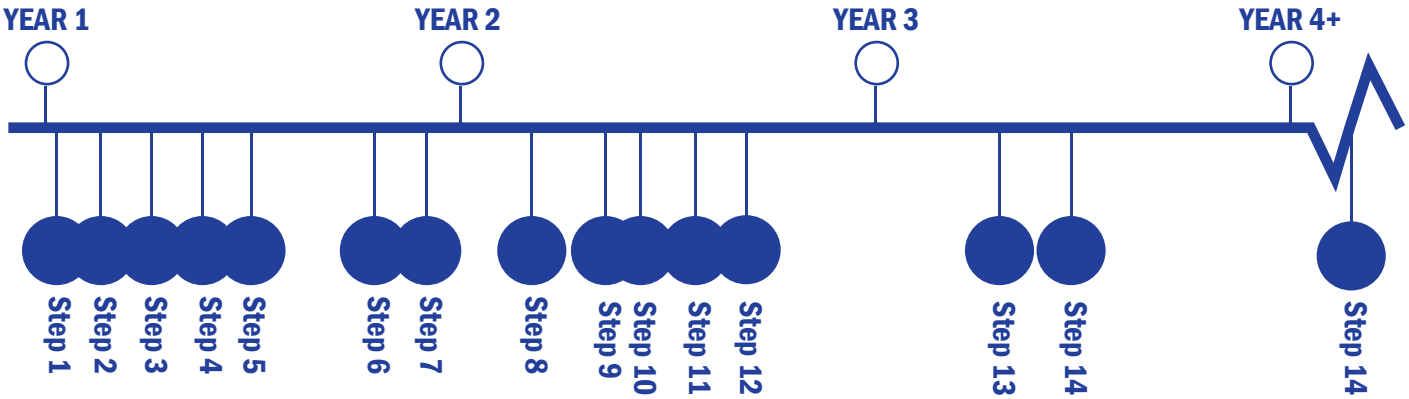
☐ **STEP 13:** Set priorities for completing the remaining Type 1 gateway projects, and for completing construction and installation of the Type 2 and Type 3 gateways.

☐ **STEP 14:** Complete remaining projects, including notifying and/or meeting with neighbors of Type 1 gateway projects.

Demonstration Project: Create attractive and highly visible community gateways

- Right of Way
- 56 shrubs as understory planting
- Mulch every 2-3 years only in bare areas
- 20 Winterberry shrubs (2 male)
- 5 Balsam Fir trees
- 5 Sugar Maple trees
- 5 Black Gum trees
- Perennial planting beds by partner organization
- Township of Pine sign on cut stone base
- Sign spotlights
- Pedestrian crosswalk buttons
- Potential stormwater management feature
- Partner organization sign

Suggested Timeline: Create attractive and highly visible community gateways



Cost Estimates: Create attractive and highly visible community gateways

Type 1 gateway projects

ITEM	NUMBER	COST PER	TOTAL
Removals	LS	$ 500	$ 500
Earthwork, site preparation	LS	$3,000	$3,000
Trees	15	$ 400	$6,000
Shrubs	50	$ 50	$2,500
Perennials	100	$ 25	$2,500
Sign	1	$5,000	$5,000
Irrigation			$5,000
Lighting			$5,000
Mulch / misc. rain garden opportunities			$5,000
Partner sign			$ 500
TOTAL			**$35,000**

Type 2 gateway projects

ITEM	NUMBER	COST PER	TOTAL
Removals	LS		$ 500
Earthwork, site preparation, mulch, watering bags	LS		$3,500
Trees	6	$ 400	$2,400
Shrubs	9	$ 50	$ 450
Sign	LS		$1,000
TOTAL			**$7,850**

Type 3 gateway projects

ITEM	NUMBER	COST PER	TOTAL
Trees, shrubs	LS		$3,000
Site preparation, mulch, watering bags	LS		$1,500
Sign	LS		$ 750
TOTAL			**$5,250**

Community Character & Appearance

HIGH PRIORITY + HIGH FEASIBILITY

TIER 1 STRATEGY

Create or maintain extensive tree cover

Extend and augment tree cover within Township of Pine greenways to reinforce the visual impression of rolling, forested hills. Improve roadside and streetscape appearance through the addition of trees. Manage invasive species. Plant more pines and other evergreens.

Vision: The Township of Pine actively supports and augments the diversity and viability of its tree population, thereby creating a visual impression of extensive tree cover, and enhancing the health of its ecological systems and of its residents. We aim to plant 5,000 new trees in the township by 2025.

Talking Points

- Preserving and enhancing the Township of Pine's rolling, tree-covered hills was one of three top priorities identified by participants in five community focus groups.
- Trees provide important ecological services such as evapotranspiration and soil conservation, and also improve air quality and provide shade.
- Trees enhance property values.
- New trees should be selected to add native species diversity — and should include pines and other evergreens to help the Township of Pine live up to its name.
- Older, larger trees should be preserved.
- The township should develop and implement an invasive species management plan to support forest health, perhaps enlisting the help of township volunteers.

Overview: Although the Township of Pine is nearly "built out," it is nevertheless possible to drive along township roads and view expanses of tree-covered rolling hills. This is due to existing ordinances that preserve large trees, require roadside buffers for new residential neighborhoods and mandate planting of streetscapes and screens.

The strategy presented here, intended to create or maintain extensive tree cover, builds on existing practices by identifying four types of landscapes to reforest or support; suggesting native tree and shrub species; providing planting guidelines; encouraging an invasive species management plan; and providing conceptual planting plans and associated cost estimates for each of the four landscape categories.

The township's rolling hills, seen from Trees Manor Lane.

Suggested Implementation Plan: Create or maintain extensive tree cover

❑ **STEP 1:** Identify greenway or open-space areas suitable for forest augmentation to create additional tree cover, using the categories: A) Developer-installed buffers; B) Disturbed open space; C) Natural, unmanaged areas; and D) Township parks.

☑ **STEP 2:** Adopt list of native trees and shrubs suitable for various forest, open space or greenway locations and conditions. *(See list, Page 3-16.)*

☑ **STEP 3:** Adopt planting guidelines for correct planting techniques. *(See drawings and information, Appendices D-F.)*

☑ **STEP 4:** Identify pilot project areas, basing plans on the conceptual designs provided in this comprehensive plan *(See Page 3-17 and 3-19)*, with the goal of choosing visible locations in the township. Estimate planting costs and include these projects in budget.

❑ **STEP 5:** Identify funding sources, such as township funding, grants, partnerships or donations.

❑ **STEP 6:** Implement pilot project. Provide graphic interpretive signs explaining benefits of the projects.

❑ **STEP 7:** Create and adopt an invasive species management plan, perhaps including volunteer corps or a township work day. *(DCNR invasives management strategies and funding sources, Appendix G.)*

❑ **STEP 8:** Review existing ordinances for opportunities to strengthen the township's intention to create visually appealing streetscapes and roadsides, preserve significant trees, etc.

❑ **STEP 9:** Continue with additional project areas each year to reach the goal of 5,000 trees by 2025.

Four landscape types where additional trees and shrubs could improve the ecosystem health and the appearance of township-owned or -maintained property:

A) Developer-installed buffers

B) Disturbed open space

C) Natural, unmanaged areas

D.) Township parks

Suggested Plant List: Create or maintain extensive tree cover

LARGE TREES

Common name	Scientific name	Light preference	Moisture preference	Height	Wildlife value	Notes
Red maple	*Acer rubrum*	sun-medium-shade	wet-moist-dry	40-60	very high	red flowers, adaptable, fall color
Sugar maple	*Acer saccharum*	medium-shade	moist	60-75	very high	yellow flowers in spring, fall color
Black birch	*Betula lenta*	medium-shade	moist-dry	45-55	very high	catkins
River birch	*Betula nigra*	sun-medium-shade	wet-moist	60-80	very high	peeling salmon-colored bark, catkins
Shagbark hickory	*Carya ovata*	sun-medium	moist-dry	70-80	very high	bark shelters bats, edible nuts, fall color
American beech	*Fagus grandifolia*	sun-medium-shade	moist	50-70	high	"tree for the ages," edible nuts, smooth gray bark
Red cedar	*Juniperus virginiana*	sun	moist-dry	30-65	very high	tough tree, woodland edges, pioneer species
Sweet gum	*Liquidambar styaciflua*	sun	moist	60-80	low	tolerates deer, clay soil, fall color, drops spiky seed balls
Tulip poplar	*Liriodendron tulipfera*	sun-medium-shade	moist-dry	75-100	medium	fast-growing, green flowers in June
Cucumbertree magnolia	*Magnolia acuminata*	sun-medium	moist	50-80	high	4-10" leaves, 3" yellow flowers, does not like pollution
Black gum	*Nyssa sylvatica*	sun-medium-shade	wet-moist	30-60	high	great fall color, transplant young
Pitch pine	*Pinus rigida*	sun-medium	wet-moist-dry	50-60	very high	pioneer species, adaptable to poor soils, not pretty, prickly
Eastern white pine	*Pinus strobus*	sun-medium-shade	moist-dry	50-80	very high	evergreen conifer, does not like roadside pollution
Sycamore	*Platanus occidentalis*	sun-medium-shade	moist	75-100	low	peeling bark, drops spiky seed balls
Big-tooth aspen	*Populus grandidentata*	sun-medium	moist-dry	50-70	very high	fast growing, catkins, fall color
Quaking aspen	*Populus tremuloides*	sun-medium	wet-moist-dry	30-40	high	fast growing pioneer species, fall color
Prunus serotina	*Black cherry*	sun-medium-shade	moist	50-80	very high	white flowers, fall color, fruit, transplant young
White oak	*Quercus alba*	sun-medium-shade	moist-dry	50-100	very high	"tree for the ages," edible nuts
Swamp white oak	*Quercus bicolor*	sun	wet-moist	50-60	very high	wet soils, transplant young, edible nuts
Black willow	*Salix nigra*	sun-medium-shade	wet-moist	30-50	medium	catkins, wet soils
Sassafras	*Sassafras albidum*	sun-medium-shade	moist	30-50	high	edible uses, fall color
Basswood	*Tilia americana*	sun-medium	moist	60-80	high	fragrant flowers in June, great pollinator tree

SMALL TREES

Common name	Scientific name	Light preference	Moisture preference	Height	Wildlife value	Notes
Striped maple	*Acer pensylvanicum*	medium-shade	moist	15-20	very high	green stripes on stems, understory plant, fall color
Serviceberry	*Amelanchier arborea*	sun-medium-shade	moist-dry	15-25	very high	white flowers in spring, edible berries, fall color
Redbud	*Cercis canadensis*	medium-shade	moist-dry	20-35	very low	lavender flowers in early spring, nitrogen-fixer
White fringetree	*Chionanthus virginicus*	sun-medium	moist	12-20	high	hillsides, woodland borders, tolerates clay soil, pollution
Flowering dogwood	*Cornus florida*	medium-shade	moist	15-30	very high	white flowers in spring, red berries, disease-prone
Witchhazel	*Hamamelis virginiana*	medium-shade	moist	20-30	low	yellow flowers in winter, fragrant
Sweetbay magnolia	*Magnolia virginiana*	sun-medium	wet-moist	10-35	high	fragrant white flowers, woodland border, tolerates clay
Wild plum	*Prunus americana*	sun-medium-shade	moist-dry	15-25	high	white flowers, edible fruit

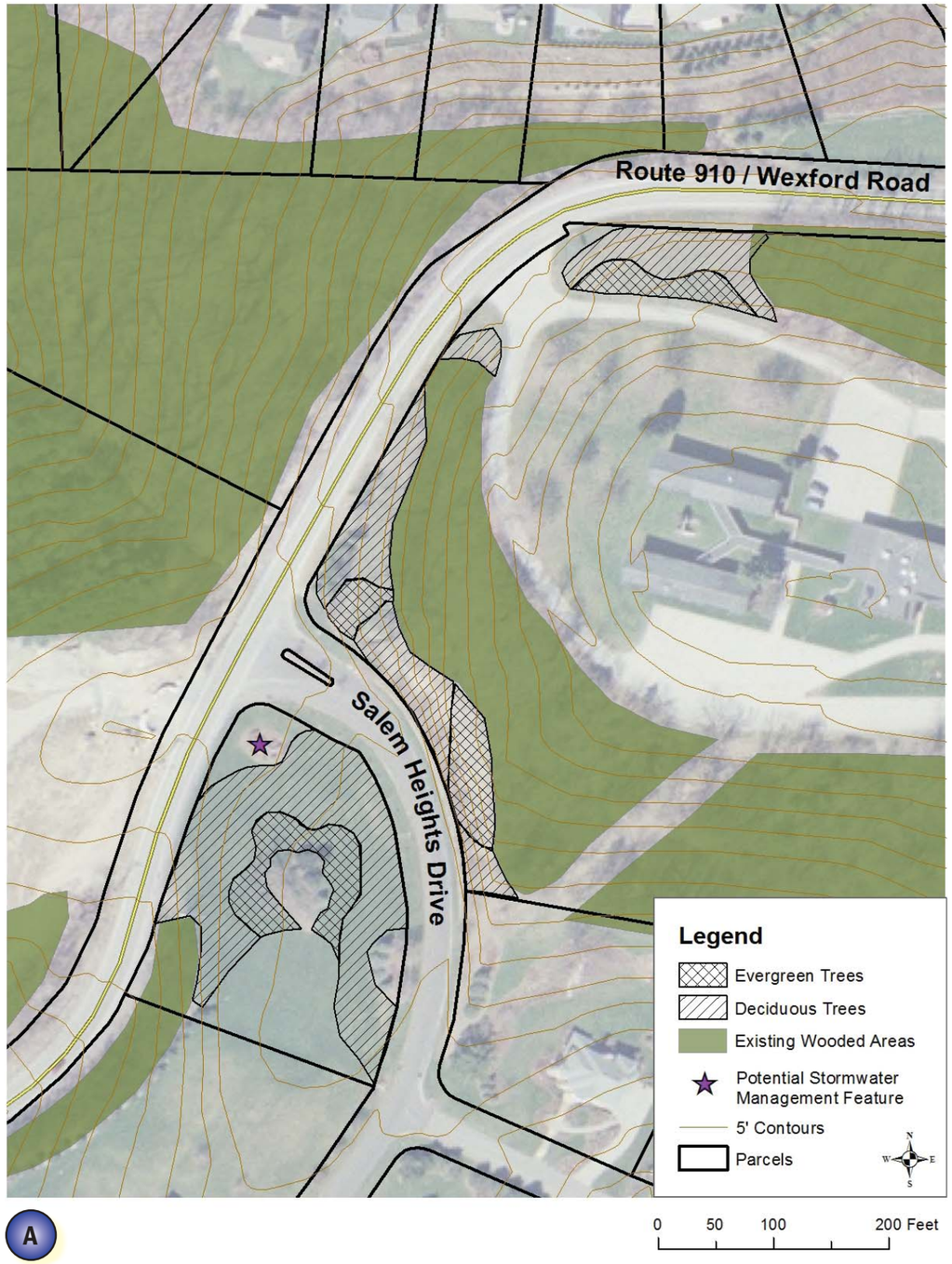
SHRUBS

Common name	Scientific name	Light preference	Moisture preference	Height	Wildlife value	Notes
Smooth alder	*Alnus serrulata*	sun-medium-shade	wet	5-10	high	wet soil, multi-stem
Black chokeberry	*Aronia melanocarpa*	sun-medium-shade	wet-medium-dry	3-6	medium	white flowers, multi-stem, berries, fall color
New Jersey tea	*Ceanothus americanus*	sun-medium-shade	medium-dry	2-3	medium	white flowers, multi-stem, nitrogen fixer
Buttonbush	*Cephalanthus occidentalis*	sun-medium-shade	wet-medium	6-15	medium	white flowers become interesting berries, multi-stem
Sweet pepperbush	*Clethra alnifolia*	sun-medium-shade	wet-medium-dry	3-8	medium	butterflies, white flowers, fragrant, adaptable
Silky dogwood	*Cornus amomun*	sun-medium	wet-medium	6-12	very high	white flowers, blue berries, multi-stem
Gray dogwood	*Cornus racemosa*	sun-medium	wet-medium	10-15	very high	white flowers/berries, fall color, tolerates deer, red stems
Wild hydrangea	*Hydrangea arborescens*	medium-shade	medium	3-5	low	white flowers, multi-stem
Winterberry	*Ilex verticillata*	sun-medium-shade	wet-medium	6-10	very high	red berries in winter, needs male pollinator, multi-stem
Mountain laurel	*Kalmia latifolia*	medium-shade	wet-medium-dry	6-15	low	berries in fall, multi-stem
Spicebush	*Lindera benzoin*	medium-shade	wet-medium	6-12	high	berries in fall, fall color, multi-stem
Bayberry	*Myrica pensylvanica*	sun-medium-shade	wet-medium-dry	6-12	high	berries, fragrant, salt tolerant
Ninebark	*Physocarpus opulifolius*	sun-medium-shade	wet-medium	5-10	medium	pink flowers, interesting peeling bark, multi-stem
Rhododendron	*Rhododendron maximus*	shade	wet-medium	5-25	low	deep pink flowers, evergreen, multi-stem
Wild azalea	*Rhododendron periclymenoides*	sun-medium-shade	medium-dry	4-8	low	pale pink flowers, multi-stem
Pussy willow	*Salix discolor*	sun-medium	wet-medium	6-15	medium	tolerates deer, tough, soft fuzzy flowers, multi-stem
Silky willow	*Salix sericea*	sun-medium-shade	wet	6-12	medium	catkins, multi-stem
Elderberry	*Sambucus canadensis*	sun-medium-shade	wet-medium	6-15	very high	white flowers, edible berries, multi-stem
Lowbush blueberry	*Vaccinium angustifolium*	sun-medium	medium-dry	1-2	very high	white flowers, edible berries, multi-stem
Highbush blueberry	*Vaccinium corymbosum*	sun-medium-shade	wet-medium	5-10	very high	white flowers, edible berries, fall color, multi-stem
Maple-leaf viburnum	*Viburnum acerifolium*	medium-shade	wet-medium-dry	4-6	medium	white flowers, edible berries, fall color, multi-stem
Arrowwood	*Viburnum dentatum*	sun-medium-shade	wet-medium	3-12	very high	white flowers, multi-stem

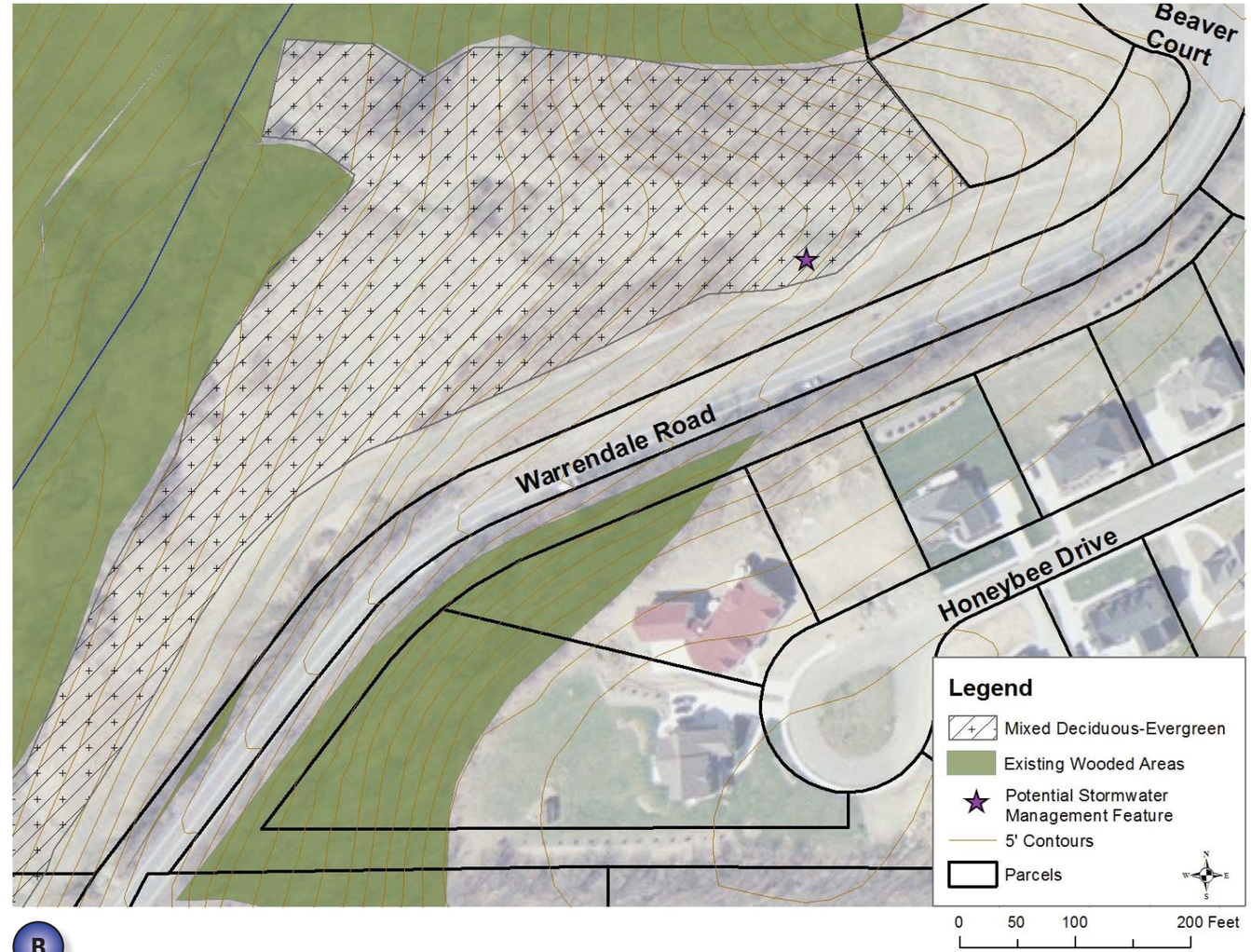
Sources

http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_003489.pdf
http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_003304.pdf
http://www.stormwaterpa.org/assets/media/BMP_manual/12_Appendix_B.pdf

Reforestation Diagrams by Landscape Type: Create or maintain extensive tree cover



A



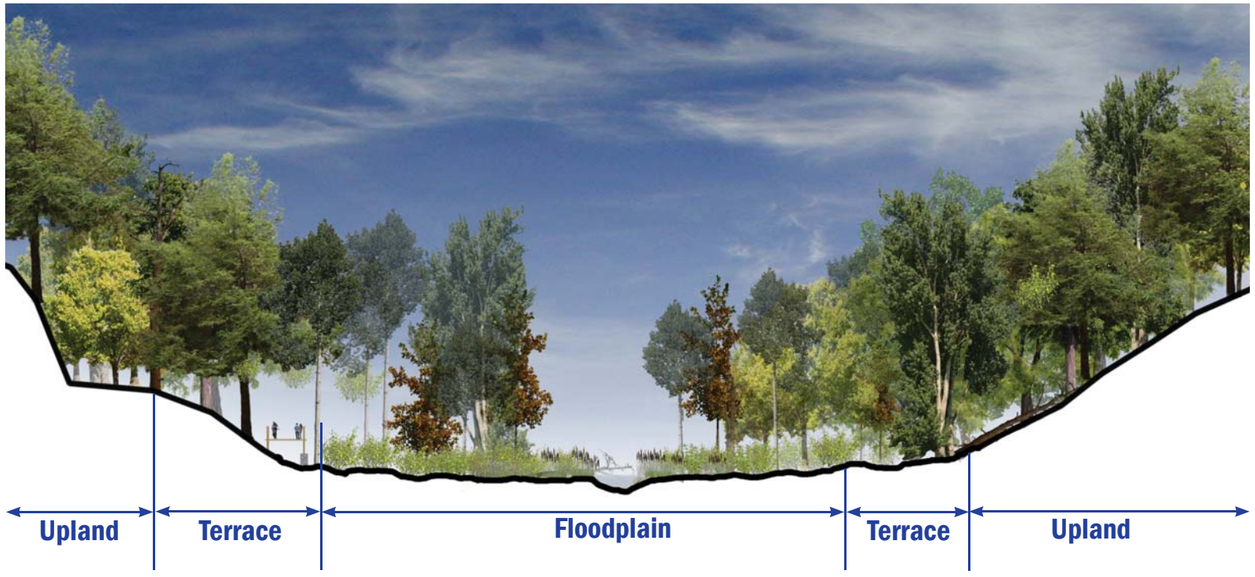
B

Four landscape types where additional trees and shrubs could improve the ecosystem health and the appearance of township-owned or -maintained property:

A) Developer-installed buffers

B) Disturbed open space

Reforestation Diagrams by Landscape Type: Create or maintain extensive tree cover



Four landscape types where additional trees and shrubs could improve the ecosystem health and the appearance of township-owned or -maintained property:

C) Natural, unmanaged areas

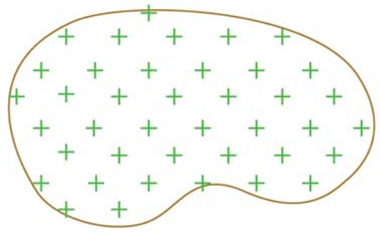
D.) Township parks

C

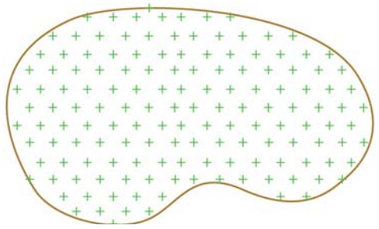
- The floodplain should be planted or augmented with moisture-loving trees and shrubs. Debris such as fallen trees should be left undisturbed to provide cover for aquatic life and to cool the water.
- The terrace levels should be planted or augmented with trees and shrubs that love moisture or medium conditions, as these higher areas can be damp at times but also dry out.
- The upland areas should be planted with trees and shrubs that prefer dry conditions.

D

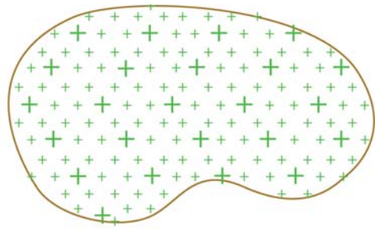
Planting guide



- In landscape types A and D, plant trees and shrubs 20' on center, staggered.



- In landscape types B and D, plant whips 10' on center, staggered.



- Or, combine the approaches by planting mostly whips, with a few large specimens interspersed on the grid.

For further information about correct planting practices, please see Appendix D.

For further information about planting bare-root whips, please see Appendix E.

For further information about planting riparian buffers, please see Appendix F.

Cost Estimates: Create or maintain extensive tree cover

A-type projects - Developer-installed buffers

ITEM	NUMBER	COST PER	TOTAL
Large deciduous trees (2.5" caliper)	69 /acre	$400	$27,600
Evergreen trees (6' unsheared)	23 /acre	$400	$9,200
Small deciduous trees (1.25" caliper)	23 /acre	$250	$5,750
Watering bags, stakes	115	$50	$5,750
TOTAL per acre	115 /acre		**$48,300 / acre**

B-type projects - Disturbed areas

ITEM	NUMBER	COST PER	TOTAL
Deciduous trees (seedling whip)	408 /acre	$2	$816
Evergreen trees (3' bare root or cont.)	136 /acre	$2	$272
Small deciduous trees (4' bare root)	136 /acre	$2	$272
Seeding (cover crop)	30 lbs /acre	$10	$300
Wire fencing for planting protection	680 /acre	$15	$7,500
TOTAL per acre	680 /acre		$9,160 / acre

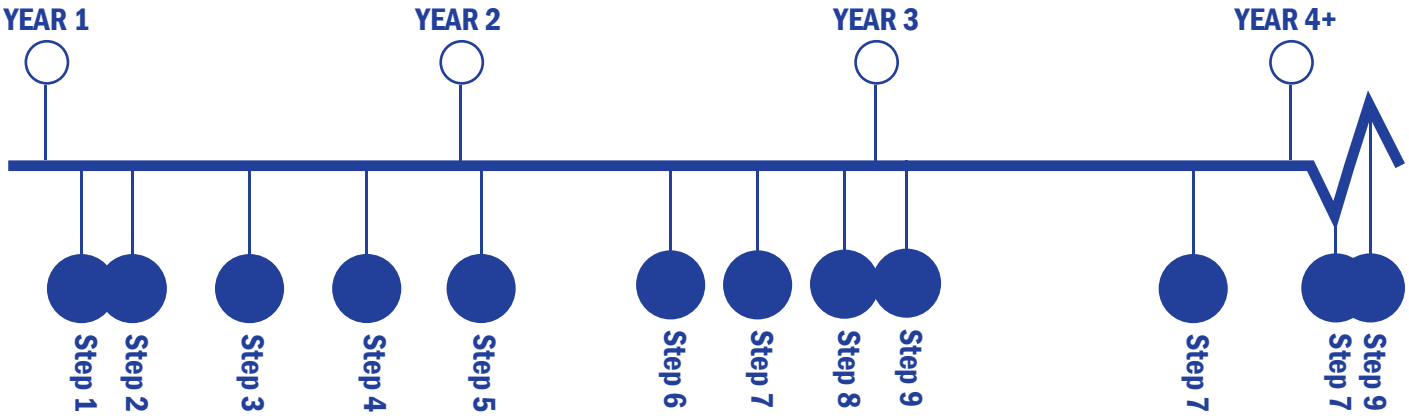
C-type projects - Restoring natural areas

ITEM	NUMBER	COST PER	TOTAL
Deciduous trees (6' bare root)	100 /acre	$ 40	$ 4,000
Evergreen trees (3' bare root or cont.)	30 /acre	$ 30	$ 900
Small deciduous trees (4' bare root)	40 /acre	$ 30	$ 1,200
Shrubs	30 /acre	$ 30	$ 900
Seeding (wild)	LS		$ 1,000
Wire fencing for planting protection	200 /acre	$15	$ 3,000
TOTAL per acre	200 /acre		$11,000

D-type projects - Township parks

ITEM	NUMBER	COST PER	TOTAL
Large deciduous trees (2.5" caliper)	69 /acre	$400	$27,600
Evergreen trees (6'. unsheared)	23 /acre	$400	$ 9,200
Small deciduous trees (1.25" caliper)	23 /acre	$250	$ 5,750
Seeded meadow grasses	LS		$ 5,000
Watering bags, stakes	115	$ 50	$ 5,750
TOTAL per acre	115 /acre (100%)		$53,300

Suggested Timeline: Create or maintain extensive tree cover



Preserve or maintain natural areas

TIER 3 STRATEGY STATEMENT OF SUPPORT

Community Character & Appearance

KEEP IT NATURAL: This plan enthusiastically supports existing township ordinances that maintain or enhance the condition or streams, wetlands, wooded parcels that make the area seem rural, natural and untouched. Additionally, the township should consider adopting an ordinance governing "Conservation of Natural Features." *(See sample ordinance from Pocopson Township, Chester County, Pa., in Appendix H.)*

Population growth and residential development are the greatest threats to preserving open space and agricultural land, two land uses that create the rural appearance of the community that residents value highly, according to focus groups. The Township of Pine has the opportunity in the next few years to review and update its ordinances. The township can also initiate dialogues with owners of remaining large parcels to encourage participation in preservation and conservation programs such as land trusts or conservation easements.

Irwin Run Conservation Area

Located along Babcock Boulevard, the Irwin Run Conservation Area conserves in perpetuity about 73 acres adjacent to North Park, helping to buffer the park and protecting beneficial wetlands, densely wooded slopes and a stream valley.

Allegheny Land Trust photo

Agriculture Security Areas (ASAs)

Owner	Acreage
Dewey	57
Micucci	11.26
Mihalics	23.39
Mustovic	217.04
Shurko	41.76
TOTAL ACRES	**350.45**

Agriculture Conservation Easements

Owner	Acreage
Robert Boudreau	96

Community Character & Appearance

TIER 3 STRATEGY

STATEMENT OF SUPPORT

Review land-use designations

Determine whether any changes should be made in land-use designations so the township can be positioned to encourage preservation or conservation of natural open spaces.

The community's last best chance to adjust its zoning map will occur before the community becomes "built out." During this period, the township can use zoning designations to manage growth and development, enabling the township to preserve natural areas or other open space where desired.

Community Character & Appearance

TIER 3 STRATEGY

MEDIUM PRIORITY + MEDIUM FEASIBILITY

Maximize Township of Pine "brand recognition"

VISUAL IDENTIFICATION: The township should develop a visual vocabulary and apply use of its branding standards consistently. This branding initiative aligns with the Community Character & Appearance key issue because it is a means, along with new community gateway signifiers, to help people "know when they're in Pine."

Branding should include consistent use of a township logo and color palette, and design standards for fixtures and features such as hydrants, lights, benches, pedestrian crossings, traffic signals, hardscapes, walls, etc. The selected logo and color palette should also be incorporated into uses as diverse as the township website and printed material, township-owned vehicles, and other fixed, mobile or online items.

New community gateway signifiers, explained elsewhere in this plan, should incorporate the colors and logo selected for this branding strategy, and otherwise align appropriately with selection of materials and other visual components.

Preserve or maintain distinctive structures and rural icons

TIER 3 STRATEGY STATEMENT OF SUPPORT

Community Character & Appearance

EVOKING PINE'S RURAL PAST: Encourage preservation of scenic barns, fences, fields and interesting buildings. Include rural iconography (such as fieldstone walls, hedgerows, cut stone foundations, rail fences) in township-built features.

A barn in Pine Township.

Limit future overhead wires and visibility of utilities

TIER 3 STRATEGY STATEMENT OF SUPPORT

Community Character & Appearance

AVOID VISUAL CLUTTER: This is a statement of support for existing township ordinances that require underground utilities in new development. The township also should continually review its ordinances to be certain they address current and emerging issues regarding cellular transmission towers, including mini cell towers, collocated antennae, installation locations and rights-of-way.

Community Character & Appearance

LOW PRIORITY + HIGH FEASIBILITY

TIER 3 STRATEGY

Illustrate design standards

The township has strong regulations to promote quality development. Visual examples of some of the requirements will help prospective developers better understand the goals of the community and embed required features and elements into proposals.

Glazing and transparency at street level.

Include awnings.

Articulation of facade.

Orientation for pedestrian access.

Cornice, orientation for pedestrian access, awnings.

Articulation of facade.

NOTES

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NOTES

Parks & Recreation

Inside:

- Updates to Pine Community Park
- Park land access and acquisition
- Review and update park and recreation-related operating policies
- Develop a Community Center marketing plan
- Explore adding aquatic features/facilities

KEY ISSUE:

Parks & Recreation

Overview

Introduction

The Township of Pine has long been on the cutting edge in providing parks and recreational opportunities for its residents as well as ensuring long-term protection of open space. The level of quality with which its parks and facilities have been developed and maintained has created high expectations for Pine residents as well as those considering a move to the township. The amount of park land, open space and recreational facilities now needs to keep pace with current and future demand.

Vision: The Township of Pine's recreational opportunities will keep pace with the community demand for parks and recreation by: adding park land, facilities and programs to meet current and future needs; maintaining all facilities to the highest standards; ensuring first-rate parks, facilities, and programs.

Talking Points

- The township has focused on ensuring a balance of recreation facilities by encouraging the development of neighborhood recreation, trails, and open space by residential land developers. This has allowed the township to focus on larger community-wide facilities.

- Current facilities are well-maintained but perhaps insufficient to meet current and future needs as identified through the public input completed as part of this study. The time is now to plan for acquisition of future park land for active community recreation. Recreational facilities are needed to meet the current demand and with the population continuing to grow, the township should prepare now for recreational facilities to meet the full build-out for the community.

Validation

The public meetings for both the community comprehensive plan and the comprehensive recreation, parks, and open space plan clearly identified additional park land as a top recreational need, along with more trails *(Please see Connectivity & Trails section)* and sports fields.

Park Land: An analysis of existing park land in the township shows that through its land development ordinances, more than 700 acres of open space has been protected and as many as 20 neighborhood recreation areas have been developed. However, Pine Community Park is the only township space with larger facilities for active recreation. The other two township-owned parks, Pine Haven, and Karrington Woods, due mostly to their topography, are largely undeveloped, providing few recreational facilities. While Pine Community Park is meeting many of the recreational needs of the township, there are even now demands for additional facilities that cannot be met there. As the township continues to grow, the need for park land will only increase. And with the ever-increasing demand for land in the township, along with continually escalating costs, now is the time to make plans for the purchase of new park land.

Ballfields and other Recreational Facilities: Attendees at the public meeting supported the conclusions of the recreation facility analysis that additional sports fields are needed now and more will be needed in the future. In addition to sports fields, the demand for play areas, sport courts, teen recreation areas, open fields, and other community recreation facilities will continue to increase.

Recently added recreation facilities at a sports field in the Township of Pine.

Parks & Recreation

Implementation and Management Strategies

Tier 1 - UPDATES TO PINE COMMUNITY PARK

While the park is nearly built-out, there are several new facilities that are still planned, upgrades to some existing facilities, and repair or replacement of others. *(Please see Pages 4-9 to 4-10.)*

Tier 2 - PARK LAND ACCESS AND ACQUISITION: Negotiate an agreement with Allegheny County for the use of certain facilities or amenities located in North Park that could meet some of the future recreational land and facility needs for township residents. Also, acquire a minimum of 20 and 60 acres of park land within the township that can be developed for active recreation, including ballfields, sport courts, multi-use spaces, picnic shelters, etc. *(Please see Pages 4-11 to 4-14.)*

Strategies continue on next page

Tier 1: High priority and high feasibility
Tier 2: High priority and medium feasibility, or medium priority and high feasibility
Tier 3: Low priority and high feasibility, any priority and low feasibility, or statement of support for high-priority existing position.

The tier ratings were established during the preparation of this plan in 2015, and may change depending on external circumstances such as tax revenues, the overall economy, new laws or regulations, or the availability of funding.

Parks & Recreation
Implementation and Management Strategies

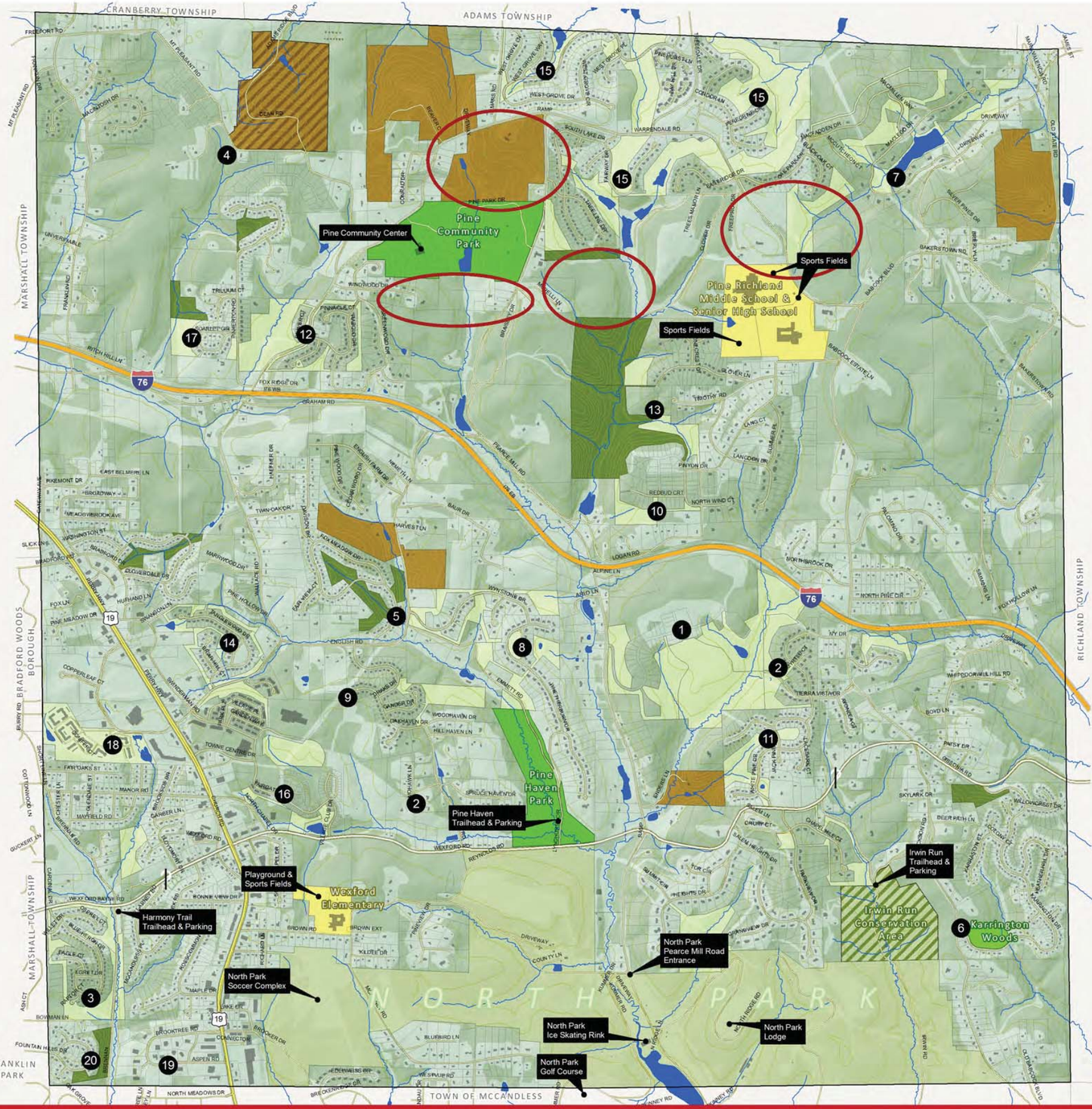
Continued from previous page

Tier 3 - REVIEW AND UPDATE ALL OPERATING POLICIES OF THE COMMUNITY CENTER, RECREATION AND PARKS: Pine Parks and Recreation Department operates under a series of policies that help it to maintain a high level of quality in its operations, finances, maintenance, and staffing. As the township seeks across all its departments to improve its management of assets, the Parks and Recreation Department should look to update and/or create a series of management plans. *(Please see Page 4-15.)*

Tier 3 - DEVELOP A COMMUNITY CENTER MARKETING PLAN: As of the writing of this report, Pine Community Center has been in operation for about six years. During these early years of operation, marketing of the facility has been done through the township's program brochures, ads and fliers, yet a formal marketing plan has never been developed. It would be beneficial to develop a more directed and focused marketing plan to inform township residents and others of the benefits of membership and to attract new users. *(Please see Page 4-16.)*

Tier 3 - EXPLORE ADDING AQUATIC FEATURES / FACILITIES: Many communities with similar demographics as the Township of Pine consider constructing an aquatic facility and/or specific aquatic features. It could be appropriate for the township to explore opportunities and options. *(Please see Page 4-17.)*

Parks & Recreation



Legend

- Township Park
- County Park
- Township Open Space
- Neighborhood Recreation Areas
- Ag Security Area
- ASA & Ag Conservation
- Conservation Area
- School
- Potential Future Parkland Acquisitions

Neighborhood Recreation Areas

1. Alderwood (not fully constructed)
2. Avonlea
3. Blue Heron Ridge
4. Emerald Fields (not fully constructed)
5. Fox Meadow
6. Karrington Woods
7. Lake MacLeod
8. North Park Manor
9. Oakhaven
10. Pine Crest
11. Pine Ridge Manor
12. Rabold Fields
13. Stonecrest
14. Tanglewood
15. Treesdale
16. Village at Pine (not fully constructed)
17. Woodland Farms
18. Christopher Wren Apartments
19. Brooktree Office Park
20. North Pointe Village

0.25 0.125 0 0.25 0.5 Miles
1 inch = 1,000 feet
Contour Interval = 20 feet

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Improve Pine Community Park by adding new facilities

TIER 1 STRATEGY
HIGH PRIORITY + HIGH FEASIBILITY

Parks & Recreation

While the park is nearly built-out, there are several new facilities that are still planned, upgrades to some existing facilities, and repair or replacement of others.

Talking Points

- A master plan was completed for the park in the early 1990s and updated in 2005 to manage its development.
- As the recommendations of the master plan have been completed, a number of upgrades, amenities, or additional facilities have been proposed. The Parks and Recreation Committee maintains a priority listing of projects that ensures compliance with the vision for the park. The 2015 listing includes ten items to be implemented over the next five or more years.
- The playground located near the concession stand was replaced and upgraded in 2015. Funding was provided by the state Department of Conservation and Natural Resources, Friends of Pine and the Township Recreation Fund. In addition, dugouts, fence lines and backstops were to be upgraded in 2015.

Vision: Develop and maintain Pine Community Park as a first-rate facility that meets the recreational needs of the community. Add or improve facilities as they fit within the master plan or design of the park. Ensure the park does not become over-developed.

Overview: Developing existing parks can be a challenge. Changing needs and recreation trends require the township to periodically reassess and improve park features and facilities. Parks increasingly must provide flexible spaces, adequate parking (additional capacity can be needed, depending on the new facilities provided), and comfortable spaces for spectators.

Accessible path leading to lake at Pine Community Park.

As concern with sun exposure and skin cancer increases, demands for shade trees and shelters goes up. And with new interest in alternatives to using cars, a park should provide safe circulation routes for pedestrians and cyclists between within the park and to a larger trail network beyond the park boundaries.

Suggested Implementation Plan: Improve Pine Community Park by adding new facilities

- ❑ **STEP 1:** Identify funding sources.
- ❑ **STEP 2:** Complete the multi-purpose field to include irrigation, sanitation, restrooms and water lines. Funding is to be provided through the Township Recreation Fund.
- ❑ **STEP 3:** Construct a small pavilion at the lake. Funding will be provide by Friends of Pine and the Township Recreation Fund.
- ❑ **STEP 4:** Build a new pavilion at the upper field.
- ❑ **STEP 5:** Plan for implementation of the remaining items in the chart below.

PINE COMMUNITY PARK PRIORITY PROJECTS

Priority	Project	Estimated Cost	Potential Funding Source	Target Completion Date
1	Complete the Multi-Purpose Field - irrigation and restrooms	$325,000	Township funding / Recreation Fund	2016
2	Construct Small Pavilion for Lake	$30,000	Friends of Pine Township funding / Recreation Fund	2016-17
3	New Pavilion for Upper Field	$110,000	Friends of Pine Township funding / Recreation Fund	2017-18
4	Irrigation for Upper Fields	TBD	TBD	TBD
5	Continue Baseball Field Maintenance and Improvements		Pine Richland Baseball, Township funding, DCNR grant	Ongoing
	TOTAL (items 1-3)	$465,000		

Secure additional park land to meet the current and future recreation needs of Pine residents

TIER 2 STRATEGY
HIGH PRIORITY + MEDIUM FEASIBILITY

Parks & Recreation

Acquire 20 to 60 acres of park land in the township that can be developed for active recreation, including ballfields, sport courts, multi-use spaces, picnic shelters, etc. Negotiating an agreement with Allegheny County for the uses of certain facilities or amenities located in North Park could meet some of the future recreational land and facility needs for township residents.

Vision: Recognizing that parks and recreation are an integral part of the lives of Pine residents, the township is committed to enhancing recreational opportunities for all, through acquisition, retention, and maintenance of sufficient, high-quality park lands and recreational facilities.

Talking Points

- The township acknowledges that the diversity and variations of existing park land, including township parks, neighborhood recreation spaces, conservation easements, the county park, and private facilities provide exceptional opportunities to township residents and that this variation of parks must be enriched for the future.
- The demand for additional park land ranked among the top three needs as identified through the public input process for parks and recreation in the Township of Pine.
- The desire for additional park land at the municipal comprehensive plan public meeting was shown in the demand for additional outdoor recreational facilities for which there is no space in existing township parks. The only way to add facilities such as basketball and tennis courts, amphitheater, picnic shelters, hiking trails, and an off-leash dog park is to acquire additional land.
- Pine Community Park is the primary location that is developed with a balance of outdoor recreation facilities. The 36-acre Pine Haven Park provides a nature area and trail, while Karrington Woods (7 acres) includes a multi-purpose field, children's playground, picnic tables, and a basketball/hockey court.
- While approximately 770 acres of North Park is located in the township, its facilities are shared with all residents of Allegheny County and are often not available for township residents' use.
- Available land in the Township of Pine is becoming costly and scarce. If action is not taken soon to acquire additional park land, the opportunity may be lost.

Pine Community Park

108 acres

- Pine Community Center
- 1 Pony League Field/Soccer Field
- 1 Colt League Field/Soccer Field
- 2 Little League Fields/Soccer Field
- 2 Soccer Fields
- 2 Sand Volleyball Courts
- Concession Stand with Restroom Facilities
- Children's Playground Area
- Pre-School Playground Area
- Fishing Lake
- Nature Trail
- Hiking Trails
- 2 Pavilions
- Basketball Court
- Bocce Court
- Parking
- Multipurpose Fields

Overview:

The township includes:

- 150 acres of township-owned park land
- 19 neighborhood recreation spaces (homeowner association or developer-owned)
- 172 acres of township-owned open space
- 770 acres of Allegheny County North Park (approximate)
- 706 acres of homeowner association or developer-owned open space
- 350 acres of agricultural security areas
- 96 acres of Agriculture Conservation Easements
- 73 acres of conservation easements

Total park and open space acres – 2,336
Equaling 21.7% of the total township land mass

A comparison of township open space, park land and facilities appears in Appendix K.

Suggested Implementation Plan: Secure additional park land

❑ **STEP 1:** Formalize opportunities to use North Park as part of the township park system. North Park includes a host of recreational amenities located in the Township of Pine that include picnic shelters, sport courts, soccer fields, trails, ice skating rink, senior softball complex, off-leash dog area, lodge, and more. A direct connection should be made with the Allegheny County Parks Department to determine possible use.

❑ **STEP 2:** Set aside funding annually into the park land acquisition fund. The Township of Pine has been setting aside funds for future acquisition of property for many years should continue to do so. Those funds, along with grant funding that could be available through DCNR programs, will provide a solid base toward funding acquisition.

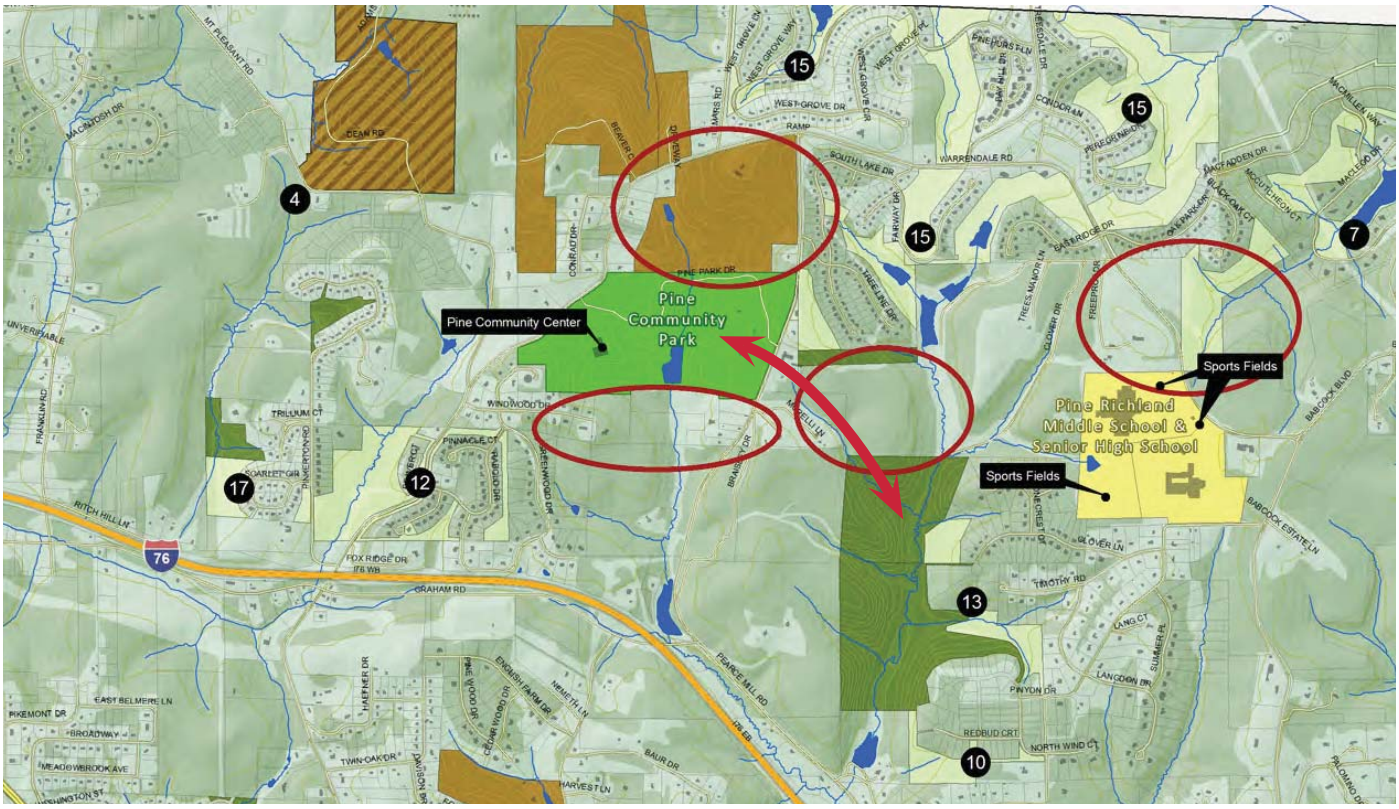
❑ **STEP 3:** Establish an intentional process to keep abreast of potential land sales on properties identified for park land acquisition. The Township of Pine's Director of Code Administration & Land Development, through its Zoning Department, and in conjunction with the Director of Parks and Recreation, should design a method of tracking properties that have been identified in this plan as being of high interest for acquisition for park land. The township should be proactive in taking steps to ensure the township will have the first option of acquisition.

❑ **STEP 4:** Develop a corresponding funding plan for land acquisition that will ensure finances are available as land becomes obtainable.

❑ **STEP 5** Evaluate any potential property for its ability to meet park facility development criteria. Prior to acquisition of any parcel, the township should have a professional analysis completed to evaluate its

topography, site amenities, utilities, recreational opportunities and obstacles, accessibility, and ability to meet the recreation needs of township residents. Typically, two acres of land needs to be acquired for every one acre developed for park space.

❑ **STEP 6:** Acquire parcels adjacent or near to Pine Community Park as they become available, as shown by the red circles on the map below. These parcels will expand the natural buffer around the park, offer connections to other open space, and provide space for some of the additional facilities needed both now and as the community grows. Connect Pine Community Park to the nearby township-owned open space, as shown with red arrow below.



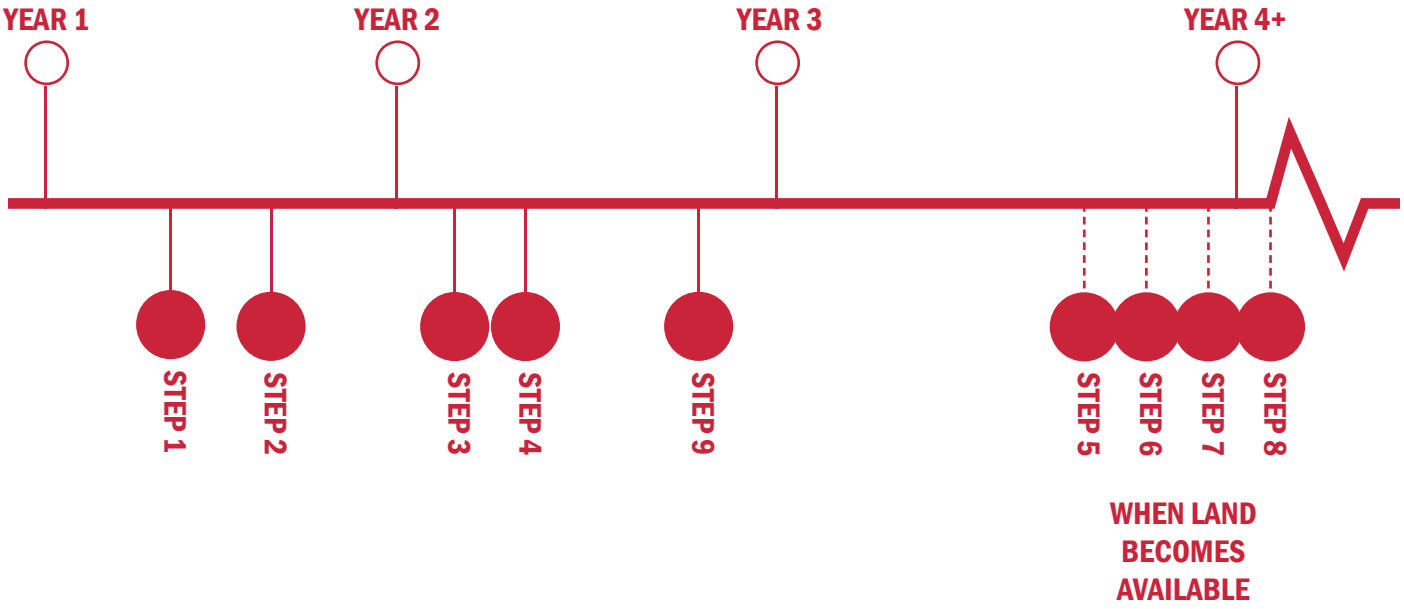
❑ **STEP 7:** Acquire land that will allow for the development of new active recreation facilities expected by local residents. These include:

- T-ball fields
- Rectangular sports fields
- Sport courts – basketball, volleyball, bocce, horseshoe, etc
- Picnic shelters
- Outdoor amphitheater
- Walking trails
- Open recreational spaces
- Natural features

❑ **STEP 8:** Acquire additional property as required for trail development. See the Trails & Connectivity chapter of this report for specific locations.

❑ **STEP 9:** Develop a corresponding funding plan for land acquisition that will ensure finances are available as land becomes obtainable.

Suggested Timeline: Secure additional park land



Review and update all operating policies of the Community Center, recreation, and parks

TIER 3 STRATEGY
LOW PRIORITY + HIGH FEASIBILITY

Parks & Recreation

Pine Parks and Recreation Department operates under a series of policies that help it to maintain a high level of quality in its operations, finances, maintenance, and staffing. As the township seeks to improve, across all its departments, its management of assets, the Parks and Recreation Department should look to update and/or create a series of management plans. These include:

- A maintenance plan to establish standards of care, and clear practices for care, upkeep, and rehabilitation of park furnishings, equipment, facilities, amenities, and properties.
- A schedule for replacement of fitness and other major recreation equipment
- A turf grass maintenance and management plan
- A ballfield maintenance and management plan
- A trails maintenance and management plan
- A playground maintenance and management plan
- A schedule for upgrades and/or replacement of park facilities and equipment
- A "useful life" and replacement schedule for all major facilities and equipment
- Others that may be deemed appropriate by the department of the Township
- A capital improvements plan and budget

Basketball and gear at the ready.

Parks & Recreation

LOW PRIORITY + HIGH FEASIBILITY

TIER 3 STRATEGY

Develop a Community Center Marketing Plan

AN EYE ON INCREASED USE: As of the writing of this report, Pine Community Center has been in operation for about six years. During these early years of operation, marketing of the facility has been done through the township's program brochures, ads and fliers, yet a formal marketing plan has never been developed. It would be beneficial to develop a more directed and focused marketing plan to inform township residents and others of the benefits of membership and to attract new users.

While the Community Center has continued to increase its use, membership and annual income in each consecutive year of operation, this trend will not necessarily continue. The failure of many businesses, be they for-profit or non-profit, often comes as a result of lack of understanding who they serve and how to reach those people. This is true particularly in a municipal setting. A strong marketing plan will help to ensure continued growth in users and revenues.

Basic components of the marketing plan:

- Establish a vision for what you want to accomplish at the Community Center
- Define the goals that will help fulfill your vision
- Define what you hope to accomplish through marketing and what results you desire
- Identify your target market. There may be various segmentations of your target audience
- Develop methods of reaching each market audience
- Build your brand – use a logo, tag line, description, colors, etc., to help ensure that people always recognize the brand that is Pine Community Center
- Use a variety of methods of outreach –
  - print, electronic, digital, and social media
  - networking and relationship building
  - maintain existing customers
  - reach out to new customers
  - residents first
  - attracting non-residents
- Evaluate how your management and operational goals are affecting your ability to fulfill your vision
- Evaluate the success of your marketing plan
- Contract with a professional if additional help is needed

Explore adding aquatic features/facilities

TIER 3 STRATEGY
MEDIUM PRIORITY + LOW FEASIBILITY

Parks & Recreation

Many communities with similar demographics as the Township of Pine have constructed aquatic facilities. It could be appropriate for the township to explore opportunities and options related to aquatic features/facilities.

Should the Board of Supervisors choose to proceed with additional steps to determine the feasibility of adding aquatic features or facilities to the Pine Community Center, a multi-phase process will help answer outstanding questions or provide additional information as to the feasibility of the project.

The steps may include (but are not bound by or limited to) the following:

- A detailed survey of the residents to help determine the desire of adding aquatic features/facilities.
- A referendum of registered voters of the township.
- Preparation of detailed construction cost estimates.
- Preparation of detailed operation cost estimates.
- Preparation of anticipated long-tem capital replacement cost estimates.
- Exploration of potential funding opportunities.
- Exploration of potential grant opportunities.

NOTES

NOTES

NOTES

Public Infrastructure

Inside:

- Improve/extend stormwater management
- Identify potential areas for expanding public sanitary sewers
- Inventory township-owned facilities and property, and schedule replacement/maintenance
- Employ data mapping to assess needs and prioritize work
- Support planned transportation improvements
- Develop protocol to work with Southwestern Pennsylvania Commission

KEY ISSUE:

Public Infrastructure

Overview

Introduction

The Township of Pine's arc of rapid development from rural, wooded and agricultural to highly residential in the past 25 years added demands on existing roads and led to construction of new water and sewer lines as well as new stormwater management infrastructure. Infrastructure improvements will be needed to keep up with additional growth, to ensure compliance with new laws and regulations, and to preserve and enhance the health and safety of residents and natural systems.

Vision: The Township of Pine's public infrastructure protects and enhances the health, welfare and safety of people and natural systems.

Talking Points

- Increasingly stringent regulations on stormwater management will require the township to expand its capacity to provide oversight on public and private property. This may mean a need for additional staffing, expertise and/or equipment.
- Homes in some older neighborhoods use septic systems and not public sewers. The township should understand the scope of this situation, particularly in the likely case that stricter water-quality mandates create new responsibilities for the township.
- The township has skillfully secured funding for continual road improvements. New projects — and new funding — must be anticipated.

Validation

Three types of public infrastructure deserve particular attention in the coming decade: sanitary sewers, stormwater infrastructure and roads.

Stormwater: Municipal separate storm sewer systems (MS4s) are required by federal and state regulations and township ordinances to control the discharge of pollutants from stormwater runoff to the greatest practical extent. Updated regulations and requirements are anticipated to roll out in 2018 and every five years thereafter. These increasingly stringent rules, which are likely to affect public and individual private properties as well as watersheds, will generate a need for the township to provide additional oversight, such as mapping and testing.

Sanitary: The township's Water and Sewer District Fund provides a provision for extending main public sewer and water lines to older homes: The Board of Supervisors may create a sewer or water district after receiving a petition from residents in need of these utility services. The cost of extending the sewer or water line is paid initially out of the fund, and affected residents reimburse the township for the cost. However, this provision does not always guarantee a timely resolution of a potentially serious public health problem and threat to township streams in the event that septic systems fail or if new federal and state regulations are imposed in the future.

Roads and Traffic: Residential growth has increased the traffic load on local streets and roads. The township has continually provided improvements, including projects funded via transportation impact fees and legislative sources. New projects will be needed as the township, and neighboring communities, which generate pass-through traffic, continue to grow.

Growth in number of commuters illustrates demand

Number of workers (age 16+) commuting	2000	2008-2012 avg. (est.)
Commuting alone in a vehicle	2,726	4,246
Carpooling	200	462

Public Infrastructure
Implementation and Management Strategies

Tier 2 - STORMWATER MANAGEMENT: Identify new demands on township resources to meet the requirements of 2018 MS4 regulations, which are expected to create aggressive new mandates for reducing runoff and protecting water quality of streams. Outline ways the township can develop additional capacity to provide oversight of stormwater infrastructure down to the individual lot level. *(Please see Pages 5-9 to 5-10.)*

Tier 2 - SANITARY SEWER INFRASTRUCTURE: Identify the ways that anticipated new regulations regarding water quality are likely to intersect with health issues that arise when septic systems fail. Identify the township areas currently served by septic systems and rate by likelihood the need for future public sewer service. *(Please see Pages 5-11 to 5-12.)*

Tier 2 - MAINTENANCE OF TOWNSHIP-OWNED FACILITIES: Inventory the facilities, including buildings, sidewalks, trails, lights and other features, that were installed by developers but now are township-owned. Develop timeline for the anticipated lifespan of these items and create plan for maintenance or capital replacement in the future. *(Please see Pages 5-13 to 5-14.)*

Continued on next page

Tier 1: High priority and high feasibility
Tier 2: High priority and medium feasibility, or medium priority and high feasibility
Tier 3: Low priority and high feasibility, any priority and low feasibility, or statement of support for high-priority existing position.

The tier ratings were established during the preparation of this plan in 2015, and may change depending on external circumstances such as tax revenues, the overall economy, new laws or regulations, or the availability of funding.

Public Infrastructure
Implementation and Management Strategies

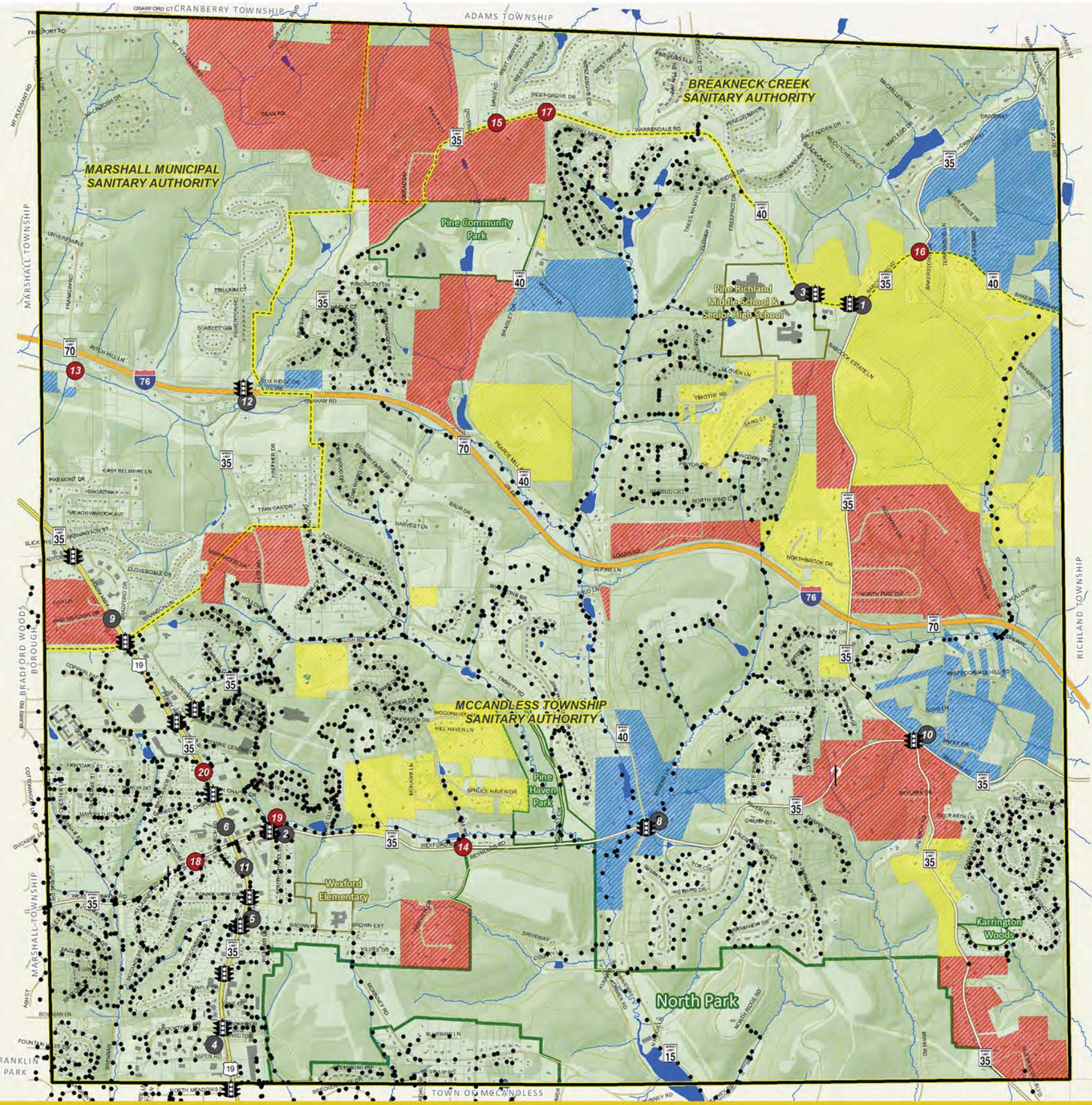
Continued from previous page

Tier 2 - DATA MAPPING: The township should upgrade GIS (geographic information systems) mapping capabilities, including staff training. Using industry standard software products, the township can employ data mapping to understand trends, assess needs and prioritize work. *(Please see Page 5-15.)*

Tier 3 - ROAD WORK / TRANSPORTATION PROJECTS: This comprehensive plan supports the priorities of the township's five- and 10-year transportation plans. *(Please see Page 5-16.)*

Tier 3 - ROAD WORK / TRANSPORTATION PROJECTS FUNDING OPTIONS: Develop additional protocol for working with Southwestern Pennsylvania Commission with the goal of getting transportation projects on the SPC's funding cycle. *(Please see Page 5-17.)*

Public Infrastructure



Legend

- Parks
- Sewer Authority Boundary
- Low Feasibility
- Medium Feasibility
- High Feasibility

Transportation

- Traffic Light
- Speed Limit 35 — All other speed limits under 25 mph

Suggested Improvements

- 12 Completed/In Progress
- 16 Proposed

Suggested Improvements

1. Rechannelized and signalize intersection.
2. Reconstruct and widen roadway.
3. Construct westbound left turn lane on Warrendale Road.
4. Modify street geometry and traffic signal.
5. Construct exclusive right turn lane on Brown Road.
6. Construct eastbound and westbound left turn lanes.
7. Add eastbound right turn lane on PA Route 910.
8. Widen, realign intersection, and install traffic signal.
9. Install traffic signal and advanced warning flashers.
10. Relocate intersection, install traffic signal and construct turn lanes.
11. Install adaptive traffic control system and revise signals to township standards.
12. Widen approaches and install signal.
13. Install traffic signal and eastbound left turn lane.
14. Construct eastbound exclusive left turn lane.
15. Install traffic signal and eastbound left turn lane.
16. Construct eastbound left turn lane and install traffic signal.
17. Install traffic signal.
18. Widen to 3 lanes from township line to North Chapel Drive.
19. Widen North Chapel Drive and PA 910 for dual left turn lanes.
20. Widen to 3 thru lanes in each direction with center turn lanes.

Sub-Watershed

- Brush Creek
- Kaufman Run
- North Fork Pine Creek
- Rinaman Run
- Unnamed Tributary to Breakneck Creek
- Unnamed Tributary to Montour Run
- Unnamed Tributary to North Fork Pine Creek
- Unnamed Tributary to Pine Creek
- Unnamed Tributary to Pine Creek (East)
- Unnamed Tributary to Pine Creek (South)
- Wexford Run

0.25 0.125 0 0.25 0.5 Miles

1 inch = 1,000 feet

Contour Interval = 20 feet

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Improve stormwater management

HIGH PRIORITY + MEDIUM FEASIBILITY
TIER 2 STRATEGY

Public Infrastructure

STORMWATER MANAGEMENT: Identify new demands on township resources needed to address anticipated 2018 regulations on municipal separate storm sewer systems (MS4s). The regulations are expected to create aggressive new requirements for reducing runoff and protecting water quality of streams. Outline ways the township can develop additional capacity to provide oversight of stormwater infrastructure.

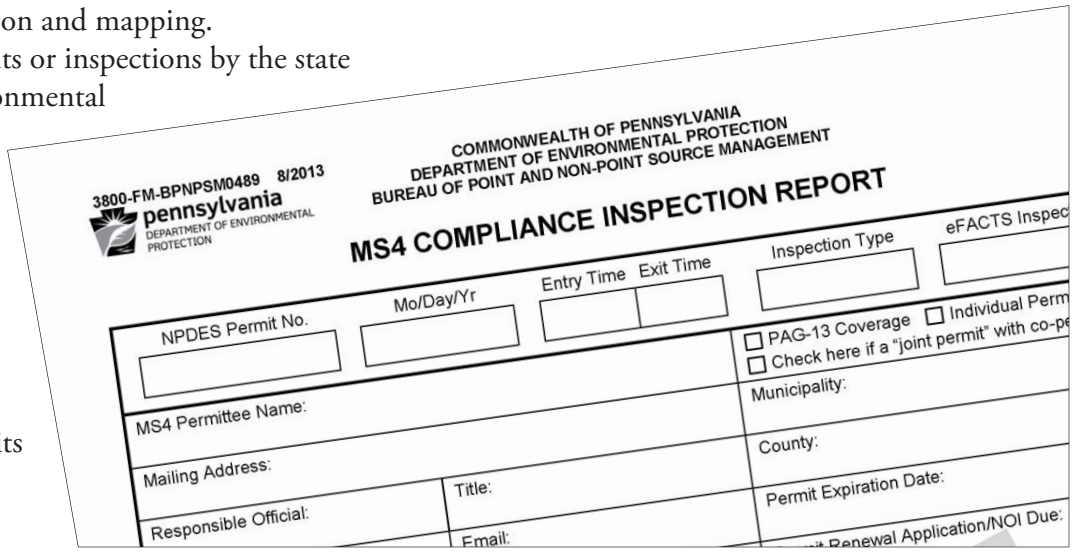
Talking Points

- As owner and operator of a municipal separate storm sewer system, the Township of Pine has a responsibility to use minimum control measures to keep runoff from polluting surface waters, including the eight streams in the township.
- The township's existing stormwater management program complies with current regulations but will need to be updated to meet new requirements.
- A new version of the regulations is expected to be in place as of 2018, and some of the probable changes are already known. These will require more time, new skills and additional attention from the township.
- Reporting periods under the revised regulations will change from every five years to an annual basis, although some other required "paperwork" will simultaneously be reduced.

Vision: The Township of Pine contributes to public health, as well as the long-term viability of local watersheds and the region's natural systems by meeting or exceeding federal, state and local standards for stormwater management.

Overview: The new responsibilities, which the township should be prepared for by 2018, when its next permit period begins, appear at this time to include such issues or practices as:

- Increased public involvement in the stormwater management process.
- Responsibility for additional types of pollutants entering township streams - expanding the list from bacteria, silt and sedimentation to also include nutrients such as phosphorus and nitrogen.
- Responsibility for outflows into the MS4 or township surface waters from private properties, down to the lot level.
- Responsibility to identify and eliminate illegal discharges that can harm the quality of surface waters.
- An expectation of complete documentation of all steps toward meeting minimum control measures, including data collection and mapping.
- The possibility of audits or inspections by the state Department of Environmental Protection and/or the federal Environmental Protection Agency. These could be "desktop" reviews of all documentation, ordinances, and local regulations, or site visits to assess stormwater facilities.


3800-FM-BPNPSM0489 8/2013
pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF POINT AND NON-POINT SOURCE MANAGEMENT
MS4 COMPLIANCE INSPECTION REPORT
NPDES Permit No.
Mo/Day/Yr
Entry Time
Exit Time
Inspection Type
eFACTS Inspec
PAG-13 Coverage
Individual Perm
Check here if a "joint permit" with co-pe
MS4 Permittee Name:
Municipality:
Mailing Address:
County:
Responsible Official:
Title:
Permit Expiration Date:
Email:
Renewal Application/NOI Due:

Suggested Implementation Plan: Improve stormwater management

☑ **STEP 1:** Working with township engineers, the Allegheny County Conservation District, state Department of Environmental Protection and Southwestern Pennsylvania Commission, remain abreast of anticipated changes to the MS4 requirements.

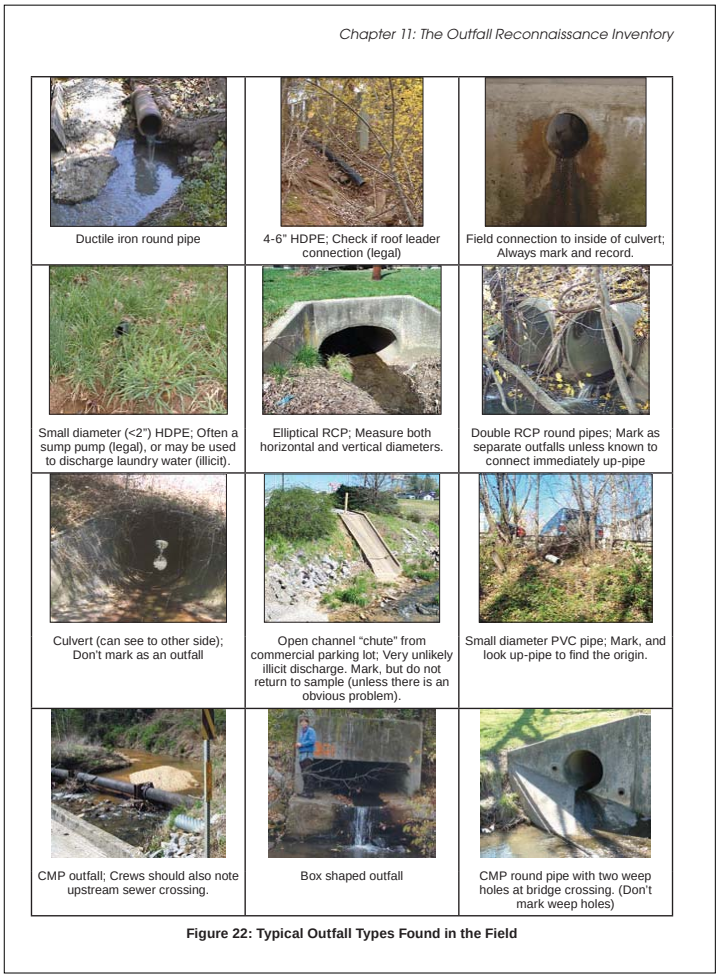
☐ **STEP 2:** Review existing stormwater management program against future regulations.

☐ **STEP 3:** Plan to adopt a new stormwater management ordinance that will incorporate significant public input, and will not only meet but exceed regulatory standards while adding minimal cost burdens for landowners and developers.

☐ **STEP 4:** Explore feasibility or need for enacting a stormwater management fee (such as per square foot of impervious surface), or other means of increasing revenue to help pay for additional township responsibilities. *(See example, Mt. Lebanon, PA, Appendix L.)*

☐ **STEP 5:** Pursue new or improved working relationships with local environmental groups or advocates.

☐ **STEP 6:** Pursue training opportunities for township staff to enhance capability at conducting visual inspections, collecting data and mapping.



Chapter 11: The Outfall Reconnaissance Inventory

Ductile iron round pipe	4-6" HDPE; Check if roof leader connection (legal)	Field connection to inside of culvert; Always mark and record.
Small diameter (<2") HDPE; Often a sump pump (legal), or may be used to discharge laundry water (illicit).	Elliptical RCP; Measure both horizontal and vertical diameters.	Double RCP round pipes; Mark as separate outfalls unless known to connect immediately up-pipe
Culvert (can see to other side); Don't mark as an outfall	Open channel "chute" from commercial parking lot; Very unlikely illicit discharge. Mark, but do not return to sample (unless there is an obvious problem).	Small diameter PVC pipe; Mark, and look up-pipe to find the origin.
CMP outfall; Crews should also note upstream sewer crossing.	Box shaped outfall	CMP round pipe with two weep holes at bridge crossing. (Don't mark weep holes)

Figure 22: Typical Outfall Types Found in the Field

A page from the Illegal Discharge Detection and Elimination Manual shows the types of outfalls that should be inspected.

☐ **STEP 7:** Implement an aggressive illegal discharge detection and elimination program, with strong public involvement, to test for additional contaminants as required by the state Department of Environmental Protection (DEP). *(See Guidance Manual, Appendix M.)*

☐ **STEP 8:** Participate in a pilot program with the Allegheny County Conservation District to incorporate crowdsourcing into illegal discharge detection and elimination program.

☐ **STEP 9:** Develop documentation protocols and filing systems, in preparation for potential DEP and/or EPA reviews, including participating in a pilot program with the Allegheny County Conservation District to create a framework for data management. (This will require GIS capacity. *See "Data Mapping" strategy, Page 5-15.*)

☐ **STEP 10:** Develop protocols and a schedule for inspecting stormwater facility outlets.

Develop a long-term plan for sanitary sewers

TIER 2 STRATEGY
MEDIUM PRIORITY + MEDIUM FEASIBILITY

Public Infrastructure

Identify the ways that anticipated new regulations regarding water quality are likely to intersect with health issues that arise when septic systems fail. Identify the township areas currently served by septic systems and rate by likelihood of future public sewer service.

Vision: The Township of Pine anticipates the community's future needs for improved public sanitation by creating a long-term plan for sanitary sewer service.

Talking Points

- Some residential areas were constructed before sanitary sewer lines were widespread in the community.
- The homes in most of these areas served by septic were constructed in 1950s-1970s, or 40 to 60 years ago. Septic systems typically have effective life spans of 30 years.
- Some residential pockets currently using septic systems are highly unlikely to have public sewer service in the future due to geography and low density. Other areas may be possible for conversion.
- The costs to homeowners for conversion have not been estimated, but conversion to public water and sewer service can be cost-prohibitive for some property owners.
- Pennsylvania Act 537 requires municipalities to plan to provide sanitary sewers to residents currently using septic systems.
- Even as more septic systems reach the end of their effective life spans, new or stronger regulations govern the health of streams and of people, creating potential consequences to the township for failures of private septic systems.

Overview: Township ordinances provide the following mechanism for neighbors to work together with the township to have public water or sewer service installed along their streets: The board of supervisors may create a sewer or water district after receiving a valid petition from all residents in need of the service. The cost of extending the water or sewer line is paid initially out of the water/sewer district. The residents divide the cost and reimburse the township for the cost of the extension.

Photo illustrating sewer line installation.

Practically speaking, this seldom happens because the cost to each property owner can easily reach thousands of dollars to pay for the new line on their property as well as the shared main line. Although 100% participation is not required to create a district, it is highly unusual for all residents of a street to agree to the costs.

Sewer Authority service areas: The township areas served by three different sewer authorities are identified on the township Infrastructure Map *(See Page 5-6)*.

Future sewer service: Unserved residential areas are rated as likely, somewhat likely and unlikely to have public service in the future, based on geography and proximity to available service *(See Page 5-6)*.

Suggested Implementation Plan: Develop a long-term plan for sanitary sewers

☑ **STEP 1:** Establish an understanding of how many households within the township are not tied in to public sanitary sewers, and of the proximity of those households to main collector lines.

☑ **STEP 2:** Determine which households, streets or neighborhoods are likely, somewhat likely or unlikely to have public tie-ins in the future, based on proximity and geography.

☐ **STEP 3:** Produce estimate of probable costs for connecting locations that are "likely" or "somewhat likely."

☐ **STEP 4:** Review existing township mechanisms that residents may employ to connect their homes to public water and sewer lines, and determine whether those mechanisms could or should be adjusted to encourage future connections.

☐ **STEP 5:** Explore the feasibility of or need for establishing a township water/sewer district to raise money to extend public services to township residences currently using septic systems and/or private wells. Any fee-based initiative could include a sunset clause for the time when all township properties have public utility services.

☐ **STEP 6:** Meet or converse at least once a year with a representative of each of the four sewer authorities operating in Pine Township to identify potential mutual goals and foster long-term working relationships.

☐ **STEP 7:** Meet with residents whose properties are not connected to public sewers, and initiate awareness-building efforts about creating sewer districts.

Inventory and maintenance of township-owned facilities

TIER 2 STRATEGY
MEDIUM PRIORITY + HIGH FEASIBILITY

Public Infrastructure

INVENTORY AND SCHEDULE: Continue to inventory the facilities, including buildings, sidewalks, trails, lights and other features, that were installed by developers but now are township-owned. Develop timeline for the anticipated lifespan of these items and create plan for maintenance or capital replacement in the future.

Talking Points

- Residential and commercial development grew exponentially in the past 30 years.
- The township has required developers to install appropriate facilities, features and amenities that enhance the health, welfare and quality of life of residents and visitors.
- Over time, the township has assumed ownership of streets, sidewalks, trails, lights and other facilities that developers installed.
- The township's inventory of these facilities, features and amenities has no schedule for tracking maintenance or replacement needs.

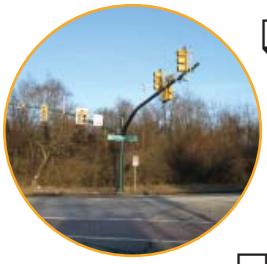
Vision: The Township of Pine anticipates future needs in providing a safe, healthy and positive environment for the community by tracking, maintaining and replacing township-owned property.

A neighborhood street deeded over to the Township of Pine.

Overview: The township should begin by further developing an inventory of facilities initially built by developers but now owned by the township, including the condition of the property item. This inventory can be created using GIS mapping and data spreadsheets.

Once the township has an understanding of these facilities, it can include them in the township's routine schedules for inspection, and incorporate maintenance, repair and replacement in the appropriate township budgets.

Suggested Implementation Plan: Inventory and maintenance of township-owned facilities



❑ **STEP 1:** Acquire and begin using industry standard GIS software. *(See "Data mapping" strategy, Page 5-15.)*

❑ **STEP 2:** Develop a data-gathering mechanism that employees can use in the field and that can be converted to data tables for mapping.

❑ **STEP 3:** After developing an understanding of the scope and condition of these facilities, prioritize any maintenance, repair or replacement needs and incorporate them into township management processes.

❑ **STEP 4:** Incorporate these facilities, properties, amenities and features into township operations and maintenance and/or capital budgets.

Data mapping

TIER 2 STRATEGY
MEDIUM PRIORITY + HIGH FEASIBILITY
Public Infrastructure

EMPLOYING GIS TO INCREASE EFFECTIVENESS OF TOWNSHIP OPERATIONS:

The township should acquire industry standard GIS (geographic information systems) mapping capabilities, including staff training. Using industry standard software products, the township can employ data mapping to understand trends, assess needs and prioritize work.

Examples of potential uses in this comprehensive plan include:

- Participate in pilot projects with Allegheny County Conservation District.
- Map and track suspected illicit discharges into the municipal storm system.
- Map the location and condition of stormwater management facilities.
- Map and track failing septic systems.
- Create maps for public meetings and other public outreach or education efforts.
- Map the location and condition of township-owned facilities to enable effective inspection, maintenance, repair and replacement.
- Map the sources of complaints from residents about public issues.
- Update the maps included in this comprehensive plan on an as-needed basis.
- Collaboration with Allegheny County and contiguous municipalities on various projects or issues.

Suggested Implementation Plan: Data Mapping

❑ **STEP 1:** Select and purchase industry-standard mapping software suite and compatible hardware, including large-screen monitors.

❑ **STEP 2:** Select and purchase compatible software for mobile inspections and data collection.

❑ **STEP 3:** Provide access to on- or off-site training to enable staff members to participate in data-collection and / or map making. This might include anything from college courses to online tutorials.

❑ **STEP 4:** Arrange for ongoing desk-side training for key staff members who manage data or produce maps.

Road work / transportation projects

FIVE- AND 10-YEAR TRANSPORTATION IMPROVEMENT PLANS: This comprehensive plan supports the priorities of the township's five- and 10-year transportations plans. *(See Public Infrastructure Map, Page 5-7.)*

The items below represent the capital improvement projects list from the Township of Pine's Transportation Impact Fee program.

PRI-ORITY	INTERSECTION / LOCATION	IMPROVEMENT	DATE	CURRENT UPDATE NOTES
1	Warrendale Rd / Babcock Blvd	Rechannelize and signalize intersection	N/A	Completed
2	N. Chapel Rd and Route 910	Reconstruct and widen roadway	N/A	Completed
3	High School Dr. and Warrendale Rd	Construct westbound left turn lane on Warrendale	N/A	Completed
4	Brooktree Rd/Brooker Dr and U.S. 19	Modify side street geometry and traffic signal	N/A	Completed
5	Brown Rd and U.S. 19	Construct exclusive right turn lane on Brown Rd	N/A	Completed
6	N. Chapel Dr/Manor/N. Church Roads and U.S. 19	Construct east- and westbound left turn lanes	N/A	Completed
7	Pearce Mill Rd and Route 910	Add eastbound right turn lane on Route 910	N/A	Completed
8	Pearce Mill Rd and Route 910	Widen, realign intersection and install traffic signal	N/A	Completed
9	Swinderman Rd and U.S. 19	Install traffic signal and advanced warning flashers	N/A	Completed
10	Babcock Blvd and Route 910	Relocate intersection, install traffic signal and construct turn lanes	N/A	In progress
11	U.S. 19	Install adaptive traffic control system, revise signals (3 intersections)	N/A	Completed
12	Warrendale Rd and Graham/Wallace Rd	Widen approaches and install signal	2018	In progress
13	Franklin Rd and Warrendale Rd	Install traffic signal and eastbound left turn lane	2018	
14	Hill Rd and Route 910	Construct eastbound exclusive left turn lane	2019	
15	Mars Rd and Warrendale Rd	Install traffic signal and eastbound left turn lane	2020	Turn lane completed
16	Babcock Blvd and Bakerstown Rd	Construct eastbound left turn lane and install traffic signal	2020	
17	Pearce Mill Rd and Warrendale Rd	Install traffic signal	2020	
18	Route 910	Widen to 3 lanes from Marshall line to N. Chapel Dr	2025	
19	N. Chapel Dr and Route 910	Widen N. Chapel and Route 910 for dual left turn lanes	2025	
20	U.S. 19	Widen to 3 thru lanes in each direction with center turn lanes	2025	

Road work / transportation projects funding options

Public Infrastructure

TIER 3 STRATEGY
LOW PRIORITY + HIGH FEASIBILITY

STRENGTHENING PARTNERSHIPS: Develop an additional protocol for working with Southwestern Pennsylvania Commission with the goal of getting transportation projects on the SPC's funding cycle for potential future funding.

The township has a proven track record of securing funding for transportation projects by working directly with elected officials, PennDOT and other state agencies or officials, and seeking federal funds. Another potential avenue for acquiring state funds is through the work of the Southwestern Pennsylvania Commission, a regional planning authority that manages short-term (four year) and long-term (20 year) transportation planning for the region including Allegheny County municipalities. Funding through these plans are not easy to secure because of competition for finite public money. However, the possibility should be explored.

The township should enhance its relationship with SPC through increased communication so that the agency is fully aware of the township's proposed projects and requests, including documentation of conditions and need. SPC strongly suggests these other steps:

- Ensuring that citizen comments about township transportation needs are entered into the SPCregion.org link
- Participating in the public comment period for the 20-year long-range plan
- Communicating to SPC how township projects fit into countywide initiatives
- Communicating to SPC how township projects align with priorities of neighboring municipalities
- Communicating to SPC how potential projects have multimodal components.

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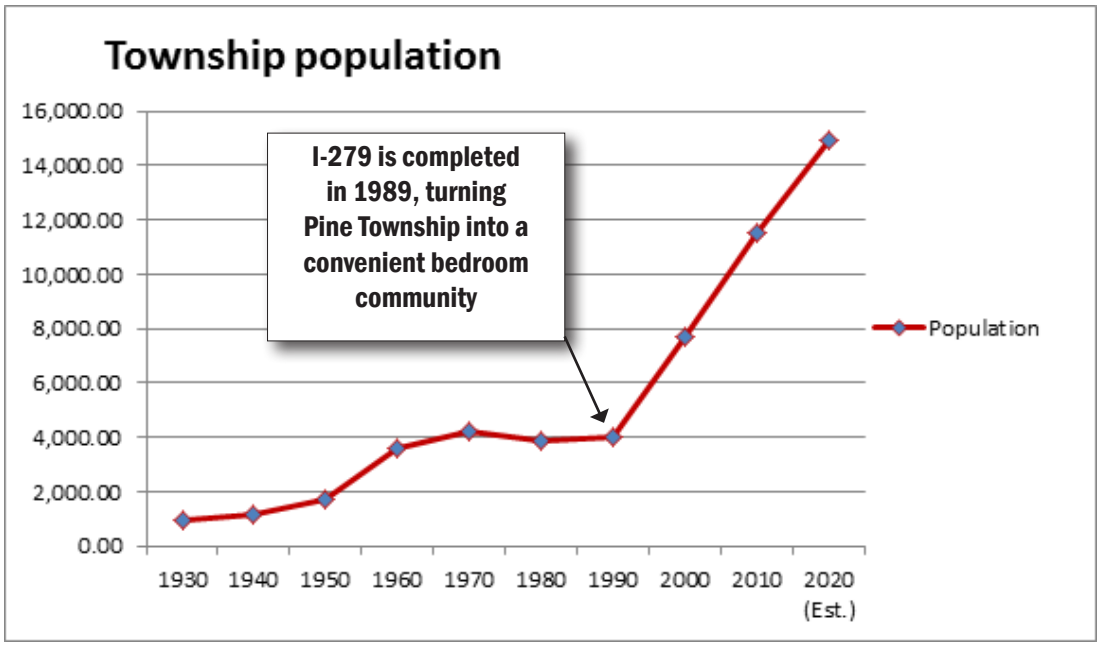
Other Topics

Inside:

- Examining population growth and community resources

Population growth and community resources

Introduction: The population in the Township of Pine has grown over decades, and particularly since 2000, providing a long-term trend of annual increases in the township's sheer numbers of homes and businesses. More assessed property, both residential and commercial, has generated additional tax revenue each year. Moreover, a steadily increasing number of residents paying earned income tax also provided a year-over-year bump in revenue as time went on.



Source: Southwestern Pennsylvania Commission (spcregion.org)

The continuing growth both necessitated and enabled improvements in community facilities and services. For example, the township built its Community Center in 2009 and made improvements to the municipal building entrances and parking areas in 2013, and completed a new multi-purpose playing field in 2013.

Improvements were made at the Township of Pine Municipal Building in 2013.

Growth drives tax revenue and most municipal expenses, so future growth rates matter a great deal to the Township of Pine.

Community "build out" and what happens then

At least some trends could begin to shift in the coming decade because land that is available for development will be largely built out. Once this happens, the addition of new homes and businesses will thereafter occur only on a far smaller scale as builders fill in scattered vacant properties.
It is impossible to predict with certainty when build-out will occur; however, the simple calculations shown here suggest build-out may well happen during the period covered by this 10-year comprehensive plan.

1. During 2004 through 2013, a decade that included times of high-flying growth as well as the Great Recession, Pine Township added an average of 95.8 residential units each year.
2. As of 2015, space remains for an expected 1,300 additional residential units in large-area subdivision plans.
3. If the pace of the past 10 years continues into the future, the town may become built out in 10-15 years.

Commercial build out

The number of lots currently available for commercial development is dwindling, with very few suitable for larger-scale projects.

Location	Zoning District	Approx. Lot Size	Anticipated Use
2000 Brooktree	C-2	2 Acres	Office/Service
105 Brooker	C-1	<1 Acres	Small Retail
11104 Perry	C-1	10 Acres	Retail
11199 Perry	C-2	<1 Acres	Small Retail
Village Lot 10-1	TC-PRD	3 Acres	Retail/multifamily
Village Lot 1000	TC-PRD	<1 Acres	Small Retail
2000 Copperleaf	C-2	20 Acres	Office/Service
12590 Perry	C-1	<1 Acres	Small Retail
11139 Babcock	C-2	8 Acres	Service/Office
318 Warrendale	B-2	25 Acres	Small Office/multifamily

Growth's effect on finance

Financial prudence has been a hallmark of the township's operations, and is a stated priority of residents and elected and appointed officials. As of 2013, the township proudly stated that its 0.998 property tax rate is the lowest in Allegheny County.

Naturally, both revenue and expenses have been and will continue to be the two main factors in this general equation. Growth in the residential and commercial sectors is likely to continue in the immediate future, with the prospect that revenue will also continue to increase. Expenses will continue to increase due to growth and inflation. However, when the community becomes built out, the growth in revenue will level off (independent of inflation). The township should be prepared. It is important to identify trends and develop projections, providing both the public and township officials with information they need to create plans and make decisions.

Recent data

Residential development has been the primary driver of growth in Pine Township, with 958 units constructed in 2004-2013. The value of new home construction totaled more than $342 million during the 10-year period, with an average home value of $357,108. The value of 42 non-residential buildings constructed during the same period was slightly more than $100 million.

Renovations or additions for both residential and non-residential properties added more property value for the township, though naturally in lower total amounts.

Tax revenues accounted for approximately 80 percent of total township revenue in 2013. Of that revenue, the earned income tax brought in 45 percent of the taxes collected for general government purposes. Meanwhile, property taxes brought in 17 percent of taxes collected, and real estate transfer tax yielded 18 percent of taxes collected.

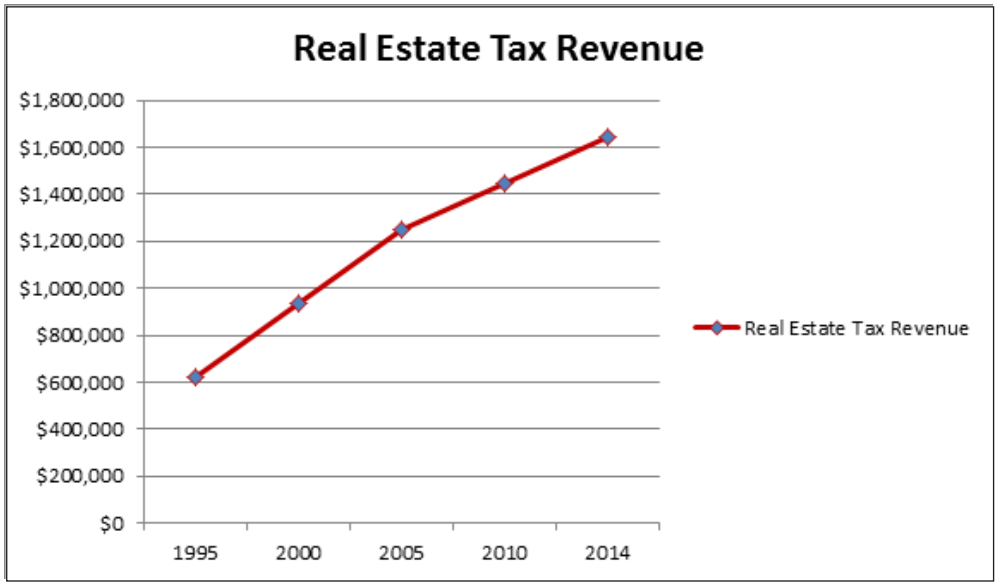
The property tax millage rate is .998 percent. (Pine-Richland School District millage rate is 19.2083.) The property transfer tax rate is 1 percent to township and 1 percent to the county. The earned income tax (EIT) rate is 0.5 percent. (Pine-Richland School District income tax rate is also 0.5 percent.)

Slowing growth in property tax revenue

As build-out occurs on the large plots of remaining developable land, the addition of new homes and businesses will be curtailed. Thus the rate of increase in property and earned income taxes that the township has enjoyed in the past few decades will also slow. Although growth in revenue will be slower, it probably will not stop entirely, however. That is because:

1. The value of existing properties could well continue to increase over time, yielding higher property tax revenue for the foreseeable future.
2. When few new buildings can be constructed, more people are likely to put money into improving existing properties through additions and alterations. Improvements add value to existing properties, providing another generator of increased property tax revenue.

Still, the rate of increase in property tax revenue is unlikely to match the pace that has occurred when additional properties were consistently being added to tax rolls.



Changing demographics and EIT revenue

As both new construction and population increases level off concurrently, the role of the earned income tax in the township's budget will likely become ever more important. If the property tax revenue stream levels off as expected, will the earned income tax revenue stream increase to compensate? This may depend on how the demographics of the township change over time, including whether the earned income of future residents will generate more or less tax revenue than has been the case in recent decades. Wage-earning householders pay more in taxes than do retirees, for example.

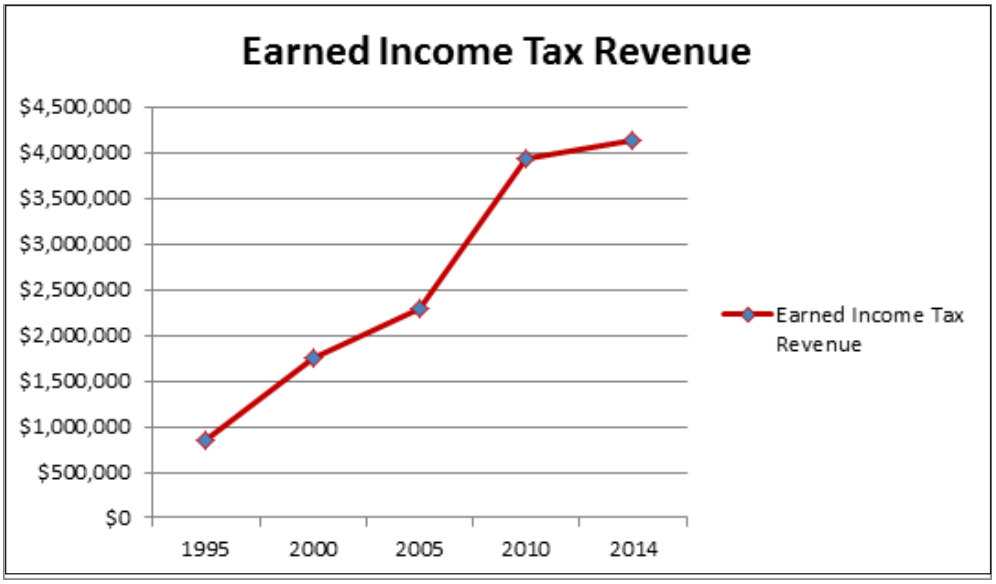
During the most recent, high-growth decades, the percentage of the population age 65 and older declined steadily. Meanwhile, the percentage of the population in its wage-earning years increased.

Table 1: Age as percentage of total population, 1990-2010

Under age 15			15 to 64 years			Age 65 and older		
1990	2000	2010	1990	2000	2010	1990	2000	2010
20.6%	30.1%	26.0%	64.9%	60.3%	66.6%	14.5%	9.6%	7.4%

Source: Southwestern Pennsylvania Commission (spcregion.org)

If the township's demographics remain constant, with housing consistently occupied by families with average earned incomes of $84,000 or higher, the earned income tax revenue would also remain constant, or more likely grow with inflation over time. However, if the township's demographics change in such a way that a significant number of households are occupied by retired individuals with far lower earned income, then it stands to reason that the township's revenue stream from earned income taxes would stop growing or decline.



Changing needs for services and facilities

When the rate of growth in new home construction slows, the town's population growth will decelerate too. This will mean a leveling off in demand for additional facilities and services that in the past had been driven purely by the presence of more and more people. For example, when 200 additional children live in a community each year compared with the previous year, the community is likely to need a steady increase in numbers of playing

fields and recreation programs. But when new houses aren't being built and additional children aren't moving in, the pace of increasing demand levels off.

Aside from the matter of overall growth is, once again, the issue of changing age demographics. A demographic shift profoundly affects what facilities and services residents will expect the township to provide. In the past few decades, as shown earlier, the numbers of residents age 65 and older has decreased as a percentage of the total. But if today's residents choose to age in place during the next 20 or 30 years, the result will be a different demographic makeup than currently exists. If aging residents and retirees choose to leave the township, selling their homes to other families with children, the township's demographic profile will remain roughly unchanged. The divergent future circumstances create different demands on the township. For example, a more elderly population would not need all the sports playing fields or summer rec programs that had been in demand 10 years earlier, but may need more walking paths.

It should be noted that decisions the township makes at this time can encourage one future circumstance over another.

For example, the township could decide now to encourage older residents to remain in the township through policy actions that encourage construction of garden apartments, other zero- or low-lot-line housing types, and continuing care facilities. Conversely, the township could emphasize the future construction of single-family homes on remaining available space to maximize the likelihood that future residents will be families with children and higher earned income. This scenario anticipates that current residents, as they age, would choose to move to other townships that provide housing types that are relatively scarce in Pine.

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